My presentation today is divided into three parts as follows. In the first part, I provide the background observations that motivate my overall research programme in Biblical Hebrew poetry. Then, in the second part, I briefly rehearse the metrical analysis of my 2009 article in the *Journal of Semitic Studies*, entitled “Theme and Variation in Psalm 111: Phrase and Foot in Generative-Metrical Perspective”. I proposed there a loose-iambic, accentual-syllabic, “theme and variation” metrical analysis, or what I have come to think of as my Metrical Theory 1.0. In the third and final part, I ask the deceptively simple question: if we are always just shy of a regular tetrameter, what must be true to regularize the metre on that basis? Out of this discussion, I propose a fully regular, *quantity-sensitive* tetrameter, or my Metrical Theory 2.0.

To begin with, I want to introduce the three major observations that motivate my research programme in Biblical Hebrew poetry.

My first observation is that Tiberian Hebrew has a robustly *quantity-sensitive* metrical structure, the details of which I established in my Boston SBL 2008 paper, “On the Formal Definition of ‘Long Word’ in Tiberian Hebrew: Diagnostic, Database, Generative Analysis, and Implications”, subsequently revised and posted online in 2009. In other words, Tiberian Hebrew counts *moras, not syllables*, where by mora I am referring to the sub-syllabic timing unit, familiar from the analysis of Arabic, Sanskrit, Greek, and Latin prosody.
It has been well understood among specialists—and here I direct you to the excellent work by Geoffrey Khan—that Tiberian Hebrew makes a threefold weight or quantity distinction among syllables. Specifically, a heavy syllable is bimoraic, a light syllable is monomoraic, and a schwa is, as a rule, non-moraic—what Khan calls “non-phonological”. This threefold weight or quantity distinction is broadly isomorphic with the threefold distinction made in Standard Arabic, for example—and with deep Semitic roots.

(2) Since what follows depends crucially on understanding this Tiberian Hebrew metrical structure, I will take a moment to make this more concrete. Let us take the word dābār and its various phonological realizations. Onto the first line, I have projected moras, and the brackets mark the left edge of the feet which are trochaic, that is, left-headed—as cross-linguistically, all moraic systems are. In turn, lines continue to project by rule onto the second gridline, and eventually beyond onto subsequent gridlines in larger structures.

Here you can see the threefold distinction among Tiberian Hebrew syllables, and what is so interesting to me is the rhythmic dynamism that the mismatches give rise to. Thus, while the first two forms are both bisyllabic, they project radically different metrical structures. Notice further that the last two forms project the same metrical structure, yet they differ in the number of syllables.

(3) You might ask how it is that we know which syllables are heavy and which are not? There are many diagnostics, of which I will give two major ones. First, prototypical heavy syllables are subject to breaking. Obviously, there is the heavy syllable broken with the so-called furtive pathaḥ: yānūḥ—a complete give-away. More
subtle and poorly understood is the heavy syllable closed by a guttural, often but by no means always, triggering epenthesis. **Second**, heavy syllables are immune to *nasīgā* or stress-retraction, because there is in fact no stress-clash, no reason to retract stress: *yānūḥāh lī*, crucially not *yānūḥā lī*. The other major class of Tiberian heavy syllable is the closed syllable bearing qametz gadol, just as in the case of *dābār*. Thus there is absolutely no stress-clash in the Tiberian phrase *šām hû*. <sing>

I want to harp on this metrical structure, since it is so poorly understood by students of Biblical Hebrew poetry. A representative example is Vance in his published dissertation (2001). He writes, “enough is known of Hebrew vocalization to **reject** quantitative meter as a real possibility”. To be specific, Hebrew is heavily stressed—here presupposing the heavy accentual system of the Germanic languages—“so a quantitative meter is **not really suited** to it.” As we have just seen, this is simply and categorically **not true**.

Vance concludes that “the quantitative and accentual-syllabic approaches ... are **dead**. No one utilizes them any longer.” As an aside, he adds that “it would be a monumental task to reconstruct the catalogue of feet, the allowable substitutions, and the like.” I will suggest that this is simply **not true** either: reports of the death of quantitative and accentual-syllabic approaches are greatly exaggerated. That is my first observation, and it is certainly not original.

(4) Neither is my second observation, which is that Biblical Hebrew poetry generates a striking taxonomy derived from average syllable counts. Robert Culley, while a student at the University of Toronto, penned the 1970 paper, “Metrical Analysis of Classical Hebrew Poetry”, in which he classed poetic lines as eight syllables give or take;
or ten syllables give or take; and so on. This is a gross oversimplification, and the original paper is worth reading.

Just to give you a graphic illustration, I have extracted and tabulated statistical profiles from Vance’s summaries, which only cover the biblical acrostics. The acrostics are key to analysis, as Vance correctly emphasizes, since the lines are already given, and do not need to be reconstructed by the metrical analysis that the lines are supposed to support: pure question-begging.

Notice first that Lamentations 1-3 form a distinctive class: a triskaidecasyllabic class, if you will. Psalms 111 and 112 also form a distinctive class of octosyllabic lines, and the lines in Lamentations 5 and Proverbs 31, upon inspection, are clearly 2 x 8, and so I lump them together with Psalms 111-112. Psalms 25, 37 and 119 form a closely related class. As the title of my talk makes clear, I am interested specifically in the unambiguously octosyllabic to the exclusion of all other classes.

My third and last observation might be so obvious that it need not be stated, even though I have stated it, and I will state it again anyway, and it is this: there are two Tiberian accent systems, not one. Why? The poorly understood, minority system—the so-called “poetic” accent system—is reserved for Job, Proverbs and the Psalms. Why? Surely the Masoretes understood that something drastic changed between Job 3 verse 2 and Job 3 verse 3. What? What is so special about Job, Proverbs and the Psalms, to the exclusion of other supposedly metrical texts?

Enough by way of motivation: it suffices that Tiberian Hebrew supplies a quantitative metrical representation; that syllable-counts are regular enough that we can
isolate classes of poems; and that specific classes of poetic texts in particular dominate those books marked-up with the special poetic accent system.

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On to part two, and a review of my 2009 paper.

First, I observe that octosyllabic poems declare the same accentual-syllabic theme in their opening lines. This is what Vance calls declaring a “metrical contract”. So let us consider representative, octosyllabic metrical contracts.

(5) Let us begin with Lamentations 5: zakōr YHWH meh hāyā lānû. (5a) The following algorithm and terminology are taken directly from Fabb & Halle’s important 2008 book, Meter in Poetry. First, we project syllables onto the initial gridline (remember in mathematics zero is the first digit!), and here I employ asterisks so as to not confuse these with the Tiberian moras (for which I will reserve the “x”). Notice that I project the divine name as two syllables, which I consider uncontroversial.

(5b) Next, right brackets, indicating right-headed iambs, are inserted into gridline 0. Notice that the post-tonic syllable is left unparsed, and that we thereby obtain the higher range of nine syllables. (5c) Asterisks are projected onto gridline 1: these are feet, in fact four feet. (5d) Again brackets are inserted in gridline 1. (5e) Again we project to gridline 2. (5f) If we continue in this mechanical fashion, we top out at gridline 3. That structure is the “metrical contract”, or what I had originally called the “theme”. As I noted in my JSS paper, these gridlines directly correspond to Tiberian prosodic constituents: thus, gridline 2 matches disjunctive accents, gridline 3 matches the major disjunctive accent, and so on.
My first claim, then, is that all octosyllabic poems are heralded by the same theme or metrical contract. (6) Consider, then, Proverbs 31. Here we observe the first type of foot-substitution: in the lingo, we call this a “degenerate” or “incomplete” foot. It is no coincidence that it appears in the first slot, otherwise it would destroy the metre. We say that this line is “clipped”, which in turn gives us a principled explanation of the lower range of seven syllables. (Some will call this clipping catalexis: hence, a catalectic line.)

I want to emphasize here the projection of two syllables by the segholates. Vance and most others count segholates as only one syllable, on the basis of historical reconstruction—a quite problematic reconstruction in my view. Yet we begin to understand here how extreme outliers might arise in simple syllable-counting.

(7) Psalm 111 is pure iambic, accentual-syllabic tetrameter. Note here that we have no choice but to project the schwa: the foot must be bisyllabic bǝkol. This is uncontroversial among students of Biblical Hebrew poetry.

(8) Psalm 112 implies that the anapest, that is, a foot of three syllables stressed on the third, is a permitted substitution for the iamb. Thus, in this line we find both types of foot-substitutions: both the degenerate and the anapest. It is not, therefore, “a monumental task to reconstruct the catalogue of iambic feet, the allowable substitutions, and the like,” as Vance has incorrectly suggested.

(9) I toss in Nahum 1 because, first, it is a fragment of an acrostic, and second, it is marked up in the prose accent system. Again we observe the permitted foot-substitutions from our simple catalogue of feet.

(10) Joban poetry, the quintessence of octosyllabic type, cannot be left out of an analysis, and so I include Job 3 within the scope of my study. (The entire book of Job
represents such a massive, presumably homogeneous database to be mined that it must be the rock on which my metrical theory will be built.)

I call this approach to Biblical Hebrew poetic metre “Theme and Variation,” and I will conclude the review of my 2009 paper by explaining the “variations”, of which there are two and only two, with reference to Psalm 111. (11) The first of the two variations is exemplified by verse 5a:  terör nātan lîrē’âyw. Here it is not just gridline 0 that is clipped, but also gridline 1. Nevertheless, the structure is capable of projecting correctly to gridline 3.

(12) The second variation is much more interesting, because it highlights one of the major differences between poetic and prose accentuation. The poetic system enforces a rhythm rule on gridline 2: a eurhythmic rule, if you will. Any stress-clash on gridline 2 is systematically eliminated, the upshot of which is that there is effectively one and only one actual variation on the theme.

This then is my summary of the metrical theory of Theme and Variation, my Metrical Theory 1.0, that was applied specifically to Psalm 111. The metrical theory combines a loose-iambic, accentual-syllabic, tetrametrical theme with a rhythmically related trimetrical variation, in both cases projecting the same structure at gridline 3.

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Now I move into the third portion of my presentation, in which I outline my Metrical Theory 2.0. To begin with, I am unhappy with my original proposal, for at least two reasons. First, the range for the syllable-count—5-13 syllables—seems excessive, (a) because it suggests that almost anything goes, and (b) because it fails to capture the roughly plus-or-minus nature of the statistical profiles, as identified by Culley.
Second, it systematically fails to capture significant linguistic generalizations—related generalizations—in fact four and only four significant generalizations, to which I now turn.

My methodology follows from the deceptively simple question: What would have to be true, what must be true, to regularize octosyllabic lines upon a strictly tetrametrical basis? Specifically, where is the missing asterisk? (Something akin to, Where’s Waldo?) As a rule, a line is short one and only one asterisk. Can we identify where and how the problem arises? What changes would we have to make to Tiberian Hebrew phonology? Do we have to fall back on speculative reconstruction, instead of the well understood, concrete Tiberian Hebrew phonology?

My answers are, yes, yes, and no, as I will now explain with reference to the four related phenomena—and apparently, there are only four. My proposal is relatively straightforward, I think, and here it is: we should project the underlying—or lexical, if you prefer—metrical Tiberian Hebrew representations, and not the rapid, slurred, surface or derived forms: the pausal forms, not the contextual forms. These underlying or lexical Tiberian Hebrew representations are consistent with and metrically equivalent to specific and uncontroversially accepted historical reconstructions of ancient Hebrew grammar: no reconstruction required.

I should add in passing that this is not an unreasonable move. Such must also be the case in French poetry, for example, with its ghost consonant and its ghost vowel, preserving centuries of language change; similarly, even Homeric Greek there is a ghost consonant vau: in these cases, we must appeal to abstract lexical representations.
(13) Easily the most common scenario, where the line is short by just one asterisk, is associated with a Tiberian Hebrew heavy syllable, as described earlier. Perhaps this is not a surprise. This can very clearly be seen in Job 3:13b yāšánti ʿāz yānáah lí. There is nowhere else the asterisk could be missing.

(14) I propose the following simple solution to the problem: project the extra Tiberian Hebrew mora as an extra asterisk; project, that is, Tiberian Hebrew weight or quantity. Thus, in the vast majority of cases, there is in fact required no deviation at all from Tiberian Hebrew phonology, which is, I think, a promising conclusion.

(15) Another very common gap, where the line is just shy of regular, is associated with a Tiberian Hebrew schwa. In Psalm 111:2a, the trisyllabic gad ʾî is required to project two beats.

(16) If we consider, however, that this surface schwa syllable here is derived by phonological rule from /gàda:lim/, then we might reasonably be justified in projecting the underlying syllable as an asterisk: a full asterisk in good standing. I know of no approach to Biblical Hebrew poetry that does not systematically “count” the schwa as a full syllable.

(Moreover, it should be pointed out that cross-linguistically, those systems that make a threefold metrical distinction reduce that contrast in poetic metre to a purely binary one: in this case, typically heavy versus non-heavy. Thus, if we want to maintain the strong claim of Tiberian Hebrew phonology only, we could still fall back on this observation.)

So, two very common lapses. Two further, not infrequent lapses are associated generally but not exclusively with finite verbal forms.
(17) Sometimes the missing asterisk is associated with a contextual/pausal shifter, as exemplified by Job 3:4a.

(18) The difficulty is obviated by reading the pausal form of the verb, not the so-called contextual form: thus yēḥī hōšek. The pausal form is necessarily both the underlying lexical representation and the proto-Hebrew reconstruction. As I argued, without originality, in my 2003 paper on pausal phonology, this necessary priority of the historical and lexical pausal form follows from one essential fact: the contextual forms are predictable from the corresponding pausal forms, but crucially, not vice versa.

(19) This approach to pausal phonology is substantiated in other problematic environments. Not infrequently, for example, a surface, contextual form incorrectly projects a fifth foot as is the case in Job 3:9a. However, the difficulty is resolved very naturally by reading the pausal form instead: yēḥšākû instead of yēḥšēkû.

(20) Fourth and finally, sometimes the missing asterisk is associated with a verbal form lexically and historically ending with a short, post-tonic vowel: in this case nātān. (21) What must be said is related to what I just proposed regarding the stress-shifters: read the pausal form, in this case parse as a final heavy syllable: nātān with the heavy closed syllable bearing instead a qametz gadol, lexically and historically *natāna, with a final, short, unstressed vowel, instead of the contextual nātān with the light final syllable. Remember too that this short vowel does in fact surface when the verb form has a pronominal suffix, and consequently it must be present by first principles. [provide example].
And that is pretty much all that needs to be said for this proposal. Let me summarize, then: a 1. quantity-sensitive, and 2. tetrametrical analysis of octosyllabic biblical poetry: my Metrical Theory 2.0.

Instead of directly projecting metrical structure from the derived, surface, slurred, or what is known technically as “postlexical” representations of Tiberian Hebrew—the so-called contextual forms—I propose instead that we project metrical structure from the underlying Tiberian Hebrew lexical representations—the so-called pausal forms—related, as I have noted, directly to historical reconstruction of Hebrew as well, and consistent with other well-known and well-studied poetic metres.

To put it into simple operational terms:

- we project a schwa syllable to gridline 0 as a light syllable, and
- we also project the pausal forms, and crucially not the contextual forms, of words.

Period.
Bibliography


