The Morphology of the tG-Stem in Hebrew and Tīrgaltû in Hos 11:3

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THE MORPHOLOGY OF
THE TG-STEM IN HEBREW
AND TIRGALTÎ IN HOS 11:3*

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The Masoretic Text (MT) of Hos 11:3a reads "וְאָנֹכִי תִרְגַּלְתִּי לְאֶפְרַיִם קָחָם ﬠַל־זְרוֹעֹתָיו.
Although the entire verse is difficult, the form and meaning of the word "לְתִּיתִּרְגַּ" (tirgaltî) has been especially problematic for interpreters from the beginning of attempts to translate the passage.¹ These difficulties emerge from the morphological peculiarities of the word, as well as from the lexicographic difficulties it presents. The present article proceeds from the conviction that an adequate solution to the second

¹ This paper is a thorough revision and elaboration of a paper originally submitted by Dr. Marzouk as partial fulfillment of coursework under Dr. Hutton at Princeton Theological Seminary. The authors are indebted to several individuals, all of whom provided assistance of some sort: Professors Aaron Rubin and Gary Rendsburg provided a number of helpful comments; Rubin also allowed access to his library. Professor John Huehnergard graciously provided access to his personal bibliography of articles on the t-stems in Semitic, of which we hope to have made good—but judicious!—use. Two research assistants from two different institutions (Princeton Theological Seminary and the University of Wisconsin-Madison) collected and sifted relevant data; these are Dr. Robin McCall (PTS) and Mr. Kevin Mattison (UW). This paper is one of three related studies. Hutton has recently published a morphological study, with which much of the text of section II.c here overlaps, as: Jeremy M. Hutton, “A Morphosyntactic Explanation of tapoṣôtîkem (Jer 25:34),” in R. Hasselbach and N. Pat-El (eds.), Language and Nature: Papers Presented to John Huehnergard on the Occasion of His 60th Birthday (Studies in Ancient Oriental Civilization, 67; Chicago: The Oriental Institute, 2012), 151–69. It is with the permission of the Oriental Institute (especially the managing editor of the publication unit, Thomas G. Urban) that text originally published there has been reused. Additionally, Hutton plans to publish a semantic investigation of the lexeme under investigation here under the title “The Meaning of tirgaltî in Hos 11:3: A Cognitive Grammar Approach.”

¹ A.A. Macintosh provides a valuable survey of the literature, presented here in abbreviated form (A Critical and Exegetical Commentary on Hosea [ICC, 28B; Edinburgh: T & T Clark, 1997], 442–43, 445).
problem—lexicography—requires a sufficiently comprehensive answer to the first problem—morphology. Unfortunately, although we remain optimistic that a lexicological answer to the questionable semantic field of the word תִּרְגַּלְתִּי may eventually be given, such an explanation cannot be made without significant exegetical elaboration, space for which is unavailable in the confines of the present article. Therefore, the explicit goal of the present article is to propose a solution to the former problem—the morphology of תִּרְגַּלְתִּי.

In the present study, we will clarify the morphological development undergone by the form תִּרְגַּלְתִּי. The peculiarities of the word’s development will lead to several conclusions concerning the linguistic context in which Hos 11:3 was written. We trace the word to a tG-stem form, comparable to the Aramaic hitpe’el or itpe’el. We argue that the form has been conditioned by its morphosyntactic environment and therefore does not exhibit some of the expected hallmarks of such forms, such as the prefixed ה. This analysis provides some degree of confirmation that northern (i.e., Israelian) Hebrew (IH) contained a semi-productive tG-stem. Yet before the morphological analysis of תִּרְגַּלְתִּי may begin, a brief preliminary discussion of traditional interpretations of Hos 11:3 is necessary.

I. EARLIER INTERPRETATIONS

The LXX offers the apparently enigmatic συνεπόδισα, “I bound the feet [of Ephraim]” in its rendering of Hos 11:3a. Similarly, the

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2 For the concept of “Israelian Hebrew” as distinct from the Judahite Hebrew that later became the predominant dialect represented in the Hebrew Bible, see, e.g., G.A. Rendsburg, *Israelian Hebrew in the Book of Kings* (Occasional Publications of the Department of Near Eastern Studies and the Program of Jewish Studies, Cornell University, 5; Bethesda, Md.: CDL, 2002), 17. Concerning IH, Rendsburg states: “this is most likely a dialect cluster, incorporating a variety of dialects such as Ephraimitic Hebrew, Transjordanian Hebrew, and Galilean Hebrew. In general, we do not possess the quantity of data necessary to make such small distinctions, so we content ourselves with the umbrella term IH, recognizing it as the polar contrast to JH [Judahite Hebrew]” (ibid.).

3 By “semi-productive” we intend to indicate a grammatical form that, when analyzed synchronically, is used in new formulations and compositions (i.e., is productive), while at the same time, when viewed diachronically, is in the process of becoming vestigial. Because the tG-stem was used in a variety of forms and with at least five different verbal roots (see below, section II.c), it seems as though the stem was productive in northern Hebrew for at least part of the biblical period (until ca. 600 BCE). However, the rarity of the stem as it may be traced in Biblical Hebrew, combined with the clear indications that the stem was not recognized by the Masoretes as independent of the hitpa’el, suggests that the tG-stem was already becoming vestigial—if not entirely so—by the time of the closure of the Hebrew canon.
Syro-Hexapla renders "w'nh p'kr l'prym "I bound Ephraim." The Greek verb συμποδίζω renders several Hebrew and Aramaic verbs throughout the LXX. In LXX Ps 17:40; 19:9; 77:31 [=MT 18:40; 20:9; 78:31], συμποδίζω is a translation of the Hebrew verb יָשָׂר “to bow down.” In Prov 20:11, it is a translation of the hitpa‘el of the Hebrew verb דָּבָר, meaning “to make oneself known” or “to be recognized.” In Zech 13:3, this same verb translates the Hebrew verb לָדַע “to pierce”; here the LXX translation has the effect of mitigating the punishment of the false prophet. None of these glosses provide an overwhelmingly sensible translation of Hos 11:3. However, in two clear cases συμποδίζω renders Hebrew or Aramaic words meaning “to bind”: the Aramaic קַפָּת in Dan 3:20, 21, 23 (and in the LXX plus in v. 22), and the Hebrew verb עָקַד "to bind" in the LXXB of Gen 22:9.

Other ancient witnesses translate the word much differently. For example, the Vulgate renders et ego quasi nutritius ephraim "and I was like a nurse/tutor to Ephraim." Along similar lines, Symmachus rendered תִּרְגַּלְתִּי with ἐπαιδαγώγουν "I trained, nurtured," which seems to have been a rather liberal way of translating within the same semantic field utilized by Jerome. It is not entirely clear, however, what the semantic field “to bind” might have to do with “being a nurse.”

Early in the religious tradition’s transmission history, interpretive attempts were made to unite these two glosses, “to bind” and “to be a nurse.” For example, St. Cyril of Alexandria (early-5th century CE) argued that

[the comparison comes from what is done in the case of children: people picking up small babies in their hands bind them together [συμποδίζουσιν αὐτά], as it were, by holding their feet together. As I see it, everyone sitting down has to close their thighs and knees, which is the meaning of I bound together [συνεπόδισα], as is also recorded of Abraham, that he bound together [συνεπόδισεν] his son Isaac when he was expecting to sacrifice him to God. Now, you should know that the Hebrews and even the other translators do not have the word bound together [συνεπόδισα], saying instead, “I was like a nurse to Ephraim.”

While this is a noble attempt to bridge the gaps between the competing interpretations, and one with much to recommend it, it does not provide an adequately sophisticated rationale for its lexicographic interpretation, translating instead on the basis of

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4 St. Cyril, Comm. XII Proph (PG 71:158b); for this translation, see R.C. Hill, St. Cyril of Alexandria: Commentary on the Twelve Prophets. Vol. 1 (FC; Washington D.C.: Catholic University of America Press, 2007), 212; we have inserted the original Greek ourselves. Compare especially the use of συμποδίζω to render Heb. דָּבָר, a translation equivalent mentioned above.
context. In the twentieth century, N.H. Tur-Sinai sought to bolster this combined “binding-nursing” interpretation by adducing Akk. *tarkullu* as a cognate of לִרְגָּלָה. This cross-Semitic comparison, he argued, suggested that Heb. לִרְגָּלָה indicated the binding of a baby in diapers. Unfortunately, the comparison is not compelling, because both *AHw* and *CAD* analyze the word *tarkullu* as a Sumerian loan, glossing “mooring post.” Without the strong Semitic etymology based on the root √רגל, LXX’s translation with a specific type of “foot-” or “leg-binding” falls through, and the comparison loses its persuasiveness.

The other ancient witnesses are equally interpretive to those already mentioned. Theodotian renders κατὰ πόδας “I was at the heels of [Ephraim],” but this reading is exegetically difficult, and does not provide especially good sense in a context of parental care. Tg. Jon. reads וַאֲנָא בְּמַלאַך שְׁלִיַח מִן קֳדָמַי דַבַּרִית בְאוֹרַח תָּקְנָא יִשְׂרָאֵל “and I, with a messenger whom I sent, led Israel on the right path.” The Peshitta glosses more mundanely, וּנְדַבְּרֵי לְפּוֹרִים “I led Ephraim.” While all three translations preserve the self-evidently podiatric connotations of the verbal root √רגל—if only implicitly—none provide a clear and overwhelming interpretation of the word לִרְגָּלָה.

Subsequent scholarship has fared little better in its interpretation of the passage. Ibn Janāḥ, a Medieval Jewish grammarian (early 11th cent. C.E.), provided two different meanings for the word, both proceeding from the assumption that the form was used in place of the causative לִרְגָּלָה: “to be accustomed to” and “to lift up.” With respect to the first, “this expression is in accordance with the ancestors’ description of the one who is accustomed to things as רגיל; therefore, the translation of the phrase is ‘I made אפרים accustomed [to the fact that] I would take them on my arm.’” However, after an explanation of the reading זְרוֹעֹתַי, rather than MT’s זְרוֹעֹתָיו, ibn Janāḥ suggested,

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6 *CAD* 18[T]:236; cf. “Haltepflock” given in *AHw*, 1330.
7 Compare also Macintosh, *Hosea*, 443.
8 Here and below we cite the Aramaic translation of Tg. Jon. from A. Sperber, *The Bible in Aramaic* (3 vols. in one; Leiden: Brill, 2004), replacing the Babylonian pointing of the original with their Tiberian equivalents for ease of recognition.
10 We provide here Marzouk’s translation from the Arabic. See J. Buxtorf, *Lexicon hebraicum et chaldaicum* (Basil: König, 1663), 713: Assuefeci Ephraimum; and A. Schultens, *Institutiones ad fundamenta linguae hebraeae* (2nd ed.; Leiden: Luzac, 1756), 313. More recently, M. Jastrow has offered the translations: nipʿal “to be wont to”; hipʿil 2 “to make familiar, to accustom”; hipʿil 3 “to lead, to persuade”; and לִרְגָּלָה afʿel “to lead, to
perhaps the meaning of תרגלתי is “I lifted up”; thus its translation is “I lifted up אָפָא, taking them upon my arm,” that is to say, “I lifted their feet up off the ground,” in the sense of [Exod. 19:4] נַשֵּׂרְיָם. This harmonizes with the expression of the Arabs tarajjala an-nahar, that is, means “[the daylight] has advanced”; the taʾ in both cases is used in place of haʾ, therefore, the form is tantamount to תִּרְגַּלְתִּי.

Earlier, Jerome had made a similar observation with reference to Deut 1:31 and 32:11, probably leading to the Vulgate’s translation. Ibn Janāḥ was joined in his assessment that תִּרְגַּלְתִּי was used in place of a hipʿil form by Rashi and ibn Ezra, each of whom advocated a translation of תִּרְגַּלְתִּי as “I taught to walk.” Modern translators and commentators have generally followed the suggestions of these Medieval grammarians. A survey of modern English translations shows that this causative sense of the word has become pervasive, and indeed most modern commentators gloss accustomed”; itspaʿal “to accustom one’s self, make it a habit” (A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature [New York: Judaica Press, 1971], 1448–49, s.v. רגל). Macintosh followed this understanding of תרגלתי (Hosea, 441–42): “I applied myself assiduously”; but contrast the alternate explanation of the root’s development given by M.A. Zipor, “Talebearers, Peddlers, Spies, and Converts: The Adventures of the Biblical and Post-biblical Roots רג״ל and רכ״ל,” HS 46 (2005), 138–144. Professor Gary Rendsburg has suggested to us (personal communication) that the semantic development of the root רגל in Mishnaic and later forms of Hebrew was most likely influenced by the Latin regula, and would therefore not be pertinent to the present investigation.

11 Macintosh, Hosea, 442.
13 Cf., however, M.D. Goldman’s proposal that the verb is a “rare causative” form with a root cognate to Arab. √RAL “to allow to suck its mother,” compared (speciously) to Num 11:12, and meaning “to suckle” (“The Real Interpretation of Os 11,3,” AusBR 4 [1954–1955], 91–92; also see TbwAT, 7:343). Contrast Rudolph and Macintosh, who argue against this proposal, in light of the verb’s primary usage for animals, and only improbably for humans; W. Rudolph, Hosea (KAT; Stuttgart: Mohr, 1966), 209 n. 3; Macintosh, Hosea, 443.
14 See, e.g., KJV: “I taught Ephraim also to go”; ASV: “Yet I taught Ephraim to walk”; NIV: “It was I who taught Ephraim to walk”; NJB: “I myself taught Ephraim to walk”; RSV: “Yet it was I who taught Ephraim to walk”; NRSV: “Yet it was I who taught Ephraim to walk”; JPS: “And I, I taught Ephraim to walk”; cf. the anomalous TNK: “I have pampered
the verb along similar lines. These early and modern interpreters have in common their understanding of חֲנָמָיָּה as a verbal form derived from some sort of oddly affixed stem tipʿel.

Despite the overwhelming number of commentators who hold to this consensus view, several other interpreters have dissented, calling the verbal form a denominative verb, that is, a verb derived secondarily (i.e., verbalized) from an established nominal form. English examples of denominative verbs would include “to chair (a meeting),” “to table (a resolution),” and “to critique (a paper).” These scholars may be divided roughly into two groups, distinguished by the respective semantic fields they attribute to the verb.

The first group, led by J. Barth, apparently continues to gloss the verb causatively (which occasions his proposed translation “ich habe gegängelt?” [“I treated like a child”]), but apparently draws that connotation from the context rather than from any particular semantic addition occasioned by the t-prefix. Here and elsewhere, Barth accounts for this word as a denominative verb formed from Ephraim.”


17 J. Barth, Die Nominabildung in den Semitischen Sprachen (Leipzig: Hinrichs, 1889), 278–279 §180a, and 279 n. 2. For this translation, see also F. Böttcher, Ausführliches Lehrbuch der Hebräischen Sprache (Leipzig: Barth, 1868), 2:281 §1015; and HALOT, 1184a, s.v. חֲנָמָיָּה tipʿel: “spoon-feed.”
a t-preformative noun, claiming that the divergent semantic values of the proposed t-prefixed verbal root as indicating both reflexive and causative modulations of the verbal root negates the possibility of that verbal proposal.18

The second group, which includes many Hebrew grammarians, argues for a denominative origin of the word תירגלתי having to do with “leading.”19 Prominent within this group are F.I. Andersen and D.N. Freedman, who raise significant contextual and grammatical issues in opposition to the traditional (causative) translation of תירגלתי.20 They argue that the causative interpretation “I taught to walk” is mistakenly founded on the persistent parental imagery throughout Hosea 11. Although this criticism is perhaps sensible, Andersen and Freedman go on to argue that

[the] denominative of רגלו is the Pi’el, which has the highly technical meaning “to spy, reconnoiter.” The need for another denominative verb for a different kind of walking could have evoked the Tip'el, meaning “to lead, walk in front of.” The preformative is a morph which makes a quadriliteral root with a specialized meaning, here in a noun form. The action described is correlative with walking behind, the usual expression for loyal following of Yahweh. Such leadership was in evidence in the wilderness journey, and especially in entering the promised land.21

Andersen and Freedman therefore prefer to translate v. 3aα as “I was a guide for Ephraim,”22 presumably on the basis of the Targum and Peshitta. Yet, several aspects of this solution are problematic:

1. The characterization of the t-preformative form as creating a “quadriliteral root” is dubious, since the lexical root remains רגלו, and is merely augmented by a putatively nominal preformative prefix. The verbal “root” is quadriliteral only insofar as the verb utilizes a (hypothesized, but unattested) noun תרגלי or the like as its verbal base.

2. The interpretive jump from the debated meaning of

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19 E.g., GKC, 153 §55h (tentatively); Joüon, 1:169 §59e; HALOT, 1184a, s.v. Tip’el. See also H. Bauer and P. Leander, Historische Grammatik der hebräischen Sprache (Olms Paperbacks, 19; Halle: Niemeyer, 1922; repr., Hildesheim: Olms, 1991), 424 §57t*, s.v. תרח; and Yoo, “Israelian Hebrew,” 136.
21 Ibid.
22 Ibid., 574.
this root in the piʿel “to spy” to the “denominative” tiʿel meaning “to guide” is left without support or explanation. Although it remains plausible that Andersen and Freedman are correct in their assessment that “neither this [i.e., the reflexive] sense nor a causative (‘I made walk’) seems appropriate here,” their argument is based only on the premise that the reflexive meaning is not suitable in this context, a supposition open to hermeneutical question because it is made on the basis of the interpreters’ desire to draw a specific meaning from the passage. The gloss is no less arbitrary a proposal than the traditional causative translation “I taught to walk.”

3. Finally, it is unclear how the “need for another denominative verb” could have “evoked” the tiʿel. This explanation makes it sound as though Andersen and Freedman believe the author of Hos 11:3 arbitrarily used an unproductive form to denote an invented concept. This supposition seems highly unlikely. Moreover, most clearly denominative verbs in Hebrew fall within the normal range of stems, and particularly the piʿel (e.g., לְ whistleblower “to serve as priest,” etc.). Purportedly denominative forms in Hebrew falling outside of the normal range of stems are truly rare: possible forms alongside יִרְדְּנָה (Hos 11:3) would be those Gesenius lists under his tiʿel: (a) יִרְדְּנָה and יָרָד, respectively “you contend with”

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23 As N.J.C. Kouwenberg (Geminion in the Akkadian Verb [Studia Semitica Neerlandica, 33; Assen: Van Gorcum, 1997], 307–8, cited in M.P. Streck, Die akkadischen Verbalstämme mit ta-Infix [AOAT, 303; Münster: Ugarit-Verlag, 2003], 72) has pointed out,

The meaning of a denominative verb is closely associated with that of the source noun. Generally speaking, if X is the basic noun, the verb will mean… “to make X”, “to produce X”… if it is transitive…. An important criterion, then, for identifying denominative verbs and distinguishing them from ordinary verbs is whether the meaning of the source noun and the denominative verb are rather specific and closely similar, in the sense that they form the nominal and the verbal expression of a single action…. The more specialized this meaning is, the more certain we can be about the denominative character of the verb in question.

The close association required by Kouwenberg’s analysis is simply not manifested in Andersen and Freedman’s reconstruction.

24 Andersen and Freedman, Hosea, 579.

25 E.g., J. Blau, Phonology and Morphology of Biblical Hebrew (LSAWS, 2; Winona Lake, Ind.: Eisenbrauns, 2010), 229 §4.3.5.4.1. See also JHB, 410–14 §24.4 (for the piʿel; cf. p. 373 §22.5 for the qal and p. 391 §23.5 for the nipʿal).

26 GKC, 153 §55h.
and “one contending with” (Jer 12:5; 22:15), and (b) מְתֻרְגָּם (Ezr 4:7), which Brown, Driver, and Briggs derive from the root תִּרְגֵּם. Presumably, they have done so on analogy with the purported verb תִּרְגֵל, although they subsequently describe תִּרְגֵּם as a quadriliteral root. Y.J. Yoo, citing L.M. Kuriakos, adduces a third form: (c) תְּפוֹצוֹתִיכֶם (Jer 25:34), from the root פוץ.

In opposition to the claims of Andersen and Freedman, a broad category of t-preformative nouns being used as denominative verbal base forms remains elusive. Only מְתֻרְגָּם and מְתַחֲרֶה may be definitively linked with a corresponding t-preformative noun attested in Classical Hebrew: Joüon points to the nominal form תַּחֲרֶה, in Sir 31:29; 40:5. Unfortunately, the manuscript evidence is not entirely unequivocal. The full reading appears only in MS B at 31:29, although MS F contains the initial ת. MS B provides the only extant text of 40:5, where it reads [...] instead of the expected [...]תַּחֲרֶה. Although a marginal note to the left reads בְּרִי מְתַחֲרֶה, correcting the he to het here, the LXX translates differently in both places: at MT 31:29 (=LXX 34:29), LXX renders with ἐρεθισμός, but with μηνίαμα at 40:5 (cf. μήναμα in LXX). Moreover, although the single full appearance in MS B at 31:29 and the corrected appearance of the word in the same manuscript at 40:5 are sufficient to demonstrate that there was at some point in Hebrew a word taḥărâ related to Mishnaic Hebrew תַּחֲרֶה and Aram. תַּחֲרֶה and תַּחֲרֶה, the attestations are too late to serve as conclusive proof of the verb’s being a

27 BDB, 1076a, s.v. מְתֻרְגָּם.
29 Joüon, 1:169 §59a; see also BDB, 354a, s.v. מְתַחֲרֶה.
30 For text, see P.C. Beentjes, The Book of Ben Sira in Hebrew. A Text Edition of All Extant Hebrew Manuscripts and a Synopsis of All Parallel Hebrew Ben Sira Texts (VTSup, 68; Leiden: Brill, 1997), 57, 69, 109, 147.
denominalization of the nouns. In each case, there is another, more probable explanation for the respective morphologies of these verbal forms, all relating to the commonly attested Semitic tG/Gt-stem. Handled in an order different from that given above, the following observations on each word can be made:

(a) מְתֻרְגָּם is plausibly analyzed as showing direct influence from Aramaic, with its verbs תִּרְגֵּם “to deliver, proclaim,” and תַּרְגֵּם “to interpret, translate, explain,” themselves attributed to Akkadian influence (cf. the verb ragāmu, found in the Gt-stem in Old Assyrian, with the meaning “raise claims against each other,” and in the more common Assyrian and Babylonian nominal form targummanu “interpreter, dragoman”). Although the root is undoubtedly native to pan-Semitic (see, e.g., Ug. √RGM), the distribution of the word as a quadriliteral verb in Aramaic (תִּרְגֵּם) and Ethiopic (targʿama) would suggest that the word had already taken shape as a quadriliteral verb before it spread through several languages. Irrespective of whether the Hebrew form is a borrowing directly from Akkadian or indirectly from Akkadian through Aramaic, the form may be removed from discussion as a foreign loan.

(b) Although תְּפוֹצוֹתִיכֶם is regularly taken to be either a product of textual corruption or a conflation of תָּפוּצוּ and הֲפִיצוֹתִיכֶם, the verb shows every indication of being a morphosyntactically conditioned 1.c.sg. suffix-conjugation with a prefixed ת, showing regular development.

(c) Similarly, תְּתַחֲרֶה and מְתַחֲרֶה show indications of being a regularly affixed prefix-conjugation and participle, respectively, of a verbal stem containing a prefixed ת before the base. As previously mentioned, the Hebrew nominal forms תחרה and תחָרַת have an Aramaic cognate in the word תַּחֲרַת (compare the common Aramaic hitpʼeʿel or ihšpʼel [see section II]), which seems to have been

33 *AHw*, 942a; *CD A*, 295a; *CAD* 14[R], 63b–64a.
34 *AHw*, 1329b; *CD A*, 400a; *CAD* 18[T], 229a–30a.
36 E.g., *GKC*, 258 §911.
productive in this root: R. Payne Smith lists several examples—encompassing a number of different nuances—of the verb ʾeṯḥrā.38

These last two observations provide us with an alternative etymology of תִּרְגַּלְתִּי to be explored. Consideration of תִּרְגֵּל as a denominalization-verbalization of a supposed noun לִירָה is an inadequate understanding of the verbal form under discussion. Instead, we propose that sensitivity to the three caveats raised above occasions a more philologically sound and contextually meaningful understanding of the verb תִּרְגַּלְתִּי. In the following argument, we suggest the author of Hos 11:3 used a productive—albeit rare—verbal stem that is the Hebrew remnant of the common Semitic tG/Gt-stem. A survey of cognate stems, of both tG- and Gt-form, in the other Semitic languages (sections II.a–b) provides the foundational principles whereby we explain the morphological development of תִּרְגַּלְתִּי (rendered throughout the following discussion in Latin characters as tirgaltî). Although the tG-stem was rarely used in Classical Hebrew, a survey of its apparent occurrences (section II.c) will demonstrate its historical existence in at least one dialectal variant of this language, namely, Israelian Hebrew (IH).39 In section II.c, we argue that the word does not take the normally expected form of a Hebrew tG-stem. Although the prefix ti- and the assumed original *i theme vowel (reduced to a in tirgaltî through the purported operation of Philippi’s law40) have lent to the form tirgaltî the common stem name tipʿēl,41 the verb tirgaltî in fact displays an allomorph of the slightly more common Hebrew retention of the Proto-Semitic [PS] tG-stem.42 As will be demonstrated below, the expected form of

38 R. Payne Smith, Thesaurus, 1:1359a–b; see also J. Payne Smith, Dictionary, 155a–b; and Sokoloff, Syriac Lexicon, 490a. But cf. the discussion below in n. 99.


41 It is unclear why GKC (153 §55h) states that the stem’s name is “properly Taphʿēl,” an assessment apparently followed by Yoo (“Israelian Hebrew,” 134).

42 In this paper, we distinguish between the Semitic tG- and Gt-stems, in which the siglum “tG” designates the form with a prefixed *t and “Gt” the form with an infixed *t-, only insofar as they occur in attested languages (for the convention, see W.R. Garr, Dialect Geography of Syria-Palestine, 1000–586 B.C.E. [Philadelphia: University of Pennsylvania Press, 1985], 120). As is generally recognized, all occurrences of the tG- and Gt-stems in the various Semitic languages can be traced back to a single Proto-Semitic tG-stem; see, e.g., W. Diem, “Die Entwicklung des Derivationsmorphismens der t-Stämme im Semitischen,” ZDMG 132 (1982), 29–84; W.R. Garr, “The Nipphal Derivational Prefix,” Oriantalia 62 (1993),
the verb under examination, independent of any conditioning environment, would probably have been the (unattested) form 

**hitrāgaltî.** This reanalysis of the verbal form *tirgaltî* disposes with any need to reconstruct a relic Hebrew *tip'el* stem; therefore, that siglum will be abandoned in favor of the more appropriate “tG” in the remainder of this study. By extension, a few of the other verbal forms discussed above (specifically, מְתַחֲרֶה, תְּפוֹצָוִית, תְּתַחֲרֶה, and מְתַחֲרֶה) are likely to be similar remnants of an original tG-stem in Hebrew.

II. MORPHOLOGICAL ANALYSIS

II.A. THE DISTRIBUTION OF THE tG- AND Gt-STEMS IN OTHER SEMITIC LANGUAGES

There can be no question that the affixed-*t* (tG/Gt) complement of the simple *qatala*-form G-stem is traceable to Proto-Semitic, as it can be found in both East and West Semitic language families. Instead, the major inquiries underlying study of the affixed-*t* stems center on the original form of the verb in each stem (tG/Gt, tD/Dt, etc.). Observation shows that the purely formal division between tG- and Gt-stems does not follow linguistic familial lines: consider, for example, the tG-stem forms from Hebrew (presented below, section II.c), Deir ʿAllā (Pref.: *ytqtl* [?]; Suff.: *ʾtqtl* [?]), 43 and Ethiopian (Pref.: *yatqat*[†]; Suff.: *taqat*[†]; Imp.: *taqatal*; Inf. *taqatolo*[†]).44 over against the Gt-stem verbal forms found in, among others, Akkadian (Inf.: *pitrusum*; Dur.: *iptarras*; Perf.: 


43 See appendix A.1, below.

iptatras; Pret.: iptaras; Impv.: pitras; Part.: muptarsum; Verb. Adj.: pitrus-).

45 Ugaritic (Pref.: yiqtatVl; Suff.: ’iqtatVl; Impv.: (’i)qtatVl),

46 Byblian Phoenician (Pref.: yqtl); Moabite,

Although the Gt-stem occurs in Moabite in only one verbal root (’lHm), it is found in three different forms. The prefix-conjugation is attested twice as w’ltm “and I fought” (KAI 181 [=Mesha Inscr.:11, 15], once in the imperative hitm “fight!” (line 32) and once as an affixed infinitive construct bhltmh “when he fought” (line 19). For a relatively brief discussion, see K.P. Jackson, “The Language of the Mesha inscription.”

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47 Only the prefix-conjugation of the Gt-stem is attested in Byblian Phoenician; Z.S. Harris, A Grammar of the Phoenician Language (AOS, 8; New Haven: American Oriental Society, 1936), 43 §13.7; J. Friedrich and W. Röllig, Phönizisch-Punische Grammatik (3rd ed.; AnOr, 55; Rome: Pontifical Biblical Institute, 1999), 94 §150; C.R. Krahmalkov, A Phoenician-Punic Grammar (HdO, 54; Leiden: Brill, 2001), 157. In the Ahirom inscription (KAI 1), this form is used twice: thsp “may it be removed” and thtpk “may it be overturned” (see also Friedrich and Röllig, Grammatik, 94 §150). Commentators generally vocalize the strong verb as yiptaʿal, but the absence of vocalization in the texts renders this reconstruction tentative, and is most likely to be traced back to comparison with Ugaritic (see Appendix A.2, below). The Gt-stem is to be distinguished from the tD-stem in Punic, in which no metathesis has occurred; cf. the hitpael in Harris, Grammar, 42 §13.6; Friedrich and Röllig, Grammatik, 94 §149; Krahmalkov, Grammar, 156). Z.S. Harris adduces a t-stem reflexive in Phoenician, comparing the extant forms of those of Ugaritic and Amarna Canaanite, as well as Canaanite place names preserved in Hebrew (see below, §3), but earlier had called the Gt-stem a “middle” (Development of the Canaanite Dialects: An Investigation in Linguistic History [AOS, 16; New Haven: American Oriental Society, 1939], 62; cf. idem, Grammar, 43). Compare also Krahmalkov’s translations and description of the stem as expressing “the intransitive of a transitive verb” (Grammar, 157). In opposition, it is possible to translate the Phoenician Gt-stem passively as well; e.g., Garr, Dialect Geography, 119.

46 See Appendix A.2, below.


47 See Appendix A.2, below.
Despite the variation of the Semitic languages exhibiting a tG-stem and a Gt-stem, it is possible to reconstruct a plausible development whereby this variation occurred. The earliest situation in Semitic seems to have been the form prefixed with a *t- (i.e., the tG-stem). As is clear from the distribution of languages exhibiting the secondary Gt-stem, the metathesis of the derivational prefix *t- with the first radical [R₁] cannot be a genetic development, but should rather be understood as the effect of convergent development among the many languages exhibiting that stem. S.J. Lieberman has plausibly linked this metathesis to analogical development occasioned by the relative frequency of the St-stems in Semitic (which appears even in those languages featuring a causative C-stem exhibiting the lenition of the original *§ > ℓ or ʾ). Accordingly, “under the analogical influence of the st stems the sequence /ts/ was changed to /st/, whenever the two were contiguous.” In some languages, argues Lieberman, this metathesis was extended to some or all *t-preformative stems, and not only to those roots beginning with a sibilant.
Because Lieberman’s proposal relies on the particular ordering of the derivational *št prefix, we should not expect any further metathesis between the *t and R₁ in the Št-stem itself (i.e., yielding **št=q=t=atal or the like), nor should we expect any such metathesis in the N-stem, where the derivational prefix was of a different articulation. Moreover, Lieberman recognizes that the metathesis of the derivational *t prefix with R₁ was inconsistently applied in many languages exhibiting productive tG/Gt- and tD/Dt-stems. On one hand, this rationale explains the situation of Akkadian, for example, which contrasts the infixed Gt-stem (pitrusum) and Dt-stem (putarrusum) over against the prefixed N-stem (n기관) and Št-stem (šutaprusum). According to Lieberman, in Akkadian, “the t-affix was put after the radical of the verb without other augmentation, and that ‘infixing’ was presumably subsequently generalized to other stems.” On the other hand, Lieberman’s proposal is also able to account for Arabic’s metathesis of the derivational *t with the first radical in the VIII (Gt) form (iftaʿala) but not in the V (td) or VI (tl) forms (tafaʿala and tafāʿala, respectively): Arabic, he argues, “took the infixing of /t/ to be a distinguishing mark of the t-form of a verb without other augmentation, and kept the /t/ in front of the first radical for the otherwise augmented stems.” Thus, neither the X (št) form (istafʿala) nor the VII (N) form (infaʿala) undergoes...

56 We follow here Garr’s convention of indicating a morphemic boundary with the siglum “=”. In its usage, Garr’s notation differs only slightly from the conventions established by Noam Chomsky and Morris Halle (The Sound Pattern of English [Studies in Language; New York: Harper & Row, 1968], 364–71), whereby “+” indicates formative boundaries allowing the operation of phonological rules across the morphemic boundary and “=” disallows many of the same rules.

57 The ubiquitous affixation of the *n derivational prefix in the N-stem of Semitic languages moreover confirms that the *t was similarly originally prefixed (e.g., Lieberman, “Afro-Asiatic Background,” 610–19; cf. J. Grand’henry, “Le verbe réfléchi-passif à préfixé de la forme simple dans les dialectes arabes,” MUS 88 [1975], 441–47).

58 Lieberman, “Afro-Asiatic Background,” 615.

59 Ibid.
metathesis. Similarly, despite the fact that Ugarit had a tD-stem (with prefixed *t), the derivational *t of the corresponding G-stem form was infixed (Gt).60

In essence, Lieberman argues that this metathesis must be traced to a large number of convergent analogical developments within Proto-Semitic’s daughter languages, and specifically to those that still retain a productive Št-stem. His proposal goes a long way towards understanding the causes for the distribution of tG and Gt stems in the Semitic languages.61 Moreover, for the purposes of the present argument, it may be considered as ancillary to the developments proposed below.62 The metathesis of R₁ and derivational *t in the Gt- and Dt-stems described here is best considered as a rule internal to the various languages exhibiting such stems with an infixed derivational *t:63

(1) *tR₁ > R₁t \{in certain stem-conditioned environments\}

II.B. THE MORPHOLOGY OF THE \textit{tG-STEM’S DERIVATIONAL PREFIX/INFIX}

Insofar as it is possible to reconstruct the Proto-Semitic antecedents of the derived stems, the development of the tG/Gt-stem in the Northwest Semitic languages may be reconstructed with some degree of confidence. Although Diem reconstructs an original *ta morpheme that diverged into the allomorphic set


61 See also Diem, “Entwicklung,” 40–47 §§11–16.

62 Garr has shown decisively that the *hi- prefix of the nip’al infinitive and imperative (and consequently of the hitpa’el suff.-conj., pref.-conj., and imperative forms) does not share the same morphological origin of the hip’al prefix, which is to be derived from an original *š-. Instead, the former is an analogical extension of the latter (see below, section II.b).

63 This discussion is not meant to describe the phonologically conditioned metathesis occurring in Hebrew and Aramaic roots beginning with sibilants, although a relation between the two environments of metathesis cannot be ruled out at this point (see Lieberman, “Afro-Asiatic Background,” 616). For Aramaic, see the verb *hištakah > hištakāh or hišēkah in Dan 2:35; 6:24; and Ezra 6:2; cf. the related forms in Dan 5:11, 12, 14, 27; and 6:5, 23. For Hebrew, see examples in GKC, 70 §19n, 149 §54b; Bauer and Leander, \textit{Historische Grammatik}, 217 §23a; Jouon, 1:158 §53e). Akkadian reverses (or, more precisely, did not undergo) the metathetical rule in unprefixed forms from roots containing a sibilant or voiced dental R₁ (e.g., the infinitive tīṣbutum [rather than *tīšbutum]). In many respects, this failure of metathesis to operate consistently may be attributed to the fact that Gt-stem forms from such roots assimilate the derivational *t when they contain prefixes (e.g., durative īṭṭābat, perfect īštābat, etc.; Huehnergard, \textit{Grammar of Akkadian}, 390–91 §33.1; see also, e.g., Brockelmann, \textit{GV/G}, 1:157 §56a, 171 §60b; von Soden, \textit{G-AG}, 35 §29e.
MORPHOLOGY OF THE tG STEM IN HEBREW & tīrgaltî

\{/ta/, /t/\}, depending on its morphophonemic environment,\(^{64}\) this reconstruction is overly complicated and predicated on the specious assertion of the primacy of the system found in Ethiopic. Instead, it is much more likely that the derivational prefix, consisting only of the single phonemic segment *t, was appended directly to the verbal base.\(^{65}\)

Dealing primarily with the Hebrew nipʿal, Garr plausibly and convincingly reconstructs a pre-Proto-Semitic derivational N-stem prefix *n, which, when affixed directly to a verbal base *-qtal\(^{66}\) (found, for example, in the Akkadian verbal noun, imperative, and infinitive, as well as the Hebrew suffix-conjugation, participle, and infinitive absolute) creates a word-initial triconsonantal cluster (**n=qtal). Although such clusters were permissible in pre-Proto-Semitic (and in contexts in PS where one of the consonants was an inflectional ending, such as *bnt “daughter”\(^{67}\)), they were not generally permissible in Proto-Semitic. In East and Northwest Semitic, this form inserted an anaptyctic vowel *a “between the monoconsonantal derivational prefix and consonant cluster-initial base,”\(^{68}\) yielding *na=qtal:

(2) *ø > a / #n__=CC {where n is the derivational morpheme on the verbal base *-qtal}\(^{69}\)

This innovation is paralleled in the causative Š-stem (cf. Heb. hipʿil) suffix-conjugation (*Š-qtal > *ša=qtal [ > *ha=qtal in many daughter languages]\(^{70}\)). Thus, the nipʿal suffix-conjugation in Hebrew has acquired the form niqtal < *niqtal < PNWS *naqtal < PS *n-qtal.

A different situation gave rise to the N-stem prefix and infinitive forms. In prefixed forms, the verbal base naturally becomes medial, postposed as it is after the inflectional pronominal prefixes. Cross-Semitic comparison demonstrates that the verbal base of these forms was not *-qtal, as was that of the suffix-conjugation,\(^{71}\) but rather *-qatil.\(^{72}\) The affixation of the

\(^{64}\) Diem, “Entwicklung.” 35–36 §§7–8; see similarly Bergsträsser, Einführung, 12–13; and Blau, Phonology and Morphology, 229 §4.3.5.3.2n, and 233 §4.3.5.6.3. Blau relies on the principle of archaic heterogeneity to sustain this argument.


\(^{66}\) Alongside the development of the derivational prefix/infix, it is possible and necessary to trace the verbal base onto which the derivational prefix/affix was appended.

\(^{67}\) Garr, “Niphal,” 147–48 n. 27.

\(^{68}\) Ibid., 148.

\(^{69}\) Ibid.

\(^{70}\) Ibid., 148–49.

\(^{71}\) However, cf. the Arabic VII form infaʿala.

\(^{72}\) The verbal base in the Heb. nipʿal/ prefix-conjugation and infinitive can be traced to an original form *-qatil (i.e., Heb. yiqqātēl < *yi=n-qatil; see also Akk. preterite tapparīš < *ta=n-qatil; Arab. prefix-conjugation tanqatil < *ta=n-qatil; and Ethiopic tānqalqēl < *ta=n-qalqil); see Garr,
pronominal prefix with its vowel therefore not only avoids a triconsonantal cluster (**n=qatal), but it also alleviates any problematic word-initial biconsonantal clusters (**yi=n-qatal). In the infinitive forms, which lack inflectional pronoun prefixes, the biconsonantal cluster remained unalleviated in word-initial position (**n=qatil) in Proto-Semitic. Although such clusters were tolerated in Proto-Semitic, most of the daughter languages did not permit word-initial biconsonantal clusters and therefore developed a syllable to alleviate this cluster. The syllable was formed from two phonological segments, namely, an initial prothetic glottal stop (usually realized as ʾālep) and an accompanying prefix vowel. For example, this prefix syllable is preserved in both Arabic and Ethiopic, albeit in slightly different forms, and has evolved into the hi- prefix in Hebrew and Aramaic, as will be demonstrated below.

Despite its overall similarities with the other Central Semitic languages, Arabic presents a special case of morphosyntactically-constrained phonological developments. Various dialect-groups of Arabic have handled word-initial epenthesis differently. Non-classical Arabic (NCArab.73) represented the presence of the developed glottal stop by using an alif in its orthographic system (e.g., {ʾSM} /ʾism/ “name”). Classical Arabic (CArab.), however, does not pronounce the glottal stop when it adds the prothetic vowel, so the orthography inherited from NCArab. is pointed accordingly to reflect the presence of a word-initial vowel with no glottal stop (i.e., no hamza).74 This omission of the glottal stop sign on words exhibiting the non-classical orthography with alif is indicative of CArab.’s lenition or quiescence of the glottal stop. For example, we may point to the NCArab. consonantal structure {ʾSM} (indicating a ubiquitous pronunciation /ʾismu/ [lacking nunation as well]), which is adjusted in CArab. to reflect a pronunciation /smun/, except in certain morphosyntactic environments, wherein the vowel is reinserted (or more accurately, preserved)75. The morphosyntactic environments conditioning the insertion (or rather, preservation) of this vowel may be found when
“CC-initial words...are in either sentence-initial position or pause; otherwise the vowel does not appear.”

In many cases, of course, the consonant cluster was already alleviated naturally, since it followed a word ending in a vowel (e.g., qāla stamiʿ “He said, ‘Listen!’”). These are the cases in which the vowel does not appear. In cases where the word-initial consonant-cluster is sentence-initial or follows pause, however, a vowel is inserted. This epenthetic vowel is written on the prothetic ʿalif of the *CC-initial word (thus, orthographic {ʾSM} is augmented to reflect the pronunciation ʾismun “name”; see also ʾistamiʿ “Listen!”). This epenthetic insertion was simultaneously represented in the orthography through the addition of the glottal stop marker hamza.

Further conditioning environments eliciting the insertion of a vowel include cases in which a word ending in a consonant precedes the *CC-initial word. Here, sandhi operates in order to alleviate the tri-consonantal cluster. In these cases, the inserted vowel is appended graphically to the preceding word, and the


77 All Arabic examples of verbal forms except qālati stamiʿ (below, attested by Safwat Marzouk) were drawn from P.F. Abboud and E.N. McCarus, Elementary Modern Standard Arabic, Part 1 (Cambridge: Cambridge University Press, 1983), 58.

78 R. Lass describes sandhi as “syntactically conditioned allomorphy, with rules operating on the termini of the peripheral morphemes of words of any internal structure” (Phonology: An Introduction to Basic Concepts [Cambridge Textbooks in Linguistics; Cambridge: Cambridge University Press, 1984], 70), that is, variation in morphology conditioned by the syntactic environment and manifested at word boundaries; cf. the distinction made by H.H. Hock between external sandhi (occurring at word boundaries) and internal sandhi (occurring word-internally with the addition or deletion of morphemes; Principles of Historical Linguistics [2nd ed.; Berlin: de Gruyter, 1991], 246). Insofar as the Semitic languages rely heavily on inseparable prepositions and affixed personal morphemes to augment their nominal and verbal systems, it is difficult to make a hard distinction between Hock’s “internal” and “external” sandhi. For studies of sandhi in Northwest Semitic languages, see D.T. Tsumura, “Vowel sandhi in Ugaritic,” in Near Eastern Studies: Dedicated to H. I. H. Prince Takahito Mikasa on the Occasion of His Seventy-Fifth Birthday (Bulletin of the Middle Eastern Culture Center in Japan, 5; Wiesbaden: Harrassowitz, 1991), 427–35; idem, “Vowel sandhi in Biblical Hebrew,” ZAW 109 (1997), 575–88, and sources cited there. For sandhi more generally, see W.S. Allen, Sandhi. The Theoretical, Phonetic, and Historical Bases of Word-function in Sanskrit (Janua Linguarum, 17; The Hague: Mouton, 1962); and H. Anderson (ed.), Sandhi Phenomena in the Languages of Europe (Trends in Linguistics Studies and Monographs, 33; Berlin: de Gruyter, 1986).
elision (or, synchronically, non-pronunciation) of the prothetic alif inherited from NCArab. is marked orthographically through the addition of the diacritic mark waṣla. Thus, the purely graphic prothetic alif is named alif waṣli or alif al-waṣl. For example, on the consonantal structure {MN ʾBNH}, rendering non-classical Arabic /min ʾibnihi/ “from his son,” classical Arabic inserts vowels on the end of the preposition to render the pronunciation mini bnihi79; see also {QLT ʾSTMʿ}, pronounced qālati stamiʿ < *qālat stamiʿ “She said, ‘Listen!’”80

Stated plainly then, the insertion in CArab. of the waṣla vowel on words originally beginning with two consonants is alleviated through either (a) word-initial epenthesis when in sentence-initial position; (b) epenthetic insertion of a vowel on the previous word when following a word ending in a consonant; or (c) through simple juxtaposition when following a word ending naturally in a vowel. But it is evident that CArab. demonstrates only one of many possible systems whereby word-initial consonant clusters could be alleviated. The graphic insertion of prothetic alif in NCArab. (and preserved graphically in the traditional spellings of CArab.) demonstrates that this dialect (or dialect-bundle) partook in the same epenthetic insertion of *V- before a word-initial consonant cluster. Particularly important for the present study is the fact that this insertion occurred before consonant clusters comprised of -tR1/-tR1t-, as occurred in the other Central Semitic languages. If this epenthetic insertion may be generalized to Proto-Arabic, then CArab. has lost this insertion in all environments except sentence-initial position and pause. Thus, the rule for NCArab. (=Proto-Arabic?), applicable to the Northwest Semitic languages as well, may be schematized as:

$$\text{(3) } *_o > i / \#____C=C(=)\text{V}$$

But it is also possible that this rule should be limited in its earliest application to situations in which the word occurred in sentence-initial or post-pausal position. In this case, CArab. would preserve the original system, in which the operation of sandhi could force the insertion of a vowel between a consonant-final word and a *CC-initial word, but in which the operation of sandhi

79 Fischer, Grammar, 12 §20; although contrast the alternate explanation of this form in Hämeen-Antilla, “Prothetic Vowel,” 5–6.


81 Garr, “Niphal,” 153; rule (5). This development covers both the tG, in which the conditioning environment #R1V (i.e., #____=R1V) obtains, and the Gt, in which the infixed-t slightly alters the system of morphemic boundaries, yielding the environment #R1tV (i.e., #____=R1tV). Strictly speaking, the rule operates in Arabic without the first morphemic boundary as well (i.e., #____CCV); but cf. the following note.
in the form of rule (3) could also be blocked if a vowel preceded the word-initial *CC-cluster.

Similarly to CArab., the epenthetic syllable resulting from rule (3) is preserved in Ugaritic (e.g., *ʾištmāʾ/ʾištamaʿ/ *štamaʿ] “listen!” [m.sg.] [KTU 1.16 VI 42]). However, when connected by sandhi to a preceding conjunction, the imperative in Ugaritic is realized without the epenthetic prefix as the following imperative form makes clear: ʾištmāʾ wtqāq/ʾištamaʿ wa[t]taqaq/ “give heed and attune your ear”; KTU 1.16.VI.29–30, 42. As Garr notes, in Ugaritic specifically “[t]he prothetic syllable…is sensitive to the derivational boundary separating the initial two consonants,” in that its insertion occurs only when this boundary is present. Thus, the evidence from Ugaritic indicates that the phenomenon obtained in Northwest Semitic as well, at least in limited environments or under sporadically operating constraints; it is only the conditioning environment that comprises the primary distinction between Arabic and Northwest Semitic. In fact, CArab. seems to be the outlier among the Central Semitic languages in its non-operation of sandhi or the loss of epenthetic insertion preceding the consonant cluster occasioned by the addition of derivational *t.

The Ethiopic N-stem suffix-conjugation (ʾanqalqala < *n=qalqala) and imperative (ʾanqalqal < *n=qalqil) exhibited nearly identical insertions to those made in Central Semitic, with the difference that the inserted vowel is an *a-vowel instead of an *i-vowel:

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82 The same epenthetic insertion is seen already in the linguistic (Canaanite?) antecedents of the biblical GN’s ʾeštāʾōl, ʾeštĕmōaʿ, and so on (all apparently derived from an earlier *ʾıtqatVl).


84 Garr, “Niphal,” 153. We might generalize this principle to Northwest Semitic as a whole, citing the alleviation of the biconsonantal, mono-morphemic Proto-Semitic cluster *bn “son” in Hebrew and Aramaic through the insertion of a medial anaptyctic vowel (PS *bn > Heb. ben, Aram. bar; D. Testen, “The Significance of Aramaic r < *n,” JNES 44 [1985], 143–46). In contrast, Arabic usually alleviates an initial consonant cluster through sandhi or with the insertion of dir al-wasl, regardless of whether the cluster spans a morphemic boundary (PS *bn > Arab. [ʔ]bn).
However, South Semitic appears to have alleviated the initial consonant cluster of the tG-stem differently from Central Semitic. Here, too, we find the insertion of an epenthetic vowel *a in Ethiopic, but that insertion follows—rather than precedes—the derivational prefix *t-. See, for example, the Ethiopic suffix-conjugation (taqat[alalpha]), imperative (taqatal), and infinitive (taqatelo[t]), all of which can be described with rule (5):

\[(5) \ *a > a / \#t=\]C

In this regard, the development of the tG-stem in Ethiopic as described by rule (5) is somewhat convergent with the rule in Akkadian and Northwest Semitic whereby the word-initial consonant cluster in the N-stem infinitive, etc., was similarly alleviated by the insertion of *a (see rule [2] above). South Semitic thus demonstrates a slightly different development from that of Central Semitic’s tG-stem and rules (4) and (5) may therefore be excluded from the remainder of the discussion.

In contrast, the Hebrew hitpa’el suffix-conjugation (hitqatt\'el < *t=qattil) and the unprefixed Arabic VIII form suffix-conjugation (iqtatala < *q=t=atal), not to mention imperative and infinitive forms as well, all exhibit the same prefixation of the initial epenthetic vowel described above as rule (3). As noted above, this

\[85\] J. Huehnergard adduces the original vocalization of the D-stem verbal base as *qattal, although he suggests the tD-stem base to have been *qattal, “as elsewhere in Semitic” (“Historical Phonology and the Hebrew Piel,” in W. Bodine (ed.), Linguistics and Biblical Hebrew [Winona Lake, Ind.: Eisenbrauns, 1992], 209–29 [224, 228–29]; cf. Aram. hitpa’al and Akk. uptarras). However, one wonders whether the proto-Canaanite tD-stem might not have acquired the *qattil form already as a result of analogy with the still productive tG-stem: qatal (G): t=qatal (tG): qattil (D): t=qattil (tD).

\[86\] Arabic behaves normally here, since it attaches the epenthetic vowel to the same verbal base in the suffix-conjugation (iqtatala < *q=t=atal) and prefix-conjugation (yaqtatili < *yi=q=t=atal=il). As Garr has noted (“Niphal,” 144–45), Hebrew displays two different bases for its formation of the nip’al suffix-conjugation (niqtal < *n=qtal) and prefix-conjugation, etc. (yiqqat\'el < *yi=n=qattil). However, in 1924 D. Yellin put forth an argument that we should recognize an allomorph of the typical nip’al suffix-conjugation which has been misanalyzed as a tG-stem wherein the derivational *n-prefix has assimilated to R, (“Hippa’el-Nip’al,” 85–106). A similar argument had been advanced earlier by I. Eitan, “Light on the History of the Hebrew Verb,” JQR 12 (1921–1922), 25–32; see also W.F. Albright, “The Hebrew nip’a\'el in the Light of Comparative Philology,” JQR 13 (1923), 503–5; cf. H. Distenfeld, “Was There a Form הָנִפַּﬠֵ in Early Hebrew?” JQR 13 (1923), 337–42. But a more reasonable derivation of, for example, the anomalous suffix-conjugation verb הָנִבַּﬠֵ (Ezek 57:10) is from a hitpa’el stem (e.g., Bauer and Leander, Historische Grammatik, 198 §15g; and recently J.S. Baden, “Hithpael and Niphal in Biblical Hebrew: Semantic and Morphological Overlap,” VT 60 [2010], 33–44). This explanation posits the development *hitnabbiʾtī >
insertion is unnecessary in prefixed forms such as the Hebrew hitpā'el prefix-conjugation (yitqattēl < *yi-t=qattîl), in which the inflectional pronominal prefix naturally alleviates the word-initial consonant cluster. However, Hebrew and some forms of Aramaic have clearly undergone an additional phonological development, namely the analogical development of *ʾi > h. Garr plausibly suggests that in those languages exhibiting the lenition *š > h in the causative stem,87 “[t]he overt, consonantal marker of the derived, causative stem—h—is borrowed by the t-stems.”88 Although not a sound-rule, per se, since its operation occurs in an ad hoc manner through analogical extension, this development may be schematized as:

(6) *ʾi → hi / #_C=C(ɛ)V

hinnabēʾ(ʾ)ti, in which the derivational *t assimilated unpredictably to R₁ (thus, *t > n). These phonemes’ common feature as dental-alveolars may help to explain cases of unexpected assimilation; for further argumentation, see J.M. Hutton, “Total or Partial Assimilation of Derivational-*t (ת) in the Biblical Hebrew Hitpā’el?” JNML 37.2 (2011), 27–48. It should not go unnoticed, as Rendsburg has pointed out to us (personal communication), that three nipʿal forms commencing in hinn- can be found in the immediately preceding verses (Ezek 37:7, 9 [2x]). Yellin’s theory would posit that the mispointed hinnabēʾ(ʾ)ti (notice omission of gemination in R₂) had developed instead from an original *hinnabiʾti < PNWS *innabiʾti < PS *n=nabiʾ=ti. In either case, the preservation of this and similar forms in Biblical Hebrew has two benefits for the present paper. First, it allows us to recognize that the verbal base of this allomorph could originally have been *-qatil (or *-qatal; cf. the Aramaic ippeʿal, as adduced by Yellin, “Hippaʿel-Nifʿal,” 97–98; see also below, section III). Second, it provides the identical pattern for the Hebrew N-stem verbs (or perhaps more appropriately nG-stem?) to that of the tG-stem verbs presented below.


88 Garr, “Niphal,” 154; see earlier, e.g., Moscati, Introduction, 128.

89 Garr, “Niphal,” 154, rule (6). We use here an arrow (→) to signify the analogical development rather than the sign of the sound change used by Garr (>). The development is, strictly speaking, not a sound change, because it does not occur in all cases of word-initial *iC=C(ɛ)V, only those cases where word-initial *i has developed by the prothetic rule (3), above. Technically, Garr’s formulation of the rule as *i > hi / #_C=C(ɛ)V would include cases of the tG/Gt-stem prefix-conjugation in the 1.c.sg. as
By this analogical development, then, the Hebrew *hip'il* has lent its initial segment to the *hitpa'el* and, most likely, to any remnants of the archaic *tG*-stem (see, e.g., the Hebrew verb *hitpāqēdû*, discussed below in section II.c). It is the sporadic operation of this analogical shift that is to be credited with the variety of forms of the Aramaic *tG*-, *tD*-, and related stems. Biblical Aramaic exhibits both *hit-* and *ʾit-* forms, as demonstrated by the pairings:

*hitpa'el* רֵיתָבָה לְהִתְקְטָלָה “to be killed” (Dan 2:9)

vs. *ʾitpeʿel* אֶתְﬠֲקַרוּ “they were plucked up” (Dan 7:8)

and

*hitpa'el* וֹבֶיתָבָה “they offered freely” (Ezra 7:15)

vs. *ʾitpaʿal* אִתְיָﬠַטוּ “they have consulted” (Dan 6:8)

The *hi*-prefixed forms uninflected by pronominal prefixes are not infrequent in Biblical Aramaic, comprising twenty occurrences of these diagnostic forms: לְהִתְקְטָלָה “to be killed” (Dan 2:9); בְּהִתְבְּהָלָה “with hurrying” (Dan 2:25; 3:24; 6:20); תְוָהַּגֵּכָה “it was cut out” (Dan 2:34, but cf. תְוָהַּגֵּכֶה in Dan 2:45); הָשִּׁתָּכַח “it was found” (Dan 2:35; 5:11, 12, 14, 27; 6:5, 23, 24; Ezra 6:2); הִתְגְּזֶרֶת “he was full” (Dan 3:19); הִתְנַדַּבְּרִי “it was singed” (Dan 3:27); הִתְזַחֲטָה “they trusted (i.e., were washed clean)” (Dan 4:16); הִתְנַבִּי “he prophesied” (Ezra 5:1); and הִתְנַדַּבוּ “they offered freely” (Ezra 7:15) or הִתְנַדָּבוּת “what is offered freely” (Ezra 7:16). Diagnostic forms with the *ʾi*-prefix are limited to six occurrences: אִתְגְּזֶרֶת “it was cut out” (Dan 2:35); אֶשְׁתַּנּוּ (Q אֶשְׁתַּנִּי) “it was changed” (Dan 3:19); אֶשְׁתּוֹמַם “he was astonished” (Dan 4:16); אִתְיָﬠַטוּ “they have consulted” (Dan 6:8); אֶתְﬠֲקַרָה (Q אֶתְﬠֲקַרוּ) “they were plucked up” (Dan 7:8); and אֶתְכְּרִי (Q אֶתְכְּרֶכֶּה) “it was grieved” (Dan 7:15). That this variation is to be assigned to diachronic development in a single branch of Aramaic is doubtful. Far more likely, we believe, is that it exhibits signs of Aramaic’s dialectal variation.90

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No matter the eventual realization of the derivational morpheme’s initial consonant, the preceding argument has shown that the origin of both Hebrew derivational affixes */hit-/ (in suffix-forms) and */t-/ (in prefix-forms) of the derived t-stems, as well as the Aramaic prefix */ʾit-/ is most compellingly traced to a single original (and monoconsonantal) prefix */t-. This evidence best explains the distribution and variant forms of the prefixed and infixed derivational */t throughout the Semitic languages, and may be traced as far back as an indefinite reflexive pronoun in Afro-Asiatic.

**II.C. THE MORPHOLOGY OF THE HEBREW tG-STEM**

Hebrew displays a few indicators that at one time, it too had a productive tG-stem. In Canaanite place names we encounter several frozen Gt forms with the morphological configuration */ʾeptāʿVl/ or */ʾeptēʿVl/ (e.g., ʾeštāʾōl: Josh 15:33; Judg 13:25; ʾeštēmōaʿ: Josh 21:14; ʾeltēqōn: Josh 15:59; ʾeltēqē:Josh 19:44; 21:23), all most likely to be derived from an original */ʾitpaʿāl,
which was subjected to the Canaanite shift and metathesis of the derivational *t and the first root radical. As opposed to the form preserved by these Canaanite toponyms, the tG-stem of the Hebrew language did not undergo metathesis of the derivational tāw- and the following radical. Moreover, it would appear that the form remained productive only in a few roots, and only for a limited time. As several commentators have argued, we should not discount the probability that most originally tG-stem verbs in Hebrew have been reanalyzed and pointed as tD forms (i.e., hitpaʿel) subsequent to the loss of the tG-stem’s productivity.

There, including H. Bauer, “Kanaanäische Miszellen,” ZDMG 71 (1917), 410–13 (410); Bauer and Leander, Historische Grammatik, 281 §38f. See also Harris, Development, 62.

95 Testen, “Arabic Evidence;” 5; see also E.Y. Kutscher, A History of the Hebrew Language (ed. Raphael Kutscher; Jerusalem: Magnes, 1984), 37 §50, 57–58 §85; and Elitzur, Ancient Place Names, 150. Boyle includes these toponyms in his discussion of the infixed *t (i.e., Gt-stem) forms in Hebrew (“Infix-T Forms,” 101–3; see further the bibliography there), although he admits that they may more plausibly be analyzed as Canaanite, Arabic, or even Akkadian (although this analysis assumes the later Standard Babylonian sound change *št > št and is therefore implausible).

Morphological traces of a productive tG-stem may exist in the roots √RGL (the verb at hand), √PQD,97 √SYN,98 and possibly has subsequently defended Rendsburg’s position (“Literary and Linguistic Studies in Sefer Bil‘am [Numbers 22–24],” [Ph.D. Diss., Cornell University, 2009], 103–5). One could also cite the contradiction posed to Rendsburg’s position by Baden, who, similarly to Talshir, challenges the passive nature of the verb in Prov 31:30 (“Hithpael and Niphal,” 34–35). Also worthy of further consideration are the supposed hitpaʿel verbal forms with theme vowel a adduced by A.F. Rainey (“Observations on Ugaritic Grammar,” UF 3 [1971], 151–72 [167]: et’appaq “I forced myself” [1 Sam 13:2; see also Gen 43:31; Isa 42:14; 63:15; 64:11; Esth 5:10]; tithakkken “you shall deal wisely” [Eccl 7:16; also Exod 1:10]; and yitgāʾal “he [would not] defile himself” [Dan 1:8]). Although Rainey seems to take these as passive tD-stem forms, they may simply be reanalyzed tG forms. A similar reanalysis to the one assumed here occurred with the Gp (qal-passive) stem; see R.J. Williams, “The Passive Qal Theme in Hebrew,” in J.W. Wevers and D.B. Redford (eds.), Essays on the Ancient Semitic World (Toronto Semitic Texts and Studies, 1; Toronto: Toronto University Press, 1970), 43–50.

97 Several commentators adduce hitpāqēd as “the sole surviving Hebrew Gt-stem verb”; Testen, “Arabic Evidence,” 5; see also T. Nöeldeke, “Kleine Beiträge zur hebräischen Grammatik: 2) Das Reflexiv des Qal,” in Archiv für wissenschaftliche Erforschung des alten Testaments 1 (1867–1869), 458–60; Brockelmann, GV, 1:529–30 §257.H.a.; Bauer and Leander, Historische Grammatik, 281 §38f; Bergsträsser, Grammatik, 2:100 §18b; Yalon, “Hithpāʿelformen,” 217; Blau, “Über die t-Form,” 386; Boyle, “Infix-T Forms,” 104; W. Schottroff, “TPD pqd heimsuchen,” THAT 2:466–86 (468); Garr, Dialect Geography, 120; IHBS, 360 §21.2.3b; J.H. Walton, “The Place of the hutqaṭṭēl within the D-Stem Group and Its Implications in Deuteronomy 24:4,” HS 32 (1991), 7–17 (9); M.A. Arnold, “Categorization of the Hitpaʿēl of Classical Hebrew” (Ph.D. Diss., Harvard University, 2005), 143 G1; S. Creason, “PQD Revisited,” in C.L. Miller (ed.), Studies in Semitic and Afroasiatic Linguistics Presented to Gene B. Gragg (Studies in Ancient Oriental Civilization, 60; Chicago: Oriental Institute of Chicago University, 2007), 40. Although one might argue that the prefix-form (way-)-yitpāqēdû (Judg 20:15) and the suffix-form hitpāqēdû (Judg 20:15, 17) are simply examples of a tD-stem in which the ad loc rule of degemination of qōp before vocalic šawāʾ has operated, followed by the lengthening of the *a vowel to a long ā vowel under pause (see, e.g., GKC, 151 §54.1, which describes the gemination of the middle radical as “abnormally omitted”; Bean, “Phenomenological Study,” 17; and Walton, “The Hutqaṭṭēl,” 10), only the suffixed inflection of this verb appears in contexts that might be pausal, and even those are marginal (Judg 20:15 with zaqeph qaton; Judg 20:17 with rebūt). Moreover, the prefix-form (way-)-yitpāqēdû (Judg 21:9) cannot possibly display degemination of the q, because a full vowel follows; the form must therefore be regarded as a legitimate tG-stem form.

Finally, one must recognize the verb’s passive counterpart, hotpāqēdû (Num 1:47; 2:33; 26:62; 1 Kgs 20:27), which demonstrates a similar confusion between those forms without gemination of the second radical, and those with gemination (e.g., hukkabbēs [ʔ]: Lev 13:55, 56; huttammāṭā: Deut 24:4; huddašnā: Isa 34:6); see also W. Gesenius, Lehrgebäude der

98 Perhaps the one clearly recognized example of the tG-form in Hebrew, the participial form maštîn (1 Sam 25:22, 34; 1 Kgs 14:10; 16:11; 21:21; 9:8) is to be derived from a Hebrew root √SYN (Brockelmann, G1/G, 1:530 §257.H.a.; Bauer and Leander, Historische Grammatik, 405 §56u; HALOT 1479, s.v. ʿiy [“qal with reflexive -t”]; Kreberrnik, “Gt- and tD-Stämme,” 238 §3.1.7; Streck, Die akkadischen Verbalstämme, 72–73 no. 189; IBHS, 425 n. 1; cf. BDB, 1010a, s.v. ʿiy, which lists hipʿil occurrences of the purported “secondary root” ʿnü under the root ʿiy, a nominal form of which, ʿu, means “urine”). This root is cognate to the Ugaritic verb √TYN (UT, 502 §19:2669; J. Aistleitner, Wörterbuch der Ugaritischen Sprache [Berichte über die Verhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig, 106/3; Berlin: Akademie-Verlag, 1963], 339 §2895; L.R. Fisher, Ras Shamra Parallels. The Texts from Ugarit and the Hebrew Bible (AnOr, 49; Rome: Pontifical Biblical Institute, 1972–1981), 1:187 no. 201; DUL, 2:918, s.v. /t-nt/; I.K.H. Halayqa, A Comparative Lexicon of Ugaritic and Canaanite [AOAT, 340; Münster: Ugarit-Verlag, 2008], 355), to Syriac ṭūn, ṭūn, ṭûnēʾ, ṭūnēʾ, ṭûnēʾ, etc. (R. Payne Smith, Thesaurus, 4410; J. Payne Smith, Dictionary, 608a, 611; Brockelmann, G1/G, 1:530 §257.H.a.; Sokoloff, Syriac Lexicon, 1631b), and to Akkadian šānum and šānu (AHw, 1225b–1226a; CAD, 17/1 §63/1: 409b), as well as a number of other languages listed in HALOT. In Ugaritic and Akkadian, the root is found in the Gt-stem with the lexicalized meaning “to urinate.” The metathesis of the first root letter and the derivational prefixed *t is analogous to that of hipʿel (tD) forms beginning with sibilants, including šṭn (GKC, 70 §19n, 149 §54b; Bauer and Leander, Historische Grammatik, 217 §23a; Joüon, 1:158 §53c), and the vowel patterning may be attributed to misanalysis of the verb as a hipʿel participle in the pre-Masoretic tradition (cf. Meyer, Grammatik, 2:151 §80.3k).
Yet even operating with the recognition that Hebrew at one time contained a tG-stem that was subsequently lost, the variety of preserved forms causes some confusion. Most problematically, the suffixed inflection occurs in at least two different forms:

(i) suff.-conj. *tiqtvl (possibly *tiqtil, in which Philippi’s Law operates in the inflections with endings beginning with consonants, e.g., 1.c.sg.: *tirgaltî: Hos 11:3; and *tepśolikem: Jer 25:34.

(ii) suff.-conj. *hitqatvl- (theme vowel indeterminate):

hitpāqĕdū: Judg 20:15, 17.

Any serious attempt to understand the tG-stem in Hebrew must (a) provide an adequate explanation of this divergence of morphological forms in which the stem appears; (b) come to grips with the fact that the *tirgaltî form is anomalous, even within the sparsely attested tG in Hebrew; and (c) explain the relationship of these two morphological biforms to the apparently related toponyms—which provide yet a third enigmatic morphology—and the prefix-conjugation inflections:


From these four preserved forms of the Hebrew tG, it is clear that our solution must account for the following:

(1) the three-fold variation of the prefix displaying an epenthetic vowel alternatively before (i.e., *hit-, *ʾit-) and after (*ti-) the derivational *t;

(2) the presence (in non-Hebrew (? Canaanite) or absence (in Hebrew) of metathesis between the affixed derivational tāw and the first radical (*ʾeltēqēn) vs. *ʾeltēqōn)

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99 Cf. GKC, 151 §54. Blau has argued that √HRH, along with a few other roots, actually manifests a tC-stem form (“Über die t-Form,” 387–88; but cf. the refutation of this position in Tropper, “T-Verbalstämme,” 419–21, esp. 421).

100 Lambdin, “Philippi’s Law Reconsidered,” 135–45.


102 Compare also *ʾeštōlĕlû “they were despoiled” (Ps 76:6). Although this word’s vowel pointing diverges from the tG/Gt-stem forms adduced here, and may be compared more favorably to the tL-stem (Arabic VI-form, Diem’s t3 [“Entwicklung”]), the prefix *e- < *ti- displays a similar stage of the development.

103 W. Borée argued that this category of toponym should be traced to the common Hebrew tD (hitpaʿēt), and displayed the normal metathesis of sibilants with the derivational tāw (e.g., *ʾitšammV > *ʾeštēmōaʿ). He argued that the lāmed in *ʾeltēqē and *ʾeltēqōn and Mesha Inscription ʾlḥm acted like a sibilant in some dialects (Die alten Ortsnamen Palästinas [Leipzig:
hitpāqēdû); and

(3) the form of the verbal base to which the affixed tāw was attached (suff.-conj. *-qtVl or *-qatVl.104; inf. *-qatál; pref.-conj. *-qatil).105

Because criterion (2) involves two different language groups (non-Hebrew Canaanite with metathesis of the tG-stem derivational prefix vs. Hebrew), it can remain undiscussed in the following presentation, which proceeds from a Hebrew-language-internal standpoint. (Criterion [2] is thus assumed to be inoperative in the following discussion). We handle criteria (1) and (3) here in reverse order.

**Verbal Base of the Hebrew tG-Stem**

Before the original form of the derivational prefix may isolated and the conditions of its development described, we must reckon with the verbal base of the tG/Gt-stem. The verbal base of the tG-stem suffix-conjugation and prefix-conjugation in Hebrew is difficult to isolate with any certainty, since it requires first of all the supposition that the tG was, in fact, productive and secondly the assumption that it can be traced through cross-Semitic comparison. Unfortunately, such comparison proves to be inconclusive with respect to the vowel pattern of the tG-stem verbal base(s). In Arabic, the base of the Gr- (VIII)-stem suffix-conjugation was *-qatal (e.g., [i]qatal; cf. Akk. perf. iptatras, pret. iptaras; Eth. impf. yqatt[al], suff.-conj. taqatal[al], imptv. taqatal). However, the other forms are formed on a *-qatil base (Arab. pref.-conj. yiqtatil, imptv. [i]qattal[il], part. muqtatil; cf. Eth. inf. taqatalot[?]) or a *-qitāl base (verb. noun [i]qtitālun).106 Aramaic evidence would support a *-qatil base in the suffix-conjugation (BA /h/|^qatar^ < */hitqatil/ [e.g., hitraišû,107 Dan 3:28], cf. Syr. ^etqatil / ^etqatil), prefix-
conjugation (BA yitqēl [e.g., yitʿābed, Dan 3:29], cf. Syr. nēqatēl / nēqatīl), and participle (BA mitqēl [e.g., mityēbē, Ezra 4:20], cf. Syr. mēqatēl / mēqatīl). The verbal base of the infinitive, however, was most likely *-qatēl (BA hitqēlā [e.g., la-hitqēlā, Dan 2:13]; cf. the Canaanite toponyms mentioned above with form eqtēl).

The evidence from Ugaritic is sparse, thanks to its general orthographic lack of vowels, combined with complications occasioned by the possibility of syncope of the theme vowel. Thus, while there is not much explicit evidence for the verbal base of the tG-stem suffix-conjugation and prefix-conjugation forms in Hebrew, the language’s closest relatives demonstrate verbal bases in the *-qatal or *-qātīl categories, perhaps with passive and active semantic values, respectively.

Hebrew-internal evidence is ambiguous as well. Because it provides evidence of a *t-prefixed verbal stem in which the middle radical lacked gemination, the verbal root √PQD may be the most secure root on which to base our judgment. Unfortunately, this root does not appear frequently enough to provide incontrovertible evidence concerning the vowels in the stem’s paradigmatic verbal base. The thematic vowel has been reduced in each exemplar because of the addition of 3.m/c.pl. suffixes (cf. the prefix-form [way-lītptēdû [Judg 20:15] and the suffix-form hitptēdû [Judg 20:15, 17]), allowing us to posit at best an original *-qatvl base. Neither does the verbal form tirgaltī allow us to make a definitive judgment concerning the verbal base of the tG-stem suffix-conjugation, since it too can be derived either from *qtvīl or *qtvīl (see below). However, comparing the two verbal forms hitptēdū and tirgaltī side-by-side may prove instructive. The former verb corroborates a vowel *a between R₁ and R₂, as was suggested by cross-Semitic comparison. Evidence from the latter verbal exemplar would limit the thematic vowel to *a or *i (> a by morpheme. However, Bauer and Leander (Historische Grammatik, 108 §34h–i) derive the suffix-conjugation verbal base originally from *-qatal. Since none of the Biblical Aramaic 3.m.sg. suffix-conjugations are formed from a strong root, it is quite difficult to validate this assertion and *-qātīl is not precluded.

108 For the Aramaic forms, see Bauer and Leander, Historische Grammatik, 106–9 §34.


110 Although see below for an alternative explanation of tirgaltī’s development from a *qētal base.
Philippi’s law\footnote{Lambdin, “Philippi’s Law Reconsidered,” 135–45.}, also corroborating the cross-Semitic data summarized above. Finally, we may find some Hebrew-internal confirmation for a $tG$-verbal base *-$qatîl$—albeit derived from a later vocal tradition—in the single case of Babylonian pointing reading אֳתָנָה (Ezek 17:14).\footnote{For the pointed text, see P. Kahle, Masoreten des Ostens. Die ältesten punktierten Handschriften des Alten Testaments und der Targume (Leipzig: Hinrichs, 1913), 195; cited by Bergsträsser, Grammatik, 2:100 §18i.} Thus, despite ambiguity concerning the quality of the thematic vowel between $R_2$ and $R_3$, enough evidence exists to suggest that we are dealing with a *-$qatîl$ base, in which $V = a$ or $i$, and in which the middle radical is singleton (i.e., not geminate). Furthermore, the spirantization of $gîmâl$ in the word under discussion supports the reconstruction of a verbal base with a reduced vowel between $R_1$ and $R_2$.

**The prefix of the Hebrew $tG$-Stem**

The morphology of the prefix is more difficult to reconstruct. Under normal circumstances, the usual Canaanite (and specifically Hebrew) developments would have yielded the expected form *-$unôkî hitragaltî$, which would presumably have obtained in the Masoretic vocalization as *-$ānôkî hitrâgaltî$, were the $tG$-stem a recognizable and productive formation. Even if the consonantal structure were to have been reanalyzed as a $tD$-stem (i.e., *-$hitpâ’el$ verb, as seems to have occurred broadly in Hebrew,\footnote{Bergsträsser, Grammatik, 2:100 §18i; Yalon, “Hithpâʿel formen,” 220; Speiser, “Durative Hithpâʿel,” 118–21; Dombrowski, “Some Remarks,” 220–23; Siebesma, Function, 167, 169; Blau, Phonology and Morphology, 232 §4.3.5.6.1; and n. 96 above.} the phrase should still have appeared with the prefixal $hê$ as *-$hitrâgaltî$, through the operation of rule (3) and analogy (6), given above. So why did this “normal” development not occur in the case at hand? We suggest that the answer to this question lies in the morphosyntactic environment established with the irregular (although not uncommon) prepositioning of the independent pronoun serving as the verb’s subject.

As noted above, Ugaritic and Arabic normally affix this epenthetic prefix to otherwise unprefixed t-stem forms (section II.b). But in fact a third Semitic language—Hebrew—demonstrates the loss of the epenthetic vowel on a t-stem form in a definable morphosyntactic environment in later recorded dialects of the language. In Mishnaic Hebrew the *-$nip’îl$ infinitive lost the consonant *-$h$- of its epenthetic prefix when following an inseparable preposition (e.g., ליבטל /-$lîbbaṭîl$/ < *-$lî- hinbaṭil$\footnote{M.H. Segal, A Grammar of Mishnaic Hebrew (Oxford: Clarendon; repr.; Ancient Language Resources; Eugene, Or.: Wipf & Stock, 1927), 58 §115; M. Pérez Fernández, An Introductory Grammar of Rabbinic Hebrew (trans. John Elwolde; Leiden: Brill, 1999), 146 §20.5. The yôd here marks}). Typically, this apocope of *-$h$- is presumed to occur as a
function of the elision of intervocalic ḥê, known from elsewhere in Hebrew. We may wonder, in light of the discussion of sandhi in Arabic and Ugaritic given above in section II.c, whether it was not an alternative way in some dialects of Hebrew of forming the nipʿal infinitive when it stood in close contact with a preceding vowel-final word (i.e., *n=qatil > ingatîl / -V# __). More accurately stated, we propose that the development of the epenthetic prefix consonant may have been blocked in environments already involving the operation of sandhi. Indeed, this morphological phenomenon is not unknown in Biblical Hebrew, where we find in MT the forms יִבּוּכָּשְׁלוֹ יִבּוּכָּשְׁלוֹ (<< *û-bǝ-hikkăšəlō, literally “and in his being tripped,” Prov 24:17), הבַּרְגֵּר וֹ in the killing of,” Ezek 26:15), and בהָטֵפ וֹ “in the faintness of,” Lam 2:11; cf. Ps 61:3) and others. Clearly, this was not the form that became generalized throughout Biblical Hebrew; nonetheless, its existence in both BH and MH is noteworthy.

An additional piece of evidence comes from Samaritan Hebrew. Grammarians that dialect regularly describe the “collapse” of the epenthetic syllable in the suffix-conjugation of the hitpāʿel stem(s) (see above) when the verbal exemplar follows the conjunction wa-. In the Samaritan recitation tradition, we find forms “such as וֶתָצַדְשְׁלָת וָהָצַדְשָל, וֶתָקָרְתֶּם וָהָקָרְתֶּם, וָהָבֹרָך וֶתָבֹרָך, [and] וָהָבֹרָּךְ וֶתָבֹרָּךְ as well as וֹ.transforms the short *t epenthetic vowel. Aaron Rubin has drawn to our attention (personal communication) the fact that the form of the infinitive in Mishnaic Hebrew may have come about by analogy with the prefix-conjugation (for this argument, see G.A. Rendsburg, Diglossia in Ancient Hebrew [American Oriental Studies, 72; New Haven: American Oriental Society, 1990], 97–102 §§56–59, esp. p. 100); if this argument stands, then the apocope of *h discussed here would no longer be able to serve as evidence for the phonetic development we are proposing.

115 Cf. GKC, §51l; BDB, 742, s.v. עטף III; Bauer and Leander, Historische Grammatik, 228 §25z; Joüon, 1:150 §51b; also G.A. Rendsburg, “Laqṭîl Infinitives: Yiphʾīl or Hiphʾīl?” Or 51 (1982), 231–38; Tsumura, “Vowel sandhi in Biblical Hebrew.”

116 Ben-Hayyim, Grammar, 119 §2.1.5.1.

117 Arnold, “Categorization,” 9; see also Macuch, Grammatik des samaritanischen Hebräisch, 291 §az. Professors Naʿama Pat-El and Gary Rendsburg have independently brought to our attention the argument presented by Y. Kutscher (and recently addressed by U. Mor) explaining the loss of *t in the direct object marker in some forms of Hebrew and Aramaic (Y. Kutscher, “The Language of the Hebrew and Aramaic Letters of Bar Kochbah and Those of His Generation. Part 1: The Hebrew Letters,” LeS 26 [1962], 7-23, here 18-19 [Hebrew]; U. Mor, “The Grammar of the Epigraphic Hebrew Documents from Judaea between the First and the Second Revolts” [Ph.D. Diss., Ben-Gurion University, 2009], 242–43 §5.22 [Hebrew]). The process is not entirely identical to the one presented here, since, from cursory inspection of these sources,
A feature to be noted especially is the length of the vowel ē in
the syllable wēt- in the perfect, for as a rule waw conjunctive
attaches itself directly to the vowel of a word beginning with
an original guttural consonant, such as וָשִּׁרְנּ, וָתִירָן: wēt. Thus, *wēt- and not wēt, is to be expected. This would seem to
indicate that what we have here is a different origin, as if it
were *wahit > *waʻit ... > wēt, i.e., that the vowel a of the waw
conjunctive was not elided here as in the other
combinations...  

Although it is currently impossible to describe fully the
developmental changes that yielded the Samaritan Hebrew
forms, it is clear that one of two processes is at work in this
dialect of Hebrew: either (a) the *h of the hitpa‘el prefix has elided
in environments involving the prefixation of the conjunction, or (b)
the regular development of the t-stems’ epenthetic syllable (*a >
*V- → hV- / #_tq(V)t) was arrested or blocked entirely in
those same environments, so that the epenthetic syllable never fully
developed as it did in the remainder of the paradigm, but instead
allowed the present pronunciation to obtain. Orthographically, the
first option is preferable, since it would explain the presence of hê
in the written forms. Phonologically, however, the second option is
more consistent with the forms of the proposed Biblical Hebrew
tG-stem we have been examining, as the following discussion will
show. If this latter solution is the case, the presence of hê in the
Samaritan Hebrew forms may be explained as a case of
orthographic leveling: on this model, it was never pronounced.

II.D. THE MORPHOLOGY OF tirgaltî IN LIGHT OF THE HEBREW
tG-STEM

Upon reconsideration of the form tirgaltî, it is necessary to note
that, although it is normally handled extra-contextually, it
appears in a linguistic environment replicating the same conditions
governing the elision or non-development of hê in the Mishnaic
and Samaritan Hebrew examples described immediately above. To
be specific, the form tirgaltî appears immediately after the 1.c.sg.
independent pronoun ‘ānōkî. If we accept the general applicability
of the morphosyntactic explanation proposed here, two avenues

neither Kutscher nor Mor relates this syncope to a vowel-final preceding
word. In fact, Mor provides several instances in which the direct object
marker comprises the first morpheme of the cited text. The problem
deserves further study, and would benefit from a more thorough analysis
of the surrounding phonetic environment than can be accomplished in
this paper.

118 Ben-Ḥayyim, Grammar, 119 §2.1.5.2.

119 Ben-Ḥayyim states that the problem “requires further study”
(Grammar, 92–93 §1.5.3.4).

120 See, e.g., GKC, 153 §55h, cf. the similar handling of שְׁפִּיטֵנִי on
p. 258 §91l.
are then open to us to describe the morphology of *tirgaltî more precisely. Each of the following solutions assumes that, when following words or proclitic morphemes ending naturally in vowels, the Hebrew tG-stem suffix-conjugation did not need to insert an epenthetic vowel to alleviate its word-initial consonant-cluster. Instead, it preferred to allow the two words to stand in close juncture, blocking the expected development of the epenthetic syllable. Thus, although development of an epenthetic syllable *hi-broadly obtained, the operation of sandhi between a vowel-final word and an immediately following *CC-initial word optionally prevented this development.

(Solution 1): Positing an original verbal base *-rgal (see above) allows us to reconstruct an analogical process whereby the proto-Masoretic reading tradition substituted a known vowel pattern on an unfamiliar derived stem’s consonantal structure (תרגלתי). The form was clearly comprised of two elements: a derivational prefix ת, recognizable from the hitpaʿel, and the verbal root רכז. This composite derived form stood over against the expected development of the form **hitrgaltî (with its analogically anticipated orthographic realization **תרגלתי, not to mention its violation of rules of syllabification in Hebrew) and instead paralleled that of the nipʿal suffix-conjugation. This analogue allowed the pre-Masoretic vocal tradition to insert the same vowels into the new form’s consonantal structure, yielding *niR1R2aR3 -→ *tirgal-

(Solution 2): It is possible to obtain the same form *tirgaltî by reconstructing the direct affixation of derivational *t to the verbal base *-ragVL. On this model, we postulate the form’s morphological development in the following manner. We begin by positing the (optional?) blocking of the normal development of the epenthetic syllable when immediately following a vowel-final word:

(7) *ʾanōkī t=ragVLtī > *ʾanōkī tragVLtī

This form was presumably stable throughout the era of spoken Biblical Hebrew. But with the reduction of unstressed short vowels in open, unaccented syllables, a morphologically unstable form developed:

(8) *ʾanōkī tragVLtī > **ʾanōkī tragVLtī

No longer recognizing the effect of the sandhi, the pre-Masoretic tradition inserted an anaptyctic vowel of indeterminate quality between the derivational prefix and the verbal base, which quickly reduced to vocalic šawāʾ and then became ḥireq by the rule of šawāʾ. Concomitantly, the thematic vowel developed into a, either by virtue of its origin as *a (hence, *-rgaltî > -ra[galtt]) or by the operation of Philippi’s law (*i > á / _CCV#, hence, *-rgaltî > -ra[galtt])21, and any spirantization of the *g following a vowel was neutralized through misanalysis of the underlying verbal base:

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21 E.g., Lambdin, “Philippi’s Law Reconsidered,” 135–45.
In either of these reconstructed scenarios—i.e., analogical extension from the *nipʿal* or natural development followed by misanalysis—the morphogenesis of *tirgaltî* may plausibly be traced to its morphosyntactic environment, in which the form followed a vowel-final word and was thus eligible for the operation of sandhi.122

III. PRELIMINARY CONCLUSIONS REGARDING THE HEBREW tG-STEM AND *tirgaltî* IN HOS 11:3

In summary, cross-Semitic comparison provides us with a set of principles guiding our interpretation of the putative *tipʿel* stem, a stem to which Hebrew *תִּרְגַּלְתִּי* (Hos 11:3) is often assigned. In short, there is no *tipʿel* stem. Instead, our investigation here has suggested that the verbal form *tirgaltî* should be analyzed as a tG-stem suffix-conjugation in the 1.c.sg. inflection of a verbal root *vrGL*, phonologically conditioned by an environment in which the preceding word ended in a (long) vowel. This assessment is made all the more plausible by the close conjunction of *תִּרְגַּלְתִּי* signaled by the accent *mehuppak* under the first word. Our tG-stem analysis is more plausible than is the earlier suggestion by Barth that the form developed internally to Hebrew and was derived from t-preformative nouns.123 Because of the possibility of environmental conditioning, the original Hebrew tG-stem may occasionally take the form *tipʿel* under the correct circumstances. Moreover, this study suggests that the Heb. tG-stem is plausibly reconstructed as a semi-productive stem in some varieties of Hebrew; the unrecognized exemplars of this stem were subsequently conflated with—and pointed as—the *hitpaʿel*.124 In particular, this seems to be the case for the bundle of dialects commonly known as “Israelian Hebrew,” in which can be found plausibly reconstructed tG-stem forms of other Hebrew verbal roots.125 If this analysis is correct, the productive or semi-productive use of the tG-stem would potentially serve as an element of distinction between Israeli (Northern) and Judahite (Southern) Hebrew dialects.

With respect to the semantic value of the word *תִּרְגַּלְתִּי*, we hope to have shown that the lexeme’s meaning should be related to the various functions of the tG/Gt-stems in the various Semitic

122 As Hutton has shown elsewhere, a similar solution is possible to account for the verbal form *tapōṣôtîkem* (Jer 25:34; “Morphosyntactic Explanation,” 151–69).


124 See above, n. 96.

languages rather than to any perceived origin in a nominal for which we have no evidence. Although the various semantic functions of the tG-stem are quite difficult to pin down with any certainty, we can say with some degree of assurance that the word תִּרְגַּלְתִּי is unlikely to denote causative verbal action. Through this recognition, we would therefore recommend that the two predominant ways of translating the word causatively (i.e., “I taught to walk” and “I led”) be given up. Only through a more linguistically sophisticated exegesis of the text of Hosea 11:1–4 will this word yield its semantic secrets.

APPENDIX A: BIBLIOGRAPHIC EXCURSUS OF SEMITIC t-STEM FORMS

I. DEIR ʿALLĀ

The early argument over the ambivalent nature of the dialect from Deir ʿAllā as either (a) most similar to Aramaic, and possibly a very conservative form of early Aramaic, much like Samʿālīan Aramaic, or (b) most similar to Canaanite, is increasingly being jettisoned as a meaningful dichotomy in favor of a model that understands the language as an entirely separate dialect of Northwest Semitic. Those holding the first opinion include J. Hoftijzer and G. van der Kooij, P.K. McCarter (early work), A. Wolters, A. Lemaire, and D. Pardee.126 Among those holding the second, we may list the works of J.A. Hackett, and B.A. Levine,127 although Hackett, at least, has backed off this position in light of more recent discoveries calling into question such a rigid dichotomy.128 For the third opinion, see the more recent works of P.K. McCarter and the position endorsed


128 J.A. Hackett, personal communication.
by J. Huehnergard. G.A. Rendsburg has offered his own typological analysis of the inscription, suggesting a close correspondence to Israeli Hebrew.

Regardless of the dialect’s proper categorization, Hoftijzer distinguished four different verbal forms that displayed a prefixed *t: ʾtyḥdw (“they assembled”; I 7 [= line 5 in McCarter, “Balaam Texts”; and Hackett, Balaam Texts]); ytʾṣ (“he will seek advice”; II 9); ytmlk (“he will seek counsel”; II 9); and ʾtntq (“he pulled, tore down”; V). However, of these, several commentators have raised questions concerning the verbs’ stems: Garr, citing Hackett’s dissertation, suggests that ʾtyḥdw and ʾtntq are more plausibly analyzed as tD-stem forms. The evidence Hackett mustered for a tD of ytʾṣ was much more equivocal, given the confusion over the verb’s root, and although she categorized the verb as tG in her grammatical summary, Garr removes the form from consideration as “unexplained.”

2. UGARITIC

For the Gt-stem in Ugaritic generally, see the works of E. Hammerschaimb, F. Gröndahl, E.D. Mallon, S. Segert, M. Krebernik, J. Tropper, D. Sivan, and D. Pardee. Because Ugaritic used a primarily consonantal alphabet, determining the vocalization of the various forms is difficult.

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132 Garr, Dialect Geography, 119–20; Hackett, Balaam Text, 40, 64, 96, 97.
133 Hackett, Balaam Text, 64.
134 Ibid., 96, 97.
135 Garr, Dialect Geography, 120.
yqtl: The prefix form tštil “you will ask(?)” (KTU 2.17:15) would suggest an i-class vowel.\(^{137}\) But yštal “let him ask” or “he asked” (KTU 2.42:23; 2.70:12; 2.71:10) would suggest an a-class vowel.\(^{138}\) M. Dijkstra suggested the “orthographical nature” of the distinction,\(^{139}\) and A.F. Rainey proposed that the a-theme vowel indicates a passive.\(^{140}\) However, Tropper has argued convincingly that the problem can be solved by postulating syncope of the theme vowel in long yaqtulu forms (*tštaʾalu > /tštaʾlu/, written tštil), but retention of the theme vowel in the short yaqtal preterite and jussive forms (/yštaʾal/, written yštal).\(^{141}\) Although Tropper does not dismiss the possibility of verbs with i- and u-class thematic vowels,\(^ {142}\) all known instances of Gt-prefix-conjugations can be accounted for by positing a form *yiqtatal-.

qtl: The vocalization of the Ugaritic Gt-stem suffix form seems to be preserved in the word ištir (KTU 1.18.IV.15; 4.290:3; and possibly 2.32:10; 2.72:42), typically taken to preserve an original i-vowel, hence /ʾištaʾira/.\(^ {143}\) However, by the same logic as in the prefix form, the grapheme i may indicate /Vʾ/, so that ištir actually indicates /ʾištaʾra/ < *ʾištaʾara.\(^ {144}\)

3. ARAMAIC (AND ITS CONGENERS)

For the tG-stem in Aramaic, see especially the works of Garr and, more recently, S.E. Fassberg.\(^ {145}\) For the most part, in Official


\(^{142}\) Tropper, “Vokalisierung,” 373.


\(^{144}\) Tropper, UG, 528 §74.234.1; cf. Pardee, Review of Tropper, UG, 264.

\(^{145}\) Garr, Dialect Geography, 119; and S.E. Fassberg, “t-Stem Verbs without Metathesis in Aramaic and Hebrew Documents from the Judean Desert,” in R. Hasselbach and N. Pat-El (eds.), Language and Nature: Papers
Aramaic, the derivational *t was prefixed to the verbal base, as seen in the Sefire inscriptions, which contain three or four putative examples of the stem.  

We find in these inscriptions the following forms: (a) ytšmʿ “may be heard” (Sf I A 29); and (b) wlytḥzh “so that it will not be seen” (Sf I A 28); although, cf. the suggested emendations wly tḥzh and wly[šgh] by, respectively, A. Dupont-Sommer and J. Starcky, and J.C. Greenfield.  

Dupont-Sommer plausibly reconstructed two more forms: ytšmʾn “let them be heard” (Sf I B [9]) and ttʾbd “may it be done” (Sf I C [7]). Finally, Dupont-Sommer reconstructed a Dt-stem form [yštḥṭ “may it be destroyed” (I A 32), but contrast the subsequent interpretation of J.C. Greenfield, who separates the roots ŠḤṬ and ŠḤT. In Nerab 2.4, we find the form ṭḥz “it was closed” and ltgmrw in KAI 214:30, which C. Sarauw and P.-E. Dion interpreted as indicating the precative particle /IV-/ prefixed to an apocopated 3.m.pl. prefix form, hence, something like /IVytgmrVrū/ < *IV-yitgamVrū (compare Akkadian liprus).

In the Old (or Peripheral?) Aramaic inscription from Tell el-Fakheriyah (KAI 309), we find an example of a Gt form (ygtzr “may it be cut off/cut itself off”; line 23). The editors of the editio princeps classify the form as an etpeʿel stem verb, arguing that ygtzr displays metathesis between the *g and the now-infixed *t, and comparing this form to ltgmrw in the Hadad Inscription of Panammuwa I (KAI 214:30). But S.A. Kaufman argues that...
metathesis is an unnecessary assumption, since Semitic always had a Gt stem. Similarly, in response to J. Tropper, who claims that the Fakhariyeh inscription exemplified the ancestral Northeast Syrian/Mesopotamian Old Aramaic from which Official Aramaic descended, J. Huehnergard cautions that “the dialect of the Fakhariya text cannot itself be the ancestor of Official Aramaic, exhibiting as it does the infixed Gt form rather than the inherited, common Aramaic prefixed tG form, which is also found in Official and later forms of Aramaic.” The discrepancy between the tG and Gt-stems in the Aramaic and proto-Aramaic dialects suggests that caution is in order when dealing with the evidence presented by these linguistic variants.

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155 J. Tropper, Die Inschriften von Zincirli (ALASP, 6; Münster: Ugarit-Verlag, 1993), 311.