

The locative alternation in Biblical (and Modern) Hebrew

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1. Introduction¹

The arguments of locative verbs include a *Locatum* argument and a *Location* argument, where the *Locatum* typically undergoes a change in *Location*. The present article is concerned with locative verbs in Hebrew, mostly Biblical Hebrew, with brief comparison to Modern Hebrew. As in other languages, some Hebrew locative verbs display the *locative alternation*, i.e. allow the *Locatum* and *Location* arguments to alternate in alignment. Ditransitive locative verbs typically assign one of these two arguments the function of direct object and the other – that of indirect object; alternating verbs allow both arguments to fulfill either function.² The present article studies this alignment alternation. First, it uncovers the semantic factors determining which Biblical Hebrew (BH) locative verbs alternate and which do not. Second, it points to the aspects of this alternation which are preserved in Modern Hebrew (MH). Third, it presents and explains a syntactic characteristic of BH locative verbs, also preserved in MH, which to the best of our knowledge, has not been noted before:

The Locative Alternation Preposition Identity

*In Hebrew, both BH and MH, verbs which undergo the locative alternation allow **the same preposition** in the two alternants.*

The two different alignments of the arguments of locative verbs will be called Frame A and Frame B. In Frame A, the *Locatum* is direct object and the *Location* is object of a preposition. This is reversed in Frame B, where the *Location* is the direct object and the *Locatum* is the object of a preposition. This alternation has been widely discussed in the theoretical linguistics literature at least since Partee 1965, Fillmore 1968 and Anderson 1971. What has not been discussed in the literature is the possibility that **the same preposition** which marks the *Location* in Frame A also marks the *Locatum* in Frame B.³

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² The terms *Locatum* and *Location* are from Clark & Clark 1979. The term *locative alternation* originates in Rappaport & Levin 1988.

³ We have not found reference to the alternation in argument alignment of locative verbs in the work of classical Bible scholars. The only discussion we have seen of the alternation in Biblical Hebrew is in Rubinstein 1982. Muraoka 1979, 2007 discusses variation in the prepositional vs. accusative marking of the complements of some verbs, and includes locative examples. Neither scholar observes the Locative Alternation Preposition Identity.

The use of the same preposition to mark the Location and Locatum in the alternating frames is a striking characteristic of the syntactic component of Hebrew. The preposition is *b-* in the case of verbs of putting, and *min* (sometimes cliticized as *mi-*) in the case of verbs of removal. For the purpose of introducing their distribution, we artificially construct a two-dimensional set of contrasts schematically representative of both of BH and MH:

	Identical Prep. in both Frames	Frame A	Frame B
Putting	-ב <i>b-</i>	מָלֵא בּו מַיִם <i>filled water in it</i>	מָלֵא אוֹתוֹ בַּמַּיִם <i>filled it with water</i>
Removal	מִן (-מ) <i>min (mi-)</i>	הֲרִיק מִמֶּנּוּ מַיִם <i>emptied water from it</i>	הֲרִיק אוֹתוֹ מִמַּיִם <i>emptied it of water</i>

We do not know how prevalent this type of prepositional identity is among the languages of the world for verbs of putting and verbs of removal alike, since, to the best of our knowledge, it has not been documented in the typological literature. Only partial realization of preposition identity has been documented cross-linguistically. For example, removal verbs in the Romance languages use *de* to mark both the Location in Frame A and the removed Locatum in Frame B (Cifuentes Honrubia 2008, Mateu 2001 on Spanish) and similarly for *min* in Arabic (Abdul-Jawad 1999, 2003). In Hebrew, preposition identity holds not just of verbs of removal but of locative verbs in general, including verbs of putting and verbs of removal.

In this paper, we will show how the Locative Alternation Preposition Identity depends on another syntactic property of BH: its being a *verb-framed* language in the typology of Talmy 1985, 1991, 2000. In Talmy's typology, languages classified as verb-framed typically encode directed change within the verb. In contrast, languages classified as *satellite-framed* typically encode directed change within a satellite of the verb. We will expand on this contrast in section 7.

The Semitic and the Romance languages have been classified as verb-framed by Talmy 1991 but this classification has not before been connected to the nature of the preposition in the locative alternation. The present article makes the connection by showing how the Locative Alternation Preposition Identity is derived from the verb-framedness of BH and the symmetry of the preposition. We conjecture that Arabic and the Romance languages retain partial Preposition Identity, for verbs of removal only.

The Locative Alternation Preposition Identity is a general characteristic of Hebrew, and it survives in MH, though in MH too it has not hitherto been observed. We will discuss this in section 8.

The article is constructed as follows. Section 2 introduces the different classes of BH locative verbs: alternating verbs, which we call *A/B verbs*, non alternating Frame A verbs, which we call *A verbs*, and non alternating Frame B verbs, which we call *B verbs*. Section 3 proposes and motivates a different syntax for A/B verbs vs. non alternating verbs, either A verbs or B verbs. Sections 4 – 6 are detailed discussions of

A verbs, A/B verbs and B verbs respectively. Section 7 substantiates the verb-framed nature of BH. Section 8 discusses the preservation of two particular BH characteristics in MH, which demonstrates the historical evolution of MH from BH. Section 9 concludes.

2. Locative verbs in Biblical Hebrew

2.1 Two alignment frames

Ditransitive locative verbs have three arguments: Agent (or Cause), Locatum, and Location. The Agent/Cause argument is usually referred to as the *external argument*, whereas the Locatum and Location arguments are called *internal arguments*.⁴ These verbs describe events where the Agent/Cause brings about a locative change of the Locatum either toward or away from the Location. Those verbs where change is directed **into/ onto/ toward** the Location are called *verbs of putting*, whereas verbs where change is directed **out of/ away from** the Location are called *verbs of removal*. Verbs of putting also include verbs which describe situations where the Locatum remains and/or is redistributed within the Location.

Two examples from Biblical Hebrew (BH) are shown in (1) and (2) below. The verb in (1) is a verb of putting, where the external argument moves the Locatum to the Location. In (2), the verb is a verb of removal, where the external argument removes the Locatum away from the Location.⁵

(1) זָרָה disperse

וְהִפְצַתִּי אֶת-מִצְרַיִם בְּגוֹיִם וְזָרִיתִּים בְּאַרְצוֹת (יהוֹקָאֵל כֹּט יב)

...and I will scatter the Egyptians among the nations and **disperse them throughout the countries**. (Ezekiel 29:12)

⁴ The *external argument vs. internal arguments* distinction is a classification of the verb's arguments into the one which is typically assigned the grammatical function of subject and those which are typically assigned grammatical functions of complements. It was introduced by Williams 1981, and has since been widely used in the linguistics literature. These terms are unrelated to the traditional term מְיוֹשָׁה פְּנִימִי *inner object*, known in the theoretical linguistics literature as *cognate object*.

⁵ A few methodological remarks concerning the examples in the article:

We compiled our data-base of ditransitive locative verbs by culling a substantial number (177 to be precise) of verbs in Even-Shoshan 1982 which we considered to denote a change/preservation of location (or the prevention thereof). We allowed both concrete and abstract arguments. For each verb, we required both internal arguments to be attested explicitly in some occurrences of the verb in Hebrew Bible, either separately in two different examples, one in Frame A and the other in Frame B, or together in a single example. Thus, we did not include e.g. the verb עָקַר *uproot*, only found in the text with a single complement, though we included its (near?) synonyms נָסַח and שָׁרַשׁ, both found with two arguments in וְיִסְחָד מֵאֶהָל וְשָׁרַשְׁד מֵאַרְץ חַיִּים 'He shall pluck you out of your dwelling place and uproot you from the land of the living.' (Psalms 52:5).

The Biblical Hebrew quotations are followed by their chapter and verse references in Hebrew. All Biblical translations are from the New King James Version (NKJV), unless the NKJV is not faithful to the original alignment of the arguments. In such case, we adapt the NKJV translation to reflect the alignment found in the Hebrew original.

Throughout the article, 3rd masculine singular suffixed verbs serve as citation forms. We only vocalize Intensive template BH verbs. The Intensive template has three different diathesis forms (traditionally known as piʕel / puʕal / hitpaʕel). It contrasts with the Causative template (hipʕil / huʕal) and the Simple template (paʕal / nipʕal).

- (2) גָּרַשׁ drive out

אוֹלַי אוּכַל נִכְּה-בוּ וְאֶגְרַשְׁנוּ מִן-הָאָרֶץ (במדבר כב, ו)

Perhaps I shall be able to defeat them and **drive them out of the land**.
(Numbers 22:6)

It is important to note that the arguments of locative verbs may be abstract rather than concrete, as shown in (3) – (5) below, and, in the same vein, that the movement into or out of the Location may be metaphoric:

- (3) נָפַח blow breath

וַיִּצְרֶה ה' אֱלֹהִים אֶת-הָאָדָם עָפָר מִן-הָאֲדָמָה וַיִּפַּח בְּאַפָּיו נְשָׁמַת חַיִּים (בראשית ב, ז)

And the Lord God formed man of the dust of the ground, and **breathed into his nostrils the breath of life**. (Genesis 2:7)

- (4) הִסִיר remove

וּמַחָה אֲדַנִּי ה' דִּמְעָה מֵעַל כָּל-פָּנִים וְחָרַפַת עִמּוֹ יִסִיר מֵעַל כָּל-הָאָרֶץ (ישעיה כה, ח)

And the Lord God will wipe away tears from all faces; **The rebuke of His people He will take away from all the earth**. (Isaiah 25:8)

- (5) שָׂם, נָתַן put

וְהִסִיר ה' מִמֶּדְךָ כָּל חֲלֵי וְכָל מַדּוּי מִצָּרִים הָרְעִים אֲשֶׁר יָדַעְתָּ, לֹא יִשְׁיִמֶם בְּךָ וְנִתְּנִם בְּכָל שְׂנְאֵיךָ (דברים ז, טו)

And the Lord will take away from you all sickness, and **will impose on you none of the terrible diseases of Egypt** which you have known, but **will lay them on all those who hate you**. (Deuteronomy 7:15)

Throughout the article, we will include verbs in the passive or middle diathesis. Both the passive and the middle voice target the direct object;⁶ hence, these verbs as well distinguish the direct object from the prepositional object. In the following example, both the passive and the active forms of the verb are attested, but we will also make use of examples where the active is not attested:

- (6) הִגְלָה carry away/ deport

[קִישׁ--אִישׁ יְמִינִי.] אֲשֶׁר הִגְלָה מִירוּשָׁלַיִם עִם-הַגְּלָלָה אֲשֶׁר הִגְלָתָה עִם יְכַנְיָה מֶלֶךְ-יְהוּדָה--

אֲשֶׁר הִגְלָה נְבוּכַדְנֶצַּר מֶלֶךְ בָּבֶל (אסתר ב, ה-ו)

Kish had been carried away from Jerusalem with the captives who had been captured with Jeconiah king of Judah, **whom** Nebuchadnezzar the king of Babylon **had carried away**. (Esther 2:6)

In all the examples above, the Locatum is the direct object (or subject of a passive verb), and the Location is realized within a prepositional phrase. The preposition typical of the Location for verbs of putting is *b-*, translated to English as the locative prepositions *in, into, at, on, throughout* etc., as in the examples (1), (3) and (5); such a Location is sometimes referred to as *Goal*. For verbs of removal, the preposition marking the Location is *min*, typically translated to English as *from*, as in the examples (2), (4) and (6); such a Location is sometimes called *Source*. Yet, as is well-known of locative verbs in many other languages, the Locatum and Location

⁶ Cf. the entry 'Voice' in Alexiadou and Kiss 2015; for the distinction between the passive and middle voice in Hebrew see Doron (2003, 2008).

arguments may alternate their syntactic function. In an alternative frame of argument alignment, it is the Location which is the direct object, while the Locatum is realized within a prepositional phrase. As already mentioned in section 1, and this is not a property reported of other languages, *the same preposition* may be found with the Locatum in the alternative frame as was found with the Location in the examples above: *b-*, now more appropriately translated to English as *with*, for verbs of putting, and *min*, now translated to English as *of*, for verbs of removal. In the following example, it is the Locatum which is marked with *b-*, and not the Location:⁷

(7) צָפָה coat, overlay

וַיִּצַף אֶת-קַרְקַע הַבַּיִת בַּצִּלְעוֹת בְּרוּשִׁים (מלכים א ו, טו)

And he covered the floor of the temple with planks of cypress. (1Kings 6:15)

Similarly, *min* here marks the Locatum rather than the Location:⁸

(8) הִסֵּר deprive

וְלִמִּי אֲנִי עֹמֵל וּמִחֲסֵר אֶת נַפְשִׁי מִטוֹבָה (קהלת ד, ח)

For whom do I toil and deprive myself of good. (Ecclesiastes 4:8)

We thus find that the arguments of transitive locative verbs align in two different syntactic frames, which we call Frame A -- where Locatum is the direct object, and

⁷ *b-* which marks the Locatum cannot be identified with Instrument *b-* 'with', as also argued by Sadka 1974 and Halevy 2009 for MH. BH clearly distinguishes them as well. Instrument *b-* co-occurs with Location *b-* in BH, which we assume would be impossible for Locatum *b-*:

(i) וְאֶזְרָם בְּמִזְרָה בְּשַׁעְרֵי הָאָרֶץ (ירמיהו טו ז)

And I will winnow them with a winnowing fan in the gates of the land. (Jeremiah 15:7)

Instrument *b-* is found in (ii) – (iv) below. The argument it marks never alternates with the other complement of the verb, unlike Locatum *b-*:

(ii) תִּמְשֹׁךְ לִוְיָתָן בַּחֲבֵה וּבַחֲבִיל תִּשְׁקִיעַ לְשֵׁנוֹ (איוב מ, כה-כו)

Can you draw out Leviathan **with a hook**, Or snare his tongue **with a line** which you lower? (Job 41:1)

(iii) וַיִּחַר-אַף בַּלַּעַם וַיִּדָּף אֶת-הָאֵתוֹן בַּמַּקֵּל (במדבר כב, כז)

so Balaam's anger was aroused, and he struck the donkey **with his staff**. (Numbers 22:27)

(iv) וַיְהִי מִסְפַּר הַמִּלְקָקִים בַּיָּדָם אֶל-פִּיהֶם שְׁלֹשׁ מֵאוֹת אִישׁ (שופטים ז, ו)

And the number of those who lapped, putting water to their mouth **with their hand**, was three hundred men. (Judges 7:6)

Instrument *b-* never elides, unlike Locatum *b-* which often does, typically when its complement is indefinite (cf. fn. 13). Moreover, Locatum *b-* is found in clearly non-instrumental, depictive, adjuncts, as in (v)-(vii), including within the noun-phrase, as in (vii):

(v) וְאַחֲרֵי-כֵן יֵצְאוּ בְּרִבְשׁ גָּדוֹל (בראשית טו, יד)

afterward they shall come out **with great possessions**. (Genesis 15:14)

(vi) כִּי-לָקַח יִשְׂרָאֵל אֶת-אֶרֶצִי בְּעֵלּוֹתוֹ מִמִּצְרַיִם (שופטים יא, יג)

Because Israel took away my land **when they came up out of Egypt**... (Judges 11:13)

(vii) וַיִּקְרְאוּ בֵּית יִשְׂרָאֵל אֶת שְׁמוֹ מִן וְהוּא כְזָרַע גֹּד לָבָן וְטַעְמוֹ כְּצַפְיֹת בַּדְּבַשׁ (שמות טז, לא)

And the house of Israel called its name Manna. And it was like white coriander seed, and the taste of it was like **wafers made with honey**. (Exodus 16:31)

Lastly, the parallelism with verbs of removal supports the view that putting verbs too exhibit preposition identity. The preposition *b-* in Frame B is the same one which is found in Frame A, rather than a special Instrument preposition, just as the preposition *min* in Frame B of removal verbs is the same preposition found in Frame A.

⁸ The two allomorphs *min/mi-* appear both with the Location in Frame A and with the Locatum in Frame B, both in BH and in MH, contrary to Segal and Landau's 2012 claim to a difference in their distribution in the two frames.

Frame B -- where Location is the direct object. In Hebrew, the same preposition P may be used in both frames:

- (9) Frame A: Agent/Cause Verb Locatum P+Location
 Frame B: Agent/Cause Verb Location P+Locatum

2.2 Alignment alternation

Crucially, we find locative verbs which allow their arguments to alternate in alignment between the two frames. We will call such verbs *A/B verbs*. Locative verbs whose arguments only align in Frame A will be called *A verbs*; these were illustrated above in (1) – (2). Finally, locative verbs whose arguments only align in Frame B will be called *B verbs*; they were shown above in (7) – (8).

Examples (10) – (11) below illustrate A/B verbs of putting. For each verb, the (a) sentence shows Frame A alignment of the arguments, and the (b) sentence – Frame B. Since the BH corpus is limited, we will not always have at our disposal examples like the ones shown in the present section, with complete frames. In many examples, the direct object will be realized while the prepositional phrase might be missing.⁹ The alternation between the two frames of argument alignment can be detected with partial frames as well, since in Frame A the direct object is the Locatum, whereas in Frame B the direct object is the Location.¹⁰

(10) מָלֵא fill

- a וּמִלֵּאתָ בּוֹ [בְּחוֹשֶׁן] מִלֵּאת אֶבֶן אֲרֻבָּעָה טוּרִים (שְׁמוֹת כַּח, יז)

And thou shalt **set** [fill] **in it** [in the breastplate of judgment] **settings of stone**. (Exodus 28:17)

- b תּוֹעֲבֹתֵיהֶם אֲשֶׁר מִלְאוּהָ [אֵת הָאָרֶץ] מִפֶּה אֶל-פֶּה בְּטִמְאָתָם (עֲזָרָא ט, יא)

their abominations, which have **filled it** [the land] from one end to another **with their uncleanness**. (Ezra 9:10)

(11) רָגַם stone

- a וַיִּרְגְּמוּ כָל-יִשְׂרָאֵל בּוֹ אֶבֶן וַיָּמָת (מַלְכִים א יב יח)

But all Israel **hurled stones at him**, and he died. (1Kings 12:18)

- b וְאִישׁ אוֹ אִשָּׁה כִּי יִהְיֶה בָהֶם אוֹב אוֹ יִדְעֲנִי מוֹת יוֹמָתוֹ בְּאֶבֶן יִרְגְּמוּ אֹתָם (וּיקְרָא כ, כד)

⁹ Sometimes, it is the direct object which is missing rather than the prepositional phrase, but these are cases of ellipsis which have an antecedent in a previous clause, e.g. *the poor* in example (i) below. In the translation we find the pronoun *him*, as English does not allow object ellipsis:

(i) שֵׁת set

מִשָּׁד עֲנִיִּים מֵאַנְקַת אֲבִיוֹנִים עֲתָה אֶקוּם יֹאמֵר ה' אֵשִׁית \emptyset בְּיָשָׁע וְפִיחָ לוֹ (תְּהִלִּים יב, ו)

"For the oppression of the poor, for the sighing of the needy, Now I will arise," says the Lord; "I will set **him** in the safety for which he yearns." (Psalms 12:5)

¹⁰ We saw in (6) above that the Locatum may be passivized in Frame A. Similarly, the Location may be passivized in Frame B:

(i) מָלֵא fill

נָדְיוֹ גְּלִילֵי זָהָב, מִמְּלָאִים בְּתַרְשִׁישׁ (שִׁיר הַשִּׁירִים ה, יד)

His hands are rods of gold set [filled] with beryl. (Song of Solomon 5:14)

A man or a woman who is a medium, or who has familiar spirits, shall surely be put to death; they shall **stone them with stones**. (Leviticus 20:24)

(12) – (13) below illustrate A/B verbs of removal. Again, for each verb, the (a) sentence illustrates Frame A, and the (b) sentence illustrates Frame B:

(12) פרק remove yoke/ rescue

a והָיָה כִּאֲשֶׁר תִּרְיֵד וּפְרַקְתָּ עָלֶיךָ מֵעַל צְוֹאֲרֶךָ (בראשית כז, מ)

And it shall come to pass, when you become restless, that you shall **break his yoke from your neck**. (Genesis 27:40)

b וַיִּפְרְקֵנוּ מִצְרֵינוּ כִּי לְעוֹלָם חַסְדּוֹ (תהלים קלו, כג-כד)

and He **rid us of our enemies**, for His mercy endures forever. (Psalms 136: 23-24)

(13) מנע withhold

a הֲתַחַת אֱלֹהִים אֲנֹכִי אֲשֶׁר מְנַע מִמֶּנּוּ פְרִי בֶטֶן (בראשית ל, ב)

Am I in God's stead, who hath withheld **from thee** the fruit of the womb. (Genesis 30:2)

b וְכֹל אֲשֶׁר שָׁאָלוּ עֵינַי לֹא אֶצְלָתִי מֵהֶם לֹא מִנְעֵתִי אֶת לִבִּי מִכָּל שִׂמְחָה (קהלת ב, י)

And whatsoever mine eyes desired I kept not from them, I **withheld** not **my heart of any joy**. (Ecclesiastes 2:10)

Comprehensive lists of A verbs, B verbs and A/B verbs found in the Hebrew Bible are provided in subsequent sections.

3. The syntax of alignment alternation

What is it that distinguishes alternating from non-alternating BH locative verbs? For example, what distinguishes the alternating verbs in (10) – (13) from the non-alternating verbs in (1) – (2) and (7) – (8)? In section 3.1 we outline a syntactic analysis which we motivate in section 3.2.¹¹ The analysis is based on systematic distinctions in the semantics of the verbs of the different classes, and on systematic distinctions in their morphology. We will discuss both the semantic and the morphological distinctions in sections 4 – 6, which are the sections devoted to each class separately.

3.1 The syntax of alternating vs. non-alternating verbs

A/B verbs, i.e. alternating verbs, denote the bringing about of a result relating the Locatum and the Location. This relation is denoted by the preposition. In a verb-framed language, the preposition is stative, e.g. *in* rather than *into*, since the direction/path of change is lexicalized by the verb (we return to the characterization of verb-framedness in section 7). If moreover the preposition is symmetric, the two arguments can alternate. The Hebrew preposition *b-* denotes the symmetric result state of acts of putting, which is the relation of *being together*, irrespective of whether *b-* introduces the Location or the Locatum. The preposition *min* denotes the symmetric

¹¹ Our account is inspired by Hoekstra (2004), Hoekstra and Mulder (1990), Hale and Keyser (2002), and Folli and Harley (2006), who analyse locative verbs as verbs which take small-clause complements, headed by a preposition.

state resulting from the action of removal, the relation of *being separate*, again irrespective of whether it introduces the Location or the Locatum. Our approach conforms with the view of Gesenius (1910: §119), whereby the denotation of the preposition *b-* is based on the notion of “close connexion” (§119h), and that of *min* on “separation” (§119v), both of which are stative symmetric relations.

The alternation of the arguments provides two different ways of expressing the result state: (a) as the position of the Locatum which is the result of its movement; (b) as the state of the Location which is the result of the arrival/leaving of the Locatum. The symmetry of the preposition thus allows two different conceptualizations of the result state.

What allows a verb to alternate, under our account, is the fact that there is no exclusive selection by the verb of either one of the arguments. The verb specifies the change toward a result state involving both arguments. The symmetric preposition is compatible with two different ways of conceptualizing the result state. The stativity of the result, which follows from BH being verb-framed, is of essence here, as the only locative prepositions which are symmetric are also stative. It is the symmetry of the preposition which permits the alternation of the roles of the arguments within the result state.¹²

To illustrate, consider the alternating verb *fill*. The verb describes an action with a result state which can be presented either as the liquid filling the container, or the container being full of liquid. The verb lexicalizes the bringing about of the result state under both of these guises.

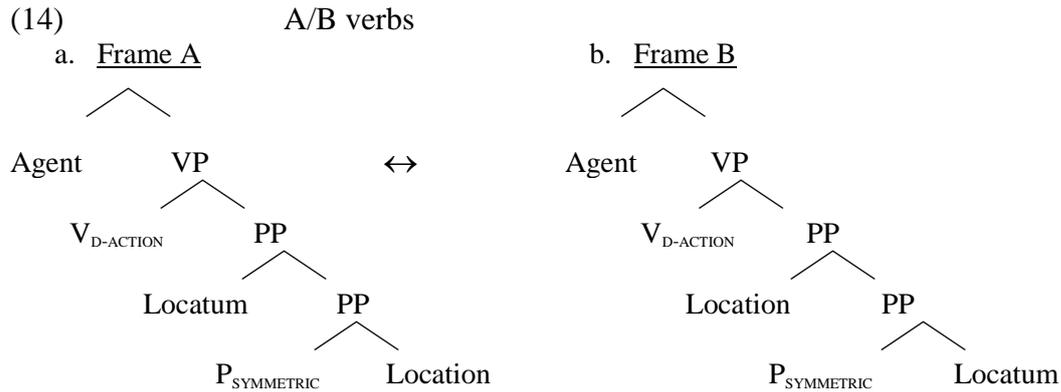
The alternation can be syntactically represented as in (14). The trees are intended to schematically clarify the main structural features associated with alternating verbs, but they are not crucial to the account. The account can also be formulated in prose: An alternating verb is a directed action (D-action) verb which takes an Agent as subject, and a preposition denoting the result state as complement. The Locatum and the Location are not directly arguments of the verb, but of the preposition. When the preposition is symmetric, the position of the Locatum and Location may be reversed relative to the preposition, since the same preposition can describe both the new state of the Locatum and the new state of the Location. The following two structures, where the position of the Locatum and Location has been exchanged, are equivalent (marked as \leftrightarrow) in their acceptability.¹³

¹² Our account allows us to conjecture that the stative symmetrical preposition in Spanish (and similarly in Arabic), which we assume was originally used in both frames of putting verbs, just like *de* is still used for removal verbs, might have been the one which later developed into the instrumental *con*. The evolution of symmetric sociative prepositions into asymmetric instrumental prepositions is typologically well attested (Stolz 2001).

¹³ The P+Locatum constituent which is the predicate of the small clause [Location P+Locatum] in the Frame B tree is realized without P when the Locatum is indefinite, such as *גִּבּוֹר* *glory* in (i) below, but usually not when it is definite, as in (10b).

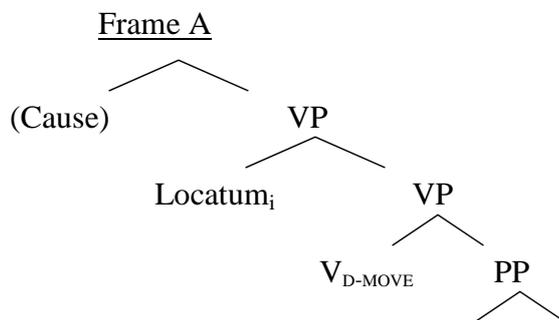
(i) וּמְלֵאתִי אֶת-הַבַּיִת הַזֶּה כְּבוֹד (חגי ב, ז)
And I will fill this temple with glory. (Haggai 2:7)

This phenomenon is not special to locative verbs, but to the small clause construction. BH allows indefinite nouns to function without a preposition as predicates in various types of small clauses, such as *הַדּוּד אֶחָד תְּאֻנִּים טְבוֹת מְאֹד* *One basket has very good figs* (Jeremiah 24:2), which describes the containment relation, analogous to *This temple has glory*, which is roughly the relation denoted by the small clause in (i); cf. Joüon 1923: §154e.

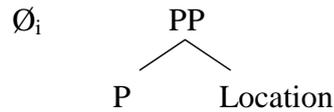


A verbs, i.e. non-alternating Frame A verbs, are verbs of motion. They describe the event in terms of the motion of the *Locatum* to the *Location*. They do not specify the change of state of the *Location*. Consider for example the A verb *disperse* in (1) above. The dispersal of individuals in a geographical area does not necessarily affect the geographical area; it involves the motion of the individuals roughly from being concentrated to being spread across that area. The verb classifies its direct object as the *Locatum* which moves in this particular trajectory. Thus, the *Locatum* is an argument of the verb. Motion may be spontaneous, i.e. initiated by the *Locatum* itself, and therefore does not require the participation of an *Agent* (unlike the case of A/B verbs, where the action of the *Agent* is of essence). For many A verbs, the external argument is optional, and, when it is included, its role is that of *Cause* rather than *Agent*. We will see in section 4 that A verbs are often derived from unaccusative verbs of motion by adding a *Cause* argument.¹⁴ Whether the result preposition P is symmetric or not, the verb does not alternate, since the *Locatum* is an argument of the verb and not of the result preposition. Accordingly, the *Locatum* cannot alternate its syntactic position with the *Location*: alternation is only possible between the arguments of the preposition. We will see in section 4 that we also find non symmetric prepositions with A verbs. But crucially, even if P is the very same symmetric preposition which appears with alternating A/B verbs (*b-* or *min*), there is no alternation.

(15) A verbs

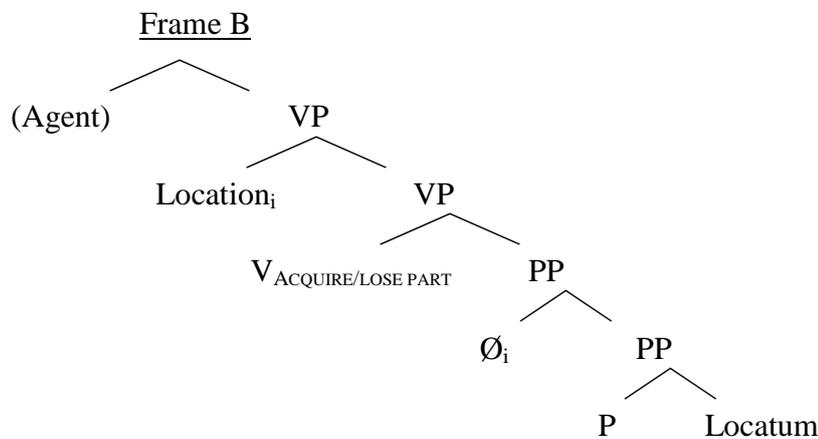


¹⁴ Unaccusative verbs are intransitive non-agentive verbs. The subject of an unaccusative verb shares many semantics characteristics of the object of a transitive verb, and some syntactic analyses consider it to underlyingly have the syntactic function of object (cf. Levin and Rappaport Hovav 1995).



B verbs, i.e. non-alternating Frame B verbs are verbs of acquiring (or losing) a possessive relation, specifically *possession of parts* (known as *mereological*). These verbs describe the event in term of the Location argument acquiring/losing a part, either through its own action or through the action of an (optional) additional Agent. Thus the Location is an argument of the verb. As above, the Location and Locatum cannot alternate, whether or not the preposition P is symmetric, since they are arguments of different heads (V and P respectively). The verb *overlay*, for example, describes the Location acquiring a cypress plank coating in example (7); the verb *deprive* describes the Location losing one its parts (e.g. the “good” that was in it, in example 8).

(16) B verbs



3.2 Arguments for the syntactic analysis

3.2.1 Ambiguous-classification verbs: putting/removal

The verbs in section 2 above were all unambiguously classified as verbs of putting or verbs of removal, irrespective of whether they alternated or not. This is so since these verbs determine the Location to be either a Goal (putting) or a Source (removal). Such verbs are each compatible with a single type of preposition, either *b-* or *min*, but not both. For example, the verb *נָרַח* *disperse* shown in (1) above is only found in BH with *b-* and not with *min*, i.e. it is a verb of putting. The verb *גָּרַשׁ* *drive out* in (2) is only found with *min* and not with *b-*, i.e. it is a verb of removal. These verbs are A verbs. The same is true of B verbs: the verb *צָפָה* *coat/overlay* in (7) is only used as a verb of putting (with *b-* and not with *min*), and the verb *הָפַר* *deprive* in (8) is only used as a verb of removal (with *min* and not with *b-*). Similarly for A/B verbs as well: *מָלֵא* *fill*, *גָּבַח* *stone* in (10) – (11) are only used as verbs of putting, and *פָּרַק* *rescue*, *מָנַע* *withhold* in (12) – (13) are only used as verbs of removal.

Yet there are also many BH verbs which are compatible with both types of prepositions, describing the result in terms of the Goal or in terms of the Source. These are verbs which can be classified both as verbs of putting and as verbs of removal. This double classification shows that such verbs lexicalize the path of motion, beginning at the Source and ending at the Goal. The choice of preposition determines how the final result state is presented for a particular use of the verb. The

result state is either the presence of the Locatum at the Goal, when the verb is used as a verb of putting, or its missing from the Source, when the verb is used as a verb of removal:

(17) שְׁלַח *send*

used as a verb of putting

וְשֹׁן בְּהִמּוֹת אֲשַׁלַּח בָּם עִם חֲמַת זְחָלֵי עֶפֶר (דברים לב, כד)

I will also **send against them the teeth of beasts**, with the poison of serpents of the dust. (Deuteronomy 32:24)

used as a verb of removal

וַתִּחַזַּק מִצְרַיִם עַל-הָעָם לְמַהֵר לְשַׁלְּחֵם מִן-הָאָרֶץ (שמות יב, לג)

And the Egyptians urged the people, that they might **send them away from the land** in haste. (Exodus 12:33)

Additional such verbs are listed in table 1:

Table 1 - Verbs lexicalizing a path¹⁵

<i>verb</i>	<i>translation</i>	<i>used as a verb of putting</i>	<i>used as a verb of removal</i>
העלה	bring up	1Kings 17, 19	Leviticus 11: 45
הוריד	bring down	Joel 3:2	Obadiah 1:4
הביא	bring in	Genesis 46:7	Genesis 43:2
הוציא	bring out	Deuteronomy 22:15	Genesis 48:12
השיב	bring back	Numbers 35:25	1Kings 13:26
קבץ	collect	Ezekiel 22:19	2Chronicles 24:5
אסף	gather	1Samuel 5:8	Ezekiel 11:17
השליך	throw away	Genesis 21: 15	2Kings 13:23
הטיל	cast	Jeremiah 16:11	Jeremiah 16:11
הפיץ	scatter	Genesis 11:8	Genesis 11:8
זרק	toss, sprinkle	Leviticus 1:5	2Chronicles 35, 11
מצה	wring, drain	Leviticus 1:15	Judges 6:38
סָעַר	scatter	Zechariah 7:14	Hosea 13:3
הסב	turn	2Kings 20:2	Ezekiel 7:22
הטה	divert	2Samuel 3:27	Job 24:4
הגלה	deport	Jeremiah 29:4	Jeremiah 29:4
הדיח	drive away	Deuteronomy 30:1	Deuteronomy 13:5
העביר	take out	Numbers 27:8	2Chronicles 35:24

¹⁵ Since many of these verbs are non-alternating, their result state is not necessarily expressed by the symmetric prepositions *b-* and *min-*. Hence we find a variety of other locative prepositions with these verbs, including *ל-* *to*, *על* *on*, *תחת* *under*, *אחרי* *behind*, ... *ובין* ... *ובין* *between*, *מאת*, *מעל*, *מעל*, *from*, or the directional case suffix *וְ*.

These examples support our analysis of locative verbs. First, they show that putting and removal verbs should be given parallel analyses (unlike the two distinct analyses proposed in Rappaport and Levin 1988 and in Levin and Rappaport Hovav 1991 for verbs of putting and verbs of removal respectively). The putting/ removal distinction is a useful descriptive distinction, but it plays no principled role in the analysis. Indeed, the analysis presented in the previous section was fully parallel for verbs of putting and verbs of removal.

Second, these examples explicitly show that the path of locative change, when there is one, is indeed lexicalized by the verb. The preposition only denotes being in or away from a particular state.

Third, the examples in table 1 are all either A/B or A verbs. This indicates to us that B verbs do not lexicalize a path. Indeed, we characterized B verbs as denoting the onset of a part-whole relation between the Location and Locatum. The onset of such a relation does not necessarily involve motion, and consequently does not involve a path. We return to this fact in section 7 below, where we show that MH preserves the BH distinction between path verbs (A and A/B) and B verbs.

3.2.2 Change of state verbs used as A verbs

A verb which is not basically a locative verb but a verb of change of state is a verb which has a single internal argument, the entity undergoing the change. Such a verb can be reinterpreted as a locative verb through the addition of a Location introduced in the syntax by a non-subcategorized result preposition. Such verbs do not alternate, they are A verbs. This lends support to our view that lack of alternation is due to the object being an argument of the verb. Alternation is only possible when both objects are arguments of the preposition.

(18) קרע tear

change of state use

וַיִּסַּב שְׂמוּאֵל לְלֶכֶת וַיִּחַזַּק [שאוּל] בְּכַנְף-מְעִילוֹ וַיִּקְרַע (שמואל א טו, כז)

And as Samuel turned around to go away, Saul seized the edge of his robe, and it **tore**. (1Samuel 15:27)

locative use

וַיֹּאמֶר אֵלָיו שְׂמוּאֵל קְרַע ה' אֶת-מַמְלַכְוֹת יִשְׂרָאֵל מֵעַלְיָד הַיּוֹם וּנְתַנָּה לְרַעְדֵי הַטּוֹב מִמְּךָ (שמואל א טו, כח)

So Samuel said to him, “The Lord has **torn the kingdom of Israel from you** today, and has given it to a neighbor of yours, who is better than you. (1Samuel 15:28)

Additional such verbs are listed in table 2:

Table 2 – Change of state verbs used as locative A verbs

<i>verb</i>	<i>translation</i>	<i>used as change of state verb</i>	<i>used as locative A verb</i>
שבר	break	Jeremiah 48:17	Jeremiah 30:8
כָּלָה	consume	Exodus 32:10	Exodus 32:12
בער/בִּעַר	burn/remove by burning	Exodus 3:3	2Chronicles 19:3

שחט	slay	Genesis 22:10	Jeremiah 41:7
הוביש	dry	Joel 1:12	Joel 1:12
נעור/העיר	wake	Psalms 44:23	Joel 3:7

4. A verbs

4.1 Causative directed motion

Causative morphology is prevalent in A verbs. Indeed, of the 95 BH A verbs, 38 are in the Causative template, i.e. 40%:

הרים *raise*, העלה *bring up*, הוריד *bring down*, הביא *bring in*, הגיש *bring*, הטיל *cast*, הקים *raise*, הניח *let rest/let stay*, השאיר *let remain*, הפיץ *scatter*, העמיד *station*, הציב *position*, הליט *set*, הטביע *sink*, הושיב *seat*, השכיב *lay*, הדביק *cling*, החביא *hide*, הסתיר *hide*, הליט *cover*, הניס *chase*, האביד *make extinct*, הבדיל *separate*, החסיר *omit*, העביר *pass*, המיש *move away*, העתיק *move away*, הגלה *deport*, השליך *throw away*, הדיח *expel*, הוציא *bring out*, הכרית *cut off*, הרחיק *remove*, הזיל *drip*, הפיל *make fall*, הטתה *divert*, הסב *turn*, הסיע *bring*

This proportion is almost three times as much as what we find with A/B verbs, where the proportion is 15%, and four times as much as we find with B verbs, where the proportion is about 10%. Of the 45 BH A/B verbs, only 7 are in the Causative template:

הלביש *clothe*, הזה *sprinkle*, המטיר *rain upon*, הסיר *remove*, הפשיט *strip*, הריק *empty*, הקצה *scrape off*

Of the 37 BH B verbs, only 3 are in the Causative template:

האכיל *feed*, השקה *water*, הנעיל *put footwear on someone*

This significant difference in the morphology of the various classes is indicative of their different semantics. The high incidence of the Causative template among A verbs encodes the *Cause* role of the external argument, shown in the tree (14) above. Many A verbs are derived by adding an external Cause argument to unaccusative verbs of directed motion. When motion is spontaneous, the event is typically described by an unaccusative verb of directed motion in the Simple template, as in example (19) below. The addition of the Cause argument triggers the Causative template, as in example (20). In general, it is the Causative template which adds an external argument to an equi-rooted active voice verb (Doron 2003, 2008).¹⁶

(19) בא come in

עֲתָה הִנֵּה בְטַחַתְּ לְךָ עַל-מִשְׁעַנֵּת הַקִּנְיָה הַרְצוּץ הַזֶּה עַל-מִצְרַיִם אֲשֶׁר יִסְמְךָ אִישׁ עָלָיו וְבָא בְכַפּוֹ וְנִקְבָה (מַלְכִים ב יח, כא)

Now look! You are trusting in the staff of this broken reed, Egypt, on which if a man leans, **it will go into his hand** and pierce it. (2Kings 18:21)

¹⁶ In rare cases, both the unaccusative and the causative variants are in the same template. For example, both intransitive and transitive קרם *cover with skin* are in the Simple template, as in Ezekiel 37:8 and 37:6 respectively. The same is true of טבל *dip* in 2Kings 5:14 and Ruth 2:14. In other rare cases, the intransitive verb is in the Simple template whereas the transitive verb is in the Intensive template: נָשַׁל *dislodge* (Deuteronomy 19:5 and 2Kings 16:6); שָׁכַן *make dwell* (Jeremiah 25:24 and 7:7).

(20) הביא bring in

וְהִגֹּי אֲשֶׁר יָבִיא אֶת-צְוֹאָרוֹ בְּעַל מֶלֶךְ-בָּבֶל וְעָבְדוּ וְהִנְחִיתִי עַל-אֲדָמָתוֹ (ירמיה כז, יא)

But the nations that **bring their necks under the yoke of the king of Babylon** and serve him, I will let them remain in their own land. (Jeremiah

27:11)

Additional verbs are shown in table 3:

Table 3 Causative A-Verbs derived from Simple template motion verbs

Simple verb	Translation	Example	Causative verb	translation	example
נגש	approach	Genesis 27:23	הגיש	bring	1Samuel 14:34
עלה	go up	1Kings 18:42	העלה	raise	1Kings 17:19
ירד	descend	Isaiah 55:10	הוריד	bring down	Amos 3:11
טבע	sink	Jeremiah 38:6	הטביע	sink	Jeremiah 38:22
עבר	cross over	2Samuel 15:24	העביר	take out	2Chronicles 35:24
פץ	scatter	1Samuel 14:34	הפיץ	scatter	Deuteronomy 4:27
דבק	cling	Genesis 2:24	הדביק	join	Deuteronomy 28:21
נצב	stand	Judges 18:17	הציב	position	1Chronicles 18:3
נטה	be inclined	Judges 9:3	הטה	divert	1Kings 11:2
נח	rest/stay	Joshua 10:4	הניח	put	Genesis 2:15
נשאר	remain	Joshua 10:19	השאיר	let remain	Joshua 10:30
עמד ¹⁷	stand	2Chronicles 21:16	העמיד	position	Judges 16:25
נזל	drip	Numbers 24:7 ¹⁸	הזיל	drip	Isaiah 48:21
נפל	fall	Genesis 24:64	הפיל	make fall	Ezekiel 30:22
עתק	move	Job 14:18	העתיק	move	Job 32:15 ¹⁹
נבדל	separate	Numbers 16:21	הבדיל	separate	Leviticus 20:24
יצא	come out	Numbers 22:5 ²⁰	הוציא	bring out	1Kings 9:9
גלה	depart	1Samuel 4:21	הגלה	deport	2Kings 17:33
נדה	be expelled	2Samuel 14:14	הדיח	expel	Deuteronomy 13:5
חסר	lack	Proverbs 31:11	החסיר	omit	Isaiah 32:6
אבד	become extinct	Deuteronomy 22:3	האביד	make extinct	Ezekiel 25:7
מש	move away	Numbers 14:44	המיש	move away	Micah 2:3
נסע	go away	Numbers 12:16	הסיע	bring away	Exodus 15:22

¹⁷ Similarly for other position verbs שכב/השכיב *lie* / ישב/הושיב *sit*

¹⁸ The NKJV translation of this example is misleading, since the verb in Hebrew is intransitive: Water shall pour.... (and probably not from *his bucket*, but from *what he has ladled*).

¹⁹ The JPS translation is closer to the Hebrew text: "words are departed from them".

²⁰ The JPS translation is closer to the Hebrew text: "Behold, there is a people **come out from Egypt**; behold, they cover the face of the earth".

5. A/B verbs

A/B verbs are not causative in that they typically are not based on causativizing unaccusative motion verbs describing the motion of the Locatum, unlike A verbs. In section 2, we suggested two necessary conditions for the alternation of a locative verb:

1. The verb denotes action by an Agent toward a result state. Both Locatum and Location are arguments of a preposition denoting the result state.
2. The preposition denotes a symmetric result state which can be equally predicated of the Locatum or the Location.

Both conditions hold of the most basic verb *put*, which alternates in BH, shown below in (21). Whereas in English *put* asserts that the Locatum undergoes directed motion, and therefore does not alternate, in BH *put* is not a directed motion verb but a verb of bringing about a result state which can be equally predicated of the Locatum and the Location.

(21) שם put

- a וַיָּדְעוֹן בָּא וַיַּעַשׂ גְּדִי-עֲזִים וַאֲיֶפֶת-קֶמַח מִצֹּת הַבָּשָׂר שָׁם בַּסֵּל וְהִמְרִק שָׁם בַּפָּרוֹר
(שופטים ו, יט)

So Gideon went in and prepared a young goat, and unleavened bread from an ephah of flour. **The meat he put in a basket, and he put the broth in a pot.** (Judges 6:19)

- b וַיְבֹא יְהוּא יִזְרְעֵאלָה וְאִיזָבֶל שְׂמָמָה וְתַשֵּׁם בַּפּוֹף עֵינֶיהָ וַתִּיטֵב אֶת רֹאשָׁהּ וַתִּשְׁקֹף בְּעֵד
הַחֲלוֹן (מלכים ב ט, ל)

Now when Jehu had come to Jezreel, Jezebel heard of it; and **she made up her eyes with paint** and adorned her head, and looked through a window. (2Kings 9:30)

In (21a) it is the Locatum which is realized as direct object, and in (21b) – the Location. The preposition denotes a result state in both examples: being in the basket or the pot in (21a) and being with mascara in (21b). The fact that the verb does not predicate movement of the Locatum, but only denotes the bringing about of the result-state, is particularly salient in examples like the following, where putting Jerusalem amidst the nations actually involves the movement of nations to surround her, rather than the movement of Jerusalem to their midst:

(22) שם put

- כֹּה אָמַר אֲדֹנָי ה' זֹאת יְרוּשָׁלַם בְּתוֹךְ הַגּוֹיִם שְׂמֵתֶיהָ וְסָבִיבוֹתֶיהָ אַרְצוֹת (יחזקאל ה, ה)

“Thus says the Lord God: ‘This is Jerusalem; **I have set her in the midst of the nations** and the countries all around her. (Ezekiel 5:5)

In section 2.1 above, we mentioned several A/B verbs. The following are additional examples.²¹ Verbs of putting are shown in (23)—(33). The (a) examples are Frame A,

²¹ The Locatum prepositions *b-* and *min* may be missing with some verbs, typically when the Locatum is indefinite. See fn. 13. This is the case in exx 23b, 24b, 27b, 29b, 52b.

where the Locatum is direct object, and the (b) examples are Frame B, where the Location is direct object:²²

(23) זרע sow

a זָרְעוּ חֲטָיִם וְקָצְרוּ נֶחְלָו לֹא יוֹעִלוּ (ירמיה יב, יג)

They **have sown wheat** but reaped thorns; they have put themselves to pain but do not profit. (Jeremiah 12:13)

b וַיִּתֵּץ אֶת הָעִיר וַיִּזְרְעֶהָ מֶלַח (שופטים ט, מה)

and he demolished the city and **sowed it with salt**. (Judges 9:45)

(24) טח plaster

a וְהִנֵּה נֶפֶל הַקִּיר הַלּוֹא יֵאמַר אֲלֵיכֶם אֵינָה הַטִּיחַ אֲשֶׁר טַחְתֶּם (יחזקאל יג, יב)

Surely, when the wall has fallen, will it not be said to you, ‘Where is the mortar with which you plastered it?’ (Ezekiel 13:12)

b וְהִרַסְתִּי אֶת הַקִּיר אֲשֶׁר טַחְתֶּם תִּפֹּל²³ וְהִגַּעְתִּיהוּ אֶל הָאָרֶץ (יחזקאל יג, יד)

So I will break down **the wall** you have **plastered with untempered mortar**, and bring it down to the ground. (Ezekiel 13:14)

(25) משה anoint

a הַשְּׂתִימִים בְּמִזְרְקֵי יַיִן וְרֵאשִׁית שְׂמָנִים יִמָּשְׁחוּ וְלֹא נֶחְלָו עַל-שִׁבְרֵי יוֹסֵף (עמוס ו, ו)

...who drink wine from bowls, and **anoint upon themselves the best ointments**, but are not grieved for the affliction of Joseph. (Amos 6:6)

b מִצָּאתַי דָּוִד עַבְדִּי בְּשֶׁמֶן קֹדֶשׁ יִמָּשְׁחֵנִי (תהלים פט, כא)

I have found My servant David; **with My holy oil I have anointed him**. (Psalms 89:21)

(26) ירה shoot

a הַנֶּעַר רָץ וְהוּא יָרָה הַחֲצִי לְהַעֲבֹרוֹ (שמואל א כ, לו)

As the lad ran, **he shot an arrow** beyond him. (1Samuel 20:36)

b לִירוֹת בַּמְסֻתָּרִים תִּם פִּתְאֹם יִרְהוּ וְלֹא יִרְאוּ (תהילים סד, ה)

That they may **shoot the blameless** in secret. (Psalms 64:5)

(27) עמס load

a בַּיָּמִים הַהֵמָּה רָאִיתִי בִיהוּדָה דְרָכִים גִּתּוֹת בְּשֶׁבֶת וּמִבֵּיָאִים הָעֲרָמוֹת וְעַמְסִים עַל הַחֲמֹרִים וְאֵף יַיִן עֲנָבִים וְתֵאֵנִים וְכָל מִשְׂא (נחמיה יג, טו)

In those days I saw people in Judah treading wine presses on the Sabbath, and bringing in sheaves, and **loading on donkeys wine, grapes, figs, and all kinds of burdens**. (Nehemiah 13:15)

b נִשְׂאֲתֵיכֶם עֲמוֹסוֹת מִשְׂא לְעִיפָה (ישעיה מו, א)

²² A few of the verbs below subcategorize for the preposition על *ʕal* 'on' in Frame A instead of the expected *b-*. We leave a more detailed analysis of these verbs to future work. But the following analogy may be useful. Consider pairs such as *min+tok* 'from among' and *b+tok* 'among' which are roughly equivalent to *min* and *b-* respectively. By analogy, it may be that *min+ʕal* 'from over' and *b+ʕal* 'over' are also equivalent to *min* and *b-*, though *b+ʕal* is actually realized as על *ʕal* without *b-*.

²³ We consider תפל to be the Locatum, *untempered mortar*, in accordance with its distribution in BH and to its NKJV translation, which accords to that of the traditional Bible commentary by Rashi.

Your carriages **were heavily loaded**, a burden to the beast weary. (Isaiah 46:1)

(28) סכך thatch

a וְשִׁמְתִיךָ בְּנִקְרַת הַצּוּר וְשִׁפְתִי כַפִּי עָלֶיךָ עַד-עֲבָרִי (שמות לג, כב)

I will put you in the cleft of the rock, and will **hold My hand above you like thatch** while I pass by. (Exodus 33:22)

b כִּי-אַתָּה קִנִּיתָ כְּלִיטִי תִסְפְּנִי בְּבֶטֶן אִמִּי (תהילים קלט, יג)

For You formed my inward parts; You **covered me** in my mother's womb. (Psalms 139:13)

(29) הלביש clothe

a וְאֵת עֹרֹת גְּדֵי הָעִזִּים הִלְבִּישָׁה עַל-יָדָיו וְעַל חֻלְקַת צְוֹאֲרָיו (בראשית כז, טז)

And she **put the skins of the kids of the goats on his hands and on the smooth part of his neck**. (Genesis 27:16)

b וּמֶלֶךְ יִשְׂרָאֵל וַיְהוֹשָׁפָט מֶלֶךְ-יְהוּדָה יוֹשְׁבִים אִישׁ עַל-כִּסְאוֹ מְלֻבָּשִׁים בְּגָדִים (דברי הימים ב יח, ט)

The king of Israel and Jehoshaphat king of Judah, **clothed in their robes**. (Chronicles 18:9)

(30) הזה sprinkle

a וְלָקַח מִדָּם²⁴ הַפָּר וְהִזָּה בְּאֶצְבְּעוֹ עַל פְּנֵי הַכַּפְּרִית קִדְמָה (ויקרא טז, יד)

He shall take **some of the blood of the bull and sprinkle it** with his finger on the **mercy seat** on the east side. (Leviticus 16:14)

b כִּן יִזָּה גוֹיִם רַבִּים (ישעיה נב, טו)

So shall He sprinkle many nations. (Isaiah 52:15)

(31) שֶׁלַח send

a וְשִׁלַּחְתִּי-אֵשׁ בְּעָרָיו וְאֶכְלָה אֶרְמֹנֹתֶיהָ (הושע ח, יד)

But I **will send fire upon his cities**, and it shall devour his palaces. (Hosea 8:14)

b וַיִּלָּחֲמוּ בְנֵי-יְהוּדָה בִּירוּשָׁלַם וַיִּלָּכְדוּ אוֹתָהּ וַיַּכּוּהָ לְפִי-חֶרֶב וְאֵת-הָעִיר שָׁלְחוּ בְּאֵשׁ

(שופטים א, ח)

Now the children of Judah fought against Jerusalem and took it; they struck it with the edge of the sword and **set the city on fire**. (Judges 1:8)

(32) המטיר rain upon

a וְה' הִמְטִיר עַל-סֹדֹם וְעַל-עֲמֹרָה גִפְרִית וְאֵשׁ מֵאֵת ה' מִן-הַשָּׁמַיִם (בראשית יט, כד)

Then the Lord **rained brimstone and fire on Sodom and Gomorrah** from the Lord out of the heavens. (Genesis 19:24)

b חֻלְקָה אַחַת תִּמְטֹר וְחֻלְקָה אֲשֶׁר-לֹא-תִמְטֹר עָלֶיהָ תִיבֹשׁ (עמוס ד, ז)

One part was rained upon, and where it did not rain the part withered. (Amos 4:7)

²⁴ Here *min* 'of' is the partitive preposition, which is different from the locative preposition. Thus *blood* is direct object.

(33) אסר bind, harness

a וְאַסְרֶתֶם אֶת-הַפָּרוֹת בְּעֵגְלָה (שמואל א 1, ז)

Hitch the cows to the cart. (1 Samuel 6:7)

b וַיֹּאסֶר יוֹסֵף מְרֻכָּבָתוֹ, וַיַּעַל לְקִרְיַת-יִשְׂרָאֵל אֲבִיו גֹּשֶׁן (בראשית מו, כט)

So Joseph **harnessed his chariot** and went up to Goshen to meet his father Israel. (Genesis 46:29)

The examples in (34)—(54) illustrate the same alternation for verbs of removal. The (a) examples are Frame A, where the Locatum is direct object, and the (b) examples are Frame B, where the Location is direct object:

(34) פָּנָה clear

a הִסִּיר ה' מִשְׁפָּטֶיךָ פָּנָה אִיבֶךָ (צפניה ג, יד-טו)

The Lord has taken away your judgments, **He has cast out your enemy.** (Zephaniah 3:14-15)

b וַיֹּאמֶר בּוֹא בְרוּךְ ה' לָמָּה תַעֲמֹד בַּחוּץ וְאַנְכִי פְּנִיתִי הַבַּיִת וּמְקוֹם לְגַמְלִים (בראשית כד, לא)

And he said, “Come in, O blessed of the Lord! Why do you stand outside? For I have **cleared out the house, and a place for the camels**”. (Genesis

24:31)

(35) הסיר remove

a וְהִסַּרְתִּי מִחֲלָה מִקֶּרְבְּךָ (שמות כג, כה)

And I will **take sickness away from the midst of you.** (Exodus 23:25))

b הִסִּירוֹתַי מִסֹּבֵל שְׂכָמוֹ כַּפָּיו מִדָּוִד תַּעֲבִרְנָה (תהילים פא, ז)

I **rid his shoulder of the burden**; His hands were freed from the baskets. (Psalms 81:6)²⁵

(36) אסף gather

a וְנִאֲסַף שְׂמֵחָה וְגִיל מִן הַפְּרִמָּל (ישעיה טז, י)

Gladness is taken away and joy from the plentiful field. (Isaiah 16:10)

b הִנֵּה שְׁלַחְתִּי אֵלֶיךָ אֶת-נַעֲמָן עַבְדִּי וְאַסְפֶּתוֹ מִצְרַעְתּוֹ (מלכים ב, ה, ו)

I have sent Naaman my servant to you, that you may **heal him of his leprosy.** (2Kings 5:6)

(37) בצר gather grapes

a אֵת סְפִיחַ קִצְיֶרְךָ לֹא תִקְצֹר וְאֵת עֲנָבֵי נִזְיֶרְךָ לֹא תִבְצֹר (ויקרא כה, ה)

What grows of its own accord of your harvest you shall not reap, **nor gather the grapes** of your untended vine. (Leviticus 25:5)

b וַיֵּצְאוּ הַשָּׂדֶה וַיִּבְצְרוּ אֶת כַּרְמֵיהֶם (שופטים ט, כז)²⁶

So they went out into the fields, and **harvested their vineyards.** (Judges 9:27)

²⁵ This translation assumes that the Hebrew original is indeed Frame B. However, this assumption is not uncontroversial, since either the burden or the shoulder could fulfill either Locatum or Location role, as shown in Dubnov and Doron 2014.

²⁶ As explained in Dubnov and Doron 2014, these are not cases of metonymy. A vine can be a metonym for a grape, but the whole vineyard cannot.

(38) גזז shear

a גָּזַז נְזִרָךְ וְהִשְׁלִיכֵי וְשָׂאֵי עַל שְׂפָיִם קִינָה (ירמיה ז, כט)

Cut off your hair and cast it away, and take up a lamentation on the desolate heights. (Jeremiah 7:29)

b וּלְבָן הַלֶּדֶף לְגַזֵּז אֶת צֹאֲנוֹ (בראשית לא, יט)

Now Laban had gone to **shear his sheep**. (Genesis 31:19)

(39) גָּלַח shave

a וְכִבֹּס הַמַּטְהָר אֶת בְּגָדָיו וְגִלַּח אֶת כָּל שְׂעָרוֹ וְרָחַץ בַּמַּיִם וְטָהַר (ויקרא יד, ח)

He who is to be cleansed shall wash his clothes, **shave off all his hair**, and wash himself in water, that he may be clean. (Leviticus 14:8)

b וְגִלְחָה אֶת-רֹאשָׁהּ וְעִשְׂתָּהּ אֶת-צַפְרָנֶיהָ (דברים כא, יב)

And she shall **shave her head** and trim her nails. (Deuteronomy 21:12)

(40) מָרַט pluck

a וְכִשְׂמָעִי אֶת-הַדָּבָר הַזֶּה קָרַעְתִּי אֶת-בְּגָדֵי וּמַעֲלִילִי וְאֶמְרָטָה מִשְׂעַר רֹאשִׁי וְזָקַנִי²⁷ וְאֶשְׂבָּה מִשּׁוֹמֵם (עזרא ט, ג)

So when I heard this thing, I tore my garment and my robe, and **plucked out some of the hair of my head and beard**, and sat down astonished. (Ezra 9, 3)

b וְאָרִיב עִמָּם וְאֶקְלָלֵם וְאֶכָּה מֵהֵם אֲנָשִׁים וְאֶמְרָטֵם (נחמיה יג, כה)

So I contended with them and cursed them, struck some of them and **plucked them of their hair**. (Nehemiah 13:25)

(41) רָחַץ wash

a אִם רָחַץ אֲדֹנָי אֶת צֹאֲת בְּנוֹת צִיּוֹן וְאֶת דְּמֵי יְרוּשָׁלַם יְדִיחַ קִרְבָּהּ בְּרוּחַ מְשַׁפֵּט וּבְרוּחַ בָּעֵר (ישעיה ד, ד)

When the Lord **has washed away the filth of the daughters of Zion**, and purged the blood of Jerusalem from her midst, by the spirit of judgment and by the spirit of burning. (Isaiah 4:4)

b וְכִבֹּס אֶת-בְּגָדָיו וְרָחַץ אֶת-בָּשָׂרוֹ בַּמַּיִם וְטָהַר (ויקרא יד, ט)

He shall wash his clothes and **wash his body** in water, and he shall be clean. (Leviticus 14:9)

(42) שָׁטַף flow over

a וְאָרַחֲצֶךָ בַּמַּיִם וְאֶשְׂטַף דְּמִיךָ מֵעַלְיֶךָ וְאֶסְכַּךְ בְּשֶׁמֶן (יחזקאל טז, ז)

Then I washed you in water; yes, I thoroughly **washed off your blood**, and I anointed you with oil. (Ezekiel 16:9)

b וְכֹל אֲשֶׁר יִגַּע בּוֹ הַזָּב וַיְדִיֵּל אֵלַי שָׁטַף בַּמַּיִם וְכִבֹּס בְּגָדָיו וְרָחַץ בַּמַּיִם וְטָמֵא עַד הָעֶרֶב (ויקרא טו, יא)

And whomever the one who has the discharge touches, and has not **rinsed his hands** in water, he shall wash his clothes and bathe in water, and be unclean until evening. (Leviticus 15:11)

(43) מָחָה clear

²⁷As in ex (30a) above, *mi-* here is partitive, thus *hair* is direct object.

- a בלע המנות לנצח ומחה אדני ה' דמעה מעל כל פנים וחרפת עמו יסיר מעל כל הארץ (ישעיה כה, ח)
He will swallow up death forever, And the Lord God will **wipe away tears from all faces**; The rebuke of His people He will take away from all the earth. (Isaiah 25:8)
- b ומחיתי את ירושלים כאשר ימחה את הצלחת מכה והפך על פניה (מלכים ב כא, יג)
I will wipe Jerusalem as one wipes a dish, wiping it and turning it upside down. (2 Kings 21:13)
- (44) רפא cure²⁸
a ויצא הכהן אל מחוץ למחנה וראה הכהן והנה נרפא נגע הצרעת מן הצרוע (ויקרא יד, ג)
And the priest shall go out of the camp, and the priest shall examine him; and indeed, if **the leprosy is healed** in [from] the leper. (Leviticus 14:3)
- b כי אעלה ארכה לך וממכותיך ארפאך נאם ה' (ירמיה ל, יז)
For I will restore health to you And **heal you of your wounds**, says the Lord. (Jeremiah 30:17)
- (45) כבס wash
a אחרי הכבס את הנגע (ויקרא יג, נה-נו)²⁹
after **it [the plague] has been washed**. (Leviticus 13:55)
- b כבסני מעוני (תהילים נא, ד)
Wash me thoroughly from my iniquity. (Psalms 51: 2)
- (46) נקה acquit
a ונקיתי דמים לא נקיתי (יואל ד, כא)³⁰
And **I will hold as innocent their blood** that I have not held as innocent. (Joel 4:21)
- b אם חטאתי ושמתני ומעוני לא תנקני (איוב י, יד)
If I sin, then You mark me, **and will not acquit me of my iniquity**. (Job 10:14)
- (47) הקצה scrape off
a ושפכו את העפר אשר הקצו אל מחוץ לעיר (ויקרא יד, מא)
...and the **dust that they scrape off** they shall pour out in an unclean place outside the city. (Leviticus 14:41)
- b ואחרי הקצות את הבית ואחרי הטוח (ויקרא יד, מג)
...**after he has scraped the house**, and after it is plastered. (Leviticus 14:43)

²⁸ The examples here illustrating frame alternation are in the Simple template, but most occurrences of this root in the Old Testament are in the Intensive template.

²⁹ BH allows the passive subject to be expressed as a direct object in some cases. The passive **הכבס** *has been washed* is not a standard passive form, and is considered the passive of the Middle Intensive form *hitpa'el* by e.g. Joüon 1923 §53h.

³⁰ The English translation we give for this particular example is based on the JPS translation. Though Rashi's interpretation of this particular example is different, it equally assumes Frame A.

- (48) בזז plunder
- a וְאֵת כָּל חֵילָם וְאֵת כָּל טָפְסָם וְאֵת נְשֵׁיהֶם שָׁבוּ וַיִּבְזְזוּ וְאֵת כָּל אֲשֶׁר בְּבָיִת (בראשית לד, כט)
...and all their wealth. All their little ones and their wives they took captive; and **they plundered even all that was in the houses.** (Genesis 34:29)
- b וַיֵּצֵא הָעָם וַיִּבְזְזוּ אֶת מְחֻנֵּה אֲרָם (מלכים ב ז, טז)
Then the people went out and **plundered the tents of the Syrians.** (2 Kings 7:16)
- (49) גזל rob
- a וַיִּגְזַל אֶת הַחֲנִית מִיַּד הַמִּצְרִי (שמואל ב כג, כא)
He **wrested the spear out of the Egyptian's hand.** (2 Samuel 23:21)
- b גֹּזֵל אָבִיו וְאִמּוֹ וְאָמַר אֵין פְּשַׁע חֲבֵר הוּא לְאִישׁ מִשְׁחִית (משלי כח, כד)
Whoever **robs his father or his mother**, and says, "It is no transgression," the same is companion to a destroyer. (Proverbs 28:24)
- (50) עשק exploit
- a וְהִיתִי עַד מְמָהָר... בְּעֵשְׂקֵי שָׂכָר שְׂכִיר אֶלְמָנָה וְיָתוּם
Against those **who plunder the wages of workers and widows and orphans.** (Malachi 3:5)
- b אֵת שׁוֹר מִי לָקַחְתִּי וְחֲמֹר מִי לָקַחְתִּי וְאֵת מִי עֲשָׂקְתִּי (שמואל א יב, ג)
Whose ox have I taken, or whose donkey have I taken, **or whom have I cheated?** (1Samuel 12:3)
- (51) הריק empty
- a אָמַר אוֹיֵב... אֲרִיק חַרְבִּי תוֹרִישְׁמוּ נְדִי (שמות טו, ט)
The enemy said ... **'I will draw my sword, my hand shall destroy them'**. (Exodus 15:9)
- b וְכָלֵי זֵרִיקוֹ וְנִבְלִיהֶם יִנְפְּצוּ (ירמיה מח, יב)
[wine-workers who will...] **empty his vessels** and break the bottles (Jeremiah 48:12)
- (52) הפשיט strip
- a כְּבוֹדִי מֵעָלַי הִפְשִׁיט וַיִּסֶר עֲטֹרַת רֹאשִׁי (איוב יט, ט)
He has **stripped my glory off me**, and taken the crown from my head. (Job 19: 9)
- b וְהִפְשִׁיטוּ אוֹתָךְ בְּגָדֶיךָ וְלָקַחוּ כְּלֵי תַפְאָרְתְּךָ וְהִנִּיחוּךָ עֵירָם וְעָרְיָה (יחזקאל טז, טז)
They shall **also strip you of your clothes**, take your beautiful jewelry, and leave you naked and bare. (Ezekiel 16:39)
- (53) עצר stop
- a וַתֵּעָצֵר הַמַּגֵּפָה מֵעַל בְּנֵי יִשְׂרָאֵל (במדבר כחה)
So the plague was **stopped among the children** of Israel. (Numbers 25:8)

- b. ³¹ ותאמר שרי אל אברם הנה נא עצרני ה' מלדת (בראשית טז, ב)
See now, the Lord has **restrained me from bearing children**. (Genesis 16:2)

(54) השך spare

- a. ולא השכת את בנך את יחידך ממני (בראשית כב, יב)
...you have not **withheld your son**, your only son, **from Me**. (Genesis 22:12)

- b. גם מזדים חשך עבדך אל ומשלו בי (תהילים יט, יד)
Spare Your servant presumptuous sins; let them not have dominion over me. (Psalms 19:13)

6. B Verbs

6.1 The onset/offset of a mereological relation

Removal B-verbs do not denote motion, but what has been called "removal of possession" by Talmy 1985 or "deprivation" by Levin and Rappaport Hovav 1991. The Locatum is not an independent object moving away from a Location, but an integral or possessed part of the Location which is lost to the Location as a result of the Agent's action. This is true in BH as well, as illustrated in the following examples of removal B verbs:

(55) חסר deprive

ולמי אני עמל ומחסר את נפשי מטובה (קהלת ד, ח)

For whom do I toil and **deprive myself of good**? (Ecclasiastes 4:8)

(56) קדש cleanse

והיא מתקדשת מטמאתה (שמואל ב יא, 4)

for **she was cleansed from her impurity** (2 Samuel 11, 4)

(57) ³²טהר purify

ויצא אל המזבח ... וטהרו וקדשו מטמאת בני ישראל (ויקרא טז, יח-יט)

And he shall go out to the altar... **cleanse it and consecrate it from the uncleanness of the children of Israel**. (Leviticus 16:18-19)

(58) גמל wean

את-מי יורה דעה ואת-מי גבין שמועה גמולי מחלב עתיקי משדים (ישעיהו כח, ט)

"Whom will he teach knowledge? And whom will he make to understand the message? Those just **weaned from milk**? Those just drawn from the breasts? (Isaiah 28:9)

³¹ We interpret the direct object clitic as Location on the basis both of the Onkelos translation: הא כען סגר את רחמי (Kil 1997). Both show that the direct object clitic refers to the Location rather than to a Locatum being stopped while advancing, as it does in (53a).

³² The verb טהר could be thought of as alternating, since it once appears in Frame A, in (i) below. But it is interpreted in (i) as *pronounce pure*:

(i) וראהו חפהו והנה נהפך הנגע ללבן וטהר חפהו את-הנגע טהור הוא (ויקרא יג יז)
And the priest shall examine him; and indeed if the sore has turned white, then the priest shall pronounce him clean who has the sore. He is clean.
(Leviticus 13:17)

We note the prevalence of the Intensive template in B verbs (both putting and removal), which is the mirror image of the prevalence of the Causative template in A verbs. Indeed, of the 37 BH B verbs, 15 are in the Intensive template, i.e. 40%:

הַפָּה *panel*, צָפָה *overlay*, קָרָה *roof with beams*, כָּסָה *cover*, עָטַר *crown*, יָרַד *lay (a bed)*, גָּשָׁם *rain*, יָשַׁב *populate*, יָשָׁן *oil/take away fatty ashes*, סָקַל *hurl stones*, שָׁרַשׁ *uproot*, טָמֵא *defile*, טָהַר *cleanse*, קִדְּשׁ *sanctify*, חָסַר *deprive*.

This is dramatically more than in the other classes. Of the 95 BH A verbs, only 12 are in the Intensive template (13%):

יָדָה *cast/shoot*, שָׁכַן *make dwell*, קָבַץ *collect*, פָּזַר *scatter*, נָזַר *disperse*, נָתַק *tear*, בָּלַע *swallow/destroy*, מָלַט *rescue*, פָּלַט *save*, גָּרַשׁ *drive out*, הִלִּץ *rescue*, נִשַּׁל *dislodge*

and of the 45 BH A/B verbs, only 7 are in the Intensive template (15%):

מָלֵא *fill*, גָּלַח *shave*, חָטֵא *purify*, נָקָה *acquit*, כָּבַס *wash*, פָּנָה *clear*, שָׁלַח *send*.³³

We can generalize the notions of "removal of possession" and "deprivation" to locative verbs in general, and extend them to verbs of putting as well as verbs of removal. Indeed we find that B verbs of putting describe an Agent bringing about the onset of a relation of inclusion/ possession/ consumption, a type of relation which we call for short *mereological*. This relation, independently of the Agent, **can often be expressed on its own as a transitive relation** (unlike the intransitive motion verbs that A verbs are derived from, c.f. section 4 above). There is no movement implicated in these verbs, but the existence or the onset of a mereological relation, similarly to the loss of this relation in the verbs of removal (55) – (58) above. There is never a path of motion lexicalized in these verbs, and thus the Location is fixed and is always either Source or Goal, and cannot vary for a single verb, unlike the vast variation we found in both alternating verbs and A verbs. There are two types of mereological relations:

³³ For the sake of completeness, we also list all the Simple template locative verbs. They constitute the majority of A/B verbs (31 out of 45, i.e. almost 70%), whereas their proportion among non-alternating verbs is roughly 50%, which is what we would expect since the Simple template is the default template. There are 45 Simple template verbs out of the 95 A verbs, and 19 out of the 37 B verbs.

A/B verbs

אָסַף *gather*, זָרַע *sow*, חָבַשׁ *wrap*, טָח *plaster*, יָרָה *shoot*, מָשַׁח *anoint*, סָכַךְ *thatch*, עָמַס *load*, רָגַם *stone*, שָׂם *put*, שָׂת *set*, אָרָה *gather/pluck*, בִּזַּז *plunder*, בָּצַר *gather grapes*, גִּזַּז *shear*, גָּזַל *rob*, חָשַׁךְ *spare*, יָנַק *suck*, יָרַשׁ *get/inherit*, יָרַשׁ *wipe*, מָחָה *wipe*, מָנַע *withhold*, מָרַט *pluck*, עָצַר *stop*, עִשְׂקָה *exploit*, פָּרַק *rescue*, קָצַר *harvest*, רָחַץ *wash*, רָפָא *heal*, שָׁטַף *flow over*, שָׁדַד *rob/devastate*

A verbs

אָסַר *bind*, אָצַר *gather/store up*, גָּלַל *roll*, זָרָה *blow off*, זָרַק *toss/sprinkle*, טָבַל *dip*, טָמֵן *hide*, יָצַק *pour*, לָחַץ *push*, מָרַח *spread*, נָטַע *plant*, נָטַשׁ *abandon*, נָפַח *blow*, נָסַךְ *pour*, נָתַן *put/give*, סָחַב *drag*, עָזַב *leave*, פָּרַשׁ *stretch out*, צָפַן *hide*, צָרַר *wrap*, קָבַר *bury*, קָרַם *cover with skin*, קָשַׁר *tie*, שָׁלַח *send*, תָּלַה *hand*, תָּקַע *drive in*, גָּנַב *steal*, גָּרַע *take/lessen*, דָּלַה *draw water*, הִדְּף *push*, הִבֵּל *seize a pledge*, הִלִּץ *withdraw/bare*, חָרַט *cut off*, לָקַח *take*, לָקַט *gather*, מָלַק *pinch off*, מָצָה *wring/drain*, מָשַׁח *draw out*, נָסַח *uproot*, נָשָׂא *bring*, פָּדָה *buy out/redeem*, קָבַץ *collect*, קָטַף *collect*, שָׁאָב *draw water*, שָׁלַף *pull off*, שָׁפַךְ *spill*

B verbs

אָזַר *gird*, גָּדַר *fence up*, חָגַר *gird*, טָעַן *load*, כָּהַל *put on makeup*, כָּפַר *tar*, נָעַל *put on footwear*, אָנִיחַ *anoint*, גָּמַל *surround*, סָבַב *cover*, סָפַן *shut/obstruct*, עָדָה *adorn*, עָטָה *mantle*, רָבַד *prepare a couch*, שָׁךְ *hedge*, שָׁחַט *wean*, זָמַר *prune*, זָרַם *squeeze*

Simple template verbs provide us with additional evidence for the distinction between alternating verbs, which have an obligatory external argument, and non-alternating verbs, where the external argument is optional: the Middle Simple template is mostly interpreted as passive in A/B verbs, but is usually interpreted as unaccusative in non-alternating verbs.

I. Locatum-subject verbs (Locatum covers/surrounds Location)
 כִּסָּה *cover*, חָפָה *overlay*, צָפָה *cover*, קָרָה *roof*, רָבַד *prepare a couch*, סָבַב *surround*, רָפַד *lay (a bed)*, סָפַן *cover*, יָשַׁב *populate*, הִשְׁקָה *water*

II. Location-subject verbs (Location integrates Locatum)
 אָכַל *eat*, שָׁתָה *drink*, שָׂבַע *be satiated*, רוּחַ *be saturated*, הִשִּׁיק *overflow*, אָזַר *gird*, נָעַל *put on footwear*, עָדָה *adorn*, עָטָה *mantle*, טָמְאָה *be defiled*

We illustrate below these types of mereological relation, together with the derived locative B verbs.

(59) כִּסָּה *cover*
used as a mereological relation (Locatum-subject)
 וְכִסָּה עֲנַן הַקְּטֹרֶת אֶת-הַכַּפֹּרֶת אֲשֶׁר עַל-הָעֵדוּת (ויקרא טו, יג)

the cloud of incense may cover the mercy seat that is on the Testimony.
 (Leviticus 16:13)

B verb

וְעַל מִזְבֵּחַ הַזֹּהֵב יִפְרֹשׂוּ בְּגָד תְּכֵלֶת וְכִסּוּ אֹתוֹ בְּמַכְסֵה עוֹר תַּחֲשׁ (במדבר ד, יא)

Over the golden altar they shall spread a blue cloth, and **cover it with a covering** of badger skins. (Numbers 4:11)

(60) טָמְאָה/טָמְאָ defile
used as a mereological relation (Location-subject)
 בְּדַמְךָ אֲשֶׁר שָׁפַכְתָּ אֲשַׁמְתָּ וּבְגִלּוּלֶיךָ אֲשֶׁר עָשִׂיתָ טָמְאָתָה (יחזקאל כב, ד)

You have become guilty by the blood which you have shed, **and have defiled yourself with the idols** which you have made. (Ezekiel 22:4)

B verb

וְאֶשְׁפָּד חֲמָתִי עֲלֵיהֶם עַל הַדָּם אֲשֶׁר שָׁפְכוּ עַל הָאָרֶץ וּבְגִלּוּלֵיהֶם טָמְאוּהָ (יחזקאל לו, יח)

Therefore I poured out My fury on them for the blood they had shed on the land, and for their **idols with which they had defiled it**. (Ezekiel 36:18)

Additional such pairs are shown below:

Table 4 B-verbs derived from verbs of mereological relations

<i>verb</i>	<i>Translation</i>	<i>used as a mereological relation</i>	<i>used as a B verb</i>
		<i>Locatum Subject</i>	
סבב	surround	Genesis 2:11	Exodus 28:11
השקה	water	Genesis 2:6	Psalms 80:5
		<i>Location Subject</i>	
חגר	gird	1Kings 20:32	Exodus 29:9
אזר	gird	1Samuel 2:4	Psalms 18:32
עדה	adorn	Ezekiel 23:40	Ezekiel 16:11
אכל/האכיל	eat/feed	Exodus 16:35	Deuteronomy 8:3
שבע/השביע	fill/satisfy (food)	Proverbs 12:11	Lamentations 3:15
רוה/הרוה	fill/satisfy (drink)	Proverbs 7:18	Lamentations 3:15

We note that all Location-subject verbs are in the Simple template, whereas this is not true of Locatum-subject verbs. The latter typically have the same non-simple template as the derived locative B verb. We conclude that the unmarked mereological relation is expressed by Location-subject verbs. Mereological relations expressed by Locatum-subject verbs are derived from the Location-subject verbs in case the Agent is missing, and the Location is assigned an additional Agentive role.³⁴

6.2 Locatum incorporation

For some B verbs, the Locatum argument is incorporated into the verbal root. This leaves the Location as the single internal argument available to the verb in the syntax, and hence Frame B as the only available alignment (as was noted by Rubinstein 1982: 351-353). Here are several examples:³⁵

- (61) כהל put on make up
וְהִנֵּה בָּאוּ לְאַשֶׁר רָחֲצָתָּ כְּחֶלֶת עֵינֶיךָ וְעָדִיתָ עָדֶי (יחזקאל כג, מ)
And there they came and you washed yourself for them, **painted your eyes**, and adorned yourself with ornaments. (Ezekiel 23:40)
- (61) כפר tar
עֲשֵׂה לְךָ תִּבְתָּ עֲצֵי גֹפֶר קִנִּים תַּעֲשֶׂה אֶת הַתֵּבָה וְכִפַּרְתָּ אֹתָהּ מִבֵּית וּמִחוּץ בַּכֹּפֶר (בראשית ו, יד)
Make yourself an ark of gopherwood; make rooms in the ark, **and cover it** inside and outside **with pitch**. (Genesis 6:14)
- (63) גשם rain
בְּיָד אָדָם אָמַר לָהּ אֶת אֶרֶץ לֹא מְטַהֶרֶה הִיא לֹא גֹשֶׁמָה בְּיוֹם זַעַם (יחזקאל כב, כד)
Son of man, say to her: ‘You are **a land** that is not cleansed or **rained on** in the day of indignation’. (Ezekiel 22:24)
- (64) עטרה crown
מִה-אֲנֹשׁ כִּי-תִזְכְּרֶנּוּ... וְכִבוֹד וְהָדָר תַּעֲטֶרְהוּ (תהילים ח, ה-ו)
What is man that You are mindful of him... And You have **crowned him with glory and honor**. (Psalms 8:4-5)
- (65) גדר fence up³⁶

³⁴ This template-modifying derivation of Locatum-subject verbs from Location-subject verbs is different from the alternation of intransitive/monotransitive locative verbs such as רמץ, שרץ, רמש *swarm*, זב, זב *drip*, נשל *dislodge*, מלא *fill* (*monotransitive*). In the case of the latter verbs, both alternants are in the Simple template, i.e. alternation does not modify the template; moreover, the Location is typically marked with a locative preposition in the Locatum-subject variant. We note that the alternating ditransitive verb מלא *fill* (*ditransitive*) is special among A/B verbs in that it is derived from the alternating monotransitive verb מלא *fill*, unlike all other A/B verbs, where the Agent is obligatory (as indicated by the non-optionality of the external argument in the trees in (14) above). Another such verb might be נשל *dislodge*. Though it is only found in Frame A in the Hebrew Bible, we speculate it was an alternating verb in BH, since it is derived from an alternating monotransitive verb. See additional discussion of נשל in fn. 39.

³⁵ The preposition sometimes allows the repetition of the incorporated Locatum as a cognate object, i.e. a non-referential expression such as מאבן *of stone* or בשמן *with oil*.

³⁶ This verb could be considered alternating, since it may have a single occurrence in Frame A, which is questionable since the direct object is a cognate object (ignored in the translation):

(i) לָכֵן הִנְנִי שֹׂף אֶת דְּרָכֶיךָ בְּסִירִים וְגִדְרֹתַי אֶת גְּדֵרְךָ וְנִתְיַבֹּתֶיךָ לֹא תִמְצָא (הושע ב, ח)

אָרְחֵי גְדֹר וְלֹא אֶעְבֹּר וְעַל נְתִיבוֹתַי חֻשֵׁף גִּישִׁים (איוב יט, ח)

He has **fenced up my way**, so that I cannot pass; and He has set darkness in my paths. (Job 19:8)

- (66) סָקַל hurl stones
used as a verbs of putting
סָקַל נְבוֹת וַיָּמַת (מלכים א כא, יד)

Naboth has been stoned and is dead. (1Kings 21:14)

used as a verbs of removal

עָבְרוּ עָבְרוּ בַּשְּׁעָרִים פִּנּוּ דְרָךְ הָעָם סִלּוּ סִלּוּ הַמְּסֻלָּה סָקְלוּ מֵאֲבָן (ישעיהו סב, י)

Go through, Go through the gates! Prepare the way for the people; Build up, Build up the highway! **Clear it of the stones**. (Isaiah 62:10)

- (67) דִּישָׁן oil/take away fatty ashes
used as a verbs of putting
דִּשְׁנֵת בַּשֶּׁמֶן רֹאשִׁי (תהילים כג, ה)

You **anoint my head with oil**. (Psalms 23:5)

used as a verbs of removal

וְדִשְׁנֵנו אֶת-הַמִּזְבֵּחַ (במדבר ד, יג)

Also they shall **clear the altar of ashes**. (Numbers 4:13)

- (68) שָׂרַשׁ make a plant take/lose root
used as a verb of putting
נִטְעַתֶּם גַּם שָׂרְשׁוֹ (ירמיהו יב, ב)

You have planted them, yes, they have **taken root**. (Jeremiah 12:2)

used as a verb of removal

אֲזַרְעָה... וְצִאֲצְאֵי יִשְׂרָאֵל (איוב לא, ה)

Yes, let my harvest be **rooted out**. (Job 31:8)

Locatum-incorporating verbs seem to denote change along a path rather than mereological relations. One indication is their ambiguous use as putting/ removal verbs, illustrated by (66) – (68). Another indication is that they are not derived from any verbs denoting basic mereological relations. We conclude that Locatum-incorporated verbs are not based on mereological relations. They are similar to other B verbs in that they do not alternate, but this is a by-product of the incorporation of the Locatum into the verbal root. The fact that they are not found in Frame A (but see fn. 36) is due to the independent factor of Locatum incorporation, which prevents the realization of Frame A for reasons unrelated to the argument alignment of these verbs. We therefore propose that these B verbs have the syntax of alternating verbs, though they happen not to appear in Frame A. The reason why there is no actual alternation,

Therefore, behold, I will hedge up your way with thorns, And **wall her in**, So that she cannot find her paths. (Hosea 2:6)

Similarly for *crown* in (64):

- (ii) צֵאנָה וּרְאִינָה בְּנוֹת צִיּוֹן בַּמֶּלֶךְ שְׁלֹמֹה בְּעֹטְרָה שְׁעֵטְרָה-לוֹ אִמּוֹ בְּיוֹם חֲתֻנָּתוֹ (שיר השירים ג, יא)
Go forth daughters of Zion and see King Solomon with the crown which his mother gave him on the day of his wedding. (Canticles 3:11)

even when the preposition is symmetric, is the incorporation of the Locative into the verb.

7. Classification of Biblical Hebrew as verb-framed

We have related the Locative Alternation Preposition Identity to another syntactic property of BH: it's being a verb-framed language in the terminology of Talmy 1985, 1991, 2000. Talmy's typology classifies a language as verb-framed or satellite-framed on the basis of the prevalent lexicalization pattern in the language. In the realm of motion verbs, verb-framed languages tend to encode direction of motion within the verb itself, and manner of motion – in satellite (e.g. subordinate) expressions. This is reversed in satellite-framed languages. The latter languages tend to encode manner of motion within the verb, and direction of motion – in satellite expressions such as directional particles or prepositions.

One difference between verb-framed and satellite-framed languages is that the former have very few manner of motion verbs in comparison to the latter. For example, BH only has about twenty, such as: אץ *run*, רץ *walk*, רכב *ride*, עף *fly*, שט *cruise*, רָהַף *soar*, זחל *crawl*, דלג, skip, קפץ *hop*, זרם *flow*, נד *wander*, נע, נע, נע *swim*, דהר *dash*, צעד, *stride*. These verbs do not themselves encode direction, and do not cooccur with expressions encoding direction.³⁷ English, which is a satellite framed-language, has in comparison about 200 manner of motion verbs (Levin 1993).

English often attaches various particles to motion and locative verbs for the purpose of encoding the direction of change. For example the verb *bring* cooccurs with various particles, e.g. *bring in*, *bring out*, *bring up*, *bring down*, *bring back*. In Hebrew, for each direction there is a different verb expressing *bring* in that direction: הביא *bring in*, הוציא *bring out*, העלה *bring up*, הוריד *bring down*, השיב *bring back*. For the purpose of expressing *bring* without specifying a direction, Hebrew resorts to the verb נשא *carry*. But since this verb does not encode a direction, it cannot cooccur with a result state phrase: In a verb-framed language, the direction toward the result state must be lexicalized within the verb. Accordingly, the direction for *carry* is expressed by conjoining it with other verbs lexicalizing the path/direction, such as *go up* and *rest (be placed)* in the following BH example:

(69) נשא *carry*

³⁷ But, as noted by Slobin 2004:226, "verb-framed languages do sometimes license the use of a manner verb as a main verb in a path expression if no *boundary-crossing* is predicated. Thus it is possible, across a range of verb-framed languages to say the equivalent of 'fly to/from the tree' but not 'fly out of the hole'." In BH, this is possible for the locative verb גלל *roll*:

(i) ויאמר יהושע גלו אבנים גדולות אל-פי המערה (יהושע י, יח)
So Joshua said, **Roll large stones against the mouth of the cave.** (Joshua 10:18)

(ii) ויגש יעקב ויגל את האבן מעל פי הבאר (בראשית כט, י)
Jacob went near and **rolled the stone from the well's mouth.** (Genesis 29:10)

Yet the verbs סחב *drag* and רץ *run* seem to contradict even this weakened characterization:

(iii) וסחבנו אתו עד-הנהל (שמואל ב יז, יג)
We will pull it into the river (2Samuel 17:13)

(iv) וישלח פרעה ויקרא את-יוסף ויריצהו מן-הבור (בראשית מא, יד)
Then Pharaoh sent and called Joseph, and they **brought [ran] him quickly out of the dungeon.** (Genesis 41:14)

It is possible that רץ *run* should be given an additional interpretation as a directed-motion verb *go quickly*, similarly to הלך *go*. Joseph was probably not made to run, but to leave quickly.

הַבִּקֹּר הָיָה וְרוּחַ הַקִּדְדִים נָשָׂא אֶת-הָאֲרָבָה, וַיַּעַל הָאֲרָבָה עַל כָּל-אֶרֶץ מִצְרַיִם, וַיָּנִחַ בְּכָל
 גְּבוּל מִצְרַיִם (שמות י', יג-יד)

When it was morning, **the east wind brought the locusts. And the locusts went up over all the land of Egypt and rested on all the territory of Egypt.** (Exodus 10: 13-14)

Additional examples, with the manner verbs רכב *ride* and חש *hurry*, are shown below. In the first example, (70), the NKJV literally translates the direction by conjoining the manner of motion verb with a directed motion verb: *ride and go to*. In the second example (71), the NKJV does not literally translate *hurry and raid*, but rather idiomatically *rush upon*:

(70) רכב *ride*
 וַיִּרְכַּב יְהוּא וַיֵּלֶךְ יִזְרְעֵאלָהּ כִּי יוֹרָם שָׁכַב שָׁמָּה (מלכים ב ט, טז)
 So Jehu **rode in a chariot and went to Jezreel**, for Joram was laid up there.
 (2 Kings 9:16)

(71) החיש *hurry*
 וְהָאֲרָב הַחִישׁוּ וַיִּפְשְׁטוּ אֶל-הַגְּבֵעָה (שופטים כ, לו)
 And the men in ambush **quickly rushed upon Gibeah.** (Judges 20:37)

Another means of combining manner of motion verbs with a direction in a verb-framed language is to embed them in non-finite form (either as a verbal noun or a participle) under a finite verb of directed motion. In the following examples, the manner of motion verbal noun *fly* is embedded under the change of location verb הגביה *go up*, and the manner of motion participle *hastened* is embedded under the change of location verb יצא *go out*:

(72) עוף *fly*
 כִּי-אָדָם לְעֵמֶל יוֹלֵד וּבְנֵי-רֶשֶׁף יִגְבְּיֵהוּ עוֹף (איוב ה, ז)
 Yet man is born to trouble, As the sparks **fly upward.** (Job 5:7)

(73) נבהל *hasten*
 הַרְצִים רֶכְבֵי הַרְקָשׁ הָאֲחֻשְׁתֵּינֵינִים יֵצְאוּ מִבְּהַלִּים וְדַחוּפִים בְּדַבַּר הַמֶּלֶךְ (אסתר ח, יד)
 The couriers who rode on royal horses **went out, hastened and pressed on** by the king's command. (Esther 8:14)

The following table summarizes the examples above illustrating the BH verb-framed system, where a non-directed motion verb cannot be modified by a locative result state, vs. the English satellite-framed system, where this is possible:

Table 5

Literal English translation of BH Verb-framed	Idiomatic English translation of BH Satellite-framed
carry the locusts, and they go onto the land	carry the locusts onto the land
ride and go to Jezreel	ride to Jezreel
rush and raid Gibeah	rush upon Gibeah
go up flying	fly upward
go out hastened	hasten out

In a verb-framed language, such as BH, a locative verb encodes directed change, while the preposition encodes a stative result. As we argued in section 2, if the stative preposition is moreover symmetric, its arguments alternate, which results in two

alignment frames for the same preposition. We thus account for the Locative Alternation Preposition Identity. A satellite framed language, on the other hand, the direction of motion is encoded in the preposition. Thus the preposition is often dynamic, and in particular not symmetric.

8. The historical development of MH from BH

8.1. MH inherits the Locative Alternation Preposition Identity

As mentioned in section 1, Modern Hebrew, just like BH, exhibits the Locative Alternation Preposition Identity. Yet it is not at all clear whether MH is verb-framed. True, MH still has a salient characteristic of verb-framed languages: its motion verbs often lexicalize path and direction, e.g. *enter* נכנס *exist* יצא *ascend* עלה *descend* ירד. But on the other hand, MH has innovated many manner-of-motion verbs, and uses them happily with directional prepositional phrases. Moreover, MH allows directional phrases with the manner of motion verbs inherited from BH, e.g. *rode under the bridge*, רכב אל מתחת לגשר *crawled out of the hole*, זחל אל מחוץ לבור, which is impossible in BH and in other verb-framed languages.

MH has locative verbs which are manner of motion verbs, and uses them easily with directional prepositions (carry away) סחף *drag* גרר *pull* משך *roll* גלגל *push* דחף etc). BH only uses a couple of such verbs as locative verbs, *drag* סחב *roll* גלל.

MH has innovated many alternating locative verbs involving manner of motion verbs. Mateu 2001 observes the rareness of alternating verbs in Spanish denoting "simultaneous forceful contact and motion of a mass against a surface" (a term due to Pinker 1989: 126). These verbs are not expected to alternate in a verb-framed language, since they denote non-directed activities, and thus cannot involve a result state. BH only has one such alternating verb *rinse* שטף. Unlike BH and Spanish, such alternating verbs are common in MH, which is not surprising if MH is satellite-framed. Most MH examples are verbs of removal:

rinse שטף, *rub* שפשף, *shake* ניער, *wipe* ניגב, *scrub* קרצף, *shine* צחצח, *brush* הבריש, טאטא *sweep*, מירק *polish*, גירף *rake*, זיקק *distill*

but some can also be interpreted as verbs of putting: *massage* עיסה, *rinse into*, שטף *rub into*, שפשף.

MH has thus acquired important characteristics of satellite-framed languages. This casts doubt on the classification of MH as verb-framed proposed by Berman and Slobin 1994 and Slobin 2004.

The possibility that MH is a satellite-framed language actually strengthens the view that MH syntax is a historical development of BH syntax. MH has the Locative Alternation Preposition Identity, and has thus kept a characteristic of the BH system which it certainly could not have developed on its own, since this is a characteristic of a verb-framed language, which MH might not be. Neither are the main contact languages which influenced MH, Slavic and Germanic, classified as verb-framed, but as satellite-framed (Talmy 1991). Accordingly, the only way MH could have acquired a characteristic of verb-framed languages is to have inherited it from BH.

8.2. MH inherits the BH classification of locative verbs

We have classified BH verbs into A verbs, A/B verbs, and B verbs. But we have already mentioned that these classes cluster into two larger classes:

A/(B) verbs

Verbs which on principle allow the alignment of their arguments in Frame A, either *non-alternating*, or *alternating* with Frame B.

B verbs

Verbs which allow the alignment of their arguments in Frame B only.

The clustering is based on several factors. A/(B) verbs describe events where the result state is achieved along a path of directed change. On the other hand, B verbs describe (the onset of) a mereological relation between the Location and Locatum.

Second, A/(B) verbs, since they lexicalize a path, may be ambiguous between putting and removal verbs, i.e. allow both the result state of the Locatum missing from the Source and the result state of the Locatum being at the Goal. We discussed this ambiguity of path verbs in section 3.2.1. above, and we even found it in Locatum-incorporated verbs, as shown in examples (66) – (68) in section 6.2. Recall that Locatum incorporated verbs have the syntax of alternating verbs. On the other hand, B verbs do not lexicalize a path, and therefore the result state is determined by the verb and cannot vary between being away from the Source or together with the Goal.

Historically, we would not expect verbs to cross from one cluster to another in the course of linguistic evolution. Indeed, looking at MH, we find that the separation between the two clusters is preserved. We can actually test one direction only: BH A/(B) verbs have not become B verbs in MH. We cannot test the opposite direction, since among the B verbs found in the Hebrew Bible, there might have been verbs which actually alternated in BH, unbeknownst to us.³⁸

The direction we can test accords fully with our prediction. Considering BH A/(B) verbs, we see that many alternations are preserved in MH. The following verbs and many others alternate in MH, we refer the reader to Sadka 1974, Halevy 2009, Segal and Landau 2012, and Dubnov and Doron 2014 for MH examples illustrating their alternation: מילא *fill*, משח *grease*, זרע *sow*, שטף *rinse in/out*, (הריק) רוקן *empty*, פרק *unload*, ניקה *clean*, ריפא *cure*, פינה *clear*, רחץ *wash*, בזז *loot*, מנע *prevent*, הפשיט *strip*, etc. Crucially, **when the alternation is lost, it is always Frame A which is preserved**: שם *put*, הסיר *remove*, היזה *sprinkle*, ירה *shoot*, אסף *gather*, חסך *spare*, גול *rob*, מחה *wipe*.³⁹ These findings, first, support the separation of locative verbs into the

³⁸ Thus, the following verbs may seem to be a counterexample to the claim that A/(B) verbs cannot evolve from B verbs, since they alternate in MH while their counterparts are B verbs in the Bible: הגר *put on belt*, מירק *polish*, זיקק *purify*, ריסס *spray*. Yet this is actually not counter-examples, since the verbs are rare in the Bible, and might have alternated in BH too.

³⁹ Dubnov and Doron 2014 mention נָשַׁל *dislodge* as a single potential counterexample to this generalization, since it is an A verb in BH (which might have alternated, cf. fn. 34), but is commonly used in MH in Frame B, and is usually translated as *dispossess*. Yet we have found attested MH Frame A examples, which indicate that the verb alternates in MH:

- (i) להושיט יד של אחווה במאבק המר נגד הניסיון המרושע לנשל את האדמה מתחת לרגליהם
Extend a hand of solidarity in the bitter struggle against the wicked attempt to **dispossess the land from under their feet**. (Sami Michael, Haaretz 3.12.2013, Galeria page 9)
- (ii) אנחנו מדברים על זה שיש מחסור באחיות, אז אי אפשר גם לנשל את הזכויות שלהן, גם להעמיס עליהן את העבודה

We speak about shortage of nurses, so it is not possible both to **dispossess their rights** and to load the work on them... (Knesset committee stenogram1.7.2009)

two clusters: A/(B) vs. B, and second, support the view that the syntactic system underlying the locative alternation has been inherited into MH from BH.

We conclude that both differences between BH and MH discussed in this section actually lend support to the development of the latter from the former, contradicting the view of Wexler 1990 and others that the syntax of MH is a calque of the syntax of its Slavic and Germanic contact languages.

9. Conclusion

The paper described the two alternative alignments, Frame A and Frame B, of the arguments of locative verbs. Locative verbs were divided into verbs which specify change along a path (these on principle always allow Frame A alignment, but may alternate with Frame B), and B verbs which describe mereological relations. Among verbs which specify change along a path, A verbs denote motion of the Locatum, whereas A/B verbs describe the bringing about a result state equally involving the Locatum and the Location.

We started with the observation that Hebrew alternating locative verbs allow identical prepositions in the two Frames A and B, irrespective of the semantic role of the prepositional phrase as Locatum or Location. We called this property the *Locative Alternation Preposition Identity*. The preposition in both frames is *b-* 'in contact with' for verbs of putting and *min* 'separate from' for verbs of removal. Preposition identity was accounted for on the basis of the classification of Biblical Hebrew as verb-framed in Talmy's typology. Languages which are verb-framed lexicalize directed change within the verb. In particular, A/B verbs encode directed change into a result state affecting both the Locatum and the Location, so that each may be assigned the grammatical function of direct object. The result of the change, lexicalized by a stative preposition, equally holds of the Locatum and the Location, and consists of the symmetric state of the two arguments being in contact/ separate. In a verb-framed language, then, alternating verbs are verbs which subcategorize for a symmetric preposition for the expression of the result state. The Locatum and the Location are arguments of the preposition.

The paper also showed that the Locative Alternation Preposition Identity was inherited into the syntax of Modern Hebrew. We discussed two systematic differences between the syntax of Modern Hebrew and that of Biblical Hebrew, and concluded from their systematicity that the former originates in the latter.

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- (iii) מקום אחד בארץ הצליחו האתיופים לנכס לעצמם וגם אותו רוצים לנשל מהם
One place in the country the Ethiopians have manage to appropriate for themselves, and **even this** people want to **disposses from them**. (talkback on YNet 22.11.09)

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