Binyanim (form and function). (iii) Modern Hebrew

Edit Doron (to appear in the Encyclopedia of Hebrew Language and Linguistics)

Verb, noun and adjective stems in Semitic languages are derived from (tri-) consonantal roots by different intercalations, called *templates*, of consonantal patterns, vowel sequences and affixes (cross reference: Derivation). While there are scores of templates which derive nouns from roots, the number of verbal templates, traditionally called *binyanim* in Hebrew grammatical tradition, is extremely limited. In Modern Hebrew, setting aside voice variation, each active verb-stem is derived by one of exactly three *binyanim*. These active *binyanim*, also found in Classical Hebrew and the other ancient Semitic languages (Akkadian, Aramaic, Arabic), are traditionally known as (a) the simple *binyan* (לא פֿעל), (b) the intensive *binyan* (פֿיעל), and (c) the causative *binyan* (לישל), and (c) the causative *binyan* (לישל), and (Connor 1990, Joüon and Morauka 2006).

Some scholars deny the semantic contribution of binyanim (Ornan 1971). But since each and every active-voice verb in Hebrew is derived by one of exactly three binyanim, it is natural to suspect that the choice of binyan is not arbitrary, but that it indicates some factor of the meaning of the derived verb. This indeed is the traditional view concerning binyanim (as expressed in the modern literature by Ben-Asher 1972, Berman 1978, Rosén 1977, Schwarzwald 1996, 2001:31-33). Though not every verb in the causative binyan is causative, it is nevertheless the case that in every alternating pair of equi-rooted verbs, it is the causative-binyan verb which is the causative counterpart of the simple-binyan verb, and this is never reversed for any such pair in the language. Equally, every intensive-binyan verb alternating with an equi-rooted simple-binyan verb is agentive, and this is never reversed. Thus, the binyan system expresses meaning where there is contrast (Doron 2003, 2008). The marked binyanim, the causative and the intensive, express the thematic role of the verb's subject: cause and agent respectively. The simple binyan functions as default and is neutral as to the subject's role. But there are many roots which derive singleton verbs, verbs which do not contrast with an equi-rooted verb in another binyan or with an equi-rooted noun/ adjective. There is no contrast associated with such roots, thus no meaning emerges; the binyan is sometimes arbitrary, and often dictated by phonological considerations.

The system is illustrated by the following example, where the different active binyanim are shown in their citation form intertwined with the root \sqrt{hy} 'secure, confident'. To give a rough sketch of the morphology, the simple binyan basically consist of the vowel a, the intensive binyan consists of the vowels i-e, together with a lack of spirantization of the root's middle consonant (optional additional prefixes are - \sqrt{h} '- \sqrt{h} '-

(1) $\sqrt{\text{btx}}$ 'secure, confident'

	Simple	Intensive	Causative
Active Voice	<i>baṭax</i> 'have	bițeax 'insure'	hivțiax 'guarantee,
	confidence'	'ivteax 'secure'	promise'

The following sentences serve to demonstrate the agentive nature of the subject of the intensive verbs in (2a-b): a verb with no additional prefixes in (2a), and one with the prefix -x '- in (2a), versus the causative nature of the subject of the causative verb in (4). (3a-b) is ungrammatical since abstract facts, such as 'his careful driving', are not agentive; (4) is grammatical since abstract facts can be causes.

(2)a. הסוכנת ביטחה את המכונית

ha-soxenet bitx-a 'et ha-mexonit the agent.F insure.INTNS-PAST.F ACC the-car

'The agent insured the car'.

b. הסוכנת איבטחה את המכונית

ha-soxenet 'ivtex-a 'et ha-mexonit the agent.F secure.INTNS-PAST.F ACC the-car

'The agent secured the car'.

(3)a. את המכונית*

- * nehigat-o ha-zehira **biţx-a** 'et ha-mexonit driving.F-his DEF-careful insure.INTNS-PAST.F ACC the-car
- b. ינהיגתו הזהירה איבטחה את המכונית*
 - * nehigat-o ha-zehira 'ivṭex-a 'et ha-mexonit driving.F-his DEF-careful secure.INTNS-PAST.F ACC the-car
- נהיגתו הזהירה הבטיחה שהוא יחזור חי

nehigat-o ha-zehira hivṭix-a še-hu yaxazor xay driving.F-his DEF-careful promise.CAUS-PAST.F that-he will-return alive

'His careful driving guaranteed that he would return alive'.

An additional example is constructed with the root \sqrt{y} \sqrt{y} 'sit, inhabit' in (5), together with the sentences in (6) which demonstrate the agentive nature of the subject of the intensive verb and the causative nature of the subject of the causative verb:

(5) \sqrt{y} šv 'sit, inhabit'

	Simple	Intensive	Causative
Active Voice	yašav 'sit,	yišev 'settle, populate'	hošiv 'seat(tr.), make
	inhabit'		inhabit'

(6)a. השלטונות יישבו אותם בנגב

ha-šiltonot yišv-u 'ot-am b-a-negev the-authorities settle.INTNS-PAST.PL ACC-them in-the-Negev

'The authorities settled them in the Negev'.

b. סיבות כלכליות יישבו אותם בנגב*

* sibot kalkaliyot **yišv-u** 'ot-am b-a-negev reasons economic settle.INTNS-PAST.PL ACC-them in-the-Negev

סיבות כלכליות הושיבו אותם בנגב

sibot kalkaliyot **hošiv-u** 'ot-am b-a-negev reasons economic seat.CAUS-PAST.PL ACC-them in-the-Negev

'Economic reasons made them inhabit the Negev'.

Verbs derived from bi-consonantal (rather than tri-consonantal) roots often have special forms in the various binyanim. For example, the intensive binyan derives verbs with a particular form from some bi-consonantal roots, through the insertion of a glide augment replacing the root's missing consonant (realized as the vowel o), together with the reduplication of the second root consonant. Examples include כופף kofef 'bend (tr)', derived from the bi-consonantal root עלע כפּלkp, פוצץ poses 'explode reference: Defective Verbs). The latter verb seems to present a counterexample to the agentive interpretation of intensive verbs, since the verb 'create' is causative (a homonymous verb הולל zolel 'dance' exists as well, which is indeed agentive, as expected). In actuality, the verb הולל zolel 'create' can serve to illustrate the historical processes which have brought about the assimilation of homonymous roots, thus rendering opaque the semantic contribution of the binyanim in some cases. Diachronically, this verb is derived from the root root $\sqrt[4]{n}$ $\sqrt[4]{n}$ 'give birth', unrelated to the homonymous root אַל הדלע 'happen' which derives the simple verb אַל xal'apply (intr)' and its causative counterpart החיל hexil 'apply (tr)'. Synchronically, these three verbs are sometimes reanalized as deriving from the same root, which makes the intensive הולל *xolel* 'create' seem like a counterexample to the agentive interpretation of intensive verbs. But the counterexample is only apparent, since this verb is actually a singleton verb, and thus not in contrast to the other two verbs (Schwarzwald 1984, Izre'el 2009).

Verbs in Modern Hebrew are not exclusively derived from bare roots, but are sometimes derived from categorized roots (Arad 2003). An example is the intensive verb within the table (7) below, which, though derived from the root \sqrt{slt} 'control, govern' like the simple and causative verbs in the same table, is not derived like the latter from the bare root, but rather indirectly, after the root has been categorized as a noun. The intensive verb is thus in fact derived from the noun שלט selet 'sign post':

(7) $\sqrt{\text{slt}}$ 'control, govern'

	Simple	Intensive	Causative
Active Voice	šalaį 'control'	<i>šileṭ</i> 'fit with sign posts'	hišliṭ 'impose'

The agentive nature of the subject of the intensive verb is illustrated by (8c), in contrast with the non agentive nature of the subject of the simple verb in (8a) (which is a stative verb, hence non agentive) and of the causative verb in (8b):

(8) a. חוסר סדר שלט ברחובות

xoser seder šalat b-a-rexovot lack order control.SIMPL-PAST in-the-streets

'Disorder ruled the streets.'

b. חוסר סדר השליט פחד ברחובות

<u>xoser</u> seder hišlit paxad b-a-rexovot lack order impose.CAUS-PAST fear in-the-streets 'Disorder imposed fear in the streets.'

c. אוסר סדר שילט את הרחובות*

* xoser seder **šilet** 'et ha-rexovot disorder fit-with-sign-posts.INTNS-PAST ACC the-streets

The agentivity of שילש *šilet* 'fit with sign posts' follows from its derivation from the noun שילש *šelet* 'sign post'. In general, a transitive intensive verb derived from the noun N is interpreted as denoting the most basic di-transitive action involving both N and the verb's direct object (Obj): putting N in Obj (or removing N from Obj). These verbs are illustrated in (9) (Doron 2003).

(9) ייער *šileṭ* 'fit with sign posts', ייער *šimen* 'oil', ייער 'ye 'er 'forest', זיפת 'zipet 'tar', אייש 'iyeš 'man', איבק 'iyeš 'man', עימלן 'imlen 'starch', איבק 'ibeq 'dust', קירקף 'girqef 'scalp'...

Causative verbs as well may be derived from a root categorized as a noun N. Such verbs describe their subjects as being the source of N. Examples are given in (10):

(10) הזיע hizia 'sweat', הקיא heqi 'vomit', השתין hištin 'urinate', הרעים he 'ir 'light', הרעים hir 'im 'thunder', הרעיש hir 'iš 'make noise', הפציץ hifṣiṣ 'bomb'...

Other causative verbs may be derived from a root categorized as an adjective A. Such verbs have both transitive and intransitive readings, describing their subjects as (the cause of) becoming A. Examples are given in (11):

(11) השמין hišmin 'fatten', החמיר hexmir 'worsen', האט he 'et 'slow', החמיץ hexmiș 'sour', החמיץ he'edim 'redden', האדים hilbin' 'whiten'...

Beyon the basic three active *binyanim*, the rest of the *binyan* system expresses alternations of voice (diathesis). To each active *binyan* there correspond in principle two non-active *binyanim*: a passive *binyan* and a middle *binyan*. In practice, some of the active *binyanim* only have a single non-active corresponding *binyan*, which accounts for the fact that the total number of Modern Hebrew *binyanim* is limited to seven. Below is a table presenting the morphology of the seven *binyanim*, and their traditional Hebrew-grammar appellations:

(12)

	Simple		Intensive		Causative	
VOICE						
Active	a	paʿal	i-e	pi ʿel	h+ i	hifʻil
Passive			u-a	pu ʿal	h+ u-a	hufʻal
Middle	n+ i-a	nif`al	t+ i-a	hitpa ʻel		

^{&#}x27;*Disorder fitted the streets with sign posts'.

The non-active *binyanim* are illustrated below with the root \sqrt{y} \sqrt{y} sit, inhabit by expanding the table in (5) along the voice dimension:

(13)

	Simple	Intensive	Causative
Voice			
Active	yašav 'sit,	yišev 'settle, populate'	hošiv 'seat (tr.)
	inhabit'		make inhabit'
Passive		yušav 'be settled, populated'	hušav 'be-seated'
Middle	nošav 'be-	hityašev 'sit oneself,	
	inhabited'	settle oneself'	

All verbs derived by the non-active *binyanim* are intransitive. But there is an important difference between the intransitivity of the middle *binyan* and that of the passive *binyan*. While the subject argument of the corresponding active verb can be totally obliterated in the derivation of the middle verb, it always implicitly participates in the derivation of the passive verb. Moreover, this implicit participant (which can also be expressed explicitly as an על ידי 'al-yede(y)' 'by' phrase) is agentive, irrespective of the thematic role of the subject in the corresponding active *binyan*. This is demonstrated in the passive examples in (14), which correspond to the active examples in (6). It was shown in (6c) above that the subject in the active causative *binyan* fulfils the role of cause. Yet in (14c), the same argument cannot be interpreted as the missing subject of the passive causative *binyan*. The missing subject of a passive *binyan* can only be an agent (as in (14b)), irrespective of the role of the subject of the active verb:

(14) a. הם יושבו בנגב על ידי השלטונות

hem yušv-u b-a-negev 'al-yede ha-šiltonot they settle.INTNS.PASS-PAST.PL in-the-Negev by the-authorities 'They were settled in the Negev by the authorities'.

b. הושבו בנגב על ידי השלטונות

hem hušv-u b-a-negev 'al-yede ha-šiltonot they seat.CAUS.PASS-PAST.PL in-the-Negev by the-authorities 'They were seated in the Negev by the authorities'.

c. הושבו בנגב על ידי סיבות כלכליות *

* hem **hušv-u** b-a-negev 'al-yede sibot kalkaliyot they seat.CAUS.PASS-PAST.PL in-the-Negev by reasons economic

'They were seated in the Negev by economic reasons'.

The following additional examples further demonstrate that passive verbs only allow agentive (or instrumental) by phrases, even when the active verb is causative:

חברתו/ סקרנותו הביאה אותו למסיבה (15)a

xavert-o / saqranut-o hevi'-a 'oto l-a-mesiba friend.F-his / curiosity.F-his bring.CAUS.ACT-PAST.F him to-the-party 'His friend/ his curiosity brought him to the party'.

b הוא הובא למסיבה על ידי חברתו / *סקרנותו

hu huva l-a-mesiba 'al-yede xavert-o/ *saqranut-o he bring.CAUS.PASS-PAST to-the-party by friend-his/ *curiosity-his 'He was brought to the party by his friend/ *his curiosity'.

המנהלת / הטכנולוגיה החדשה הורידה את המחירים (16)a

ha-menahelet/ha-texnologya ha-xadaša horid-a the-director.F/the-technology.F DEF-new.F lower.CAUS.ACT-PAST.F

'et ha-mexirim ACC the-prices

'The director/ the new technology lowered the prices'.

b המחירים הורדו על ידי המנהלת / *הטכנולוגיה החדשה

ha-mexirim hurd-u 'al-yede ha-menahelet / the prices lower.CAUS.PASS-PAST.PL by the-director/

/*ha-texnologya ha-xadaša /*the-technology the-new

'The prices were lowered by the director/*the new technology'.

Turning to middle-voice verbs, the subject of the corresponding active-voice verbs may be implicit here too, but it may also be totally missing. This optionality gives rise to a variety of interpretations for the middle voice. It is well known from the typological literature (Klaiman 1991, Kemmer 1993) that the middle voice is found cross-linguistically with a number of different interpretations. These interpretations are the ones found for the Modern Hebrew middle *binyanim* as well, as illustrated below both for the simple middle *binyan* and the intensive middle *binyan*:

A. The anticausative interpretation (where the event is described as spontaneous)

(17) **simple** *binyan*

השיעור נגמר

a. *ha-ši ur nigmar* the-lesson end.SIMPL.MID-PAST

'The lesson ended'.

b. intensive binyan

השעור הסתיים

ha-ši 'ur **histayem** the-lesson end.INTNS.MID-PAST

'The lesson ended'.

The anticausative interpretation only allows the expression of implicit causes, such as *the heat*, and not the expression of implicit agents, such as *the workers* in (18):

(18)a. simple binyan

השמן נדלק מהחום/ *על ידי הפועלים

ha-šemen **nidlaq** me-ha-<u>x</u>om /* 'al yede ha- po 'alim the-oil ignite.SIMPL.MID-PAST from-the-heat /* by the-workers

'The oil ignited from the heat/* by the workers'.

b. intensive binyan

ציר הדלת התפרק מהחלודה/ *על ידי הפועלים

şir ha-delet **hitpareq**

hinge the-door fall-apart.SIMPL.MID-PAST

me-ha-xaluda /*'al yede ha- po'alim from-the-rust / * by the-workers

'The door's hinge fell apart from the rust / *by the workers'.

B. <u>The reflexive/ reciprocal interpretation</u> (where the argument of the middle verb receives an additional role - that of the missing subject of the corresponding active verb).

(19) **REFLEXIVE INTERPRETATION**

a **simple** binyan

דני נרשם

dani **niršam**

Dani register.SIMPL.MID-PAST

'Dani registered'.

b intensive binyan

דני הסתרק

dani histareq

Dani comb.INTNS.MID-PAST

'Dani combed'.

(20) RECIPROCAL INTERPRETATION

a simple binyan

דני ודינה נפגשו

dani ve-dina nifgeš-u

Dani and Dina meet.SIMPL.MID-PAST.PL

'Dani and Dina met'.

b intensive binyan

דני ודינה התנשקו

dani ve-dina hitnašą-u

Dani and Dina kiss.INTNS.MID-PAST.PL

'Dani and Dina kissed'.

(21)a **simple** *binyan*

הוא נענש על ידי עצם פציעתו ותוצאותיה

hu **ne 'enaš** 'al-yede 'eṣem pṣi 'at-o ve-toṣ 'ote-ha he punish.SIMPL.MID-PAST by essence accident.F-his and-effects-her

'He was punished by his very accident and its effects '.

b intensive binyan

המהלך התאפשר על ידי שיתוף פעולה בין גורמים רבים

ha-mahalax hit afser 'al-yede situf-pe'ula the process enable.INTNS.MID-PAST by cooperation

ben gormim rabim between factors many

'The process was made possible by cooperation between many factors '.

Some middle verbs allow both anticausative and medio-passive interpretations, as seen by the variation in prepositions in the following examples:

(22)a. simple binyan

צריח הכנסייה נשרף מ-/על ידי ברק שפגע בו

ṣriax ha-knesiya nisraf mi-/ʿal-yede baraq še-pagaʿb-o tower the-church burn.SIMPL.MID-PAST from/by lightning that-hit at-it

'The tower of the church burnt from / was burned by lightning that hit it'.

b. intensive binyan

המרחב הבין-אישי התמלא ב-/על ידי צורות תרבותיות חדשות

ha-merxav ha-ben-'iši hitmale

the-space DEF-inter-personal fill.INTNS.MID-PAST

be-/ 'al-yede surot tarbutiyot xadašot with/ by forms cultural new

'Interpersonal space was filled with/by new cultural forms'.

D. <u>The dispositional interpretation</u> (where the subject of the corresponding active verb is implicit, and may be expressed by an agentive - *l*-phrase) This is again different from the passive voice, since the interpretation is not actual but disposional (cf. Borer and Grodzinsky 1986, Siloni 2008).

(23)a. simple binyan

החמאה לא נמרחה לו

ha-xem'a lo **nimre**x-a l-o the-butter.F not spread.SIMPL.MID-PAST.F to-him

'The butter wouldn't spread for him'.

b. intensive binyan

החולצה לא התגהצה לו

ha-xulṣa lo hitgahaṣ-a l-o the-shirt.F not iron.INTNS.MID-PAST.F to-him

'The shirt wouldn't iron for him'.

E. <u>The simulative interpretation</u> (which denotes agentive behaviour simulating a state)

(24) intensive *binyan* only

הילד התחלה

ha-yeled hitxala the-boy ill.INTNS.MID-PAST

'The boy behaved as if he were ill'.

In sum, the *binyan* system expresses the concepts of action and causality. The active *binyanim* expresses both concepts equally. They do so by marking the thematic role of the (explicit) subject of the intensive *binyan* as agent, and that of the causative *binyan* as cause. The non-active *binyanim* are biased in that they express agentivity but not causality. The implicit subject is agent in the passive *binyanim*, not cause. The explicit subject may be agent in the middle *binyanim*, but not cause.

The agentivity of middle verbs is sometimes morphologically marked in Modern Hebrew. In fact, the subject of the simple middle verb is rarely agentive. Reflexive and reciprocal interpretations, though they exist in the simple middle binyan, are rare in comparison to the intensive middle binyan. Simulative interpretations are not found at all in the simple middle binyan. Accordingly, the n- prefix of the simple middle binyan has become associated with lack of agentivity, and is sometimes used as an additional prefix to mark non-agentivity in intensive middle verbs, which are otherwise often agentive. An example is the contrast between the ordinary middle intensive form agentive. An example is the contrast between the ordinary middle intensive form hitraxeq 'get-distant.INTNS.MID', which can be interpreted agentively, i.e. 'distance oneself', and the middle intensive form with the extra n- prefix ומרחק 'get-distant.INTNS.MID+N', which cannot be interpreted agentively, i.e., does not mean 'distance oneself' (Siloni 2008, Shatil 2009, Bolozky 2010).

One additional issue is the question of whether the binyan system marks aspectuality. It has been noted that in many cases, middle binyanim verbs are the inchoative (punctual) counterpart of unbounded (atelic) active verbs, e.g. החישב hityašev 'sitdown.MID' vs. ישב yašav 'sit.ACT' (Arad 2005, Schwarzwald 2008). But this aspectual contrast is reversed in other cases, where it is the active verb which is punctual, and the middle verb – atelic, e.g., הלך הלך (also 'walk') vs. ישמא hithalex 'walk-around.MID', הלהלך vs. התהלך 'sala 'fall-ill.ACT' vs. יבש hityabeš 'be-in-the process-of-drying.MID' (also 'turn-dry'), התאחר 'exer 'arrive-late.ACT' (also 'be-late') vs. אחר hit'axer 'be-late.MID'. Thus, aspectual contrasts vary in their direction, and are reducible to contrasts in agentivity, and in general to the thematic distinctions expressed by the binyan system.

Finally, some contemporary theories of phonology categorically deny the existence of abstract morphemes such as roots and *binyanim*, for theoretical considerations. Within this theoretical framework, an alternative view of Modern Hebrew verbal morphology has been developed, whereby verbs are not derived from abstract roots by

intercalation with *binyanim*, but only through the application of vowel transformation and resyllabification to existing stems of other verbs, nouns and adjectives (Bat-El 1994, 2003, Ussishkin 1999, 2000, 2003; cross reference: Roots). A critique of this view is found in Faust and Hever (in press).

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