

Aspect (Modern Hebrew)


Like *tense*, *aspect* is a category related to the expression of temporality. Aspect encodes “different ways of viewing the internal temporal constituency of a situation” (Comrie 1976:3).

Tense and aspect encode topological relations between two time intervals. In main, unembedded contexts, tense relates *speech time* (S) to *reference time* (R), the time which the statement is about (Reichenbach 1947); tense is thus a deictic category. Aspect relates *event time* (E), the time of the described event/state, to R; this relation has to do, for instance, with whether the boundaries of the event are included in the reference time or not. Referring to the boundaries of the event time is only one facet of what is commonly covered by aspect. This temporal relation has been dubbed ‘grammatical aspect’ or ‘viewpoint aspect’ (Smith 1991; Klein 1994:99–119; Demirdache and Uribe-Extebarria 2000). Other properties having to do with the internal temporal structure of events are (⊕) whether or not an event involves change in time, i.e., *stative* vs. *dynamic*; (⊖) whether an event holds at a moment or at an interval, i.e., *punctual* vs. *durative*; (⊗) whether an event has built into it a terminal point, or can be protracted indefinitely, i.e., *telic* vs. *atelic*.

These three properties are used to classify event descriptions into aspectual classes. An attempt at such a classification dates back to Aristotle’s distinction between *kinēsis* and *energeia*. The aspectual classes commonly featuring in the literature are *states*, *activities*, *accomplishments*, and *achievements* (Ryle 1949:149–153; Vendler 1957; Kenny 1963; Dowty 1979: chapter 2). These are referred to as ‘lexical aspectual classes’. Here is an illustration of the properties making up the classes.

(1)

	Dynamic	Durative	Telic
State	–	–	–
Activity	+	+	–
Accomplishment	+	+	+
Achievement	+	–	+

- (2a) States: 
 להאמין ברוחות-רפאים *le-ha'amin be-ruḥot refa'im* ‘to believe in ghosts’
 לאהוב אופרה *le-'ehov 'opera* ‘to love opera’
 לדעת עברית *la-da'at 'ivrit* ‘to know Hebrew’
- (2b) Activities:
 לצחוק *liṣḥoq* ‘to laugh’
 לכתוב מכתבים *lixtov mixtavim* ‘to write letters’
 לרוץ *laruṣ* ‘to run’
- (2c) Accomplishments:
 לצייר תמונה *leṣayer tmuna* ‘to draw a picture’
 לכתוב מכתב *lixtov mixtav* ‘to write a letter’
 לרוץ שלושה ק"מ *laruṣ šloša km* ‘to run three km.’
- (2d) Achievements:
 למות *lamut* ‘to die’
 להבחין בחשוד *lehavxin be-ḥašud* ‘to spot the suspect’
 לנצח בתחרות *lenaṣeḥ ba-taḥarut* ‘to win the race’

A linguistic description denoting a state can be evaluated for its truth conditions at the smallest fraction of time possible. It is not dynamic, since it does not describe any change in time. It is not telic, since it does not encode an inherent endpoint to the described event, which can be protracted indefinitely.

A linguistic description denoting an activity is evaluated at an interval, not a moment: in describing an action of *running*, not every fraction of time can be described by this predicate, since, for instance, lifting one’s foot, which is required for running, does not itself qualify as *running*. It is dynamic, since it describes change in time. It is not telic, since it does not encode an inherent endpoint to the described event, which can be potentially protracted indefinitely.

Linguistic descriptions denoting accomplishments (*run three km*), like activities, are evaluated at an interval, not a moment. Like activities, these are dynamic, since they involve change in time. However, contrary to states and activities, these descriptions encode an inherent endpoint: in the examples of (2c), the event ends when the three kilometers are run, or

when the painting is finished. Events described by accomplishment predicates cannot be protracted indefinitely.

Finally, linguistic descriptions denoting achievements, like *die*, express by their nature a change; therefore, they are dynamic. Like states, they are true only at a given moment: the event they denote does not have temporal ‘volume’. Achievements are by their nature telic, the ‘end’ point is inherent to the event described thereby; in other words, the events described by achievement predicates cannot be indefinitely protracted.

The right way of grouping descriptions of events into aspectual classes according to distinguishing properties is an issue subject to considerable debate (for instance: Dowty 1979; Bach 1986; Rothstein 2004; an overview can be found in Filip forthcoming).

The term *Aktionsart(en)*, coined by Agrell (1908), which overlaps to some extent with the classification outlined in table (1), is used to describe different ‘manners of action’, not all of which are transparently related to the inner, temporal structure of events. For instance, alongside such qualifications as *terminative*, *resultative*, *delimitative*, *iterative*, one also finds *attenuative* and *augmentative* (→ *Aktionsart*).

The general cross-linguistic conception is that viewpoint aspect (grammatical aspect) tends to be encoded by inflectional means, whereas aspectual classes (and *Aktionsarten*) are encoded lexically or derivationally. This holds in Modern Hebrew as well, despite the fact that its verb system has no overt inflectional or derivational markings that can qualify as aspectual (Rosén 1977:179–184).

1. LEXICAL ASPECTUAL CLASSES

This section reviews how two distinctive properties outlined in the introduction—punctual

vs. durative and telic vs. atelic—are manifested in Modern Hebrew (for the stative/dynamic distinction → Stative).

The punctual/durative distinction is discussed by Yitzhaki (2004). Predicates which are true at a moment cannot appear in *בעוד* *be-‘od* ‘while’ clauses (3), nor in inflected infinitive clauses (4), contrary to predicates which are true at intervals (see also Greenberg 2008). The particle *בעוד* *be-‘od* ‘while’ is inflected for person, number, and gender and is obligatorily followed by the participial form of the verb. Inflected infinitives, as in (4), are preceded by the preposition *ב-* *be-* ‘in’, and can inflect for person, number, and gender. Predicates denoting activities (3a) and accomplishments (3b) are felicitous in a *be-‘od*-clause, whereas those denoting achievements (3c) and states (3d) induce ungrammaticality. Likewise, in (4), activity and accomplishment predicates (4a–b) are felicitous in the inflected infinitive clause, but achievement and state predicates are not (4c–d).

In Modern Hebrew telic and atelic predicates can be distinguished by several means. Most crucially, predicates give rise to different entailment patterns according to whether or not they denote telic events (5–6) (Bennett and Partee 1978; Dowty 1979:56–57; Yitzhaki 2004 for Hebrew). Second, telic and atelic predicates pattern differently with respect to the adverb *כמעט* *kim‘aṭ* ‘almost’ (7) (Dowty 1979:58). Third, predicates pattern differently with respect to whether they can complement verbs of finishing *גמר* *gamar* or *סיים* *siyem* ‘finish’ (8) (Dowty 1979:57).

Starting with entailment patterns, activities and accomplishments in *בעוד* *be-‘od*-clauses do not give rise to the same entailments. While example (5a) entails that *I ran* (5b), in example (6) no such inference is possible. (6a) does not entail that Ruti completed writing the speech (6b).

(3a) בעודו רץ, הרגיש דני את שריריו מתכווצים

<i>Be-‘odo</i>	<i>raṣ,</i>		
while-3MS.	run.PTCP.MS.,		
<i>hirgiš</i>	<i>Dani</i>	<i>’et šrirav</i>	<i>mitkavšim</i>
felt.PAST.3MS.	Dani	ACC muscles-3MS.	cramp.PTCP-MPL.

‘While he was running, Dani felt his muscles cramping’.

(3b) בעודה כותבת את הנאום, קיבלה רותי שיחה גורלית
Be-ʿodab kotevet ʿet ha-neʿum,
 while-3FS. write.PTCP-FS. ACC the-speech,
qibla Ruti siḡa goralit
 receive.PAST-3FS. Ruti phone-call.FS. crucial-FS.
 ‘While she was writing the speech, Ruti received a crucial phone-call’.

(3c) בעודה מנצחת בתחרות, נשמעה תרועה גדולה*
**be-ʿodab menaṣaxat ba-taxarut,*
 while-3FS. win PTCP-FS. in.the-race
nišmeʿa truʿa gdola
 heard.PASSIVE.PAST-3FS. clamor.FS. big-FS.
 *?‘While she was winning the race, a great clamor was heard’.

(3d) בעודו אוהב שוקולד, חלה דני בסוכרת*
**be-ʿodo ʿohav šoqolad,*
 while-3MS. love.PTCP.3MS. chocolate
xala Dani be-sukeret
 got.sick.PAST.3MS. Dani in-diabetes
 *‘While he was loving chocolate, Dani got diabetes’.

(4a) ברצו, הרגיש דני את שריריו מתכווצים
be-ruṣo
 in-run.INF-3MS.,
hirgiš Dani ʿet šrirav mitkavšim
 felt.PAST.3MS. Dani ACC muscles-3MS. cramp.PTCP-MPL.
 ‘While he was running, Dani felt his muscles cramping’.

(4b) בכותבה את הנאום, קיבלה רותי שיחה גורלית
be-kotvah ʿet ha-neʿum,
 in-write.INF-3FS. ACC the-speech,
qibla Ruti siḡa goralit
 receive.PAST-3FS. Ruti phone-call.F crucial-FS.
 ‘While she was writing the speech, Ruti received a crucial phone-call’.

(4c) בנצחה בתחרות, נשמעה תרועה גדולה*
**be-naṣṣah ba-taxarut,*
 in-win INF-3FS. in.the-race
nišmeʿa truʿa gdola
 heard.PASSIVE.PAST-3FS. clamor.FS. big-FS.
 *?‘While she was winning the race, a great clamor was heard’.

(4d) באוהבו שוקולד, חלה דני בסוכרת*
**be-ʿohavo šoqolad,*
 in-love.INF-3MS. chocolate
xala Dani be-sukeret
 got.sick.PAST.3MS. Dani in-diabetes
 *‘While he was loving chocolate, Dani got diabetes’.



(5a) בעודי רץ, הרגשתי את שריריי מתכווצים
be-ʿodi raš,
 while-1CS. run.PTCP.MS.,
hirgašti ʿet šriray mitkavšim
 felt.PAST-1CS. ACC muscles-1CS. cramp.PTCP-MPL.
 ‘While I was running, I felt my muscles cramping’.

(5b) רצתי
rašti.
 run.PAST-1CS.
 ‘I ran’.

- (6a) **בעודה כותבת את הנאום, קיבלה רותי שיחה גורלית**
be-'odab kotevet 'et ha-ne'um,
 while-3FS. write.PTCP-FS. ACC the-speech,
qibla Ruti sixa goralit
 receive.PAST-3FS. Ruti phone-call.F crucial-FS.
 'While she was writing the speech, Ruti received a crucial phone-call.'
- (6b) **רותי כתבה את הנאום**
Ruti katva 'et ha-ne'um
 Ruti write.PAST-3FS. ACC the-speech
 'Ruti wrote the speech'.
- (7a) **דני כמעט רץ**
Dani kim'aṭ raš
 Dani almost run.PAST.3MS.
 'Dani almost ran'.
- (7b) **רותי כמעט כתבה את הנאום**
Ruti kim'aṭ katva 'et ha-ne'um
 Ruti almost write.PAST-3MS. ACC the-speech
 'Ruti almost wrote the speech'.

Next are differences with respect to modification by the adverb **כמעט** *kim'aṭ* 'almost'.

Example (7a), where 'almost' modifies an activity-denoting predicate, means that Dani did not run; he almost started running, but for some reason eventually did not. Example (7b) is ambiguous: it can have a meaning similar to the one in (7a), where writing of the speech did not take place at all, although it was somehow intended or planned. According to the alternative reading, writing of the speech began, but was not completed (see Rapp and von Stechow 1999 for a discussion of this ambiguity). Only accomplishment-denoting predicates give rise to **reading** that denote incompleteness, suggesting that they encode an endpoint that was not reached.

Finally, differences are found in the possibility of complementing verbs of finishing such as **גמר** *gamar* or **סיים** *siyem* 'finish'.

An aspectual phase verb like **סיים** *siyem* 'finish' is odd with an activity-denoting predicate as its complement (8a). A sentence like (8a) is only felicitous in a context where a particular distance has been pre-determined for Dani. Example (8b), with an accomplishment-denoting predicate, is perfectly natural in this context.

Predicates denoting achievements, such as **לנצח בתחרות** *lenaṣeax bataḥarut* 'win the race', **להבחין בחשוד** *lehavxin beḥašud* 'spot a suspect', **למות** *lamut* 'die', although telic, have

been excluded from the above discussion, since the distinguishing environments exemplified in (5)–(8) do not apply to them. These environments all have to do with whether a process reaches completion/culmination (accomplishments) or not (activities). Achievements are described as punctual; they differ from accomplishments in that they do not contain a process which reaches completion; rather they denote a change of state, making them inherently telic. Achievement-denoting predicates are discussed separately in section 2.

The most famous test in the literature for distinguishing telic and atelic predicates is modification by *in-x-time* and *for-x-time* adverbials. In English, *for-x-time* adverbials can freely modify activities (9a), but are awkward with accomplishments (9b), since the latter are supposedly sensitive to atelicity. *In-x-time* adverbials on the other hand are natural with accomplishments, measuring the extent of the event described by the predicate. With activity-denoting predicates, *in-x-time* adverbials may measure the time leading up to the onset of the described activity when it takes place in the future—a reading irrelevant to the issue of telicity.

In Modern Hebrew, the equivalent of the *for-x-time* adverbial, e.g., **במשך חצי שעה** *be-mešex xasi ša'a* 'for half an hour', is felicitous with accomplishments, unlike in English (see also Yitzhaki 2004 for this observation).



- (8a) דני סיים לרוץ#
 #Dani siyem laruṣ
 Dani finish.PAST.3MS. to.run.INF
 #‘Dani finished running’.
- (8b) רותי סיימה לכתוב את הנאום
 Ruti siyma lixtov ’et ha-ne’um
 Ruti finish.PAST-3FS. to.write.INF ACC the-speech
 ‘Ruti finished writing the speech’.
- (9a) Danny ran for half an hour / #in half an hour.
 (9b) Ruth wrote the speech in half an hour / #for half an hour.
- (10a) דני רץ במשך / #תוך חצי שעה
 Dani raṣ be-mešex / #tox xāši šā’a
 Dani run.PAST.3MS. for / in half hour
 ‘Dani ran for / #in half an hour’.
- (10b) רותי כתבה את הנאום במשך חצי שעה / תוך חצי שעה
 Ruti katva ’et ha-ne’um be-mešex / tox xāši šā’a
 Ruti write.past-3FS. ACC the-speech for / in half hour
 ‘Ruti wrote the speech in / #for half an hour’.

Example (10a), with the activity-denoting predicate, is parallel to the English one in (9a): the adverbial *במשך חצי שעה* *be-mešex xāši šā’a* ‘for half an hour’ measures the running time, whereas the adverbial *תוך חצי שעה* *tox xāši šā’a* ‘in half an hour’, though it may measure the time span until the onset of a future running activity, does not measure the extent of the underlying event. In (10b), while modification with the adverbial *תוך חצי שעה* *tox xāši šā’a* ‘in half an hour’ corresponds to English, the adverbial *במשך חצי שעה* *be-mešex xāši šā’a* ‘for half an hour’ is fully felicitous, unlike in English, as if the predicate in (10b) were atelic. This is the crucial point of divergence from the English equivalent accomplishment-denoting predicate (9b). The full felicity of the predicate *לכתוב את הנאום* *lixtov ’et ha-ne’um* ‘to write the speech’ with *במשך* *be-mešex*-adverbials is surprising in view of the other telicity tests shown in examples (6)–(8). One explanation for the inapplicability of this telicity test to Hebrew may be that the adverbial expressions in the two languages are not truly equivalent. Another possible explanation relates to issues of viewpoint aspect specific to Modern Hebrew and their interaction with lexical aspectual classes. Viewpoint aspect is the topic of the next section.

2. VIEWPOINT ASPECT

The term *viewpoint aspect* (or *grammatical aspect*) was coined by Smith (1991), inspired by Comrie’s (1976:3) definition of aspect cited above. This category contains a primary distinction between whether the initial and end point of the described event are linguistically expressed or not (*perfective* and *imperfective* aspect, respectively). In Reichenbachian terms (Klein 1994; Kratzer 1998), this is captured by inclusion relations between the reference time (R) and the event time (E). Perfectivity ensues when the event time is included in the reference time, implying that the endpoints of the event are made ‘visible’; whereas imperfectivity ensues when the event time includes the reference time, in which case the endpoints of the event are not part of what is linguistically expressed.

Verb forms in Modern Hebrew are not inflectionally marked for viewpoint aspect (Rosén 1977:179–184). In other words, verb forms are not morphologically marked for whether the event they describe has endpoints or not. This can be exemplified with accomplishment-denoting predicates in the past tense.

- (11a) רותי כתבה נאום, וסיימה אותו / ולא סיימה אותו
Ruti katva ne'um, ve-siyma
 Ruti write.past-3FS. speech and-finish.past-3FS.
 'oto / ve-lo siyima 'oto
 it / and-not finish.past-3FS. it
 'Ruti wrote a speech and finished it / #and did not finish it'.
- (11b) דני אכל סנדוויץ', וסיים אותו / ולא סיים אותו
Dani 'axal sendvič, ve-siyem o'to /
 Dani eat.past.3MS. sandwich, and-finish.past.3MS. it /
 ve-lo siyem 'oto
 and-not finish.past.3MS. it
 'Dani ate a sandwich and finished it / #and didn't finish it'.
-  (12) כשנכנסתי לחדר, רותי שמחה
k-še-nixnasti la-xeder, Ruti samxa
 when-enter.past-1CS. to.the-room, Ruti be.happy.past-3FS.
 i. 'When I entered the room, Ruti was happy' [overlapping reading].
 ii. 'When I entered the room, Ruti rejoiced' [consecutive reading].
- (13) כשנכנסתי לחדר, דני צחק
k-še-nixnasti la-xeder, Dani šaxaq
 when-enter.past-1CS. to.the-room, Dani laugh.past.3MS.
 i. 'When I entered the room, Dani was laughing' [overlapping reading].
 ii. 'When I entered the room, Dani laughed' [consecutive reading].
-  (14) כשנכנסתי לחדר, רותי כתבה את הנאום
k-še-nixnasti la-xeder, Ruti katva 'et ha-ne'um
 when-enter.past-1CS. to.the-room, Ruti write.past-3FS. ACC the-speech
 i. 'When I entered the room, Ruti was writing the speech' [overlapping reading].
 ii. 'When I entered the room, Ruti wrote the speech' [consecutive reading].

Examples (11a)–(11b) show that in the past tense, without a proper context, an event which potentially has a terminal point, like *write a speech* or *eat a sandwich* can be conceived either as completed or not, that is, as being described with its endpoint or not. It can be said that Modern Hebrew verbs are unspecified for aspect in the past tense. However, closer scrutiny reveals that not 'everything goes' in the Modern Hebrew verb system. There are linguistic contexts, featuring adverbial expressions specifying the reference time (R), (→Temporal adverbial expressions), which reveal a consistent pattern, leading Boneh and Doron (2008; 2010) to suggest that Modern Hebrew has a default aspectual specification (in the past tense): dynamic predicates are interpreted by default as perfective, whereas stative predicates are by default imperfective. In non-default cases, dynamic predicates can be interpreted imperfectively, and stative ones perfectly. This state of affairs will be illustrated with two types of adverbial expressions specifying

the reference time (R) in sentences containing predicates from the four lexical aspectual classes discussed above: (1) modifications by punctual *when*-clauses (Smith 1991), (12)–(15); (2) modification by frame adverbs such as *that morning*, *in 2011* (16)–(19).


Modification by punctual *כ-ש* *k-še* 'when'-clauses gives rise to either *overlapping* or *consecutive* readings. An overlapping reading is one in which the event described in the main clause overlaps with the one described in the *k-še*-clause. The event described in the main clause is viewed imperfectively in this case, since the initial and final points are not included. A consecutive reading is one in which the event described in the main clause immediately follows the one described in the *k-še*-clause. In this case, the initial part of the event is expressed, and is thus said to be viewed perfectly. Examples (12)–(15) exemplify the four aspectual classes, states, activities, accomplishments, achievements, respectively.

- (15) כשנכנסתי לחדר, דני ניצח במשחק
k-še-nixnasti la-xeder, Dani nišeax ba-misxaq
 when-enter.PAST-1CS. to.the-room, Dani win.PAST.3MS. in.the-game
 Only reading: ‘When I entered the room, Dani won the game’.
- (16) בצעירותו, הוא האמין ברוחות רפאים
bi-še’iruto, hu he’emin be-ruḥot refa’im
 in-youth-3MS., he believe.PAS.3MS. in-ghosts
 ‘When he was young, he believed in ghosts,...
 i...he also believed in ghosts later, as he got older’.
 ii...but then he stopped’.
- (17) באותו בוקר, רצתי
be-’oto boqer, raṣti
 on-that morning, run.PAST-1CS.
 ‘That morning, I ran / was running’.
- (18) ביום שני, היא כתבה את הנאום
be-yom šeni, hi katva ’et ha-ne’um
 on-day second, she write.PAST-3FS. ACC the-speech
 ‘On Monday, she wrote / was writing the speech’.
- (19) בלילה הוא מת
ba-layla, hu met
 in.the-night, he die.PAST.3MS.
 ‘At night, he died’.

Not: # ‘When I entered the room, Dani was winning the game’.

State predicates (12) may be interpreted as overlapping the adverbial *k-še*-clause. This is their default reading, and for some state predicates the only reading (→ Stative). They may also be interpreted with the consecutive reading, i.e., interpreted perfectly, but this usually necessitates a more marked context. Activity and accomplishment predicates (13)–(14) can also be interpreted according to either overlapping or consecutive readings. However, in this case, the default reading is the consecutive, and the overlapping reading may arise only in a more marked context. Lastly, achievement predicates (15) only give rise to the consecutive reading, where the *winning* follows *my entering the room*. An overlapping reading is not available in this case, suggesting that achievements in Modern Hebrew past tense may only be interpreted perfectly.

The next set of examples (16)–(19), exemplifies the four aspectual classes with non-punctual frame adverbs specifying the reference time.

 In (16)–(18), the frame adverbial specifying the reference time may be interpreted as either included in the event given in the main clause or including it, while for achievements (19), it may only be interpreted as including the event,

i.e. the perfective reading. The stative predicate in (16) is more readily interpreted as including the reference time, although the reverse relation is also possible. The dynamic predicates (17)–(18) are more readily interpreted perfectly, as included in the reference time, although the reverse relation, giving rise to imperfectivity, is also available. These temporal contexts illustrate the generalization formulated above, namely that in Modern Hebrew past-tensed clauses, the imperfective reading is the default reading with stative predicates, whereas the perfective reading is the default reading with dynamic predicates.

This generalization could be the basis for an explanation as to why accomplishments are compatible with *במשך* *be-mešex*-adverbials (example (10b) in section 1), contrary to a parallel state of affairs in English (9b). If *be-mešex*-adverbials operate on an imperfectly interpreted accomplishment predicate (under the non-default reading), compatibility between the two would not be excluded.

In the present tense, contrary to the past tense, verbal predicates of all types of aspectual classes (20)–(23), including achievements (23), are interpreted without reference to the endpoints of the event.

- (20) הוא מאמין ברוחות-רפאים
hu ma'amin be-ruḥot refa'im
 he believe.PTCP.MS. in-ghosts
 'He believes in ghosts'.
- (21) אני רצה עכשיו בפארק
'ani raša 'axšav ba-parq
 I run.PTCP-FS. now in.the-park
 'I am running in the park now'.
- (22) היא כותבת עכשיו את הנאום
hi kotevet 'axšav 'et ha-ne'um
 she write.PTCP-FS. now ACC the-speech
 'She is writing the speech now'.
- (23a) היא מנצחת בתחרות
hi menašaxat ba-taxarut
 she win.PTCP-FS. in.the-competition
 'She is winning the competition'.
- (23b) המטוס נוחת
ha-maṭos noxet
 the-plane land.PTCP.MS.
 'The plane is landing'.
- (24a) שכב / נשכב
šaxav / niškav
 'lie' (state, durative) / 'lie down' (achievement: inchoative, punctual)
- (24b) ישב / התיישב
yašav / hityašev
 'sit' (state, durative) / 'sit down' (achievement: inchoative, punctual)
- (24c) הלך / התהלך
halax / hithalex
 'leave' (achievement, also 'walk', 'go') / 'walk around' (activity, durative)
- (24d) חלה / התחלה
ḫala / hitḫala
 'fall ill' (achievement) / 'pretend to be ill' (activity, durative)

In the case of achievements, interestingly, the change-of-state point (the endpoint) is not included in the description; the available interpretation is akin to that of the progressive, where a preparatory phase, preceding the change-of-state point is expressed (see Dowty 1979:133–187; Landman 1992 on the semantics of the progressive; see Comrie 1976; Smith 1991; Giorgi and Pianesi 2001 on the difference between the imperfective and the progressive).

3. LEXICAL MEANS AND PERIPHRAISIS IN THE EXPRESSION OF ASPECT IN MODERN HEBREW

Lexical aspectual values may sometimes be expressed in Modern Hebrew by the different verb patterns (Rosén 1977:179–184; Muchnik 1989), but this is not done in a systematic way (Doron 2003; → Binyan).

While some positional verbs (durative) in the *pa'al* verb pattern have inchoative (punctual) counterparts in the *nif'al* or *hitpa'el* verb patterns (24a)–(24b), the opposite direction is also attested, where the *hitpa'el* verb pattern expresses durativity, and the *pa'al* pattern punctuality (24c)–(24d).

This section reviews lexical and periphrastic means employed in Modern Hebrew to express the various aspectual sub-categories. The following sub-sections are organized according to forms and types of constructions, not according to aspectual meanings.

Auxiliary verb + infinitive. The common verbs used with infinitives in Modern Hebrew to express aspects of the event or action are the following.


The verbs listed in (25) auxiliaries, since they do not impose semantic selectional restrictions on the individual referred to by the

subject noun phrase, whether it is animate or inanimate, for instance.

The verbs listed above in (26), on the other hand, are not truly auxiliaries, since they are selective as to the semantic properties of the subject, which has to refer to an animate being.

Some auxiliaries serve to express prospective events or near future (27); others are used to describe phases related to the unfolding of the described event (28).

The future auxiliaries עומד *'omed* and הולך *holex* with an infinitival phrase (also the adjective עתיד *'atid*, lit. 'future', see Tsivoni [1993]) express that the underlying event will occur with a high degree of probability in the near future. These verbs do not impose aspectual selectional restrictions on the infinitival phrases following them. On the other hand, aspectual phase verbs are more selective as to the type of infinitival phrase following them: true achievements are not natural after these verbs, since they are

- (25) עמד *'amad* 'stand'; הלך *halax* 'go, walk'; התחיל *hitxil* 'start'; המשיך *himšix* 'continue'; הוסיף *hosif* 'continue'; הפסיק *hifsiq* 'stop'; חדל *xadal* 'cease'.
- (26) גמר *gamar* 'finish'; סיים *siyem* 'finish'; נהג *nahag* 'be accustomed'; הרבה *hirba* 'do frequently'; מיעט *mi'eṭ* 'do infrequently'.
- (27a) דני עומד ללכת
Dani 'omed lalexet
 Dani stand.PTCP.MS. to.go
 'Dani is about to leave'.
- (27b) עומד לרדת גשם
'omed laredet gešem 
 stand.PTCP.MS. to.fall rain
 'It is about to rain'.
- (28a) רותי הפסיקה לכתוב את הנאום
Ruti hifsiqa lixtov 'et ha-ne'um
 Ruti stop.PAST-3FS. to.write ACC the-speech
 'Ruti stopped writing the speech'.
- (28b) הגשם הפסיק לרדת
ha-gešem hifsiq laredet
 The-rain stop.PAST.3MS. to.fall
 'It stopped raining'.
- (29a) דני מרבה ללכת לקולנוע
Dani marbe lalexet la-qolnoa'
 Dani do.frequently.PTCP.MS.M to.go to.the-cinema
 'Dani went frequently to the cinema'.
- (29b) #גשם מרבה לרדת
#gešem marbe laredet
 rain do.frequently.PTCP.MS. to.fall
 #'It frequently rains'.
- (30a) רותי סיימה לכתוב את הנאום
Ruti siyema lixtov 'et ha-ne'um
 Ruti finish.PAST-3FS. to.write ACC the-speech
 'Ruti finished writing the speech'.
- (30b) #הגשם סיים לרדת
#ha-gešem siyem laredet
 The-rain finish.PAST.3MS. to.fall
 #'It finished raining'.

punctual and do not describe an event that can be subdivided into phases. For instance, the verb ממשיך *mamšix* ‘continue’ cannot be naturally followed by a truly punctual achievement denoting infinitival phrase like למות *lamut* ‘die’ (32a). The only way for an achievement to be in the complement of such an auxiliary is if an iterative reading is available, as in (32b).

The auxiliary verbs listed in (25) can be stacked to form a chain of infinitival phrases. Stacking possibilities separate the future auxiliaries from the aspectual phase ones.

Intended: ‘He will start to be about/ to intend to stop smoking’.



While there are no restrictions on the order of aspectual phase auxiliaries and frequency auxiliaries (33a)–(33b), future auxiliaries oblig-

atorily precede the former (33c) (see Laca 2004 for a survey of semantic and grammatical restrictions on aspectual auxiliaries in the romance languages).

היה *haya* ‘be’ auxiliary + participle. This verbal form contains the past-tense form of the verb היה *haya* ‘to be’ and the participle (→ Tense; → Compound verb). Rosén (1966:227–228, 1977:184–188) referred to it as the Compound Remotive. In main indicative clauses, it is used to express habituality (→ Mood and Modality), as illustrated in (34a). With a certain type of stative verb it gives rise to a distant past reading (34b), which is not habitual (Tsivoni 1993; Boneh and Doron 2008; 2010).

- (31a) דני נוהג לרוץ בערב
Dani noheg laruṣ ba-‘erev
 Dani be.accustum.PTCP.MS. to.run in.the-evening
 ‘Dani is accustomed to run in the evening’.
- (31b) #הגשם נוהג לרדת כאן בערב
 #*ha-gešem noheg laredet kan ba-‘erev*
 The-rain be.accustum.PTCP.MS. to.fall here in.the-evening
 #‘It is accustomed to rain here in the evening’.
- (32a) #דני ממשיך למות
 #*Dani mamšix lamut*
 Dani continue.PTCP.MS. to.die
 ‘Dani continues to die’.
- (32b) אנשים ממשיכים למות
 #*anašim mamšixim lamut*
 people continue.PTCP-MPL. to.die
 ‘People continue to die’.
- (33a) #הוא עומד/הולך להתחיל להפסיק לעשן
 #*hu ‘omed / holex lehatxil lehafsiq le‘ašen*
 He stand / go.PTCP.MS. to.start to.stop to.smoke
 ‘He is about / intends to start stopping smoking’.
- (33b) הוא עומד/הולך להפסיק להתחיל לעשן
 #*hu ‘omed / holex lehafsiq lehatxil le‘ašen*
 He stand / go.PTCP.MS. to.stop to.start to.smoke
 ‘He is about / intends to stop starting smoking’.
- (33c) #הוא יתחיל לעמוד/ללכת להפסיק לעשן
 #*hu yatxil la‘amod / lalexet lehafsiq le‘ašen*
 He start.PTCP.MS. to.stand / to.go to.stop to.smoke
- (34a) דני היה רץ בפארק
Dani haya raṣ ba-parq
 Dani BE.PAST.3MS. run.PTCP.MS. in.the-park
 ‘Dani used to/would run in the park’.
- (34b) הוריי היו גרים בשכונה הזאת
horay hayu garim ba-šxuna ha-zot
 parents.my BE.PAST-CPL live.PTCP-MPL. in.the-neighborhood the-this
 ‘My parents used to live in this neighborhood’.

Coordinated auxiliary and lexical verb (נשוא מורחב *nasu murḥav*). This periphrastic construction consists of verbal forms with the same tense, combined via the coordination conjunction *ו* *ve-* ‘and’. One of the two verb forms is auxiliary, having a ‘bleached’ semantic content: הולך *holex* ‘go’, חוזר *ḥozer* ‘return’, while the other preserves its full lexical content. With the auxiliary verb הולך *holex*, the construction expresses gradual progression (35a); with the auxiliary verb חוזר *ḥozer*, it expresses iteration (35b).

In some cases, there is no grammatical significance to the order in which the auxiliary and the lexical verbs appear; example (36) differs from (35a) only stylistically, though it is considered a disruption of the standard order in (35) from a normative viewpoint.

The coordinated periphrastic construction belongs to a more official register of Modern Hebrew. This is in contrast with הולך *holex* with an infinitive, which expresses futurity and belongs to a non-formal register (see above).

The verbal noun (שם-פעולה *šem-pe’ula*). Lastly, another way to express ‘ongoingness’,

in a semi-productive way, which does not rely on the verbal system, consists of non-verbal sentences featuring the verbal noun שם פעולה *šem pe’ula*, preceded by the locative preposition *ב* *be-* ‘in’, in predicative position.

Example (37c) shows that *be+šem pe’ula* can be the complement of an aspectual phase auxiliary (see Abusch 1988).

4. THE PERFECT

The perfect is a temporal category sharing semantic and syntactic properties with both aspect and tense, making it temporally complex. It expresses the anteriority of an event relative to a given point in time, but also that the anterior event has some current relevance or is succeeded by a resultant state (Jespersen 1924; Dowty 1979:339). Perfect readings have been observed to have sub-readings, differing as to the way current relevance or the resultant state are perceived: the *Experiential Perfect*, the *Universal Perfect*, and the *Resultative Perfect* (see Mittwoch 1988; Iatridou, Anagnostopoulou and Izvorsky 2001 for discussion and survey of literature on the perfect).

- (35a) הגירעון בתקציב הולך וגדל
ha-gera’on ba-taqšiv holex ve-gadel
 the-deficit in.the-budget go.PTCP.MS. and-grow.PTCP.MS.
 ‘The budgetary deficit continuously increases’.
- (35b) אני חוזר ואומר שדבר כזה לא ייתכן
’ani ḥozer ve-’omer še-davar ka-ze lo yitaxen
 I return.PTCP.MS. and-say.PTCP.MS. that-thing like-this not possible
 ‘I say again that such a thing is not possible’.
- (36) הגירעון בתקציב גדל והולך
ha-gera’on ba-taqšiv gadel ve-holex
 the-deficit in.the-budget grow.PTCP.MS. and-go.PTCP.MS.
 ‘The budgetary deficit continuously increases’.
- (37a) הבית שלהם עדיין בבנייה
ha-bayit šelahem ’adayin bi-vniya
 the-house theirs still in-construction
 ‘Their house is still under construction/is still being built’.
- (37b) מערכת היחסים שלהם עכשיו בהתהוות
ma’arexet ha-yexasim šelahem ’axšav be-hithavut
 system the-relations theirs now in-becoming
 ‘Their relationship is now forming’.
- (37c) רותי ממשיכה בחיסול יריביה הפוליטיים
Ruti mamšixa be-ḥisul yeriveha ha-politijim
 Ruti continue.PTCP-FS. in-liquidation rivals-her the-political
 ‘Ruti keeps on liquidating her political rivals’.

In Modern Hebrew, the perfect is not encoded morphologically. However, perfect interpretations may arise when specific adverbs are employed. The three main ones are: **כבר** *kvar* ‘already’, **עכשיו** ‘*axšav* ‘now’, **מזה** *mi-ze* ‘for’ (Tsivoni 1993; Sevi 2008).

כבר *kvar* ‘already’ gives rise to perfect readings when the verb is in the past tense (see Sevi 2008 for a semantic analysis of **כבר** *kvar* including non-temporal readings). This adverbial modification gives rise to the Experiential Perfect reading, in which the underlying event is anterior to the speech time, but relevant in some way at speech time (38a)–(38c). Predicates describing statives do not give rise to a perfect reading in this configuration (38d).

עכשיו ‘*axšav* ‘now’ gives rise to Resultative or near-past, perfect readings when the verb is in the past tense. According to this perfect

reading, the underlying event is anterior to the speech time, but close to it. Here too, the occurrence of the underlying event is relevant in some way at speech time (39a)–(39c). Predicates describing statives do not give rise to a perfect reading in this case (39d).

מזה *mi-ze* ‘for’ when combined with the participial form (present tense), or the past-tense form with a past point of view of free indirect discourse, triggers a Universal Perfect reading. Under this reading, the underlying event is understood as stretching from a point in the past, specified by the adverbial expression, up to and including speech time. All aspectual types of events are attested with this perfect reading. Dynamic events can sometimes be interpreted as iterative: this holds most saliently for achievements (40b), but also for the other dynamic events, depending on the length of

- (38a) **רותי כבר כתבה את הנאום**
Ruti kvar katva 'et ha-ne'um
 Ruti already write.PAST-3FS. ACC the-speech
 ‘Ruti has already written the speech’.
- (38b) **רותי כבר נצחה בתחרות**
Ruti kvar nišxa ba-taxarut
 Ruti already win.PAST-3FS. in.the-race
 ‘Ruti has already won the race’.
- (38c) **כבר רצתי בפארק**
kvar rašti ba-parq
 already run.PAST-1CS. in.the-park
 ‘I have already run in the park’.
- (38d) **דני כבר האמין ברוחות רפאים#**
#Dani kvar he'emin be-ruḥot refa'im
 Dani already believe.PAST.3MS. in-ghosts
 ‘Dani has already believed in ghosts’.
- (39a) **רותי כתבה עכשיו את הנאום**
Ruti katva 'axšav 'et ha-ne'um
 Ruti write.PAST-3FS. now ACC the-speech
 ‘Ruti has now/just written the speech’.
- (39b) **רותי נצחה עכשיו בתחרות**
Ruti nišxa 'axšav ba-taxarut
 Ruti win.PAST-3FS. now in.the-race
 ‘Ruti has now/just won the race’.
- (39c) **רצתי עכשיו בפארק**
rašti 'axšav ba-parq
 run.PAST-1CS. now in.the-park
 ‘I have (just) now run in the park’.
- (39d) **דני האמין עכשיו ברוחות רפאים#**
#Dani he'emin 'axšav be-ruḥot refa'im
 Dani believe.PAST.3MS. now in-ghosts
 #‘Dani has now/just believed in ghosts’.

- (40a) מזה שבוע רותי כותבת את הנאום
mi-ze šavua' Ruti kotevet 'et ha-ne'um
 For week Ruti write.PTCP-FS. ACC the-speech
 'Ruti has been writing the speech for a week'.
- (40b) מזה שתיים רותי מנצחת במשחק
mi-ze še'atayim Ruti menašaxat ba-misḥaq
 For hour.DUAL Ruti win.PTCP-FS. in.the-game
 'Ruti has been winning the game for two hours'.
- (40c) מזה חודש אני רץ בפארק
mi-ze ḥodeš 'ani raš ba-parq
 For month I run.PTCP.MS. in.the-park
 'I have been running in the park for a month'.
- (40d) מזה שנים דני מאמין ברוחות רפאים
mi-ze šanim Dani ma'amin be-ruḥot refa'im
 For years Dani believe.PTCP.MS. in-ghosts
 'Dani has believed in ghosts for years'.

the time interval specified by the adverbial expression. In the set of examples in (40), the activity denoting predicate in (40c) may only be interpreted iteratively; if the adverbial expression designates a shorter period of time, like מזה שתיים *mi-ze še'atayim* 'for two hours', a durational, ongoing interpretation would have been available.

In summary, despite its apparent morphological 'deficiency', the notional category of aspect, with its various sub-categories, is fully present in the Modern Hebrew verb system.

REFERENCES

- Abusch, Dorit. 1988. "The semantics of progressive tense" (in Hebrew). *Hebrew Linguistics* 26:5–16.
- Agrell, Sigurd. 1908. *Aspektänderung und Aktionsartbildung beim polnischen Zeitworte: Ein Beitrag zum Studium der indogermanischen Präverbia und ihrer Bedeutungsfunktionen*. Lund: Ohlsson.
- Bach, Emmon. 1986. "The algebra of events". *Linguistics and Philosophy* 9:5–16.
- Bennett, Michael and Barbara H. Partee. 1978. *Towards the logic of tense and aspect in English*. Bloomington: Indiana University Linguistics Club.
- Bertinetto, Pier-Marco. 2001. "On a frequent misunderstanding in the temporal-aspectual domain: The 'perfective = telic confusion'". *Semantic interfaces*, ed. by Carlo Cecchetto, Genarro Chierchia, and Maria Teresa Guasti, 177–210. Stanford, California: CSLI Publications.
- Boneh, Nora and Edit Doron. 2008. "Habituality and habitual aspect". *Theoretical and crosslinguistic approaches to the semantics of aspect*, ed. by Susan Rothstein, 321–347. Amsterdam: John Benjamins.
- . 2010. "Modal and temporal aspects of habituality". *Syntax, lexical semantics, and event structure*, ed. by Malka Rappaport-Hovav, Edit Doron, and Ivy Sichel, 338–363. Oxford: Oxford University Press.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Demirdache, Hamida and Myriam Uribe-Extbarria. 2000. "The primitives of temporal relations". *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 157–186. Cambridge, Massachusetts: MIT Press.
- De Swart, Henriette. 1998. "Aspect shift and coercion". *Natural language and Linguistic Theory* 16:347–385.
- Doron, Edit. 2003. "Agency and voice: The semantics of the Semitic templates". *Natural Language Semantics* 11:1–67.
- Dowty, David. 1979. *Word meaning and Montague Grammar*. Dordrecht: D. Reidel.
- Filip, Hana (forthcoming). "Aspectual class and Aktionsart". *Semantics: An international handbook of natural language meaning*, ed. by Klaus von Heusinger, Claudia Maienborn, and Paul Portner. The Hague: Mouton de Gruyter.
- Giorgi, Alessandra and Fabio Pianesi. 2001. "Ways of terminating". *Semantic interfaces*, ed. by Carlo Cecchetto, Genarro Chierchia, and Maria Teresa Guasti, 211–277. Stanford, California: CSLI Publications.
- Greenberg, Yael. 2008. "On *be-*, *be'odo*, and *'adayin*" (in Hebrew). *Hebrew Linguistics* 61:29–42.
- Iatridou, Sabine, Elena Anagnostopoulou, and Roumyana Izvorsky. 2001. "Observations about the form and meaning of the perfect". *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 189–238. Cambridge, Massachusetts: MIT Press.
- Jespersen, Otto. 1924. *The philosophy of grammar*. London: Allen & Unwin.
- Kenny, Anthony. 1963. *Action, emotion and will*. London: Routledge.
- Klein, Wolfgang. 1994. *Time in language*. London: Routledge.
- Laca, Brenda. 2004. "Romance 'aspectual' periphrasis: Eventuality modification vs. 'syntactic' aspect". *The syntax of time*, ed. by Jacqueline Guéron and Jacqueline Lecarme, 425–440. Cambridge Massachusetts: MIT Press.

- Landman, Fred. 1992. "The progressive". *Natural Language Semantics* 1:1-32.
- Mittwoch, Anita. 1988. "Aspects of English aspect: On the interaction of perfect, progressive and durational phrases". *Linguistics and Philosophy* 11:203-254.
- Muchnik, Malka. 1989. "Expressions of tense, mood, and aspect in Modern Hebrew" (in Hebrew). *Hebrew Linguistics* 27:29-54.
- Rapp, Irene and Arnim von Stechow. 1999. "Fast 'almost' and the visibility parameter for functional adverbs". *Journal of Semantics* 16:149-204.
- Reichenbach, Hans. 1947. *Elements of symbolic logic*. London: Macmillan.
- Rosén, Haiim, B. 1966. *A textbook of Israeli Hebrew*. 2nd edition. Chicago: The University of Chicago Press.
- . 1977. *Contemporary Hebrew*. The Hague: Mouton.
- Rothstein, Susan. 2004. *Structuring events: A study in the semantics of lexical aspect*. Oxford: Blackwell Publishing.
- Ryle, Gilbert. 1949. *The concept of mind*. London: Barnes and Noble.
- Sevi, Aldo. 2008. "kvar" (in Hebrew). *Hebrew Linguistics* 61:43-54.
- Smith, Carlota, S. 1991. *The parameter of aspect*. Dordrecht: Kluwer Academic Publishers.
- Tsivoni, Lea. 1993. "Ways to express perfective, iterative, durative, and tense in written Israeli Hebrew" (in Hebrew). *Lěšonénu* 56:55-87.
- Vendler, Zeno. 1957. "Verbs and times". *Philosophical Review* 56:143-160.
- Yitzhaki, Dafna. 2004. "The semantics of lexical aspect in Modern Hebrew". *Proceedings of Israel Association for Theoretical Linguistics* <<http://linguistics.huji.ac.il/IATL/20/Yitzhaki.pdf>>.

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