

### The modal *yitaken* ‘possible’<sup>1</sup>

The Hebrew *yitaken* is a middle-voice simple-template verb-form derived from the root *tkn*. In Biblical Hebrew (BH), the verb is rare and means ‘be measured’. (1a) illustrates a perfective form of this verb, and (1b) illustrates *yitaken*, which is a modal/imperfective form:

- (1) a. (3 ב א א ב 3) כִּי אֵל דְּעוֹת יְהוָה וְלוֹ נִתְּכַנּוּ עֲלֵלוֹת (שְׂמוּאֵל א ב 3)  
*kī ʔēl dēʕōt JHWH wə-lō nitkənū*  
 for God(of) knowledge JHWH and-to.3MS be-measured.3P  
*ʕāʕilōt*  
 actions  
 For the Lord is a God who knows; actions are measured by him. (1Sam 2:3)
- b. (29 יח 29) וְאָמְרוּ בֵּית יִשְׂרָאֵל לֹא יִתְּכַן דְּרַךְ אֲדֹנָי (יְחִזְקִיאֵל יח 29)  
*wə-ʔāmārū bēt yiśrāʔēl lō yittākēn derekʔ*  
 and-said.3P house(of) Israel NEG measure.MOD.3MS way(of)  
*ādōnāy*  
 Lord  
 ‘Yet the house of Israel says, ‘The way of the Lord will not be measured.’ (Eze. 18:29)

The ‘measure’ interpretation is common to other Biblical verbs derived from the root *tkn*, such as the intensive-template *le-takken* ‘to measure’, as demonstrated by the parallelism to the two other measure verbs in the following verse, *li-mdod* and *le-ḵayel*:

- (1) c. (12 מ 12) מִי-מִדַּד בְּשִׁעְלוֹ מַיִם וְשָׁמַיִם בְּיָדוֹ תִּכְנֶן וְכֹל בְּשִׁלְיָ עֶפְרַיִם הָאֶרֶץ (ישעיה מ 12)  
*mī mādaq bə-šofōlō mayim wə-šamayim b-az-zeret*  
 who measured.3MS in-hand.POSS.3MS water and-heaven with-the-span  
*tikkēn wə-ḵāl b-aš-šāliš ʕāḵār*  
 measured.3MS and-calculated.3MS with-the-measure dust(of)  
*hā-ʔāreś*  
 the-earth  
 ‘Who has measured the waters in the hollow of His hand, measured heaven with a span, and calculated the dust of the earth in a measure?’ (Is. 40: 12)

The verb does not appear again until the Middle Ages (other than in *piyyut* liturgy which is modeled after BH). In Medieval Hebrew it is used frequently, often with clausal complements, and its meaning is now “possible”. For example, in the Dictionary (*Maḥberet*) of Menachem ben Saruq (920-970), *yitaken* is attached to two contradictory clauses in (2), expressing that each is possible. Example (2) appears in the context of the discussion of Biblical Hebrew lexical items which have two antonymous interpretations. In this case, it is the verb *seʕef* derived from the root *sʕf* ‘branch’, with the two contradictory interpretations ‘grow/cut-off branches’:

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- (2) *yitaken*      *li-hyot mesaʕef*      *mafriaḥ*      *seʕifot...*      *gam*  
possible      be.INF “*mesaʕef*”      grow      branches...      also  
*yitaken*      *li-hyot*      *mesaʕef*      *mašhit*      *seʕifot*  
possible      be.INF      “*mesaʕef*”      destroy      branches  
‘It is possible for *mesaʕef* to be ‘grow branches’, it is also possible for *mesaʕef* to be  
‘cut-off branches’ (Menachem ben Saruq, *Maḥberet*, 66)

The meaning change is probably due to contact with Arabic. As suggested by Aharon Maman (p.c.), the Biblical root *tkn* was revived to express the meaning of the Arabic root *mkn* ‘possible’, due to their morphological affinity. Both roots can be viewed as the prefixation of *t* or *m*, which are often used as root prefixes, to the root *kn* ‘be/exist’ common to the two languages.

Under the influence of Arabic morphology, the imperfective form *yitaken* is considered a participle, hence it is mostly conjugated in the past tense with the copula *hyy* ‘be’, as in (3a),<sup>2</sup> though a few perfective forms are found too, (3b).

- (3) a. (1000 בערך קראית, ספרות קראית, במדבר לשכון להם יתכן היה יתכן להם לשכון במדבר (ספרות קראית, בערך 1000)  
*ve-eyx*      *haya*      *yitaken*      *lahem*      *liškon*  
and-how      be.PAST.3S      possible      to.3MP      to.dwell  
*b-a-midbar*  
in-the-desert  
‘And how was it possible for them to dwell in the desert?’ (Karaitic writings, ca. 1000)
- b. (950 דונש בן לברט, בערך 950) "שריתך" כף "שריתך" (דונש בן לברט, בערך 950)  
*lo nitkan*      *pitrono*      *mipney*      *tosefet*      *ha-yod*  
NEG possible.PAST      solution.POSS.3MS      because      addition(of)      the-yod  
*ʔašer lifney kaf šērīṭkā*  
that before kaf(of) “*šērīṭkā*”  
‘His solution was not possible because of the addition of the letter Yod before the letter Kaph in the Biblical word *šērīṭkā*.’ (Dunash ben Labrat, ca. 950)

In Maskilic Hebrew (beginning ca. 1750), *yitaken* is still attested, still with the meaning ‘possible’, but this time without tense conjugation. The same distribution is found throughout Early Modern Hebrew. This seems to be a nice example of grammaticalization, where a verb gets frozen as an invariable stem, no longer inflected for such verbal categories as tense or person, but only for nominal categories such as number and gender. The new modal stem cannot be conjugated with the copula *hyy*, probably because, outside of the Arabic realm, *yitaken*, with its imperfective Biblical form, cannot be analysed as a participial form. The original perfective verb does appear rarely, but it is clearly severed from the modal stem. It is typically collocated with the noun *ʕalilot*, echoing the Samuel verse in (1a). Moreover, judging from the interpretation of (4), the perfective verb is probably implicitly reanalysed as derived from the root *kn* ‘be/exist’ rather than *tkn*:

- (4) אדם תמים ובלי רפלקסיות נשקף מן המחברת. ומי יודע: אולי נתכנו לו עלילות  
(יוסף חיים ברנר, ביבליוגרפיה (האדמה), עמ' 359, שנת 1919)  
*adam tamim*      *u-bli*      *refleksiyot*      *niškaf*      *min*

<sup>2</sup> This type of conjugations is preserved in Late Rabbinic Hebrew, up to present day Rabbinic literature.

person simple                      and-without    reflections                      seen.PASS                      from  
*ha-mahberet ve-mi yodeya: ulay nitkenu*  
the-essay                      and-who                      knows.PRES.MS                      perhaps                      be/exist.PAST  
*lo šalilot*  
to.3MS actions

‘A naïve man without reflections seen from the essay. But who knows, perhaps great actions are to be expected of him’ (Yosef Haim Brenner, *Bibliography (Ha’adama)*, p. 359, 1919)

The modal has different flavours (Hacquard 2011): circumstantial (5a), teleological (5b), deontic (5c, d, e):

- (5) a. ובהצטרפותם יתכן אושר המין האנושי  
(שלום יעקב אברמוביץ, 'מנדלי מו"ס, מה אנו, עמ' 477, 1875)  
*u-be-hictarfutam yitaken ošer ha-min ha-enoši*  
and-in-joining.POSS.3MP                      possible                      confirmed                      the-type                      the-human  
‘And in their joining [together], the bliss of mankind is possible.’ (Shalom Yaakov Abramovich, Mendele Mocher Sfarim, *Who Are We?*, p. 477, 1875)
- b. לכן הודעתי להמפקד הראשי, כי לא יתכן לבוא עוד הפעם בעתירה לפני הממשלה  
(נחום סוקולוב, שנאת עולם לעם עולם, עמ' 178, שנת 1882)  
*laxen hodšati l-ha-mefaked ha-raši, ki*  
therefore                      inform.PAST.1S                      to-the-commander                      the-chief                      because  
*lo yitaken lavo šod ha-pšam be-šatira*  
NEG                      possible                      come.INF                      another                      the-time                      in-request  
*lifney ha-memšela*  
before                      the-government  
‘So I informed the head commander that it wasn’t possible to come again with a petition before the government.’ (Nahum Sokolow, *Eternal Hatred for the Eternal People*, p. 178, 1882)
- c. אבל איך יתכן ליתן לעובדים פשוטים רק האמצעים לעבודתם?  
(אשר צבי גינצברג, אחד העם, על פרשת דרכים ב', עמ' 211, שנת 1903)  
*aval eyx yitaken liten le-šovdim pšutim rak*  
but                      how                      possible                      give.INF                      to-workers                      simple                      only  
*ha-emcašim l-a-šavodatam*  
the-means                      to-the-work.POSS.3MP  
‘But how is it possible to give simple workers only the means for their work’ (Asher Zvi Ginsberg, *Ahad Ha’am, At the Crossroads, Essay 2*, p.211, 1903)
- d. מי שחושב שיתכן להוציא על חייו, על מותרותיו, על הבליו אלפי פונטים... – חטאתו גדולה  
(יוסף חיים ברנר, שרידי שיחות ישנות, עמ' 337, שנת 1919)  
*mi še-ħošev še-yitaken lehoci šal ħayav šal*  
who that-think.MS                      that-possible                      take-out.INF                      on                      life.POSS.MS                      on  
*mutarutav, šal hevelav šalfey pontim...*  
luxuries.POSS.3MS                      on                      nonsense.POSS.3MS                      thousands                      pounds  
*ħetšato gdola*  
sin.POSS.MS                      great  
‘Whoever thinks that it’s possible for a person to spend thousands of pounds on his life, on his luxuries, on nonsense—his sin is great.’ (Yosef Haim Brenner, *Sridey Sichot Yeshanot*, p.337, 1919)
- e. לנגוע בגופנו החולה עד כדי להכאיב – ודאי לא יתכן  
(יוסף חיים ברנר, ירחון "האדמה", המאמר השמיני במדור ציונים, עמ' 211, שנת 1920)

<i>lingo'ʕa</i>	<i>b-a-gufeynu</i>	<i>ha-ħole</i>	<i>ʕad</i>	<i>kedey</i>	<i>lehaxiv</i>
touch.INF	in-the-body.POSS.1P	the-sick	until	in-order	hurt.INF
— <i>vaday</i>	<i>lo</i>	<i>yitaken</i>			
certainly	NEG	possible			

‘To touch our sick body to the point of pain is certainly not possible’ (Yosef Haim Brenner, *Ha'Adama*, eighth essay in the Zionism section, p. 211, 1920)

In Modern Hebrew, the nominalizing suffix *-ut* yields *yitaknut* ‘possibility/feasibility’, indicating that the form *yitaken* is indeed no longer considered a temporally inflected form, but an unanalysed stem to which the suffix is attached (the prescriptive nominalization is *hitaknut*, analogous to the nominalization of temporally inflected verbs)<sup>3</sup>.

*yitaken* in MH typically selects for a tensed CP argument (6a), or maybe its pro-form *ze* (6b). Nominal arguments are found in weather forecast (6c), or other futuristic talk (6d), which report what are the possibilities according to our current knowledge, not that e.g. rain or keyboardless computers are merely a circumstantial possibility.

- (6) a. ייתכן שמגיע לכם כסף בחזרה  
*yitaken*    *še-magiyʕa*    *lexem*    *kesef*    *beħazara*  
 possible    that-deserve    to.3MP    money    in-return  
 ‘It’s possible that you deserve to get money back.’
- b. זה ייתכן  
*ze*    *yitaken*  
 it.MS    possible  
 ‘It’s possible.’
- c. גשם מחר ייתכן גשם מקומי בדרום הארץ ובמזרח  
*maħar*    *yitaken*    *gešem*    *mekomi*    *b-a-drom*    *ha-ʔarec*  
 tomorrow    possible    rain    local    in-the-south    the-country  
*u-be-mizraxa*  
 and-in-east.POSS.3FS  
 ‘Tomorrow localized rainfall is possible in the south and east of the country.’
- d. האם ייתכן מחשב ללא מקלדת ועכבר?  
*ha'im*    *yitaken*    *maħšev*    *lelo*    *mikledet*    *ve-ʕaxbar*  
 INT    possible    computer    without    keyboard    and-mouse  
 ‘Is it possible to get a computer without a keyboard and mouse?’

The examples in (6) illustrate the dramatic change which Modern Hebrew brought with it: *yitaken* has become for the most part an epistemic modal. The example in (5a) above is no longer idiomatic in MH. Only negative environments preserve root readings as in (5b-e). Modern versions from the internet are found in (7):

- (7) a. ביהמ"ש למורים השובתים: לא יתכן שתעשו טריקים כדי לעקוף צו  
*Beyt*    *ha-mišpat*    *l-a-morim*    *ha-šovtim:*    *lo*    *yitaken*  
 House(of)    the-law    to-the-teachers    the-striking    NEG    possible  
*še-ta'ʕasu*    *trikim*    *kedey*    *laʕakof*    *cav*  
 that-do.FUT.P    tricks    in-order    bypass.INF    order

<sup>3</sup> See <http://hebrew-academy.org.il/2011/12/14/%D7%94%D7%99%D7%AA%D7%9B%D7%A0%D7%95%D7%AA-%D7%90%D7%95-%D7%99%D7%99%D7%AA%D7%9B%D7%A0%D7%95%D7%AA/>

‘The court to the striking teachers: You cannot do tricks in order to bypass a court order.’

b. "לא ייתכן לומר על ערוץ 7: "סגרו אותם ואין מה לעשות"

*lo yitaken lomar šal šaruc ševša sagru*  
 NEG possible say.INF about channel seven close.PAST.P

*ʔotam ve-eyn ma la-šasot*

them.ACC and-NEG-EXIST what do.INF

‘One can’t say about channel 7: “They closed them and there’s nothing to do about it.”’

Cross-linguistically, epistemic modals do not scope under tense (Condoravdi 2002; von Fintel 2006); rather, they only describe what is judged as possible/necessary at speech time. If this is correct, the development is quite striking: *yitaken* has become a dedicated epistemic modal in MH **because** it had lost its temporal inflection.

On the other hand, epistemic possibility modals do not scope under negation (Drubig 2001; Hacquard and Wellwood. 2012). Hence when *yitaken* is found under negation, it is assigned a root interpretation.

In sum, the story of *yitaken* is the story of a Biblical extensional verb which was lost in Rabbinic Hebrew, and revived in Medieval Hebrew with a new, modal, interpretation calqued from the interpretation of a morphologically related Arabic verb. Once the Arabic participial morphology of *yitaken* became opaque, it grammaticalized as an unanalysed stem, whose original imperfective Biblical morphology prevented it from being temporally conjugated by the auxiliary *hyy* ‘be’. It thus froze in modern times as a modal unmodifiable by tense, which seems to have been the catalyst for Modern Hebrew using it only as an epistemic modal, except in a negative environment.

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