

## The modal *carix* ‘need’<sup>1</sup>

I start with a description of the modal *carix* in Modern Hebrew (MH) and then move on to a historical overview.

### Modern Hebrew

The MH modal *carix* ‘need’ appears in one of two constructions, the Pers(onal) construction as in (1), or the Imp(ersonal) construction as in (2). In (1), *carix* agrees with its argument subject, feminine in (1a) and plural in (1b). In (2), the subject of *carix* is a null expletive, whose features are the default impersonal features MS; *carix* then agrees with its expletive MS subject rather than with the overt argument:<sup>2</sup>

1. Pers-construction: *carix*<sub>Pers</sub> Argument subject and accusative object

המפלגה צריכה החלטות אמיצות

- a *ha-miflaga crixa hahlatot amicot*  
the-party.FS **need.FS** decisions.FP courageous.FP  
The party needs courageous decisions.

אנחנו צריכים את הקהל

- b *anahnu crixim et ha-qahal*  
we.P **need.MP** ACC the-audience  
We need the audience.<sup>W</sup>

2. Imp-construction: *carix*<sub>Imp</sub> Expletive null subject and accusative object

צריך החלטות אמיצות

- a *carix hahlatot amicot*  
**need.MS** decisions.FP courageous.FP  
There need to be courageous decisions.<sup>W</sup>

צריך את הקהל

- b *carix et ha-qahal*  
**need.MS** ACC the-audience  
The audience is needed.

3. In the Pers-construction, *carix* can be synthetically inflected for tense, particularly in the future. The synthetic form is the future form of the intensive middle-voice verb *le-hictarex* ‘to need’ derived from the root *crx* of *carix*:

המפלגה תצטרך החלטות אמיצות / את הקהל

- ha-miflaga<sub>i</sub> tictarex hahlatot amicot / et ha-qahal*  
the-party.FS **need.FUT.3FS** decisions.FP courageous.FP / ACC the-audience  
The party will need courageous decisions.<sup>W</sup> / The party will need the audience

4. In the Imp-construction, *carix* can only be temporally inflected periphrastically with the COP *hyy*:

בשביל זה יהיה צריך החלטות אמיצות / \*בשביל זה יצטרך החלטות אמיצות

- bišvil ze yihye carix / \*yictarex hahlatot amicot*  
for this **FUT.3MS need.MS** / **need.FUT.3MS** decisions.FP courageous.FP  
For this, courageous decisions would be needed.<sup>W</sup>

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<sup>2</sup> Attested examples from the web are marked with the superscript W.

5. The strict periphrastic tense forms in the Imp construction are surprising, since other Imp constructions with periphrastic tense forms also allow synthetic forms:

- a  
יהיה מתאים לקנות לה איתותים שקופים של אונו 95  
*yihye mat'im* [PRO *li-qnot la itutim šqufim šel uno 95*]  
**FUT.3MS suit.MS** to-buy to.it signals transparent of Uno 95]  
It will be suitable to buy for it transparent signals made for the Uno 95.<sup>W</sup>
- b  
אני לא יודעת אם יתאים לקנות לו משהו למשרד  
*ani lo yoda'at im yat'im* [PRO *li-qnot lo mašehu l-a-misrad*]  
I NEG know if **suit.FUT.3MS** to-buy to.him something to-the-office  
I don't know if it will be suitable to buy him something for the office.<sup>W</sup>

6. The synthetic inflection of the Imp construction is preferred in the future tense, whereas the past is often periphrastic. The COP-*carix* / *carix*-COP variation attested in a/b below became pervasive in EMH. In previous Hebrew phases, practically only the COP-*carix* order is attested.<sup>3</sup>

- a  
למה אלוקים היה צריך שנסבול כל כך הרבה.  
*lama eloqim haya carix še-nisbol kol.kax harbe*  
why God **PAST.3MS need.MS** to-suffer.FUT.1P so much  
Why did God need us to suffer so much?<sup>W</sup>
- b  
הוא לא צריך היה לשאול, כי החתול סיפר לו.  
*hu lo carix haya li-š'ol ki ha-ħatul siper lo*  
he NEG **need.MS PAST.3MS** to-ask because the-cat had.told to.him  
He didn't have to ask, because the cat had told him.<sup>W</sup>

7. In colloquial MH, the synthetic form can be used in the past tense:

- בעבר התושבים המקומיים הצטרפו לחצות נהר כדי לצאת ולחזור לבתיהם.  
*be-avar ha-tošavim ha-meqomiyim hictarxu la-ħacot nahar*  
in-past the-inhabitant.MP the-local.MP **need.PAST.3MP** to-cross river
- kedey la-cet ve-la-ħazor le-batey-hem*  
in.order.to to-go.out and-to-return to-homes-their  
In the past the local inhabitants had to cross a river in order to go in and out their homes.<sup>W</sup>

Semantically, *carix* is a universal modal (Rubinstein 2012).<sup>4</sup> It has both epistemic and root interpretations.<sup>5</sup> People recognize the ambiguity in the examples in (8) between epistemic and root modality.

8. a הוא צריך להגיע בעוד רגע  
*hu carix* [<sub>i</sub> *le-hagia' be-'od rega'*]  
he **need.MS** to-arrive in-another minute  
He should arrive in a minute.<sup>W</sup>

<sup>3</sup> Early Modern Hebrew popularized the word-order *carix*-COP both in the past and the future (only 4 examples are previously found in the past tense and none in the future, compared to 230 examples of the order COP-*carix* – in the *Maagarim* data base. The *carix*-COP order is probably the result of contact with Russian during EMH (Vera Agranovsky p.c.).

<sup>4</sup> Semantically, modals act as quantifiers ranging over a (contextually restricted) set of possible worlds. Modals of necessity, such as *must, need, will, should, ought*, represent universal quantifiers, whereas modals of possibility such as *can, may* represent existential quantifiers.

<sup>5</sup> Modals have two types of interpretations: *epistemic* and *root* interpretations. In the epistemic interpretation, the modal expresses how likely it is, relative to some state of knowledge or beliefs, that a proposition is true (for example, necessarily, possibly, probably true) while in the *root* interpretations the modal expresses the obligatoriness or permissibility relative to some normative system of a state or event (*deontic*), or its desirability for certain purposes (*goal-oriented*), or according to certain wishes (*bouletic*).

*ha-maftehot<sub>i</sub> crixim* [*t<sub>i</sub> li-hyot b-a-megira*]  
 the-keys.MP **need.MP** to-be in-the-drawer  
 The keys must be in the drawer.

## History of *carix*

*carix* is not found in Biblical Hebrew, but is a borrowing from Aramaic. Its distribution in MH can be accounted for by noting that it originates from two separate Aramaic verbs, the simple active verb *šarak* ‘need’, and the simple middle-voice verb *lištereḵ* ‘be needy’.<sup>6</sup>

### The simple active *šarak* ‘need’

In various dialects of Aramaic, there is a stative simple-template verb *šarak* / *yīšroḵ* ‘need’. In the Jewish Babylonian Aramaic dialect, which influenced RH, practically only its participle is attested *šriḵ*, and is the origin of the Hebrew *carix*.<sup>7</sup> *šriḵ* is a stative active participle and also serves as the passive participle of transitive verbs (Bar-Asher Siegal 2013: 209): ‘needs/ is needed’, like other Aramaic stative verbs; also in Hebrew: *raxuv* ‘riding/mounted’ (Doron 2000). The participle actually occurs in three constructions:

9. need – active (*šriḵ<sub>Pers</sub>*) (Active Nom Subj) AGREEMENT TO SUBJECT  
 (בבלי שבת כג ע"א) השתא ודאי לא צריכנא

*hašta wadday la šriḵ-na*  
 now certainly NEG **need-1S**  
 Now I certainly do not need [it]. (Babylonian Talmud, Shabbath 23a)

10. is needed – impersonal passive (*šriḵ<sub>Imp</sub>*) DEFAULT AGREEMENT<sup>8</sup>  
 (בבלי, כתובות לו ע"ב) ותרי קראי למה לי חד בשוגג וחד במזיד וצריכא

*u-tre qraʔe lama li had be.šogeg we-had be.mezid u-šriḵa*  
 and-two verses why to.1S one accidentally and-one intentionally and-**need.3FS**

But why do I need two verses? One deals with accidental (murder) and one with intentional (murder) and it is necessary (to mention both). (Babylonian Talmud, Kethuboth 37b)

11. is needed – personal passive (*šriḵ<sub>PP</sub>*) AGREEMENT TO SUBJECT **unattested in MH**

- a short  
 (בבלי יבמות ד ע"ב) הני מצרך צריכי

*hane mišrak šriḵe*  
 these.P need.INF **need.PP.3MP**  
 (Both of) these are definitely necessary. (Babylonian Talmud, Yebamoth 4b)

- b long (*šriḵ<sub>PP+dative</sub>*)

<sup>6</sup> *le-hictarex* ‘to need’ is the only middle-voice verb assigning accusative case in MH. Bar-Asher Siegal 2013: 206 mentions that middle-voice JBA verbs sometimes allow accusative complements.

<sup>7</sup> Moreshet 1980: 312 provides rare examples of tense-inflected *carax* ‘need’ in Rabbinic Hebrew:

לקח בכור למשתה בנו או לרגל, ולא צרך לו--מותר למוכרו. (משנה, שביעית ז, ד)  
*laqaḥ bexor le-mište bn-o o le-regel ve-lo carax lo mutar le-moxr-o*  
 bought.3MS sacrifice to-feast son-his or to-pilgrimage and-NEG **need.PAST.3MS** to.3MS may to-sell-it  
 If a man bought a sacrifice for his son’s wedding feast of for a pilgrimage, and he does not need it, he may sell it. (Mishna, Shebi’ith 7:4)

<sup>8</sup> Default agreement in Aramaic may be 3FS rather than 3MS.

משעבד לה במילתא דצריכא לה (בבלי, נזיר כד, ע"א)

*mešaʕbad la be-millta di-šriḳa la*  
is.liable.PP.3MS to.3FS for-something.FS that-need.PP.3FS to.3FS  
[The husband] is liable to her [his wife] for something which is necessary to her.  
(Babylonian Talmud, Nazir 24a) (Bar-Asher Siegal 2013:58)

All three Pers, Imp and PP participles were calqued into Hebrew. The personal passive participle (PP) remained throughout all historical stages: Rabbinic Hebrew, Medieval Hebrew, until Early Modern Hebrew, but disappeared in Modern Hebrew.

#### Rabbinic Hebrew (RH):

12. is needed – personal passive (*carix<sub>PP</sub>*)

a מפני מה הן בטלין לימות המשיח ... לפי שאינן צריכין (בבלי, שבת סג, ע"א)  
*mipne.ma hen betelin l-imot ha-mašiaḥ ... lefi še-eynan crixin*  
why they.MP cease.MP to-days (of) the-Messiah ... because that-NEG.3MP need.PP.MP  
... why should they cease in the days of the Messiah? Because they will not be required. (Babylonian Talmud, Shabbath 63:a)

b דאי הא נמי מלאכה שאינה צריכה לגופה היא (בבלי, שבת צד, ע"ב)  
*de-ʔi ha' name melaxa še-eyna crixa le-gufa hi*  
for-if this too labour.FS that-NEG.3FS need.PP.FS for-self.FS COP.FS  
... for if this too should be regarded as a labour unrequired *per se*... (Babylonian Talmud, Shabbat 94b)

#### Medieval Hebrew

13. is needed – personal passive (*carix<sub>PP</sub>*)

כל דבר הַצָּרִיךְ לדרך (רש"י, יהושע א, יא, המאה ה-11)  
*kol davar ha-carix l-a-dereḥ*  
every thing the-need.PP.MS for-the-road  
Everything required for the trip. (Rashi, circ.1100, Yehoshua 1:11)

#### Early Modern Hebrew (EMH)

14. is needed – personal passive (*carix<sub>PP</sub>*)

צריכים לנו ספרי דקדוק למתחילים (ד' ילין, זכרונות ועד הלשון, ד, תרע"ד)  
*crixim lanu sifrey diqduq le-mathilim*  
need.PP.MP to.1P books (of) grammar for-beginners  
Grammar books for beginners are required to us. (D. Yellin, 1914)

#### Modern Hebrew (MH)

The *carix<sub>PP</sub>* personal passive is unattested in MH. We will want to explain why it disappeared.

#### **The simple middle-voice *ʔiṣṭerek* ‘be needy’**

The verb denotes a relation between two arguments: a subject – the needy individual, and the object toward which the need is directed:

15.

a זימנא חדא איצטריך עלמא למיטרא (בבלי, תענית, כג ע"א)  
*zimna ḥada ʔiṣṭerek ʕalma le-miṭra*  
time one need.PAST.3MS world ACC-rain

Once the world needed rain. (Babylonian Talmud, Ta'anith 23:1)

b אצטריכו ליה זוזי למיזבן תורי (בבלי, כתובות צז, ע"א)

*ʔiṣṭeriku le zuze le-mizban tore*  
**need.PAST.3MP** to.3MS coins.MP to-buy oxen

He needed coins [money] to buy some oxen. (Babylonian Talmud, Kethubboth 97:a)

The simple middle-voice paradigm was calqued into RH as the intensive middle-voice paradigm, in all tenses including the participle *mictarex*, sometimes in its suppletive form *carix* (mostly in the Nom-Acc version found in (15a) rather than the Erg-Abs version in (15b) where the subject is marked as ergative by the dative preposition *le-* 'to' and the verb agrees with the Abs object *zuze* 'coins'):

16.

a וכל מי שאינו צריך ליטול, ונוטל--אינו מת מן הזקנה, עד שיצטרך לבריות (משנה, פאה ח, ט)

*kol mi še-eyno carix li-tol ve-notel*  
 every who that-NEG.3MS should.MS to-take and-takes

*eyno met min ha-ziqna ad še-yictarex l-a-briyot*  
 NEG.3MS dies from the-old.age before that-**need.FUT.3MS** ACC-the-people

Anyone who shouldn't take [gifts intended for the poor] but takes [them], will not die of old age before he is needy and needs people. (Mishna, Pe'a 8:9)

b כל שיש לו תרומה ומעשר ואינו נותן לו, סוף מצטרך לו (בבלי, ברכות סג, ע"א)

*kol še-yeš lo truma u-me'aser ve-eyno noten lo*  
 every that-there.is to.3MS donation and-offering and-NEG.3MS gives to.him;

*sof mictarex lo*  
 end **need.PTCP.MS** ACC.him;

Anyone who refuses his donation or offering to him; [to the priest] will eventually need him.  
 (Babylonian Talmud, Berachot 63:a)

c לאחר זמן נצטרך אותו האיש ומכר את שדה (תוספתא, בבא קמא ב, יג)

*le'ahar zman nictarex oto ha-iš u-maxar et sade-hu*  
 after time **need.PAST.3MS** that the-man and-sold.3MS ACC field-his

After some time, that man became needy and sold his field. (Tosefta, Baḥa Qama 2:13)

### The temporal inflection of *carix*<sub>Imp/Pers</sub>

The simple passive/stative participle *carix*<sub>Imp/Pers</sub> was not calqued into RH as part of a verbal paradigm, and hence marks all tenses periphrastically: *carix/ haya carix/ yehe carix*:<sup>9</sup>

17.

a רבי יהודה אומר, לא היה צריך טבילה (משנה, נגעים יד, ח)

*rabi yehuda omer lo haya carix tvila*  
 Rabbi Judah says NEG **PAST.3MS** **need.MS** immersion

Rabbi Judah says: It was not necessary for him to immerse himself. (Mishna, Nega'im 14:8)

b אדם שהוא נותן נפשו על שמו של הקב"ה ונעקד על גבי המזבח היה צריך שיכהו עיניו (מדרש תנחומא, בערך 800)

<sup>9</sup> The future tense periphrasis is extremely rare, maybe because of the future orientation of the modal itself.

*adam še-hu noten nafšo .... haya carix še-yixhu 'enav*  
 man that-he sacrifice.PTCP.MS himself ... PAST.3MS need.MS that-go.blind his.eyes  
 Was it necessary that a man who had sacrificed himself would go blind? (Midrash Tanhuma,  
 ca. 800)

c ומה שהוא משייר יניחנו בצנעה כדי שלא יהא צריך בדיקה אחריו (משנה, פסחים א:ג)

*u-ma še-hu mešayer yeniḥ-enu be-cin'a*  
 and-what that-he leaves-over will.put-it in-safeguard

*kedey še-lo yehe carix bediqa aḥar-av*  
 so that-NEG FUT.3MS need.MS search for-it

And what he would leave over, let him put it safe keeping, that he shall not afterward need to search for it. (Mishna, Pesahim 1:3)

18. The subject of *carix*<sub>Pers</sub> may be marked as dative:

כל הגוזל לחברו שוה פרוטה צריך לו לילך אחריו אפ' למדי. (מסכת אבות דרבי נתן פרק כא, דף כג)

*kol ha-gozel la-ḥaver-o šave pruta*  
 any the-robs.MS from-fellow-his value penny

*carix lo le-ylex aḥar-av afilu le-maday*  
 need.PP.MS to.3MS to-go after-him even to-Medes

Anyone who robs his fellow of the value of a penny is required to return it even if the robbed person had gone as far as Medes. (Aboth de-Rabbi Nathan 21:23; 700-900 CE)

ובכל זאת היה צריך לו לשבחני אלא התחיל להתרעם (אגדת בראשית ס"ב, ~ 1000)

*u.ve.kol.zot haya carix lo le-šabḥ-eni ela hiṭhil le-hitra'em*  
 nevertheless was.3MS need.PP.MS to.3MS to-praise-me but started.3MS to-misbehave  
 He should have nevertheless praised me, but he started misbehaving. (Midrash Aggadat  
 Bereshith 62, circ.1000)

We will want to explain not only why *carix*<sub>PP</sub> (as in 11 above) eventually disappeared from MH together with its dative argument, but also why the dative argument disappeared from *carix*<sub>Pers</sub> in examples like (18).

Moreover, *carix*<sub>Pers</sub> in MH can be inflected synthetically, not only periphrastically as in RH. When did this happen? It turns out that in the Middle Ages, the synthetic forms spread from the verb *le-hictarex* 'be needy' to *carix*<sub>Pers</sub> forms:

19.

a כי כאשר נצטרך להיות נפך וספיר אבני מלואים ככה נצטרך אבני שהם גם אבני מלואים.  
 (תשובות על דונש, מאת תלמידי מנחם בן סרוק, בין 950 ל- 1000)

*ki ka'ašer nictarex li-hyot nofex ve-sapir avney milu'im*  
 for as need.PAST.3MS to-be turquoise and-sapphire jewels set

*kaxa nictarex avney šoham še-hem gam avney milu'im*  
 so need.PAST.3MS jewels onyx that-they also jewels set

For just like turquoise and sapphire had to be set jewels [in the High Priest's breastplate], so did onyx jewels have to be set jewels. (*Response to Dunash* by the students of Menahem Ben Saruq, between 950 and 1000).

b וזה מצטרך אל ראייה (ספר מצוות ללוי בן יפה הלוי, ספרות קראית, בין 1000 ל- 1100)

*ve-ze mictarex el re'iya*  
 and-this need.PTCP.MS to sighting

This requires sighting. (Karaite, anonymous, 1000-1100)

ויצטרכו לשנות (האי גאון, 1000 ~) c

*ve-yictarxu* *le-šanut*  
and-need.FUT.3MP to-change  
And they will have to change it. (Hai Gaon, circ. 1000)

## Summary of the historical process

1. Early Rabbinic Hebrew had two separate verb stems derived from the root *crx*:
  - A. The simple active *šaraḳ* ‘need’, of which practically only the participle *carix*<sub>Imp/Pers</sub> is attested, and was hence only conjugated periphrastically: *carix/ haya carix/ yehe carix*
  - B. The intensive middle-voice *le-hictarex* ‘be needy’, synthetically inflected like all other verbs: *mictarex/ nictarex/ yictarex*.<sup>10</sup>
2. In Medieval Hebrew, the synthetic inflection of the verb spread to *carix*<sub>Pers</sub>. Perhaps the Hebrew writers of the time found it impossible to distinguish the two different transitive stems.
3. In MH, four more changes took place:
  - a The two transitive paradigms, that of the participle *carix*<sub>Pers</sub> and that of the verb *le-hictarex* ‘be needy’, now sharing the same inflection, were reanalyzed as a single transitive verbal paradigm: *carix/ haya carix/ yictarex*, where *carix* functions as the active participle. *carix* is more versatile than *mictarex*, as it can be inflected both synthetically and periphrastically, hence was preferred to *mictarex*. Since active participles in MH cannot be periphrastically inflected in the future, the only possible future form in the paradigm was *yictarex*. This accounts for the synthetic future forms. But active participles can be periphrastically inflected in the past tense, hence *haya carix* and *hictarex* are both possible.
  - b In addition to *carix*<sub>Pers</sub> becoming the participle of the transitive verbal paradigm, *carix* retained its original interpretation as *carix*<sub>Imp</sub>, which was not a participle of a transitive verbal paradigm and hence could only be inflected periphrastically in all tenses.
  - c The dative argument dropped out of use with modals in MH.<sup>11</sup>
  - d The passive participle *carix*<sub>PP</sub> became obsolete, maybe because of its affinity with *carix*<sub>Imp</sub> once the dative argument is no longer expressed.

## References

<sup>10</sup> *nictarex* is the RH past-tense form which corresponds to the MH *hictarex*, the latter has BH morphology.

<sup>11</sup> For example, the modal *efšar* ‘possible’, also of Aramaic origin, was used with a dative argument in Aramaic and Rabbinic Hebrew, until EMH, but not longer in MH:

... ולא אפשר לי למשבק אינשי ביתי ומייתי קמי רבנן (בבלי, יבמות קטו ע"א)  
*we-la pifšar li le-mišbaq pinaše beti we-mete qamme rabbanan*  
and-NEG possible to.me to-leave people(of) my.house and-come before the.rabbis  
... it is impossible for me to leave my family and to come before the Rabbis (Babylonian Talmud, Yebamoth 115:a)

יש מקום שאפשר לנו למצוא שם ברגע הנוכחי את סולם הכשפים (חיים ארלוזורוב, חומה של זכוכית, 1926)  
*yeš maqom še-efšar lanu limco šam et sulam ha-kšafim*  
EX place that-possible to.us to.find there ACC ladder(of) the-magic  
There is a place where it is possible for us to find the magic ladder. (Haim Arlozoroff, A Glass Wall, 1926)

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