

Paradigm Gaps in the Hebrew Passive: Licensing, Referentiality and Agentivity

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One aspect of the Semitic verbal system which has not been tackled is the status of some derived forms in the Hebrew verbal templates. While active templates can express a range of derived forms, the passive ones lack infinitive, nominalized and imperative forms. We attribute this to the licensing environment of Voice and consider the crosslinguistic differences that lead to differences between English and Hebrew.

The paradigmatic puzzle. On the accepted view, Hebrew verbal morphology consists of seven templates. The argument structure of a given root in a given template may be idiosyncratic, but if a root appears in more than one template then the two contrast in a predictable way, reflecting different specifications of Agency and Voice (Doron 2003). Table (1) exemplifies with the past conjugation.

Agency (1) Voice	Simple	Intensive (INTNS)	Causative (CAUS)
Active	CaCaC	CiCeC	HiCCiC
Passive (PASS)	–	CuCaC	HuCCaC
Middle (MID)	NiCCaC	HitCaCeC	–

Past, future and present (*benoni*) forms for all templates are given in (2) for the root $\sqrt{\text{PKD}}$ in 3SG.M. Passive forms exist only where active forms already exist. See Aronoff 1994; Arad 2005 for other treatments of this system (spirantization of /p/ to [f] is predictable and will be ignored):

(2) Template	Agency	Voice	Gloss	Past	Future	Present
1 CaCac	–	–	'counted'	PaKaD	yiFKoD	PoKeD
2 niCCac	–	MID	'be absent'	niFKaD	yiPaKeD	niFKaD
3 CiCeC	INTNS	–	'commanded'	PiKeD	yeFaKeD	meFaKeD
4 CuCaC	INTNS	PASS	'be commanded'	PuKaD	yeFuKaD	meFuKaD
5 hiCCiC	CAUS	–	'deposited'	hiFKiD	yaFKiD	maFKiD
6 huCCaC	CAUS	PASS	'be deposited'	huFKaD	yuFKaD	muFKaD
7 hitCaCeC	INTNS	MID	'ally himself'	hitPaKeD	yitPaKeD	mitPaKeD

Next consider the infinitive, imperative and nominalized forms. These exist solely in the non-passive templates. The empty cells can be mimicked with a periphrastic construction built from the corresponding form of the copula, plus the passive present (as an adjective, Meltzer-Asscher 2011).

(3) Template	Agency	Voice	Gloss	Infinitive	Imperative	Nominal
1 CaCac	–	–	'count'	liFKoD	PKoD	PkiDa
2 niCCac	–	MID	'be absent'	lehiPaKed	hiPaKeD	hiPaKDut
3 CiCeC	INTNS	–	'command'	leFaKeD	PaKeD	PiKuD
4 CuCaC	INTNS	PASS	'be commanded'	–	–	–
5 hiCCiC	CAUS	–	'deposit'	lehaFKiD	haFKeD	haFKaDa
6 huCCaC	CAUS	PASS	'be deposited'	–	–	–
7 hitCaCeC	INTNS	MID	'ally yourself'	lehitPaKeD	hitPaKeD	hitPaKDut

Analysis. We observe the following: passive forms seem to only be allowed in tensed clauses. Imperatives have been argued not to have Tense and Mood projections (Platzack and Rosengren 1998). Note however that in general, passive imperatives are rare and pragmatically odd. Nominalizations are simply nouns, not clauses, and do not need to be Tensed. And infinitives do not have Tense (e.g. Wurmbrand 2007). Recent work on argument structure has converged on the idea that Voice and an optional Pass, licensed by T, are part of the extended projection of the verb (Pylkkänen 2008; Schäfer 2008; Harley 2013; Bruening 2013; Wood to appear). The following generalization can be made:

(4) In Hebrew, T licenses Voice and Pass. T[inf] does not license Pass.

Periphrasis does not fill paradigm gaps. It could be contended that there are periphrastic alternatives to the gaps: there is a valid exponent, it is simply periphrastic. This is ostensibly due to some morphological constraint against too many features appearing on one head (Kiparsky 2004; Bjorkman 2011). However, we note here that synthetic passive constructions and periphrastic constructions are different. Firstly, there is a difference in reference (Sichel 2009:720). The periphrastic construction allows disjoint reference (5a), unlike the synthetic construction (5b). In infinitival clauses, accordingly, disjoint reference is allowed (6) as it is in English. We take this as evidence that the periphrastic constructions is not equivalent to the synthetic construction. Also, in (5a) *mesorak* 'combed' is the end state, not the event. See below on 'WIA'.

(5a) dani yihye mesorak (5b) dani WIA **yesorak**
 Danny will.be combed.PASS.ADJ Danny comb.PASS.FUT
 = 'Danny or someone else will comb Danny' = 'Someone else will comb Danny'

(6) dani_i roce [lihiot mesorak PRO_i]
 Danny wants to.be combed. PASS.PRES/ADJ
 = 'Danny or someone else will comb Danny'

Similarly, idioms are possible only when periphrastic (Meltzer-Asscher 2011), after the copula (7).

(7a) ze yihie macuc me-ha-ecba (7b) ze **yimacec** me-ha-ecba
 it will.be sucked.PASS.ADJ from-the-finger it suck.PASS.PAST from-the-finger
 'It will be made up' 'It will be (literally) sucked from the finger'

Two Types of Weak Implicit Arguments. At this point we can ask another question: can the licensing condition in (4) be derived from other, more general factors? We sketch one possible approach using a distinguishing factor of Hebrew passives. The implicit external argument (Weak Implicit Argument or "WIA" in Landau's 2010 terminology) of Hebrew passives must be an agent, never a cause (Doron 2003):

(8) ha-ir WIA hušmeda (al yedey ha-oyev / ha-miflecet / *ha-hurikan)
 the-city:F destroyed.CAUS.PASS.3SG.F by the-enemy / the-monster / the-hurricane
 'The city was destroyed (by the enemy/the monster/*the hurricane)'

Following Landau (2010), infinitives and nominalizations both have WIAs: they can take *by*-phrases or instrumentals but cannot have secondary predication or bind reflexives. A non-finite passive example will have the structure in (9) for English and (10) for Hebrew, but the latter is ungrammatical:

(9) [John [wants [TP [to [PassP be [VoiceP WIA [Voice [vP arrest PRO]]]]]]]]
 (10) * [yossi [roce 'wants' [TP [to [PassP PASS [VoiceP WIA_{animate} [Voice [vP acar 'arrest' PRO]]]]]]]]

PRO is anaphoric and needs to be bound by a higher element, rendering it referential. But the WIA in Hebrew must be different than that in English in a way that blocks assignment of the referent to PRO. There is reason to think that this might be so. As evidenced by (8), agents need to be animate. For this reason we have annotated the WIA in (10) as [+animate]. What this shows is that at the very least WIAs may differ crosslinguistically. Landau (2010:383) proposes that [+human] is a motivated feature for a subclass of Strong Implicit Arguments; we suggest here that the typology of WIAs, which has not been fleshed out so far, should admit similar specifications. By the same token, it is also plausible that Hebrew WIAs are also more referential than their English counterparts.

Conclusion. We have pointed out gaps in the Hebrew verbal paradigm and linked them to the licensing of passive voice. We then motivated a difference between WIAs in English and Hebrew, implying both a revised typology of implicit arguments and a syntactic solution to the puzzle. This is not the entire story for Hebrew: the middle templates can coerce the passive using a *by*-phrase, and some speakers use humorous innovations which may be revealing. Finally, other Semitic languages allow cause arguments have unproductive passive morphology, complicating matters somewhat. Research here is underway.

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