Symmetry and asymmetry in the Hebrew copula construction

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Abstract

The copula construction in Hebrew has received much attention in the linguistic literature. Nevertheless, one non-canonical variant has been largely neglected. In this variant the copula, flanked by two NPs, exhibits agreement with the post-copular NP, contrary to the canonical variant, where the agreement controller is the initial NP. This phenomenon challenges the notion of *subject* and its relation to agreement. The current corpus-based study investigates the word order and agreement patterns exhibited by the Hebrew copular construction and shows that their distribution is largely motivated by information structure considerations. The proposed analysis accounts for the syntactic symmetry and semantic asymmetry between the two NPs.

1 Overview

The copula construction in Hebrew has received much attention in the linguistic literature. Nevertheless, one non-canonical variant has been largely neglected. In this variant the copula, flanked by two NPs, exhibits agreement with the post-copular NP, contrary to the canonical variant, where the agreement controller is the initial NP. This construction, often referred to in the literature as 'copula inversion', poses challenges to the notion of *subject* and its relation to agreement in various and diverse languages.

This study proposes that two mechanisms are responsible for the licensing of the Hebrew NP–NP copula construction. First, alongside the general argument realization principle, a copula-specific rule reverses the mapping of ARG-ST members to VALENCE categories and allows for both NPs to function as either subject or complement. Second, copula inversion is argued to be an instance of a general V2 construction in Hebrew, where a clause-initial constituent triggers subject–verb inversion. This construction is shown to be motivated by information structure considerations. The two mechanisms account for the apparent symmetry between the two NPs. Nevertheless, there is no symmetry with respect to semantics; each NP maintains its semantic function as subject or predicate regardless of its linear position or syntactic role.

2 Background

The standard data items which appear in the literature on the Hebrew copula construction are given in (1).

(1) dani (hu) more / nexmad / ba-xacer.
Danny Pron.3SM teacher.SM nice.SM in.the-yard
'Danny is a teacher/nice/in the yard.'

The predicates consist of NPs, AdjPs, and PPs. The copula linking the subject and the predicate is homophonous with the 3rd person pronoun (hence the gloss) and agrees with the subject. The pronominal copula is only used in present tense, and is sometimes optional. In past and future tense an inflected form of the verb *haya* 'be' is obligatorily used (2). The present tense form of *haya* is missing from the paradigm.

(2) dina hayta / tihiye [mora / nexmada / ba-xacer].
Dina was.3SF will.be.3SF teacher.SF nice.SF in.the-yard
'Dina was/will be a teacher/nice/in the yard.'

AdjP predicates obligatorily exhibit number-gender agreement with their subjects (e.g., *nexmad/nexmada* 'nice' in (1) & (2), respectively). With NP predicates, however, agreement is not imposed by the grammar. Rather, the agreement between the animate subject and NP predicate *more/mora* 'teacher' in (1) & (2) is due to sortal restrictions. This point is often overlooked, due to the preponderance of examples with animate (human) subjects in the literature. In (3), for example, there are agreement mismatches between the subject and two alternative predicates.

(3) ha-sfarim ha-'ele hem matana / matanot
the-books.PM the-these.PM Pron.3PM present.SF presents.PF
mi-xaveray.
from-my.friends
'These books are a present/presents from my friends.'

The focus of this paper is on a different agreement domain, namely the agreement properties exhibited by the pronominal and verbal copulas. In an overwhelming majority of cases the copula agrees with the (clause-initial) subject.[1]

(4) [<u>ha-merivot</u> ha-kolaniyot ve-ha-mexo'arot] <u>hen</u>
the-fights.PF the-loud.PF and-the-ugly.PF Pron.3PF
[*ha-davar* ha-yaxid ha-me'anyen].
the-thing.SM the-only.SM the-interesting.SM
'The loud and ugly fights are the only thing that is interesting.'

[1]Throughout this paper, the two NPs appear in square brackets, with the agreement controller underlined and the head of the other NP in italics.

There are, however, instances where the post-copular NP controls the agreement.

(5) [*merivot* beyn axim] hi [derex me'ula
fights.PF between siblings.PM Pron.3SF way.SF excellent.SF
lehitkonen la-xayim].
to.prepare to.the-life
'Fights between siblings are an excellent way to prepare for life.'

This construction, often referred to in the literature as 'copula inversion', challenges the notion of *subject* and its relation to agreement: Is the post-copular NP the subject or is there non-subject agreement? As I explore this issue I refer to the two constituents by using the linear terms *NP1* and *NP2*.

3 Copula inversion

3.1 The copular construction

The copular construction is a clause type in which the predicate is not a verb, but rather an NP, AdjP or PP, and is often linked to the subject by a copula. Following Higgins's (1979) taxonomy, Mikkelsen (2005) illustrates three types of copular constructions:

(6) PREDICATIONAL
Ingrid Bergman is the lead actress in that movie.

(7) SPECIFICATIONAL
The lead actress in that movie is Ingrid Bergman.

(8) EQUATIVE
She is Ingrid Bergman.

Broadly speaking, in predicational clauses the predicate expresses a property of the referent of the subject. As such, subjects of predicational clauses are referring expressions. Conversely, in specificational clauses the post-copular expression is a referring expression which identifies the referent of the denotation of the syntactic subject (i.e., it answers the question of who is the lead actress). Equatives involve two referring expressions which are equated (the referent of *she* is the same individual denoted by *Ingrid Bergman*).

The relationship between predicational and specificational sentences is subject to much debate in the literature, primarily because they look like mirror images of each other. Indeed, this has raised the question of whether specificational sentences are instances of predicate raising; thus associating the role of subject with the referential argument. Such a role-reversal analysis in the context of the current discussion can naturally account for the

phenomenon of copular inversion; the agreement relation between the copula and the post-copular NP is a manifestation of subject–verb agreement, albeit in a non-canonical configuration. Nevertheless, agreement triggering may not be a necessary nor sufficient condition for subjecthood.

The following sections briefly present the phenomenon of copula inversion in a number of languages, specifically highlighting the questions raised above, namely the relationship between subjecthood, agreement, and word order.

3.2 Copula inversion in Catalan

Alsina & Vigo (2014) focus on copula inversion and non-subject agreement in Catalan and related languages (e.g., Spanish and Italian) and provide the following examples (Alsina & Vigo's exx. 1&2).

(9) a. [Els impostos] són [el *problema*].
the.PL taxes.PL be.PRES.3P the.SG problem.SG
'The taxes are the problem.'

b. [el *problema*] són [els impostos].
the.SG problem.SG be.PRES.3P the.PL taxes.PL
'The problem is taxes.'

c. * [el problema] és [els *impostos*].
the.SG problem.SG be.PRES.3S the.PL taxes.PL

d. * [Els *impostos*] és [el problema].
the.PL taxes.PL be.PRES.3S the.SG problem.SG

As is suggested by these examples, agreement remains with the plural NP regardless of its position.

The analysis which Alsina & Vigo (2014) propose to account for the agreement patterns exhibited above is couched within their novel LFG approach to subject–verb agreement. Under their proposal, the agreement properties defined for a verb are not associated with a particular grammatical function, but defined in a special AGR feature. The values of this feature are unified with a grammatical function in the sentence, whose identity is determined by OT-like ranked constraints that implement a Person-Number hierarchy. This grammatical function may coincide with the subject, as is illustrated in (9a) but this is not necessarily so. In the copular inversion case, illustrated by (9b), the subject is NP1 and yet NP2 controls the agreement, since as a plural NP it is ranked higher in the hierarchy.

3.3 Reversed Equative *be* in English

Post-copular agreement is also found in English. Kay & Michaelis (2017a,b) discuss the Reversed Equative *be* construction where plural NP2s (optionally) control the agreement properties of the copula.

(10) a. [My biggest *worry*] are [the injury risks].
b. [My worst *nightmare*] were [the soups she would make for dinner].
(Kay & Michaelis, 2017b, ex. 0.6)

Kay & Michaelis (2017a,b) argue that the Reversed Equative *be* construction is a subtype of the more general Split Subject construction, which includes constructions such as the various *there* constructions, Decitic Inversion (e.g., *Here comes the bus*), and Presentational Inversion (e.g., *On the porch stood marble pillars.*). These constructions combine special grammatical form with special discourse pragmatics. Grammatically, Kay & Michaelis argue, subject properties are split between the preverbal and postverbal arguments. While the postverbal NP controls verb agreement, the preverbal NP occupies the subject position and can undergo raising. From a discourse-pragmatic perspective, the postverbal constituent in all Split Subject constructions is in focus.

More technically, Kay & Michaelis's (2017b) formalization of this analysis in the Sign-Based Construction Grammar framework involves the distinction between the External Argument (XARG) and the Agreement Source. The Reversed Equative *be* construction is a subtype of the Split-Subject Construction and its single daughter is the Equative *be* Listeme with a plural XARG and a singular second ARG-ST list member. This derivational construction reverses the order of its daughter's ARG-ST list members, associates XARG with the first member of the new list, and retains the AGR specifications of the original *be* listeme. Consequently, NP1 is identified as the XARG and NP2 controls the agreement properties exhibited by the copula.

3.4 Hebrew non-canonical copula constructions

Doron (1983) in her comprehensive analysis of verbless predicates in Hebrew discusses a number of non-canonical copula constructions. One construction is the predicate-first construction, which is the mirror image of the canonical example given in (1).

(11) nexmad / more hu dani. (Doron, 1983, ex. 51)
nice teacher Pron.3SM Danny
'Danny is nice/a teacher.'

In Doron's (1983) (transformational) system, this construction is derived by the predicate moving to adjoin INFL and the subject moving to an appositive (A') position (to satisfy the θ-criterion). Importantly, the agreement controller is the post-copular NP subject. This in essence is the gist of the predicate-raising analysis of specificational copular clauses mentioned in Section 3.1.

In addition, Doron (1983), citing Rubinstein (1968, p.137), discusses cases where the copula exhibits variable agreement. As an illustration of the two agreement options, she provides the following example (due to Emmon Bach).

(12) [ma še-dekart katav] hu / hi [ha-hoxaxa
what that-Descartes wrote Pron.3SM Pron.3SF the-proof.SF
le-kiyumo]. (Doron, 1983, ex. 43)
to-his.existence
'What Descartes wrote was the proof of his existence.'

She claims that with NP1-agreement the sentence can be paraphrased as 'what Descartes wrote proves his existence',[2] whereas with NP2-agreement there is only an identity reading. More generally, Doron (1983, p.91) suggests that "AGR in nominal sentences agrees with the subject or the predicate, depending on which is 'more referring' ". Nevertheless, she does not provide an analysis of the NP2-agreement variant.[3]

3.5 Interim summary

The cursory presentations of NP2-agreement phenomena in Catalan, English and Hebrew revealed different licensing conditions. In Catalan, when NP1 and NP2 differ in their number property the verb agrees with the plural NP, regardless of its position (Alsina & Vigo, 2014). In English, on the other hand, where NP2-agreement is licensed, canonical NP1-agreement is also possible. Nevertheless, NP2-agreement is pragmatically motivated; the copula may exhibit agreement with the postcopular NP provided that the NP is plural and focal (Kay & Michaelis, 2017a,b). Finally, in Hebrew, Doron (1983) suggests that agreement depends on referentiality; AGR agrees with the more referring NP.

The phenomenon of NP2-agreement in the copular construction certainly challenges the unmarked alignment between subjects and agreement controllers. Indeed, the analyses proposed by Alsina & Vigo (2014) and by Kay & Michaelis (2017a,b) explicitly involve the disassociation of subjecthood and agreement; the agreement controller in their systems is not necessarily the syntactic subject. While this phenomenon is not in the focus of Doron (1983), she too suggests that AGR in nominal sentences may agree with the subject *or* the predicate.

[2]Doron refers to the NP1-agreement paraphrase as 'specificational' yet the paraphrase she proposes is predicational.

[3]Hebrew has an additional pronominal copula, *ze*, which alternates between exhibiting agreement with NP2 or appearing in default form (Sichel, 1997, among others). A discussion of this construction is not in the scope of this paper.

4 Copula inversion in Hebrew: Corpus data

The discussions of the Hebrew copula construction in the literature are mostly based on made-up examples (e.g., 1-3). A corpus investigation revealed a much richer dataset with a non-negligible number of non-canonical constructions.[4] Nevertheless, it is important to emphasize that NP2-agreement is the more marked variant; in each of the following examples an NP1-agreeing copula is the unmarked option.

4.1 NP2-agreement and cardinality

The English Reversed Equative *be* and the Catalan copula inversion construction were found to be sensitive to the *number* feature of the NPs. In the two languages NP2-agreement is restricted to cases where NP2 is plural. Hebrew, however, exhibits more variability; NP2-agreement occurs with plural NP2s (13), but also with singular NP2s, where NP1 is plural (14). The latter is claimed to be an ungrammatical configuration in English and Catalan. In fact, all four agreement options illustrated in (9) for Catalan are possible in Hebrew.

(13) [*makor* tov le-sidan] hem [mucarey he-xalav
source.SM good.SM for-calcium Pron.3PM products.PM the-milk
ha-šonim].
the-different.PM
'A good source of calcium is the different milk products.'

(14) [*nehagim* ayefim] hi [be'aya globalit xamura].
drivers.PM tired.PM Pron.3SF problem.SF global.SF serious.SF
'Tired drivers are a serious global problem.'

4.2 NP2-agreement and reference

The choice between the two agreement patterns is attributed by Doron (1983) to semantics. She predicts that NP2-agreement occurs when NP2 is the more referring argument. This is indeed the case with (15), where NP2 is a proper noun, but not with (16), where the post-copular agreement controller is predicational (and indefinite). Thus, we find NP2-agreement with both specificational and predicational sentences.

[4] All the examples in the following sections are retrieved from *heTenTen 2014*, a billion-token web-crawled Hebrew corpus (Baroni et al., 2009).

(15) [*dugma* le-tocar šel ha-tkufa] hu [beyt
example.SF of-product.SM of the-era.SF Pron.3SM house.CS.SM
akiva be-rexov hercel].
Akiva in-street Herzl
'An example of a product of this era is Akiva House on Herzl Street.'

(16) omnam naxon ha-davar ki [*ha-xumca* ha-hiyaluronit]
indeed true the-thing that the-acid.SF the-hyaluronic.SF
hu [mucar ha-mešameš ke-xomer miluy...]
Pron.3SM product.SM that-used.SM as-substance filling
'Indeed it is true that hyaluronic acid is used as a filling substance...'

4.3 NP2-agreement and semantic functions

Syntactically, the NP–NP copula clause exhibits full symmetry: each NP can appear in either position and the copula can agree with either NP. This is not the case with the NPs' semantic functions: regardless of word order, it is always the same NP that is the predicate of the other.[5] This asymmetry is evident when the *consider*-test is applied.

Consider the copular construction in (17). Its NP1 and NP2 can feature as the two complements of a *consider*-like Hebrew construction (18). Nevertheless, unlike the copular construction, the order of the complements of *ro'a* 'see' is fixed: the semantic subject must precede the semantic predicate; the reversed order is ungrammatical. Thus, agreement in (17) is with NP2, which is the semantic predicate.

(17) eclenu ba-mišpaxa [*haskala*] haya [davar hexraxi
for.us in.the-family education.SF was.3SM thing.SM essential.SM
ve-bsisi].
and-basic.3SM
'For us in my family education was an essential and basic thing.'

(18) a. ani ro'a be- [haskala] [davar hexraxi
I see.SF in- education.SF thing.SM essential.SM
ve-bsisi].
and-basic.SM
'I consider education an essential and basic thing.'

b. * ani ro'a be- [davar hexraxi ve-bsisi]
I see.SF in- thing.SM essential.SM and-basic.SM
[haskala].
education.SF

[5] Equative sentences with two referential NPs (e.g., *Cicero is Tully* or *Danny is Mr. Cohen*) are not easy to find in a corpus.

The *consider* test applied to the example in (15) above, also an instance of NP2-agreement, reveals that in this case the copula agrees with the post-copular semantic subject.

(19) a. * ani ro'a be- [dugma le-tocar šel ha-tkufa]
I see.SF in- example.SF of-product.SM of the-era.SF
[beyt akiva].
house.CS.SM Akiva

b. ani ro'a be- [beyt akiva] [dugma
I see.SF in- house.CS.SM Akiva example.SF
le-tocar šel ha-tkufa].
of-product.SM of the-era.SF
'I consider Akiva House an example of a product of this era.'

As for the rest of the NP2-agreement examples presented above, the *consider* test shows that NP2 is the semantic subject in (13) and the semantic predicate in (5), (14) & (16).

4.4 Symmetry and asymmetry

Corpus-based data regarding the distribution of NP2-agreement in the Hebrew copular construction suggest that this construction is not subject to the constraints identified for its English and Catalan counterparts. First, cardinality does not seem to play a role in the licensing of NP2-agreement. Moreover, instances of copula agreement with NP2 were attested with referring and non-referring arguments. Syntactically, the NP–NP copula clause exhibits full symmetry: each NP can appear in either position and the copula can agree with either NP. Nevertheless, from a semantic perspective, the relationship between the two NPs is asymmetrical: regardless of word order or agreement pattern, it is always the same NP that is the predicate of the other.

5 Triggered inversion and copula clauses

I propose that NP2-agreement clauses are instances of a construction referred to in the literature as *triggered inversion* (Shlonsky & Doron, 1992). Although the unmarked word of Hebrew clauses is SV(O), the language also licenses a construction in which, similarly to V2 constructions in other languages, a clause-initial constituent triggers subject–verb inversion.[6] A corpus example of a triggered inversion construction is given in (20a) and its constructed SVO counterpart is (20b).

[6]It should be noted that subject–verb inversion in this cases is not obligatory.

(20) a. [et ha-toxnit] movil ha-misrad le-haganat
ACC the-project.SF leading.SM the-ministry.SM for-protection
ha-sviva.
the-environment

b. ha-misrad le-haganat ha-sviva movil
the-ministry.SM for-protection the-environment leading.SM
[et ha-toxnit].
ACC the-project.SF
'The ministry of environmental protection is leading the project.'

The SVO variant is clearly the unmarked option, whereas the inverted example is only felicitous in a context where a particular project is salient in the discourse. The NP *et ha-toxnit* 'the project' is preposed to form a link to this discourse. The new information contributed by the sentence is the identity of the leader of the project. In accordance with the principle of "new information comes last", the NP which denotes this participant is inverted to appear post-verbally.

5.1 New information comes last

Many instances of NP2-agreement exhibit the same information structure properties that characterize the triggered inversion construction discussed in the previous section. In these instances NP1 serves as a link to the previous discourse and NP2 provides the new information. Indeed, in isolation, NP2-agreement clauses do not always sound perfectly grammatical. Some speakers would even label them as performance errors or instances of extra-grammatical "attraction". Yet, these clauses appear in written (possibly proofread and/or edited) texts of diverse registers. Moreover, in many cases of NP2-agreement the distance and material between the head of NP1 and the copula are not substantial enough to cause distraction or accidental mismatches.

A discourse excerpt illustrating the licensing conditions of this construction is given in (21).

(21) a. aval anaxnu lo ro'im ba-mitnaxalim et šoreš
but we not see.PM in.the-settlers ACC root
ha-be'aya...
the-problem...
'But we don't consider the settlers the root of the problem... '

b. ...[*šoreš* ha-be'aya] hem [gufey ha-šilton
root.CS.SM the-problem Pron.3PM bodies.PM the-regime
ha-yisra'elim še-menahalim et ha-mediniyut ha-zu].
the-israeli that-maintain ACC the-policy the-this
'...The root of the problem is the Israeli governing bodies who maintain this policy.'

The copular inversion sentence in (21b) is felicitous due to the information contributed by sentence (21a), which precedes it. In the copular construction the semantic predicate *šoreš ha-be'aya* 'the root of the problem' is preposed to a clause-initial position and functions as a link to the topic of the previous discourse, namely what is the root of the problem. The subject, which constitutes the new information is postposed (or, in other words, inverted with the copula). Similarly to all instances of triggered inversion in Hebrew, the post-verbal argument is the agreement controller.

Corpus searches retrieve many instances of copular clauses with NP2-agreement where the head of NP1 is modified by the adjective *nosaf* 'additional'. Two examples are give in (22).

(22) a. [*dugma* nosefet] hu [ha-mešorer yicxak
example.SF additional.SF Pron.3SM the-poet.SM Yitzhak
la'or].
Laor
'An additional example is the poet Yitzhak Laor.'

b. [*bonus* nosaf] hem [ha-kisim šel ha-simla].
bonus.SM added.SM Pron.3PM the-pockets.PM of the-dress
'An added bonus is the pockets of the dress.'

Expressions such as *additional example* or *additional bonus* can only be felicitous in a context where other examples or bonuses were already mentioned. Thus, their preposing is well motivated. Moreover, here too, the new information is supplied by NP2, which in this case is the semantic subject and the agreement controller.

While many instances of NP2-agreement with *additional* NP1 were found in the corpus the alternative pattern where the copula agrees with the *additional* NP1 were also found.[7] One such example is given in (23).

[7] A quantitative assessment of this distribution as well as the distribution of other alternations is left for future research.

(23) [dugma nosefet] hi [*ha-moniyot* ha-carfatiyot
example.SF additional.SF Pron.3SF the-taxis.PF the-French.PF
ha-'atikot be-kahir].
the-antique.PF in-Cairo
'An additional example is the antique French taxis in Cairo.'

As will be discussed in Section 6, the availability of the two agreement patterns is a particularly challenging aspect of this construction.

5.2 Contrastive focus

An additional function which triggered inversion constructions fulfill is the expression of *contrastive focus*. Consider the example in (24).

(24) [et ha-tik šela] macati be-megirat ha-garbayim aval [et
ACC the-bag of.her found.1S in-drawer the-socks but ACC
ha-maclema] bal'a ha-'adama.
the-camera swallowed.3SF the-ground.SF
'I found her bag in the sock drawer but the camera vanished (literally: the ground swallowed the camera).'

The speaker contrasts the results of his/her search for two items: a bag and a camera. The NPs denoting the two items are preposed to the clause-initial position of their respective clauses. The subject of the first conjunct is *pro*-dropped, whereas the second clause is an instance of triggered inversion: the subject, *ha-'adama* 'the ground' appears post-verbally.

Similar contrastive pairs are also found in the copular construction, whereby the contrasted element is fronted and the copula exhibits NP2-agreement. Consider the example in (25).

(25) [*ha-tokfan*] hem [mimšelet yisra'el u-mimšal
the-aggressor.SM Pron.3PM government Israel and-regime
xamas ve-šutafav be-aza] ve'ilu [*ha-korban*]
Hammas and-its.partners.PM in-Gaza whereas the-victim.SM
hem [tošavey aza ve-tošavey medinat
Pron.3PM inhabitants.PM Gaza and-inhabitants.PM state
yisra'el].
Israel
'The aggressor is the Israeli government and the Hamas regime and its partners in Gaza, whereas the victim is the inhabitants of Gaza and the inhabitants of the state of Israel.'

The sentence clearly contrasts the aggressor with the victim. The contrast is expressed by fronting the NPs denoting each "role" to their respective clause-initial position and inverting the subject and copula, while maintaining their agreement relationship.

The post-copular NPs in (25) are the agreement controllers and the semantic subjects. There are, however, also instances of contrastive focus with NP2-agreement where the preposed NP is the semantic subject and NP2 is the semantic predicate. One such example is given in (26).

(26) [*sidur* ha-šulxan] hi [ha-teritorya ha-bil'adit
setting.CS.SM the-table.SM Pron.SF the-territory.SF the-exclusive
šeli]. [be-noga'a la-tafrit] le'umat zot ani menahelet
my with-regards to.the-menu contrastively I hold
diyunim nokvim im modi.
discussions profound with Modi
'Setting the table is my exclusive territory. With regards to the menu, on the hand hand, I hold profound discussions with Modi.'

In this case the speaker contrasts duties related to the organization of a dinner: setting the table and deciding on the menu. The speaker assumes sole responsibility over the former, while asserting that she shares the responsibility over the latter with another person named Modi. In the two clauses the contrasted items are preposed.

6 Formalization

The analysis proposed here assumes that the copula in an NP–NP clause selects an NP subject and an NP complement.[8] However, unlike the "standard" HPSG raising analysis of the copula (Pollard & Sag, 1994, p. 147), predication in this case is only semantic. The semantic predicate does not select the semantic subject as its syntactic subject and does not "pass" this requirement to the copula. An abbreviated description of the argument structure of the copula is given in (27).

(27) Canonical argument realization of the copula

$$\left[\begin{array}{l} \textit{canonical-cop} \\ \textsc{val} \quad \left[\begin{array}{ll} \textsc{subj} & \langle \boxed{1} \rangle \\ \textsc{comps} & \langle \boxed{2} \rangle \end{array}\right] \\ \textsc{arg-st} \quad \left\langle \boxed{1}\textsc{np}\left[\textsc{index}\ \boxed{3}\right], \boxed{2}\textsc{np}\left[\begin{array}{l} \textsc{cat}\,|\,\textsc{head}\,|\,\textsc{pred}\ + \\ \textsc{cont}\,|\,\textsc{rels}\left\langle \left[\textsc{arg1}\ \boxed{3}\right] \right\rangle \end{array}\right] \right\rangle \end{array}\right]$$

The canonical copular construction is structured similarly to transitive clauses. The copula combines with its complement (the semantic predicate)

[8] This analysis is not compatible with a previous HPSG analysis of nonverbal predicates in Hebrew (Haugereid et al., 2013).

in a *hd-comp* phrase and this phrase, in turn, combines with the semantic and syntactic subject in a *hd-subj* phrase. Subject–copula agreement is constrained by general principles regarding the *hd-subj* phrase type.

Let us illustrate this by considering a pair of examples. Example (22b), repeated here as (28a) is an inverted construction. Its constructed SVO counterpart is given in (28b).

(28) a. [*bonus* nosaf] hem [ha-kisim šel ha-simla].
bonus.SM added.SM Pron.3PM the-pockets.PM of the-dress

b. [ha-kisim šel ha-simla] hem [*bonus* nosaf].
the-pockets.PM of the-dress Pron.3PM bonus.SM added.SM
'An added bonus is the pockets of the dress.'

An abbreviated analysis of the SVO variant in (28b) is given in Figure 1. The inverted construction in (28a) is licensed by a *hd-filler* phrase in which the filler-daughter is the syntactic complement of the copular. An abbreviated tree representation of (28a) is given in Figure 2. Note that the syntactic structure of this construction is identical to that of the productive triggered inversion construction (e.g., 20a & 24).

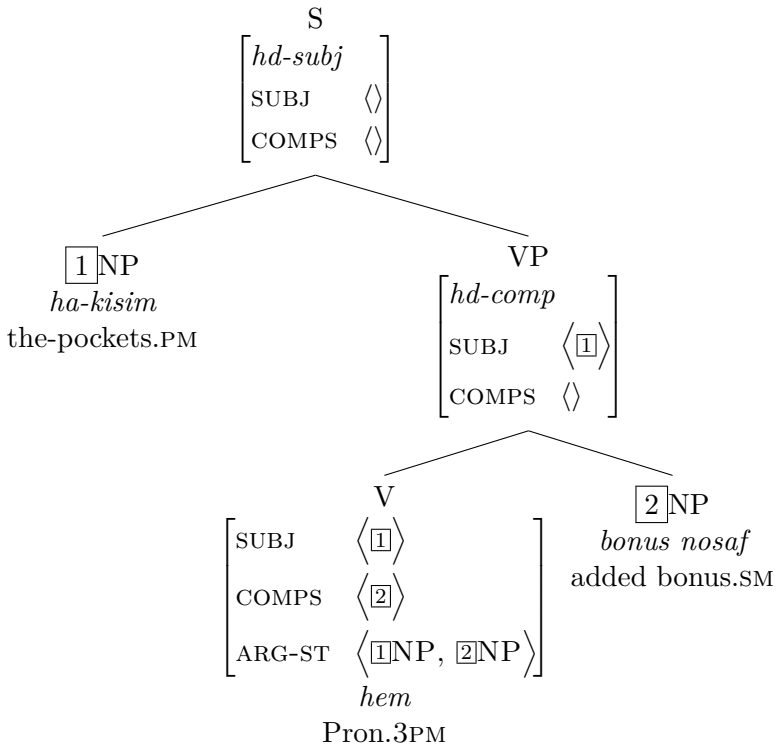

Figure 1: Canonical copular construction

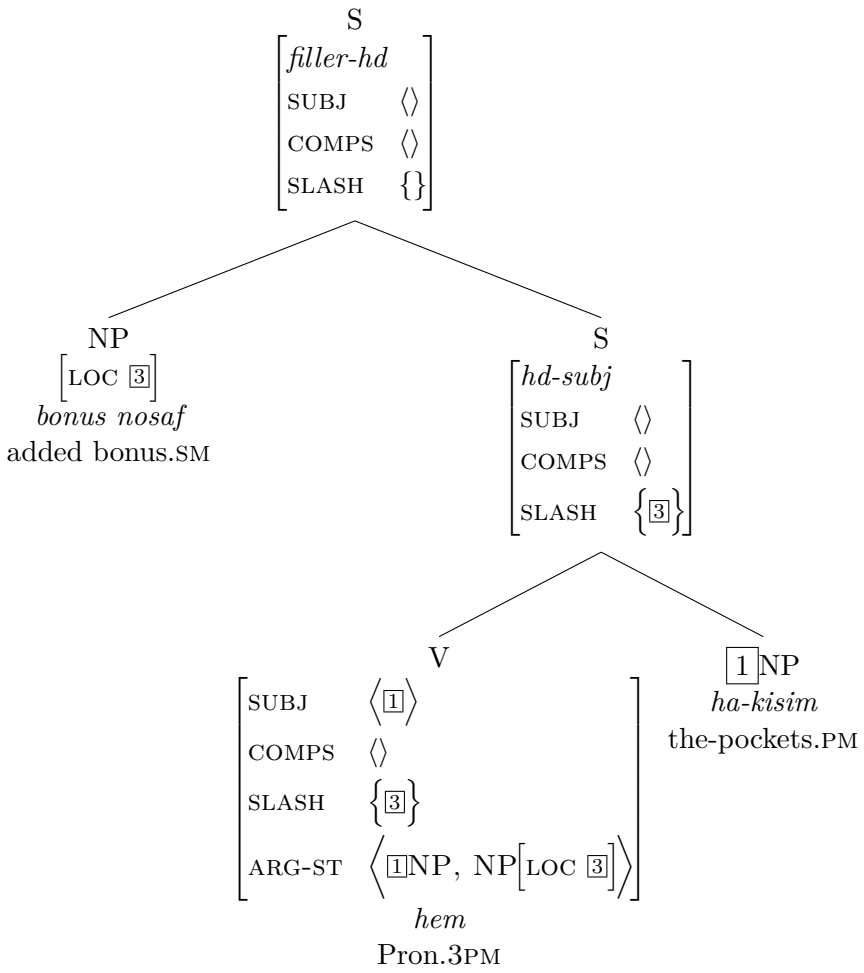

Figure 2: Inverted copular construction

The analyses sketched above account for cases where the copula agrees with the first element in ARG-ST, which is both the syntactic subject and the semantic subject. The data, however, revealed that in the NP–NP copular construction the copula may also agree with the semantic predicate, regardless of its position. Table 1 summarizes the four attested word order and agreement patterns, along with reference to an example sentence of each pattern.

The canonical argument realization of the copula described in (27) above, along with the optional triggered inversion construction account for the patterns described in the first row of the table: NP1-agreement with the semantic subject is the unmarked pattern for all (SVO) clauses, and NP2-agreement occurs when the predicate/complement is preoposed and the subject is inverted with the copula. There is nothing surprising about these

	NP1-agreement	NP2-agreement
Semantic Subject	(4)	(22b)
Semantic Predicate	(23)	(5)

Table 1: Word order and agreement patterns

patterns.

The second row, however, poses a challenge. As was shown above, the copula was found to exhibit agreement with the semantic predicate in its clause-initial position as well as when it appears post-verbally. Moreover, a similar information structure function, namely the expression of contrastive focus, was shown to motivate the preposing of the semantic subject in (25) and the semantic predicate in (26).

To resolve this conflict I distinguish between syntactic and semantic predication by allowing NPs which are the semantic predicates to function as the syntactic subjects. This, I suggest, is due to the special status of NPs, which are compatible with the two functions. In formal HPSG terms, a lexical rule reverses the "default" mapping between ARG-ST and VALENCE list members, so that the semantic predicate is mapped to SUBJ and the semantic subject to COMP (29). This rule is conceptually similar to the derivation construction proposed by Kay & Michaelis (2017a,b) for the Reversed Equative *be* in English.

(29) Non-canonical argument realization of the copula

$$\left[\begin{array}{l} \textit{non-canonical-cop} \\ \textsc{val} \quad \left[\begin{array}{ll} \textsc{subj} & \langle \boxed{2} \rangle \\ \textsc{comps} & \langle \boxed{1} \rangle \end{array}\right] \\ \textsc{arg-st} \quad \left\langle \boxed{1}\textsc{np}\left[\textsc{index}\ \boxed{3}\right], \boxed{2}\textsc{np}\left[\begin{array}{l} \textsc{cat}\,|\,\textsc{head}\,|\,\textsc{pred}\ + \\ \textsc{cont}\,|\,\textsc{rels}\left\langle\left[\textsc{arg1}\ \boxed{3}\right]\right\rangle \end{array}\right] \right\rangle \end{array}\right]$$

The non-canonical argument realization preserves the semantic relation between the two arguments while building on existing mechanisms for licensing subject–verb agreement and inverted constructions. Thus, when a non-canonical copula heads a canonical SVO clause the copula exhibits subject–verb agreement with NP1, which is the semantic predicate (e.g., 23). Conversely, the non-canonical copula can also head a triggered inversion construction. In this case, too, the copula agrees with the semantic predicate, which is its syntactic subject (e.g., 5). Thus, the canonical and non-canonical argument realization rules, together with the two alternative clause structures account for the four patterns exhibited by the data and summarized in Table 1.

To summarize, triggered inversion coupled with two alternative mappings of argument structure elements account for the different variations of the copula construction and capture the syntactic symmetry and semantic asymmetry between the two NPs. Moreover, an information-structure account explicates the motivation behind these variations.

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