The Hebrew Construct State in an Endocentric Model of the NP

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Abstract

Ritter (1991) is widely cited as having shown that Hebrew nominals require functional structure like DP and Num(ber)P above the lexical NP (see, e.g., Preminger 2020). I demonstrate here that a very simple analysis is available in a model where the maximal projection of the nominal is a projection of the head N. This analysis posits very little movement and requires few auxiliary assumptions. Most dependents of N are simply base-generated in their surface positions. There is no need for functional projections like DP and NumP, and hence no argument from Hebrew for their existence.

1 Basic Word Order: N and its Arguments

Ritter (1991) is widely cited as having shown that Hebrew nominals require functional structure like DP and Num(ber)P above the lexical NP. Preminger (2020) illustrates the argument with the following non-derived noun that takes two arguments, an internal one (a PP) and an external one. In such cases, the order is N-S-O (noun-subject-object):[1]

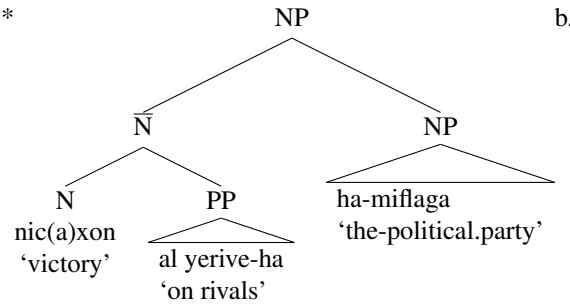
(1) nic(a)xon ha-miflaga al yerive-ha
victory.CS the-political.party(F) on rival.Pl.CS-3SgF.Poss
'the victory of the political party over its rivals' (Preminger 2020: (1a))

(Note that this possessive construction is known as the *construct state*, "CS" in the gloss; this will be important throughout this paper. The construct state has a head noun, here 'victory', followed immediately by a possessor; here the possessor is the external argument of the N, 'the political party'.)

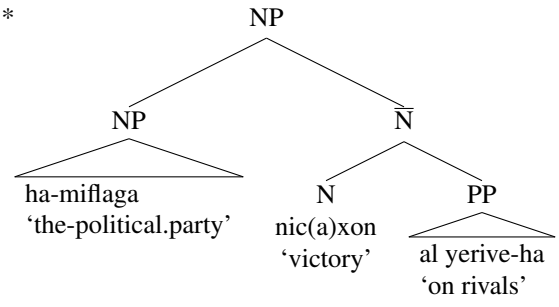
The assumption behind the argument is that the noun and its internal argument (here the PP) combine first, and then the external argument combines with the constituent that results from that combination. The problem is that no base-generated structure can capture the attested word order on this assumption. I show in (2) two possible base-generation structures that meet this assumption; neither is the correct word order, nor is any other:

[1] I have made only minor changes to Hebrew examples from the way they were presented in the cited source (for instance, changing "S" to š). These sources are inconsistent in their glosses. Few other than Preminger (2020) mark the construct state inflection ("CS"), and they are also inconsistent in whether they treat the definite article *ha* as a bound element or not (Shlonsky 2004 goes back and forth).

(2) a. *



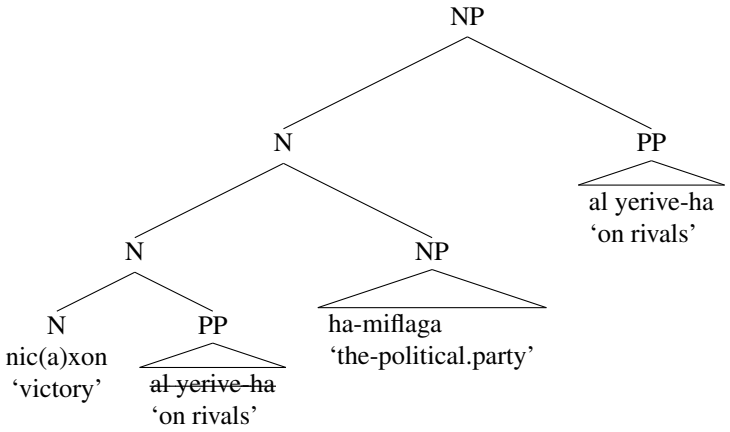
b. *



The conclusion in the literature is that we need functional structure dominating the NP that subconstituents within the NP can move to. There are basically two approaches, both of which start with a structure like that in (2b). The first is to posit head movement of N to a higher projection like Num or D (Ritter 1991). The second is to posit phrasal movement of various types of constituents to the specifiers of higher functional projections (Shlonsky 2004).

There is no reason why functional structure would be necessary, however. An obvious alternative that has not been adequately explored is rightward phrasal movement of the internal argument from the base-generated structure in (2a) to a position that is still within the NP:[2]

(3)



This results in the attested NSO word order, and no higher functional structure is necessary. The maximal projection of the nominal is a maximal projection of the head N.[3]

In this paper, I show that this simple alternative to functional projections plus head or phrasal movement is a viable one. Not only that, it captures facts from the literature in a much simpler way. Most dependents of N can simply be base-generated in their surface positions. (I return to the motivation for the movement of the internal argument in section 5.) This means that there is no argument from Hebrew nominals for the existence of functional structure above the lexical NP.

[2]Borer (1999) discusses this possibility and seems to view it as a viable one for nouns that are not derived from verbs, but rejects it for deverbal nominals. In this paper, I do not distinguish between non-derived and deverbal nominals, as they appear to behave identically in the ways under discussion in this paper. Borer (1999: 59) does claim that deverbal nominals have more restricted word order possibilities, but this claim is contradicted by her own example (29a), repeated here as example (32). If there are differences between non-derived and deverbal nominals in Hebrew, they do not seem to bear directly on the issues addressed here.

[3]Note that the precise label of intermediate projections is not important, all that matters is that they are all projections of N. I label all but the maximal projection "N" here.

2 Binding

As far as I can tell, the reason this alternative has not been considered is binding. Ritter (1991) states that S binds O in NSO order and O may not bind S:[4]

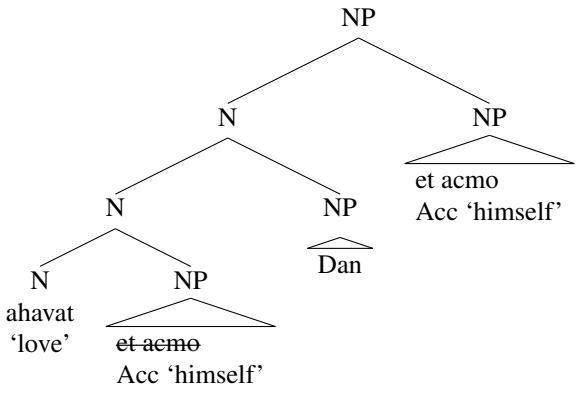
(4) (Ritter 1991: 39, (3))

a. ahavat dan et acmo
love Dan Acc himself
'Dan's love for himself'

b. * ahavat acmo et dan
love himself Acc Dan

The structure in (3) is not consistent with these binding facts, if binding is stated over surface positions and requires c-command:

(5)



In (5), the subject (*Dan*) does not c-command the surface position of the object (*et acmo*).

An obvious alternative, though, is that binding is not stated over surface positions, but is instead stated over underlying ones. The data presented in Shlonsky (1988) and Borer (1984) all point to this being the correct characterization about binding in Hebrew nominals. Logical internal

[4] Shlonsky (2004: note 40) gives the following judgments, which partially contradict Ritter's:

(i) a. mixtav ha-yeled el acmo
letter the-child to himself
'the child's letter to himself'

b. mixtav ko iša le-ba'al-a
letter every woman to-husband-her
'every woman's letter to her husband'

(ii) a. * cilum ha yeled 'et acmo
photo the child Acc himself
'the child's photo of himself'

b. * zikaron kol iša 'et ba'al-a
memory every woman Acc husband-her
'every woman's memory of her husband'

It appears that Shlonsky only allows S to bind O if O is a PP. Borer (1984: 92–93) gives multiple judgments in agreement with Ritter, and so I will ignore this discrepancy here and assume that binding of O is always possible.

arguments can always be bound by logical external arguments and possessors, regardless of the word order. The following are examples of the "free genitive," which differs from the construct state in that the genitive NP is marked by the preposition *šel*, and word order is fairly free (the head N is also not in the construct state inflection, and it can have a definite article, see section 3):

(6) (Borer 1984: 151, (viiia), (ixa))

a. ha-xašiva šel Rina 'al 'acma
the-thinking of Rina about herself
'Rina's thinking about herself'

b. ha-xašiva 'al 'acma šel Rina
the-thinking about herself of Rina
'Rina's thinking about herself'

As can be seen, the logical internal argument, here a PP, can be bound by the genitive from either the left or the right.

Borer (1984) also gives an example where the logical internal argument is marked with accusative case. In such a case, it is the logical external argument/possessor that binds the logical internal argument, as well:

(7) ha-re'iya šel ha-mora 'et 'acma
the-view of the-teacher Acc herself
'the teacher's view of herself' (Borer 1984: 117, (37b))

Borer (1984) does not show the reverse word order, but she does show a construct state nominal with the logical internal argument as the possessor in the construct state, and the logical external argument as a free genitive marked with *šel*. In such a case, the logical external argument/possessor again binds the logical internal argument:

(8) re'iyat 'acma šel ha-mora
view herself of the-teacher
'the teacher's view of herself' (Borer 1984: 56, (59))

Surface order can be seen not to matter again.

Binding cannot go the other way, with the logical internal argument binding the logical external argument/possessor, as Ritter (1991) showed:

(9) (Ritter 1991: 43, (12))

a. ha-ahava šel dan et acmo
the-love of Dan Acc himself
'Dan's love of himself'

b. * ha-ahava šel acmo et dan
the-love of himself Acc Dan

These examples have the logical internal argument marked with accusative case, while the logical external argument/possessor is a free genitive.

Underlying or logical relations are clearly what matter for binding, because the logical internal argument can also be realized as a *šel* phrase, while the logical external argument or possessor is

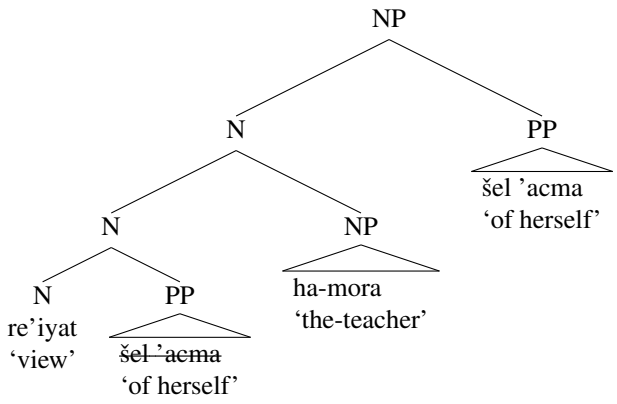
the genitive in the construct state. In such a case, it is the logical internal argument that is the bound anaphor:

(10) ? re'iyat ha-mora šel 'acma
view the-teacher of herself
'the teacher's view of herself' (Borer 1984: 55, (58))

Compare (10) to (8): It is clear that surface grammatical relations do not matter, rather underlying or logical ones do.

The generalization about binding in Hebrew nominals is then that logical relations are what matter. A logical internal argument is always the bound element, while a logical external argument/possessor is always the binder. Surface word order does not seem to matter, nor does it matter whether the NPs involved have accusative case, are the possessor in the construct state, or are marked by a preposition (a selected one, or *šel*). Binding should either be stated over an argument hierarchy, as in Pollard and Sag (1992) and other work in Head-Driven Phrase Structure Grammar; or, the underlying syntactic positions are always as in (5), with surface word order derived. I will assume the latter. In (10), for instance, the logical internal argument is first merged with a preposition prior to merging with the V, but then the external argument merges after that. The internal argument PP then moves across the external argument to derive the surface word order:

(11)



The binding conditions are stated as referring to hierarchy in underlying positions. In their underlying positions, 'the teacher' is hierarchically higher than 'of herself'.

The binding facts, then, are entirely consistent with the rightward movement analysis proposed here. The facts in no way warrant the postulation of multiple functional projections above NP in order to derive the correct word order and the correct hierarchical relations.[5]

3 The Definite Article in the Construct State

One important fact about the Semitic construct state is that the definite article is banned, in contrast with a non-construct-state noun:

(12) (Ritter 1991: 40, (6))

[5]In fact the very assumption that gives rise to the issue resolves it. The reason to assume that external arguments are merged hierarchically higher than internal ones is precisely to capture facts like binding.

a. beyt ha-mora
house.CS the-teacher
'the teacher's house'

b. * ha-beyt ha-mora
the-house.CS the-teacher

c. ha-bayit
the-house
'the house'

The movement analyses of the construct state all claim to explain this pattern, and it might then seem that the simple analysis proposed here is at a disadvantage. This is an illusion, however, as the movement analyses have to make a number of stipulations to "explain" this one fact.

Ritter (1991) claims to explain the lack of the determiner in the construct state by head movement of N to D. This analysis requires a number of auxiliary assumptions, enumerated below (page numbers from Ritter 1991):

1. "Hebrew CSs contain a phonetically null determiner (D_{gen}) which is constrained to assign genitive case to a noun phrase on its right" (39–40);

2. "the reason that *ha* cannot appear as the first element in a construct state DP is that this position is filled by the abstract case assigner D_{gen}" (40);

3. "Movement of N to Det serves to identify the functional head of the noun phrase, which would not be visible otherwise." (40)

Thus, to explain one fact, Ritter makes at least three stipulations, or even four, if the rightward case assignment constraint is counted as a separate one. Other versions of the head raising analysis (e.g., Hazout 1995, Siloni 1996, 1997) have to posit a similarly high number of stipulations.

Here is a much simpler analysis, with only one stipulation. Every Hebrew noun phrase has a dependent element Det (see (17) below):

(13) Det in Hebrew is pronounced as follows:
a. *ha* if the N is [+Def, –CS];
b. Ø otherwise.

In this analysis, Ns are specified for a number of features, among them definiteness ([±Def]; cf. Borer 1999) and being construct state or not ([±CS]). Nouns that are [+CS] have a special morphological form and are also required to co-occur with a genitive NP (which may take the form of a pronominal clitic). The only time the head Det is pronounced is when the N is both [+Def] and [–CS]. If the N is indefinite or [+CS], Det is unpronounced.

This analysis is admittedly stipulative, but no more so than Ritter's is. It is also much simpler. It does not need to stipulate anything about a null case assigner and the directionality of case assignment, nor does it have to say anything about head movement "identifying" something. It also does without a step of head movement (which is problematic, see section 4).

Shlonsky (2004) also claims to explain the non-pronunciation of the definite article in the construct state through movement. In Shlonsky's analysis, a phrase containing the head N moves

obligatorily to Spec-D in the construct state (but only optionally otherwise). Shlonsky then stipulates that either Spec-D or D^0 can be lexically filled at Spellout, but not both. Since a phrase containing N has moved to Spec-D, D cannot be pronounced. The reason the construct state nominal has to move to Spec-D is rather convoluted; see the last paragraph of section 8 on page 1513 of Shlonsky (2004). Even without trying to unravel this convoluted explanation, it should be clear that Shlonsky's analysis contains more stipulations than the maximally simple one proposed here.

As can be seen, neither head movement nor phrasal movement truly explain the non-pronunciation of the definite article in the construct state. Movement analyses have to make a number of stipulations in addition to movement, typically more stipulations than the one fact they are trying to explain. It is much simpler to simply stipulate that fact, which is that the determiner is null in the construct state (just like it is null if indefinite). No deeper explanation is gained by positing multiple functional projections and multiple steps of movement.

An additional fact about the construct state is that the definiteness of the head noun has to match that of the possessor. If the possessor is indefinite, the head noun is too; if the possessor is definite, the head noun is too. The movement analyses view this as a matter of percolation or agreement. For Ritter (1991), spec-head agreement between N and Spec-N gives N the definiteness value of its possessor, which it then transmits to D when it moves there (p41). Unclear is why such spec-head agreement does not occur in other languages or in other possessive constructions. For Shlonsky (2004), "the definiteness features of the genitival complement of N percolate from the embedded D to the highest NP node and enter into an agreement relation with the matrix D" (p1512). Once again, it is not clear why this does not happen with other nominal arguments or adjuncts to N.

It again appears to be much simpler to model the facts in a different way. For instance, one could simply posit a constraint saying that a construct state noun (a [+CS] head N) may not conflict in the feature [Def] with the NP it is in construct with. This yields exactly the two possibilities that are attested, namely where they are both [–Def], or both [+Def]. A single constraint accounts for the facts, with no need to refer to spec-head agreement or percolation, which without further stipulation will overgenerate massively. The proposed constraint will not have any unwanted effects, and it is maximally simple. Once again, no advantage is to be gained by positing functional projections and multiple steps of movement. (Other approaches that do without functional projections and movement are also conceivable.)

4 Further Word Order Facts

Shlonsky (2004) discusses a number of word order facts in Hebrew (and Arabic) which, according to him, motivate an analysis with multiple functional projections and a multiplicity of phrasal movement options. However, there is not a single fact in his paper that cannot be captured much more simply with a base-generation analysis.

Shlonsky (2004) discusses the positioning of a first class of quantifiers (Q1), cardinal numerals (Num_{card}), determiners (Det), adjectives (A), ordinal numerals (Num_{ord}), a second class of quantifiers (Q2), and demonstratives (Dem). Q1, Num_{card}, and Det precede the N, in that order:

(14) **Q1 Num_{card} Det N**

kol/rov 'aseret ha dibrot
all/most ten the commandments

‘all/most (of the) ten commandments’ (Shlonsky 2004: 1478, (29a))

Adjectives (A) and demonstratives (Dem) follow the N, in that order; certain other quantifiers (Q2) also optionally follow the N, in between A and Dem. All of these post-nominal elements display definiteness agreement, meaning that when Det appears before N, they each also have a Det. The order after the head N is A Q2 Dem:

(15) **N A Q2 Dem** (Shlonsky 2004: 1498, (72–73))

a. rabanim fanatim rabim/mə’atim ’elu
rabbis fanatic many.MPl/few.MPl these
‘these many/few fanatic rabbis’

b. ha rabanim ha fanatim ha rabim/mə’atim ha ’elu
the rabbis the fanatic the many.MPl/few.MPl the these
‘these many/few fanatic rabbis’

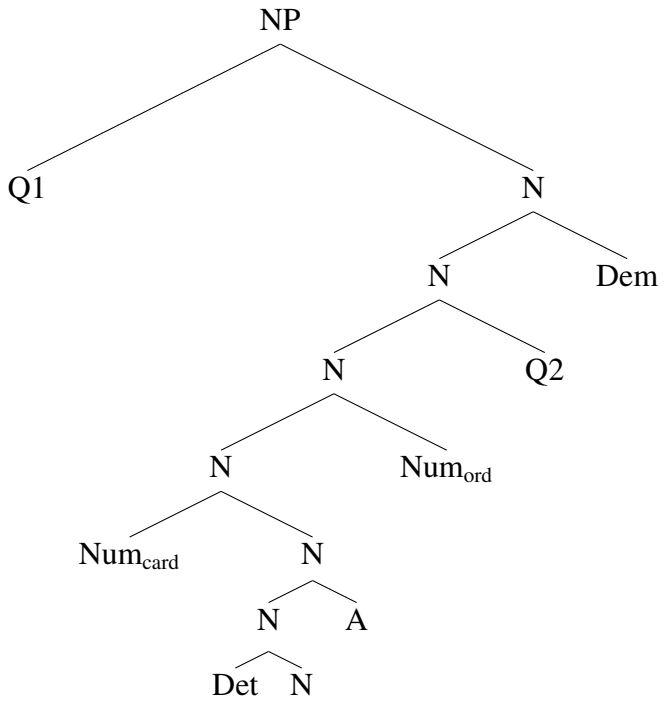
Ordinal numerals, unlike cardinal numerals, must follow N, like an adjective, and like an adjective, they display definiteness agreement:

(16) (ha) ‘iš (ha) šliši
the man the third
‘the third man’ (Shlonsky 2004: 1478, (30a))

Note that ordinals take scope over cardinals (Shlonsky 2004: note 16); in Arabic, when both precede the N, the order is ordinal-cardinal-N (Shlonsky 2004: 1481, (36a)). This leads to an analysis where ordinal numerals are high on the right in Hebrew (see the tree below in (17)). So are demonstratives: in Arabic dialects where they can occur prenominally, they precede all elements except Q1.

Shlonsky (2004) does not show all of the relative orderings (e.g., A and Num_{ord}), and it is also not clear whether all elements are compatible with each other (for instance, it is not clear whether Q2 is compatible with Num_{ord} or Num_{card}). But we can still attempt to put all of the ordering facts together. If we do, we arrive at the following hierarchical structure for NPs in Hebrew:

(17)



(Note that Q2 can also appear on the left, optionally.)

This hierarchical structure is consistent with what is known from cross-linguistic typological work, which has established a fairly robust hierarchy Dem > Num > A > N (see, among many others, Cinque 2005, Abels and Neeleman 2012, but see also Dryer 2018). As Abels and Neeleman (2012) show, the simplest account of the relative orderings of these elements is a base-generation one. We should propose the same for Hebrew: all dependents of N are simply base-generated in their surface positions. There is no need for any type of movement, either head movement or phrasal movement, to derive the observed word order. I have not been able to find a single fact in Shlonsky (2004) that is inconsistent with a base-generation analysis of the NP in Hebrew like that in (17).

Moreover, Shlonsky (2004: 1485–1486) shows that the order of multiple adjectives in Hebrew is consistently the mirror of the order of prenominal adjectives in English. According to Borer (1999: 49–50), adjectives on the right take scope over adjectives on their left. This is entirely consistent with them being merged successively higher on the right (the mirror of English, where they are on the left). Once again, there is no need whatsoever for the large number of phrasal movements that Shlonsky (2004) proposes.

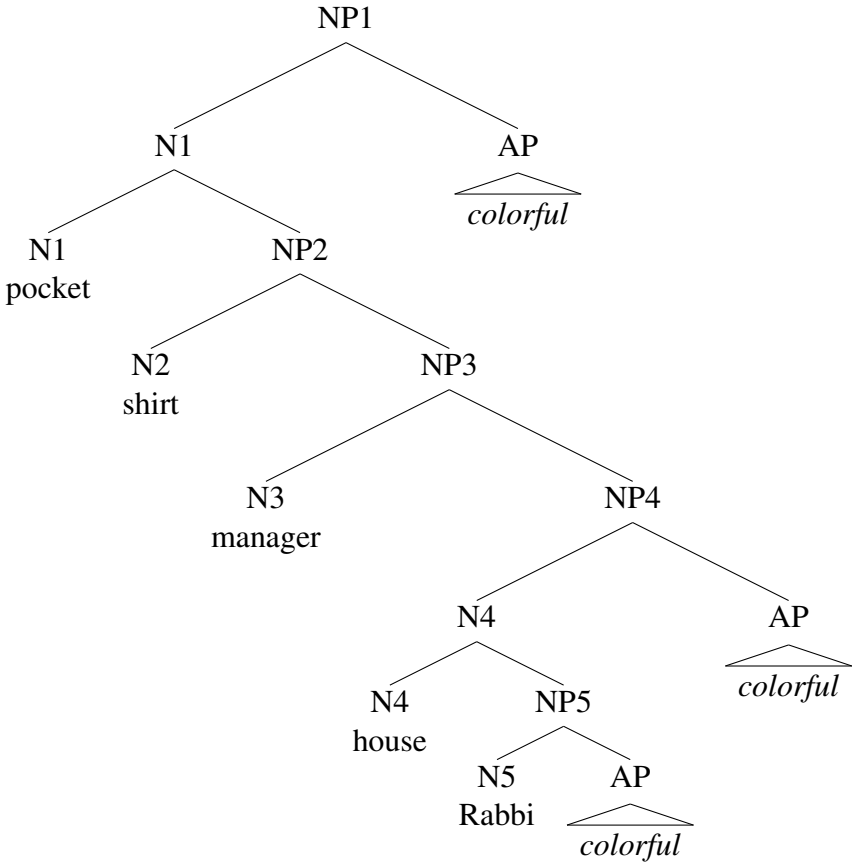
There is also no need for any of the elements within the NP to project their own phrases. They can all be dependents of N, as in the tree in (17). No generalizations are missed in such an analysis, and all of the elements like Num and Det can perform their semantic work without projecting a specifier and complement. In fact, analyses with functional projections are building far more structure than is necessary, most of it semantically contentless.

Assuming that possessors in the construct state are in a very low position, even below A in the tree in (17), there is not even any need for movement when adjectives modify nouns in the construct state. Adjectives must follow all possessors in the construct state, but they can be interpreted as modifying any of the nouns that they are featurally compatible with:

(18) kis xulcat menahelet beit ha rav ha civ'oni
pocket(M) shirt(F) manager(F) house(M) the Rabbi(M) the colorful(M)
'the colorful pocket of the shirt of the Rabbi's house manager' *or*
'the pocket of the shirt of the manager of the Rabbi's colorful house' *or*
'the pocket of the shirt of the manager of the house of the colorful Rabbi' (Shlonsky 2004: 1504, (86))

The surface word order here is consistent with the A being in any of the three positions illustrated in the tree below:

(19)



That is, an A following any number of possessors is structurally ambiguous and could be attached to any of the NPs that precede it.

When adjectives modify two different nouns in the construct state, they nest, according to Borer (1999), Shlonsky (2004):

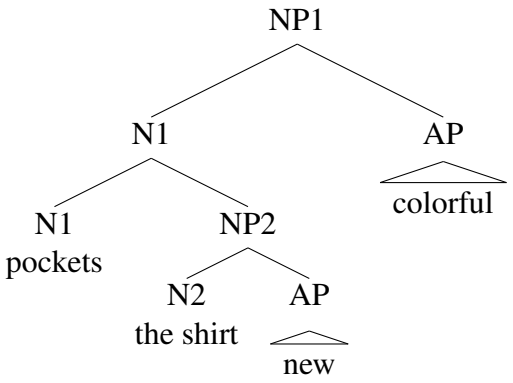
(20) (Shlonsky 2004: 1504, (87))

a. kisey ha-xulca ha-xadaša ha-civ'onim
pockets.M.Pl the-shirt.F the-new.F the-colorful.M.Pl
'the colorful pockets of the new shirt'

b. * kisey ha-xulca ha-civ'onim ha-xadaša
pockets.M.Pl the-shirt.F the-colorful.M.Pl the-new.F

This is also consistent with a base-generation analysis:

(21)



We also see nesting of modifiers outside of arguments, as in the following example from Borer (1999):

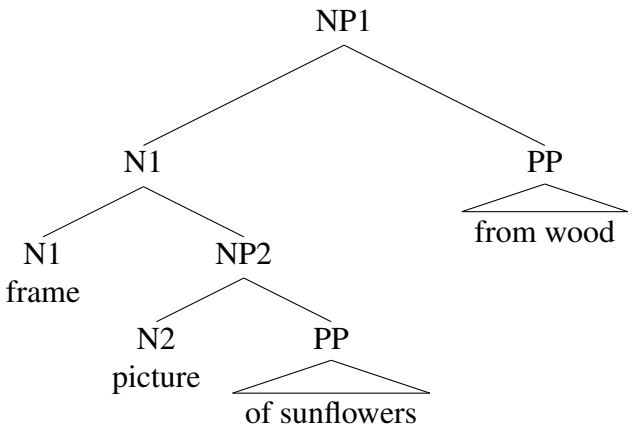
(22) (Borer 1999: 81, (93b–c))

a. misgeret tmuna šel xamaniyot me-'ec
frame picture of sunflower from-wood

b. * misgeret tmuna me-'ec šel xamaniyot
frame picture from-wood of sunflowers

This is also consistent with a base-generation analysis, where possessors come below any modifiers, including PP modifiers:

(23)



I conclude that surface word order in the Hebrew NP is almost entirely base-generated. Other than for the NSO order that we started with, there is no need to posit movement of anything (but see section 5).

It should also be noted that in the construct state, the relative ordering of elements remains the same. In particular, Q1 and numerals still precede the head noun:

(24) (Shlonsky 2004: 1511, (99a), (98))

a. kol dirot ha mora
all apartments the teacher
'all the teacher's apartments'

b. xameš dirot ha mora
five apartments the teacher
'the teacher's five apartments'

This fact argues against the N-to-D head movement analysis, since N-to-D would make N cross Num in Ritter's analysis. See Shlonsky (2004) for further arguments against the head movement analysis. Shlonsky's (2004) phrasal movement analysis accounts for this ordering, but it has to posit a series of movements that recreate the original order. If the surface order is the same as the base order, the simplest thing to say is that it *is* the base order. That is, N has not moved anywhere. In the structure in (17), N stays in its base position in the construct state.[6]

Now, there are some additional facts concerning Hebrew nominals that do need to be accounted for. For instance, post-nominal modifiers generally agree in definiteness with the head N, while pre-nominal ones do not (see the examples in (14–16)). Post-nominal modifiers also agree fully in phi-features, while pre-nominal ones vary in how much agreement they display. Shlonsky (2004) explains this pattern by saying that all modifiers start to the left of the noun, in a dedicated functional projection. Above each functional projection is an Agr head. The modifier becomes post-nominal though movement of a constituent containing the head N to the Spec of the Agr head that dominates it. This results in obligatory agreement between the constituent in Spec-AgrP and Agr, which gets transmitted from Agr to the functional projection it immediately dominates. In contrast, pre-nominal modifiers, if they do agree, do so through a mechanism of government, which Shlonsky says is not obligatory.

Notice once again that much needs to be stipulated in this account. It must be stipulated which functional projections require movement of a constituent containing the N, so that they become post-nominal. It must be stipulated which pre-nominal categories agree through government, and in what features. The one advantage this account has is that it captures the connection between post-nominal position and full agreement.

An alternative in the base-generation account might be to recognize groupings of categories among the elements in the NP. These elements do behave in different ways. For instance, Shlonsky (2004) notes that Num_{card} behaves as though it is a construct state noun. Num_{ord} and Q2 (when it is post-nominal) inflect like an adjective. We could group all of the post-nominal elements of the NP together under an umbrella grammatical category, call it "EA" for "extended adjective class." We can then state multiple generalizations over this grammatical category. All elements of the EA category merge with a projection of N on the right, and all agree fully with the head N. As part of this agreement, each has to have a Det merged with it. At the same time, we can state principles governing the sub-categories within the EA category: Dem merges higher than Q2, which merges higher than Num_{ord}, which merges higher than A.

In contrast, all of the pre-nominal elements in the NP are not in category EA. Each is treated differently: Det is a simple functional head, with no agreement, while Num_{card} behaves like a [+CS] N. Q1 behaves yet differently. These seem not to form a larger category, and their individual properties have to be stated for each, individually. The only thing they have in common in Hebrew

[6]Shlonsky (2004: 93–94) says that in some Arabic dialects where Dem may either precede or follow N, it always has to follow it in the construct state. According to Shlonsky, this indicates that the N has moved in the construct state. However, the positioning of Num in Hebrew seems to indicate the opposite. I would suggest a different approach to the obligatory post-nominal positioning of Dem in the construct state in these dialects, but will have to leave pursuing such an analysis for another time.

is that, not being of category EA, they merge to the left of N.

This alternative account is again admittedly stipulative, but again not more so than Shlonsky's. It does what syntacticians do: group things into categories and state generalizations over them. So far, it does not make a particularly strong connection between post-nominal position and full agreement, the way Shlonsky's analysis does. However, this correlation appears to be part of a larger generalization. Across languages, we tend to find full agreement when the agreeing element follows its agreement target, but only partial agreement when the agreeing element precedes its target. This appears to be a generalization about linear order, and not hierarchy. As such, it probably reflects the grammaticalization of something about processing, which takes place in linear order. I suggest that whatever explains this larger generalization will be the ultimate explanation behind the Hebrew pattern.

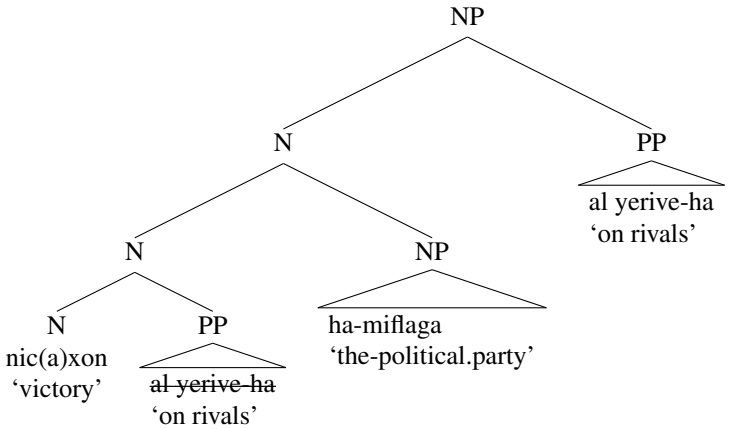
I conclude that a base-generation analysis of all of the elements in the NP is a viable one, and is far simpler than any with multiple functional projections. All of the facts can be captured in an endocentric, base-generation analysis, meaning that analyses with multiple functional projections and multiple instances of movement have no advantage.

5 The Motivation for Rightward Movement

The one instance of movement within the NP that this analysis has to posit is movement of the logical internal argument in examples like the following, repeated from above:

(25) nic(a)xon ha-miflaga al yerive-ha
victory.CS the-political.party(F) on rival.Pl.CS-3SgF.Poss
'the victory of the political party over its rivals' (Preminger 2020: (1a))

(26)



One might ask why this movement takes place, when otherwise no movement ever seems to in the Hebrew NP.

There are cases where the logical internal argument does not have to move. For instance, it does not have to move if there is no logical external argument. In such a case, it can form a construct state with the head noun:

(27) hafgazat ha kfar
bombardment the village
'the bombardment of the village' (Shlonsky 2004: 1514, (105))

The logical internal argument also does not have to move if there is some other way to license the logical external argument. For instance, the logical external argument can be realized as a by-phrase:

(28) a. hafgazat ha kfar 'al yədei xel ha-'avir
bombardment the village by the-air.force
'the bombardment of the village by the air force' (Shlonsky 2004: 1514, (105))

As we saw in section 2, the logical external argument can also be realized as a 'free genitive' with the preposition *šel*:

(29) re'iyat 'acma šel ha-mora
view herself of the-teacher
'the teacher's view of herself' (Borer 1984: 56, (59))

In all of these cases, no movement of the logical internal argument takes place. It therefore appears to be the case that the movement of the logical internal argument is driven by the need for the logical external argument to be licensed. If the logical external argument is missing or is licensed by a preposition, then the logical internal argument does not move. It only moves if there is no other option for the external argument but for it to be the possessor in the construct state. In such a case, the logical internal argument has to get out of the way, so that the logical external argument can form a construct state with the head noun. Construct states require strict adjacency between the head noun and the possessor.

The logical internal argument itself can always be licensed. Either it is a PP, as in (25), or it can be assigned accusative case:

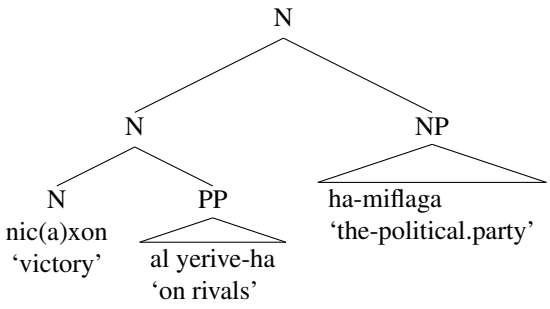
(30) axilat dan et ha-tapuax
eating Dan Acc the-apple
'Dan's eating of the apple' (Ritter 1991: 39, (2b))

It appears that the only option for licensing a bare NP external argument is for it to be the possessor in the construct state, which presumably assigns it genitive case. The movement of the internal argument is driven by the need to satisfy the adjacency requirement on the construct state.[7] The internal argument moves in order to get out of the way.

Here is how we can model this. Take the stage in (26) prior to movement, where the N has merged with its two arguments:

[7] What is behind the adjacency requirement of the construct state is not entirely clear. Shlonsky (2004: note 39) presents some arguments against the need for the two Ns to form a prosodic unit. These arguments also tell against the proposal in Borer (1999) that the two Ns form a morphological word. I will have to leave exploration of this issue to future work (but note that all existing accounts of the adjacency requirement have to stipulate it in some form or other).

(31)



In this derivation, the logical external argument was merged as a bare NP, not as a by-phrase or as a PP with *šel*. This NP requires case licensing. The derivation can see this, and can see that not all requirements of the elements in the derivation have yet been met. This triggers movement of the internal argument, to a position above the external argument. This enables the external argument to form a construct state with the head N, which in turn licenses the external argument. In other words, movement of the logical internal argument is triggered by the fact that some requirement in the derivation has not been met (an unvalued case feature on the external argument, for instance).

It should be noted in the interest of completeness that arguments and possessors of N seem to be able to move rightward optionally, as well. According to Borer (1999), adjectives most naturally come in between a head N and its arguments, including *šel* phrases:

(32) ha-harisa ha-'axzarit šel ha-'oyev ha-xamuš 'et ha-'ir
the-destruction the-cruel of the-enemy the-armed Acc the-city
'the cruel destruction of the city by the armed enemy' (Borer 1999: 51, (29a))

This is going to require that internal arguments and possessors be able to move rightward across adjectives, as well. The motivation for this movement will have to be different from the motivation for movement in the construct state.

6 Conclusion

It is always worthwhile to re-examine things that people take to be established. This paper has done this by looking at the Hebrew construct state. The literature universally cites Ritter (1991) as having established that the Hebrew construct state requires an analysis where multiple functional projections dominate the lexical NP. This paper has shown that this has not been established at all. In fact a much simpler analysis of the construct state is available where the maximal projection of the nominal is a projection of the head N, and all functional elements in the NP are simply dependents of N, base-generated in their surface position.

This adds to the growing body of evidence that the widespread adoption of the DP Hypothesis and the proliferation of functional categories above the NP was not well motivated. Bruening (2009, 2020), Bruening *et al.* (2018) illustrate numerous discrepancies between nominals and clauses that motivate a rejection of the DP Hypothesis and an endocentric model of the NP. These works, as well as Salzmann (2020), also show that arguments that have been given in favor of the DP Hypothesis do not actually argue for it. This paper removes yet another of the putative arguments for functional structure in the NP, and helps to clear the way for a much simpler, endocentric analysis of the NP.

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