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Subject Agreement and the IP Sandwich

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The main theoretical point of the paper is that AgrPs exist but that they have a special status amongst functional categories: Their role is to enable the checking of morphological features in the sense of Chomsky (1993). When there are no agreement features that require checking, the relevant AgrP is not projected. This paper studies AgrSP, which has been claimed to enjoy a special status among Agr projections (e.g. w.r.t to the Ext. Proj. Prin.). When AgrSP is projected, we get an IP such as that of Belletti (1990), Chomsky (1991). When unprojected, the highest projection in IP becomes TP in affirmative clauses and NegP in negative ones.

The empirical basis for these arguments are sentences such as (1) - which can also be embedded. These exemplify Hebrew negative clauses with the particle ?eyn.

(1) ?eyn hu medaber Yiddish.
    neg he speak(PRES)-MS Yiddish
    'He doesn't speak Yiddish.'

I argue that ?eyn is the head of NegP. Unlike e.g., French ne, or Italian non, ?eyn is not a clitic. The Romance negative heads are permeable or transparent to verb-movement to AgrS0. Mortiz (1989) and Belletti (1990) argue that this transparency results from the cliticization of Neg0 to AgrS0 and the incorporation of the trace of this head into the verbal chain. Be the details of the analysis what they may, it is clear that the Romance clitic negative heads allow verb movement to proceed above NegP without incurring a violation of Relativized Minimality.

Hebrew ?eyn, however, is not a clitic - it can be separated from the verb by e.g. the subject in (1).

The predicates which cooccur with ?eyn in (1) share the property of not having to raise to AgrS0. This is clear when the predicate is nonverbal, as in (2), which will not be discussed further in this paper.

(2) ??eyn hu ba-gina.
    neg he in-the-garden
    'He is not in the garden.'
As for (1), I argue that the present tense verbal form in Hebrew is a participle and the agreement it manifests is participial agreement, associated with a head lower than T⁰.

Consider the fact that the verbal form occurring in (1), and glossed as the present tense form of the verb ‘speak’, can occur as a participle in e.g., a complex tense construction, preceded by the auxiliary ‘be’, as in (3a) or as a participial predicate in a small clause complement, as in (3b).

(3) a. hu haya medaber Yiddish.
   ‘He was speaking / used to speak Yiddish.’

b. šam’ati ūoto medaber Yiddish.
   ‘I heard him speaking Yiddish.’

Following Friedemann and Siloni (1993), I take the relevant aspects of (3a) to be represented as in (4). There are two verbs in (3) and both agree with the subject. Take the features of participial agreement to be checked in AgrPartP and the agreement on the auxiliary in AgrSP. (3b) is a participial small clause, an AgrPartP as Siloni (1994) argues.

Now, clauses negated by ūeyn obey a number of restrictions. The first restriction applies to the type of verb which may be embedded under ūeyn. ūeyn cannot cooccur with past/future tense verbs, (5).

(5) a. *ūeyn hu diber Yiddish.
   ‘He didn’t use to speak Yiddish.’

b. *ūeyn hu yo-daber Yiddish.
   ‘He will not be speaking Yiddish.’

The ungrammaticality of the examples in (5) is due to the Head Movement Constraint (HMC): Past/future tense verbs must raise above negation and Neg⁰, filled by the non-clitic head ūeyn forms a minimality barrier to head movement. The present tense
of the verb is compatible with \( \text{\&yn} \) because it does not need to cross Neg\( ^0 \), it has no features to check above it.

What is the head or heads above NegP which must be accessed by past/future tense verbs but not by present tense ones? There are two a priori plausible options: AgrSP and TP. I would like to argue that it is the former.

First, let us assume (6).

(6) \[ \text{CP} \leftrightarrow \text{TP} \]

A full (as opposed to small) clause is a CP and contains a TP. Next, \( \text{\&yn} \) negative clauses, such as (1) have a tense interpretation, namely present tense. For example, only present tense temporal adverbs can modify it, as in (7).

(7) a. \( \text{\&yn} \) hu medaber Yiddish ha-yom.
\[ \text{\&yn} \ he \ speak(PRES)-MS \ Yiddish \ today \]
‘He doesn’t speak Yiddish today.’

b. *\( \text{\&yn} \) hu medaber Yiddish etmol
\[ \text{\&yn} \ he \ speak(PRES)-MS \ Yiddish \ yesterday \]
‘He doesn’t speak Yiddish yesterday.’

So it stands to reason that such clauses have a TP, the head of which contains whatever information is needed for present tense interpretation.

I would like to argue that the XP above NegP is AgrSP, in other words, in favor of the clausal hierarchy in (8).

(8) \[ \text{(CP)} > \text{AgrSP} > \text{NegP} > \text{TP} \ldots \]
\[ (\text{Belletti (1990) et al.}) \]

Verbs in the past and future tense conjugation have AgrS features which require that they raise to AgrSO. They can’t so raise because \( \text{\&yn} \) intervenes. Present tense verbs have no AgrS features; the agreement morphology which they manifest is participial agreement, checked below NegP.

There is a further array of facts which must now be considered. The sentence in (1) has a variant, shown in (9) which differs from it in two remarkable ways: The negative head \( \text{\&yn} \) manifests agreement with the subject and the subject occurs to its left.

(9) hu \( \text{\&yn-o} \) medaber Yiddish.
\[ \text{he} \ neg-3MS \ speak(PRES)-MS \ Yiddish \]
‘He doesn’t speak Yiddish.’

In (9), the subject agrees twice: Once with the verb and once with \( \text{\&yn} \). This double agreement should be viewed on analogy with the pattern of agreement in periphrastic constructions containing an auxiliary and a participle, as in (3a). Suppose that \( \text{\&yn} \), i.e. Neg\( ^0 \) undergoes head-movement to AgrS\( ^0 \) and adjoins to its left, thus giving rise to the observed enclisis.

The subject in (9) is therefore in Spec/AgrS. (Spec/Neg is not a subject position, since it is the position where negative adverbs and operators appear.) I take the relevant
aspects of the derivation of (9) to be as in (10): \( ?\_eyn \) moves from \( \text{Neg}^0 \) to \( \text{AgrS}^0 \) and the clausal subject raises to \( \text{Spec/AgrS} \).

(10)

If \( ?\_eyn \) does not manifest agreement and appears in its bare form, the subject follows it, as in (1). I shall come back to identifying this position more precisely. When \( ?\_eyn \) does manifest agreement, the subject follows it, as in (9). The two other conceivable options, namely, agreement in an \( ?\_eyn \)-initial clause and a bare, agreement-less \( ?\_eyn \) in a subject-initial one are both excluded. This is shown in (11).

(11) a. *\( ?\_eyn \)-o hu medaber Yiddish.
   \( \text{neg-3MS he speak(PRES)-MS Yiddish} \)
   ‘He doesn’t speak Yiddish.’

b. *hu ?\_eyn medaber Yiddish.
   \( \text{he neg speak(PRES)-MS Yiddish} \)
   ‘He doesn’t speak Yiddish.’

(11a) is ruled-out because the subject must raise to \( \text{Spec/AgrS} \). There are various ways to express this requirement. For the sake of this discussion, let us stipulate that the nominal features of \( \text{AgrS}^0 \) are strong and thus in need of early checking in Chomsky’s (1993) sense.

The unacceptability of (11b) could presumably follow from a strict interpretation of the principles of derivational economy. If there is no reason for the subject to raise to \( \text{Spec/AgrS} \) when \( ?\_eyn \) contains no agreement features (or raise in the overt syntax if \( ?\_eyn \) contains weak features) then it is barred from doing so.

I would like to maintain, however, that when \( ?\_eyn \) does not manifest an agreement affix, it literally lacks it, as opposed to having abstract or weak features. The interpretation of the facts in this manner yields a number of what I think are interesting consequences.
One consequence is that when َن is bare, that is, when it does not agree with the subject, ن does not raise to َن because َن is simply not around. It is unprojected. If the order of constituents manifested by (9), namely, subjectَن+agreementَ verb, indicates that َن=َن, word order in (1) should be taken to mean that َن=َن. I suggest that in the absence of agreement morphology on َن, the AgrSP layer is simply unprojected and therefore َن=َن. The ungrammaticality of (11b) follows from this suggestion since, in the absence of the AgrSP layer, there is no subject position to the left of َن.

Putting together the claim that َن sentences contain a TP but that the status of AgrSP is variable leads to the view of clausal structure schematized in (12). AgrSP is projected in (9) so that CP immediately dominates AgrSP. No AgrSP is projected in (1) and CP dominates NegP.

Note, in passing, that the pattern of agreement with َن is a familiar one in VSO languages. In Classical and Standard Arabic, a verb does not agree with a following subject but must agree with a preceding one. Ditto for Celtic. The substantial difference between the Hebrew َن construction and the Arabic paradigm is that clause-initial verbs in the latter manifest gender agreement and a singular (perhaps default) number affix, whereas clause-initial َن manifests no agreement whatsoever. The َن construction can be seen as giving rise to a ‘residual’ VSO effect in much the same way as English subject-auxiliary inversion is a ‘residual’ V2 effect. Moreover, the fact that Arabic clause-initial verbs manifest some agreement makes it harder to sustain the claim that no AgrSP is projected in VSO configurations. Of course, it is tempting to carry over this line of reasoning to Arabic and Celtic but I leave this open.

Putting the proposed analysis in a broader context, let us suppose that a distinction must be drawn between agreement projections and other functional projections like TP, CP, AspP etc. Agreement does not enter the interpretative component. Consider the examples in (13). (13a) is French, (13b) is Italian. There are two manifestations of agreement in (13a), on the auxiliary and on the past participle and three manifestations of agreement in (13b), on the aspectual auxiliary have, the passive auxiliary be as well as on the participle. Yet, they mean exactly the same thing.
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(13)  
a. Les aubergines ont été cuites.  
*the eggplants be-AGR be(PASS) cooked-AGR  
'The eggplants have been cooked.'

b. Le melanzane sono state cucinate.  
*the eggplants be-AGR be(PASS)-AGR cooked-AGR  
'The eggplants have been cooked.'

Furthermore, agreement is not selected or subcategorized. CP selects TP as it were. AgrSP is invisible for selection, it is an embellishment, a decoration. There are then two variants of yeyn with and without agreement, when the former is projected so must AgrSP but if the bare yeyn is chosen, AgrSP is unprojected.

Assuming this analysis of (1), the question arises as to where the subject occurs and how it is Case-licensed. Indeed, the grammaticality of (1) indicates that subjects can be licensed without access to AgrSP. I would like to argue that the subject in (1) is in Spec/T.

Note, first, that the subject occurs to the left of the verb and cannot occur to its right. Compare the position of the subject in (1) with that in (14).

(14)  
*ba-beit-o yeyn medaber Dani Yiddish.  
in-home-his neg speak(PRES)-MS Dani Yiddish  
'In his home, Dani doesn't speak Yiddish.'

The verb is not in VP. Adverbial intervention and the distribution of floating quantifiers are standard diagnostics for verb movement. Consider (15).

(15)  
a. yeyn hu medaber ba-beit-o Yiddish.  
neg he speak(PRES)-MS in-home-his Yiddish  
'He doesn't speak Yiddish at home.'

b. yeyn hem medabrim kulam Yiddish.  
neg they speak(PRES)-MPL all Yiddish  
'The don't all speak Yiddish.'

It should be patently clear that the subject is not in VP but somewhere higher, below NegP. If the subject in (1) is neither in VP nor in AgrSP- when the latter is not projected - it follows that there must be an additional subject position in the clause. I would like to argue that the subject is in a position head-governed by Neg0.

Subjects embedded under yeyn cannot be wh-moving, as (16) clearly shows.

(16)  
*mi /Reize ?adam yeyn medaber Yiddish?  
who /which person neg speak(PRES)-MS Yiddish  
'Who/which person doesn't speak Yiddish?'

In contrast, objects can be freely extracted over yeyn, as in (17).
This asymmetry between subjects and objects is highly reminiscent of extraction over a filled complementizer in languages such as English.

(18) a. *Who do you think that speaks Yiddish?
b. What/which language do you think that Smith speaks?

Rizzi (1990) argues that (18a) is ruled out since the complementizer that is not a proper head-governor for the subject trace. In this theory, certain heads are intrinsically capable of serving as head governors. These include the lexical heads, AgrO and To. C0 and as we shall momentarily see, NegO are not head governors. However, even a non-intrinsic head governor like C0 can become one if associated with Agr. The Ø head of Comp in (19) below is taken by Rizzi to be a C0 marked [+Agr], and subject extraction leaves a properly-governed trace.

(19) Who do you think Ø speaks Yiddish?

In some languages, a C0 containing Agr is marked morphologically. This is arguably the case of the French complementizer qui which co-occurs only with subject variables, as shown in the contrast in (20).

(20) a. Qui penses-tu qui /que parle le Yiddish?
   *who think- you qui /que speaks the Yiddish
   'Who do you think speaks Yiddish?'

b. Quelle langue penses-tu *qui /que Dupont parle?
   *who language think- you qui /que Dupont speaks
   'Which language do you think that Dupont speaks?'

If we now assume, as seems reasonable, that NegO is also not an intrinsic head-governor, we predict that if NegO contained Agr features, it would be transformed into a proper head-governor. Rizzi’s approach is supported to a substantial degree by the contrast between (16) above and (21) below.

(21) *mi /?eize ?adam ?eyn-o medaber Yiddish?
   who /which person neg-3MS speak(PRES)-MS Yiddish
   'Who/which student doesn’t know the answer?'

Notice, moreover, that if (16) and (21) are analyzed on par with (20), then there literally are no such things as a ‘that-trace effect’ or a ‘que-qui rule’ (in the sense of Pesetsky (1982)). These are but manifestations of a more general phenomenon which is not restricted to complementizers.

Subject-extraction is rendered acceptable in (21) due to the occurrence of an agreement suffix on the negative head. By the same token, (16) is ruled out as an ECP violation, since a bare, i.e., Agr-less ?eyn is not a proper head governor for the subject trace.
To recall, ḫeyn clauses appear in two varieties, illustrated in (1) and (9). In the first variety, ḫeyn is IP-initial and does not manifest an agreement affix. In the second variety, the subject is initial, in which case ḫeyn must agree with it. The two ḫeyns should thus be seen as formally equivalent to French que and qui in that one bears no agreement and is therefore not a proper head governor, while the other is a proper head governor in virtue of bearing Agr.

Note now, that if ḫeyn is the closest potential head-governor for the subject then the latter must be in the specifier position of the XP immediately c-commanded by ḫeyn. This follows from the definitions of head government proposed by Rizzi. In particular, for X₀ to govern YP it must c-command it, where c-command is defined in terms of branching nodes (in the sense of Reinhart (1976)). I take this position to be Spec/T, the subject's Case position.

This consideration underpins my conjecture to the effect that the subject of an agreement-less ḫeyn construction is in Spec/T. If the subject were in the specifier position of a projection lower than Spec/T, say Spec/AgrPart or Spec/V, then its closest head governor would not be Neg₀ but another head and the contrast between (16) and (21) could not be assimilated to the ‘that-trace’ effect.

The final question is where the verb is. The present tense form of the Hebrew verb is like a participle in that it lacks AgrS morphology, the agreement which it manifests is participial agreement. A fuller representation of (1), incorporating the participial projection and the subject in Spec/T would be something like (22).

(22)

We have seen that the verb is not in VP, (recall (15)). So, it can be either in AgrPart₀ or in T₀. In order to choose among these options, consider the following robust contrast. Adverbs of the appropriate semantic classes may occur quite freely in a position between the subject and the verb in affirmative clauses in Hebrew, yet no adverb may intervene between a subject and a present tensei verb embedded under ḫeyn. Consider the
contrast displayed in (23), where the morphological form of the verb is kept constant and the only difference is the presence or absence of *eyn.

(23) a.  
\[ \text{hu ha-yom medaber Yiddish.} \]
\[ \text{he today speak(PRES)-MS Yiddish} \]
\[ \text{‘He speaks Yiddish today.’} \]

b.  
\[ *\text{?eyn hu ha-yom medaber Yiddish.} \]
\[ \text{neg he today speak(PRES)-MS Yiddish} \]
\[ \text{‘He doesn’t speak Yiddish today.’} \]

There is, of course, no semantic reason for the contrast in (23), since the same adverb may appear in other positions in an *eyn sentence, e.g., clause-initially, (24a), or clause finally, (24b) as well as between the verb and the direct object, (24c).

(24) a.  
\[ \text{ha-yom ?eyn hu medaber Yiddish.} \]
\[ \text{today neg he speak(PRES)-MS Yiddish} \]
\[ \text{‘Today he doesn’t speak Yiddish’} \]

b.  
\[ ?eyn hu medaber Yiddish ha-yom. \]
\[ \text{neg he speak(PRES)-MS Yiddish today} \]
\[ \text{‘He doesn’t speak Yiddish today.’} \]

c.  
\[ ?eyn hu medaber ha-yom Yiddish. \]
\[ \text{neg he speak(PRES)-MS today Yiddish} \]
\[ \text{‘He doesn’t speak Yiddish today.’} \]

Assume that adverbs may not attach to X’. Then, the contrast in (23) means that the subject and the verb are in a Specifier-head configuration precluding the intervention of an adverb. In other words, this means that the verb is in T⁰, as diagrammed in (25).

(25)

\[ \text{NegP} \]
\[ \text{Neg°} \]
\[ \text{TP} \]
\[ \text{DP} \]
\[ \text{T°} \]
\[ \text{?eyn subject verb} \]
\[ \text{adverb} \]

If the present tense verb in Hebrew is a participle, as the distributional facts in (3) seem to suggest, then we have a peculiar situation in which a participle moves to T⁰. Is this a property of Hebrew participles or can this be generalized? The latter is point of view is defended in Shlonsky (1996).
Let me conclude. The ḫeyn construction provides a useful vista into Hebrew clause structure by demarcating an unskippable head position internal to IP, as wedge, as it were, in the functional domain of IP. The structure of the Hebrew clause which emerges from this study, turns out to be similar to that proposed for English/Romance. In particular, the ḫeyn construction provides evidence for the hierarchy AgrSP> NegP> TP, it shows that present tense verbs occupy a lower position in the clause than that of past/future verbs and motivates the existence of a subject position in Spec/T.

On a more general plane, the analysis suggests a way of dealing with putative Neg-initial and T-initial IPs without invoking a parameter governing the hierarchy of functional projections. Such cases might be looked at as IP’s in which AgrSP is unprojected.

References


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