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Verb Second in Hebrew

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1. V2 and Inversion

Subjects of Hebrew clauses can either appear
preverbally, as in (1), or immediately after the verb, as
in (2).

(1) ha-mistara gacra harbe pegilim ba-psita
the-police detained many activists in-the-raid
ha-leilit.
the-nightly.

(2) ba-psita ha-leilit gacra ha-mistara harbe
in-the-raid the-nightly detained the-police many
pegilim.
activists.

'The police detained many activists in the nightly
raid.'

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When subjects follow the verb, the verb must be preceded by some constituent, as shown in the contrast between (2) and (3).²

Although we give the same gloss for (1) and (2), thereby admitting that the two have the same truth conditions, it should be borne in mind that the two variants have different discourse functions and illocutionary force: The subject-initial clauses are pragmatically more neutral.

Following Shlonsky (1987), we label the phenomenon illustrated in (2) TRIGGERED INVERSION, to distinguish it from a different phenomenon, mentioned in note 2, which resembles Romance FREE INVERSION.

Confining ourselves, then, to the contrast displayed in (1) and (2), we see that Hebrew clauses cannot begin with a verb. This restriction is observationally similar to the V2 constraint, familiar from the Germanic languages.

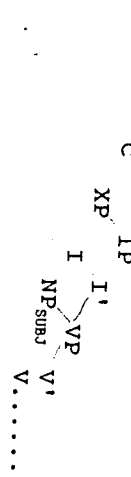
However, unlike, say, Standard German, Hebrew V2 phenomena are not restricted to root clauses or to clauses embedded under verbs belonging to a particular class. Subjects may follow the verb in clauses embedded under all verbs which take sentential complements. Nonetheless, in embedded clauses as in root clauses, some constituent must precede the verb, as shown by the unacceptability of (4b). In this respect Hebrew is more like Yiddish and Icelandic than German (see e.g., Vikner (1990, section 2.3) for a recent discussion).

² However, if the verb is unaccusative, presentational or passive, the preverbal constituent is optional, as in (1). We put these cases of 'free' inversion aside.

- (i) (ba-psita ha-leilit) neqecru harbe pegillim.
in-the raid the-nightly PASSIVE-detain many activists
'Many activists were detained (in the nightly raid.)'

- (4) a. hicta9arnu Se-ba-psita ha-leilit
(we) regretted that-in-the-raid the-nightly gacra ha-mistara harbe pegillim.
detained the-police many activists.
'We regretted that the police detained many activists in the nightly raid.'
- b. * hicta9arnu Se- gacra ha-mistara
(we) regretted that-detained the-police harbe pegillim ba-psita ha-leilit.
many activists in-the-raid the-nightly.

Some of the recent research into Yiddish and Icelandic converges on the idea that the V2 configuration in these languages has the structure in (5), where the preverbal constituent (XP) occupies [Spec/I], an A' position and the verb is raised to I (Diesing (1990), Rognvaldsson and Thrainsson (1990), Santorini (1989), Vikner (1990) among others). This explains the word order of embedded V2 and specifically the cooccurrence of V2 and a lexical complementizer.



We believe that this analysis does not carry over directly to Hebrew, primarily because Hebrew embedded V2 clauses constitute strong islands for extraction which they apparently do not in these two Germanic languages. We discuss extraction out of embedded V2 structures in section 5.3

Our view is that Hebrew triggered inversion is a case of CP recursion, along lines suggested also for Germanic by e.g., Platzack (1986), Holmberg (1986). We shall try to defend the view that the structure of triggered inversion is as in (6), where the verb has raised to an empty C node and is preceded by the trigger.

³ The grammatical status of extraction out of an embedded V2 clause in Icelandic and Yiddish is both complex and controversial. See Vikner (1990) for a lucid presentation of the various views on this matter.

(6) CP CP
 XP C C' IP IP
 I I' VP V'
 V ...

We argue that when the subject is clause-initial, however, there is no need to posit this extra layer of structure; preverbal subjects are in [Spec/IP] at S-structure. We claim that the different position occupied by preverbal subjects and triggers for inversion is what accounts for their different syntactic properties.

2. What Can Be a Trigger?

Triggers can be sentential adverbs, adverbial PPs and clauses, direct and indirect objects of the verb, and all types of clausal complements. A partial illustration is given in (7).

- (7) a. Temporal Adverb
 'etmol gacra ha-mistara harbe pegilim.
 yesterday detained the-police many activists.
 'The police detained many activists
 yesterday.'
- b. PP Adjunct
 ba-psita ha-leilit gacra ha-mistara harbe
 in-the-nightly raid detained the-police many
 pegilim.
 activists.
 'The police detained many activists in the
 nightly raid.'
- c. Clausal Adjunct
 mi-bli lekabel 'isur mi-gavona gacra
 with-out to get permission from-high detained
 ha-mistara harbe pegilim.
 the-police many activists.
 'The police detained many activists without
 getting authorization from higher up.'

d. Direct Object

harbe pegilim gacra ha-mistara ba-psita
 many activists detained the-police in-the-raid
 ha-leilit.
 the nightly.
 'The police detained many activists in the
 nightly raid.'

e. Indirect Object

la-taxana hesiya ha-mistara 'et ha-
 to-the-station drove the-police acc the-
 gacurim.
 detainees.
 'The police brought the detainees to the
 station.'

f. Clausal Complement

lo lagasot ragas be-mesex ha-nesiya diksa ha-
 neg to-make noise during the-ride asked the-
 mistara min ha-gacurim.
 police from the-detainees.
 'The police asked the detainees not to make
 noise during the ride.'

There are several restrictions on what can serve as a trigger. First, VP (manner) adverbials may not be triggers, as shown by the ungrammaticality of (8).

- (8) a. *le'at likek ha-xatul 'et Rina.
 slowly licked the-cat acc. Rina
 'The cat slowly licked Rina.'
- b. *maher naSax ha-xatul 'et Rina.
 quickly bit the-cat acc. Rina
 'The cat quickly bit Rina.'

We assume that adverbs do not move. This implies that when sentential adverbs serve as triggers, they must be base-generated in trigger position. One syntactic difference between VP adverbs and sentential adverbs is that the former may be generated only in positions adjoined to some VP projection while sentential adverbs may appear in a variety of positions, as shown in the contrast between (9a) and (9b), where \wedge indicates a possible adverb position. Note also that the possibility of an adverb intervening between V and the

⁴ Following Travis (1988), one might also argue that manner adverbs are heads and perforce, barred from trigger position, a position which can only host XPs.

direct object is evidence that V raises to I in the syntax of Hebrew.

(9) a. Positions of Sentential Adverbs

Dani ^ 'axal ^ lexem ^
 Dani ate bread

b. Positions of VP Adverbs

Dani 'axal ^ lexem ^

Second, only an XP belonging to the clause where inversion occurs can serve as a trigger. Thus, (10) is only acceptable if the PP *le-harbe pegilim* 'to many activists' is construed with the higher verb, as shown in the glosses. We assume that long movement proceeds through a [Spec/C] marked [+WH]. Since triggers are [-WH], they cannot make use of [Spec/C] as an escape hatch.

- (10) a. *le-harbe pegilim hodiga ha-mistara Se-to-many activists announced the-police that-hi tagis twiga.*
 she presses charge.
 i. 'The police told many activists that it will press charges.'
 ii. *'The police announced that it will press charges against many activists.'

3. Topics

Triggers must be distinguished from topicalized constituents, i.e., constituents which precede the subject. While topics may also appear in both root and embedded clauses, they obey a number of restrictions which set them apart from triggers. First, in Hebrew, topics must be definite while triggers may be indefinite. The difference between (7d) above and (11a) below is that the clause-initial direct object in (11a) is followed by the subject; hence it is not a trigger but a topic, since triggers are followed by the verb. The sentence is unacceptable because topics cannot be indefinite. In (11b), the direct object is definite and thus licensed as a genuine topic.⁵

- (11) a. **harbe pegilim ha-mistara gacra*
 many activists the-police detained
 ba-psita ha-leilit.
 in-the-raid the nightly.
 The police detained many activists in the
 nightly raid.'

⁵ It should be noted, however, that contrastive stress on the topic in (11a) renders it more acceptable.

- b. 'et ha-pegilim ha-politiyim ha-mistara
 acc the-activists the-political the-police
 gacra ba-psita ha-leilit.
 detained in-the-raid the nightly.
 'The police detained the political activists
 in the nightly raid.'

c. *nodag la-nu Se-'et ha-pegilim ha-*
 was known to-us that-acc the-activists the-
 politiyim ha-mistara gacra ba-psita ha-
 political the-police detained in-the-raid the
 leilit.
 nightly.
 'It became known to us that the police detained
 the political activists in the nightly raid.'

Second, topics, unlike triggers, are not clause-bound. Contrast (10) above with (12) below and note the ambiguity in the interpretation of the topic, absent in (10).

- (12) a. *la-pegilim ha-politiyim ha-mistara*
 to-the activists the-political the police
 hodiga Se hi tidros ma'asar
 announced that-she will demand jail
 ba-pogal.
 sentence.
 i. 'The police told the political activists
 that it will demand a jail sentence.'
 ii. 'The police announced that it will demand
 a jail sentence for the political
 activists.'

We assume that topics are adjoined to IP, as in (13) below.
 (13) ... [_{IP} the activists [_{IP} the police arrested...]]

4. Triggers and Topics

Consider, now, the fact that triggers and topics cannot cooccur. (14a) shows a case of a topic preceding a trigger and (14b) of trigger preceding a topic. Both are bad.

- (14) a. Topic > Trigger
 **'et ha-pegilim ha-politiyim ba-psita*
 acc the-activists the-political in-the-raid
 gacra ha-mistara.
 the-nightly detained the police.
 'The police detained many Arab activists in
 the nightly raid.'

b. Trigger > Topic

*harbe pešillim ba-psita ha-leillit
 many activists in-the-raid the-nightly
 gacra ha-mistara.
 detained the-police.
 'the police detained many activists in the
 nightly raid.'

If triggers were in [Spec/I], nothing should prevent (14a), where a topic precedes a trigger, since triggers are in [Spec/I], while topics are adjoined to IP. However, if triggers were in [Spec/C], then the word order displayed in (14a) could only mean that the topic is adjoined to CP. Adjunction to CP is independently ruled out, as shown by the unacceptability of (15).

(15) *lo yadaəti 'et ha-tapuax ha-ze le-mi
 neg (I) knew acc the-apple the-this to whom
 Dani natan.
 Dani gave.
 'I didn't know to whom Dani gave this apple.'

(14b), where the trigger precedes the topic, is ruled out on par with wh-extraction over a topic: (16) shows that topics create islands for wh-movement.

(16) *'eize pešillim ba-psita ha-leillit ha-
 which activists in-the-raid the-nightly the-
 mistara gacra?
 police detained?
 Which activists did the police detain in the
 nightly raid?'

5. Triggered Inversion and Wh-movement

One major difference between Hebrew and the Germanic languages with embedded V2 has to do with the interaction of V2 with wh-movement, as mentioned briefly above.

In this section we show that clause-initial subjects and clause-initial triggers diverge in their interaction with wh-movement.

The data in (17a)-(20a) demonstrate that both long and short wh-movement is grammatical over a preverbal subject while similar movement over a trigger is ungrammatical (17b)-(20b).

(17) Short Wh-Movement

- a. le-mi Dani natan harbe sfarim 'etmol?
 to whom Dani gave many books yesterday?
 'To whom did Dani give many books yesterday?'

- b. *le-mi harbe sfarim natan Dani 'etmol?
 to whom many books gave Dani yesterday

(18) Long Wh-Movement

- a. le-mi Rina xoševet Se- Dani natan harbe
 to whom Rina thinks that Dani gave many
 sfarim?
 books?
 books?
 'To whom does Rina think that Dani gave many
 books?'

- b. *le-mi Rina xoševet Se- harbe sfarim
 to whom Rina thinks that- many books
 natan Dani?
 gave Dani

(19) Relativization

- a. Ze ha-sefer Se- Dan natan le-Rina.
 this the-book that-Dan gave to-Rina.
 'This is the book that Dan gave to Rina.'
 b. *Ze ha-sefer Se- le-Rina natan Dani.
 this the-book that-to-Rina gave Dani.

(20) Adjunct Movement

- a. 'eixi xasavta Se-Dani tiken 'et ha-
 how (you) thought that-Dani fixed acc the-
 mexonit t_i?
 car?
 'How_i did you think that Dani fixed the
 car t_i?'
 b. **eixi xasavta Se-'et ha-mexonit t_iken
 how (you) thought that-acc the-car fixed
 Dani?

In fact, we note a three-way divergence in judgements. Extraction over a subject is perfect, as expected. Extraction of an argument over a trigger is bad but adjunct extraction over a trigger is worse.

These data can be explained if we adopt the structure proposed in (6) for triggered inversion. The additional CP node created in these cases of triggered inversion is not an L-marked category and hence forms a barrier to extraction of arguments over a trigger should constitute a milder violation than extraction of adjuncts. This is confirmed by the data in (20). Extraction over a subject, on the other hand, is predictably perfect, since

subjects are in [Spec/I] and there is no additional CP node barring wh-movement directly to [Spec/C].

6. Locality of Triggers

A further prediction entailed by the adoption of (6) is that the trigger itself should not be able to move, since it would have to cross CP which is a non L-marked category. This prediction is also borne out by the data in (21a) which shows that the dative object cannot serve as a trigger in a lower clause and then move and topicalize, that is, adjoin to an IP of a higher clause. Notice that long topicalization is in general not ruled out in Hebrew, as shown by (21b).

- (21) a. *le-Dani, Mose siper Se- kanta Ruti
to-Dani Mose told that-bought Ruti
matana.
present
'Mose told that Ruti bought Dani a present.'
- b. le-Dani, Mose siper Se-Ruti kanta
to-Dani Mose told that-Ruti bought
matana.
present
'Moshe told that Ruti bought Dani a present.'

7. Wh-Movement and Inversion

Wh-words seem to be able to also serve as triggers for inversion, as shown in (22) below. Although preferred by purists, inversion under a wh-phrase is optional in spoken Hebrew so that (23) is also perfectly acceptable.

- (22) a. 'et ma 'axal Dani?
acc what ate Dani?
'What did Dani eat?'
- b. le-mi natna Ruti matana?
to-whom gave Ruti present?
'to whom did Ruti give a present?'
- (23) a. 'et ma Dani 'axal?
acc what Dani ate?
'What did Dani eat?'
- b. le-mi Ruti natna matana?
to-whom Ruti gave present?
'to whom did Ruti give a present?'

In this section we discuss some differences between WH triggers and non-WH triggers and account for them by arguing that inversion under a WH word does not involve the creation of an additional CP category, but rather

movement of the inflected verb to a C⁰ which contains either a WH-word or its trace.

One difference between fronted WH words and triggers is that WH phrases can licence inversion in an embedded clause and then raise up to a higher clause. This is impossible for non-WH triggers, as we saw in (21a). Contrast the sentences in (24) with that in (21a). Note that (24a) is ambiguous: The fronted wh-word can either be interpreted as the goal of the higher verb or the benefactor of the lower verb. Crucial to our analysis, however, is that it may be interpreted as the benefactor of the lower verb kanta/kana 'bought'.

- (24) a. le-mi siper Dani Se- Ruti kanta matana.
to-whom told Dani that Ruti bought present
- i. 'to whom did Dani tell t_i that Rina bought a present?'
- ii. 'to whom did Dani tell that Rina bought t_i a present?'
- b. ['eize matana], siper Yosi Se- Mose
which present tell Yossi that-Moshe
kana le-Rina t_i?
bought to-Rina?
'[which present], did Yossi tell that Moshe bought Rina t_i?'

The ability of wh-words fronted from a lower clause to trigger inversion in a higher clause is not the only property which sets them apart from other triggers. A clearly related characteristic of wh-words is that they can licence inversion cyclically, i.e., they can licence inversion in a lower clause and then move up to a higher clause and licence inversion there as well. This is illustrated in (25).

- (25) a. le-mi siper Dani Se- kanta Ruti
to-whom told Dani that-bought Ruti
matana?
present?
'to whom did Dani recount that Ruti bought a present?'
- b. 'eize matana siper Yosi Se- kana Mose
which present tell Yossi that-bought Moshe
le-Rina?
to-Rina?
'which present did Yosi tell that Moshe bought Rina?'

Moreover, wh-words, but not other triggers, can licence inversion in a lower clause and then proceed upwards to [Spec/C] in a higher clause. Triggers, as we

have seen, are clause bound. They cannot move out of the clause in which they serve as triggers. This is true whether they move to a higher clause to serve as triggers or whether they adjoin to a higher IP as topics. The contrast between WH triggers and non-WH triggers is illustrated in (26). Recall that the impossibility of trigger movement to a higher clause is the consequence of the barrierhood of the additional CP node created by triggered inversion.

- (26) a. le-mi Mose siper Se- Kanta Ruti matana?
to-whom Moshé told that-bought Ruti present?
'To whom did Moshé tell that Ruti bought a present?'

- b. *le-Rina Mose siper Se- Kanta Ruti matana.
to-Rina Moshé told that-bought Ruti present.
'Moshé recounted that Ruti bought Dina a present.'

We claim that inversion under a wh-word or its trace is not a case of triggered inversion. Rather, we believe that a wh-word in Comp, or its trace, can trigger V+I movement to C.⁶

Movement of an inflected verb to C marked [+wh] is well attested crosslinguistically, although restricted to root sentences in some languages (e.g., English SUBJECT AUXILIARY INVERSION).

We argue that in Hebrew, intermediate Comps can also be filled by the verb if their specifier hosts a trace. The generalization appears to be that movement of the inflected verb to C is licensed just in case [Spec/C] has been activated by having a wh-element proceed through it. In addition, one might interpret the apparent optionality of V movement to C, illustrated in the contrast between (22) and (23), as an indication that movement can occur either at S-structure or in LF. Its

⁶ Although inversion under a wh-phrase or its trace resembles French STYLISTIC INVERSION (Kayne and Pollock 1978)), there are some differences between the two that lead us to believe that the two must be kept distinct. French stylistic inversion, namely, the postposing of the subject, is not very acceptable when the verb has a non-clitic object. Hebrew wh inversion, on the other hand, is perfectly acceptable in transitive clauses. Additionally, the position of the postverbal subject is different in the two languages: In French the postverbal subject is clause-final, presumably adjoined to VP, while in Hebrew it is between the verb and its objects.

occurrence in LF does not cause any surface reordering of constituents and therefore creates the illusion that inversion under a wh-phrase or its trace is optional.⁷

One generalization which seems to hold crosslinguistically is that movement of V to C is unavailable when CP contains a complementizer. This is due to the fact that the C⁰ node cannot host two elements simultaneously.

No such restriction seems to hold of verb movement to I, however. Indeed, crosslinguistic evidence suggests that V movement to I is rendered possible, even necessary on some accounts, in direct relation to the richness of inflectional material appearing in I. The difference between I and C is that inflectional material is generally represented by bound affixes which require morphological support while complementizers are independent words. Head movement and adjunction of V to I satisfies and is perhaps driven by constraints on morphological well-formedness.

In Hebrew, we argue, V can move to C even when C is filled by a lexical complementizer. This is due to the clitic properties of the Hebrew complementizer *Se*. Consider the idea that the requirement that *Se* appear as a clitic can be satisfied not only by movement of *Se* out of C, as argued in Shlonsky (1988), but also by movement of V+I into C. The derivation of the relevant aspects of (26a) is illustrated in (27).

- le-mi, Mose siper [_{CP} t_i Set+Kanta [_{IP} Ruti I V matana t_i]]
to-whom M. told that+bought R. present

The hypothesis that I moves to C when [Spec/C] is filled (either by an overt WH word phrase or by a WH trace) allows us to view cases of inversion under a wh-word or its trace not as triggered inversion, i.e., as a consequence of CP recursion, but rather as instances of I raising. This explains the differing properties of inversion under a wh-phrase and under a trigger. Inversion in the former does not require an overt trigger because I can move to C whenever wh-movement activates [Spec/C].

To conclude, we have provided evidence for a V2 constraint in Hebrew, operative in both root and embedded

⁷ There are intriguing similarities, which we do not pursue here, between WH inversion in Hebrew and Spanish inversion, as described in Torrego (1984).

Vikner, Sten. 1990. Verb Movement and The Licensing of NP Positions in the Germanic Languages. Ph.D dissertation. Geneva: Departement de langue et litterature anglaises, Faculte des lettres.

l that positing an extra CP layer which id the XP preceding it, allows us to explain the interaction of V2 and WH'. Finally, we argued for a distinction due to the fronting of V and an XP into ory and inversion triggered by a Comp

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