Resumptive pronouns in Hebrew

1. The distribution of resumptive pronouns and gaps

In English, relative clauses can be formed with a wh element.

(1) This is the man who(m) you talked about yesterday.

In Romance, where preposition stranding is disallowed, an overt wh-word pied pipes a constituent.

(2) Voici l’homme avec qui tu as mangé hier.

In Hebrew, a wh-word is never manifested in relative clauses (exception: free relatives.) Either the relative is formed with ‘that’ and a gap, (3a), or with ‘that’ and a pronoun, (3b), or with a fronted pronoun with or without ‘that’, (3c).

(3) a. hine ha-iš še ra’ita ‘etmol.
    here the-man that saw.2ms yesterday
    ‘Here is the man that you saw yesterday.’

b. hine ha-iš še ra’ita oto ‘etmol.
    here the-man that saw.2ms him yesterday

c. hine ha-iš (še) oto ra’ita ‘etmol.
    here the-man (that) him saw.2ms yesterday

While the gap and the resumptive strategy seem to be in free variation in (3a,b), there are contexts when only a gap is possible and contexts where, conversely, only a pronoun is possible.

**Only a gap is possible** in the subject position immediately below the relative head.

(4) a. hine ha-iš še nafal la-bor.
    here the-man that fell.3ms into-the-pit
    ‘Here is the man that fell into the pit.’

b. *hine ha-iš še hu nafal la-bor.
    here the-man that he fell.3ms into-the-pit

(5) a. hine ha-iš še xašavta še nafal la-bor.
    here the-man that thought.2ms that fell.3ms into-the-pit
    ‘Here is the man that you thought that (he) fell into the pit.’

b. hine ha-iš še xašavta še hu nafal la-bor.
    here the-man that thought.2ms that he fell.3ms into-the-pit

**Only a pronoun is possible** when the relativization site is inaccessible to movement. This includes:

**object of preposition**

(6) a. hine ha-iš še dibarta ‘it-o/* ‘etmol.
    *here the-man that spoke.2ms with-3ms yesterday*
    ‘Here is the man that you talked with yesterday.’

b. hine ha-iš še ‘im-o/* pirsema roman.
    *here the-man that mother.3ms published novel*
    ‘Here is the man whose other published a novel.’

**adnominal complement or possessor**

b. hine ha-iš še ‘im-o/* pirsema roman.
    *here the-man that mother.3ms published novel*
    ‘Here is the man whose other published a novel.’

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**Hebrew pronouns**

- Nominative forms are free-standing:

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<tr>
<td>1</td>
<td>‘ani</td>
<td>‘anaxnu / ‘anu</td>
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<td>2m</td>
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<td>3m</td>
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<td>3f</td>
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- Oblique and genitive forms are bound forms (enclitics) on a preposition (oblique) or noun (genitive):

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<th>singular</th>
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<tr>
<td>1</td>
<td>l-i/yald-i</td>
<td>la-nu/yald-a-nu</td>
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<td>2m</td>
<td>l-ax/yald-axa</td>
<td>la-xem/yald-o-xem</td>
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<tr>
<td>2f</td>
<td>l-ax/yald-ex</td>
<td>(la-xen)/(yald-o-xen)</td>
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<tr>
<td>3m</td>
<td>l-o/yald-o</td>
<td>la-hem/yald-o-xen</td>
</tr>
<tr>
<td>3f</td>
<td>l-a/yald-a</td>
<td>(la-hen)/(yald-o-hen)</td>
</tr>
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- Accusative forms look free-standing:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
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<tr>
<td>1</td>
<td>‘oti</td>
<td>‘otanu</td>
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<td>2m</td>
<td>‘otxa</td>
<td>‘otxem</td>
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<td>2f</td>
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<td>3m</td>
<td>‘oto</td>
<td>‘otam</td>
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<tr>
<td>3f</td>
<td>‘ota</td>
<td>(‘otan)</td>
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Maybe they are, or maybe they are enclitics on the accusative marker ‘et (obligatorily precedes definite direct objects as in (ia). (see, e.g., Shlonsky 1997:Chapters 9&10.)

(i) a. ‘ani ‘oxel ‘et ha-banana.
    I eat acc the banana
    ‘I am eating the banana.’

b. ‘ani ‘oxel banana.
    I eat banana
    ‘I am eating a banana.’

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embedded subjects in indirect questions

c. hine ha-iš še lo yad’ati ‘eix hu/*__ nafal la-bor.
   *Here the-man that neg knew.1ms how he fell.3ms into-the-pit
   ‘Here is the man that I didn’t know how he fell into the pit.’

and from within strong islands

d. hine ha-sendvic še pagašti ‘et ha-‘iša še ‘axla oto/*__
   *Here the sandwich that met.1ms acc the-woman that ate it
   ‘Here is the sandwich that I met the woman who ate’

e. hine ha-sendvic še šamati šmu’a še ha-‘iša ‘axla oto/*__
   *Here the sandwich that heard.1ms rumor that the-woman ate it
   ‘Here is the sandwich that I heard the rumor that the woman ate’

N.B.
Relativization in Hebrew is impervious to wh-islands

(7)  a. hine ha-sendvic še lo yada’ti mi ‘axal oto/__
   *Here the sandwich that neg knew.1ms who ate it/
   ‘Here is the sandwich that I didn’t know who ate’

Adjunct clauses are more complicated: They typically resist PP gaps and allow DP gaps when untensed (viz. Cinque 1990’s idea that a DP gap is a null (resumptive) pronoun)

No that/trace effects for subject extracted from under the indicative complementizer še. The effect does, however, show up in indirect questions.

(8)  a. hine ha-iš še xašavti še hu/__ nafal la-bor.
   *Here the-man that thought.lms that he/ fell.3ms into-the-pit
   ‘Here is the man that I thought that he fell into the pit.’

   b. hine ha-iš še lo yad’ati ‘eix hu/*__ nafal la-bor.
   *Here the-man that neg knew.1ms how he/*/ fell.3ms into-the-pit
   ‘Here is the man that I didn’t know how he fell into the pit.’

2. Interpretative differences between resumptives and gaps

Quantifier can ‘scope out’ of a relative clause with a gap

(9)  ha-‘iša še kol gever hizmin hodeta lo.
   the-woman that every man invited thanked to-him.
   a. The woman every man invited thanked him
      [single individual reading; pronoun unbound in the matrix]

   b. For every man x, the woman that x invited thanked x
      [multiple individual reading; pronoun bound in the matrix]

But not out of a relative clause with a pronoun

(10) ha-‘iša še kol gever hizmin ota hodeta lo.
    the-woman that every man invited her thanked to-him
    The woman every man invited thanked him
        [individual reading only]
(9) is sometimes interpreted to mean that the relative head may be reconstructed into the gap position (and conversely, that it cannot be reconstructed when there is a resumptive pronoun.) This is not sufficient, however, to explain why the quantifier can bind the pronoun in the main clause in (9), under the multiple individual reading.

**ok in an equative sentence**

(11) ha-iša še kol gever hizmin /ota hayta išt-o.
    the-woman that every man invited her was wife-his
    a. The woman every man invited was his (he = y) wife.
    b. For every man x, the woman x invited was x’s wife

**Sharvit** The multiple-individual reading (i.e., when the quantifier ‘scopes out’) arises whenever a functional dependency is licensed. A functional dependency is formed when an A’-bound variable is syntactically bound simultaneously from an A’-position and an A-position. Resumptive pronouns in relative clauses are not good candidates for a natural function, unless the relative clause is the first term of an equative sentence.

Resumptive pronouns can appear in interrogatives only when the wh-expression is D-linked.

(12) a. im mi nifgašta?
    with who you met

b. *mi nifgašta it-o?
    who you-met with-him
    ‘Who did you meet with?’

(13) eyze student nifgašta it-o?
    which student you-met with-him
    ‘Which student did you meet with?’

**Resumptives don’t support de dicto readings.**

(14) Dan yimca et ha-iša še hu mexapes.
    Dan will find the-woman that he look-for
    ‘Dan will find the woman he is looking for.’
    \textit{de dicto}: does not imply the existence of a woman
    \textit{de re}: implies the existence of a woman

(15) Dan yimca et ha-iša še hu mexapes ota
    Dan will find the-woman that hu look-for her
    only \textit{de re}

**Conclusion:** Resumptive pronouns in Hebrew sound best when embedded within an individual-denoting definite noun phrase.

**Thus:**

(16) kol’af xatul še-ra’iti __/?oto…
    every/no cat that I saw…

(17) kamut ha-šeleg še-raiti __/*ota be-Montreal…
    quantity the-snow that-I saw in Mtl…
    ‘the quantity of snow that I saw in Mtl…’

**CONSEQUENCE:** Resumptive pronouns are not spell-outs of traces
3. How are resumptive pronouns linked to the relative head?

1. An argument for movement

The Highest subject restriction (HSR) [Borer 1984, McCloskey 1990]

(18) a. hine ha-iš še __ nafal la-bor.
    *here the-man that fell.3ms into-the-pit
    ‘Here is the man that fell into the pit.’

b. *hine ha-iš še hu nafal la-bor.
    *here the-man that he fell.3ms into-the-pit

Two takes:
  1. Aoun & Li 1990 (see also Borer 1984)

A’-Disjointness: A pronoun must be A’-free in the minimal CFC containing a c-commanding subject (distinct from the pronoun) and the pronoun.

(19) a. Zhangsanì shuo ta dele jiang.
    Z said he got prize

b. *Meyerenì shuo ta dele jiang.
    Everyone said he got prize

But: (19b) is fine in Hebrew, meaning that Aoun & Li’s principle only covers the HSR \( \rightarrow \) ad hoc.

2. Shlonsky 1992 argues that the distribution of resumptive pronouns follows from a last resort principle, namely, that you get resumptive pronouns (and base-generation of the relative operator in Spec/C) only if movement is ruled out (=Move preempts Merge.)

Movement from the subject position to its subjacent Comp is always possible, hence movement must preempt the resumptive ‘strategy’.

Problem: requires a global, anti-cyclic evaluation of two derivations. (cf. do-support)

Alternative: The HSR is an EPP-related phenomenon.

- The relative head is split from the pronoun.
Outline of a theory  [based on Anonymous 2004]

- C has EPP features (Agreement ?) which must be valued.
- These features attract a nominal to CP.
- The attracted nominal must be the subject (Attract Closest)
- If C is +wh and the subject is attracted, then both EPP and wh are valued together.
  (20)  a. Who ate the cake  
         b. The man who ate the cake
- If C is +wh and a non-subject is attracted (i.e., a non-subject wh-question), then C assigns its EPP features to the head it selects, namely T (or Subj (cf. Rizzi 2003, who argues that there must be a “pure” EPP head,) so that a nominal attracted to C is frozen at the TP/SubjP level.
- If C is –wh then it may check EPP or it may assign its EPP features to the head it selects. [Possible lg. variation: English ‘that’ only has the latter option, Hebrew ‘še’ has both.]
- Perhaps: Only when EPP is linked to a substantive head (Wh, Subj…) does it induce freezing  No freezing induced by participial agreement, or by a wh moving through a –wh C (in Hebrew-like lgs.)

The HSR (i.e., (18b)) follows since the relative head satisfies both EPP and +wh/+rel features in C. Hence there are no EPP features on T/Subj to attract a nominal.

Now consider (18a).
The subject can move to C directly from vP (or TP), satisfying EPP together with wh/rel in C.²

Next case:
(21)  a. hine ha-iš še xašavta še __ nafal la-bor.  
         here the-man that thought.2ms that __ fell.3ms into-the-pit
b. hine ha-iš še xašavta še hu nafal la-bor.  
         here the-man that thought.2ms that he fell.3ms into-the-pit
‘Here is the man that you thought that (he) fell into the pit.’

(21a): C’s EPP features are valued in the lower C (by the trace of the relative head).
(21b): C’s EPP features are assigned to T/Subj.  
[The relative head can be split from the big DP, stranding the (EPP-frozen) pronoun.]

Next case:
(22)  a. *hine ha-iš še lo yad’ati ‘eix __ nafal la-bor.  
         here the-man that neg knew.1ms how __ fell.3ms into-the-pit
b. hine ha-iš še lo yad’ati ‘eix hu nafal la-bor.  
         here the-man that neg knew.1ms how he fell.3ms into-the-pit
‘Here is the man that I didn’t know how he fell into the pit.’

(22a): C cannot check EPP in CP because the wh-element is not the subject. EPP is assigned to T/Subj and the nominal in Spec,T/Subj is frozen.
(22b): The pronoun checks EPP in TP/Subj and the relative head can raise, stranding the pronoun.

² A weak pronoun must raise to the highest attracting head in T (No Agree for weak pronouns.) recalls Cardinaletti & Starke 1999.
Borer 1984 discusses the fact that non-subject resumptive pronouns can show up in the highest CP, even if the relativization site is embedded.

(23) a. hine ha-iš še (oto) xašavti še (oto) ra’ita ‘etmol.
    *here the-man that (him) thought.1s that (him) saw.2ms yesterday

b. hine ha-iš še (*’alav) xašavti še (*’alav) dibarta ‘etmol.
    *here the-man that (about-him) thought.1s that (about-him) spoke.2ms yesterday

However, subject resumptive pronouns are ‘stuck’:

(24) a. hine ha-iš še *(hu) xašavti še (hu) ra’a ‘otxa ‘etmol.
    *here the-man that (he) thought.1s that (he) saw.3ms you yesterday

‘Here is the man that I thought that he saw you yesterday.’

→ Resumptive pronoun checks EPP in lower clause and gets frozen.

2. Another argument for movement – Reconstruction effects

2.1. Anaphor Binding

(25) a. hine ha tmunot šel ‘acmo še Rina hikira ‘et ha baxur
    *here the pictures of himself that Rina knew ACC the guy

še hexlit li-tlot otam be-xadro.
*that decided to-hang them in-room.his

‘Here are the pictures of himself that Rina knew the guy who decided to hang them in his room.’

b. hine ha tmunot ‘exad šel ha-šeni še Rina hikira ‘et ha
    *here the pictures one of the-other that Rina knew ACC the

anašim še hexlitu li-tlot otam be-xadram.
people that decided.3pl to-hang them in-room.their

‘Here are the pictures of each other that Rina knew the people who decided to hang them in their room.’

2.2. Bound Pronouns

(26) a. ha-mnahel yišlax habayta ‘et ha-ciyun šel ha-mivxan šel-o še ha-more
    *the director will be sent to-home. acc the-grade of the-exam of-his that the-teacher

hexlit le-ha’alot (oto) bi-nkuda le-xol talmid.
*decided to-raise him in-point to every student

‘The principal will send home the grade on his exam, that the teacher decided to raise by a point for every student.’

b. ha-mnahel yišlax habayta ‘et ha-ciyun šel ha-mivxan šel-o še dibarnu
    *the director will be sent to-home. acc the-grade of the-exam of-his that spoke.1pl

‘im ha-more še hexlit le-ha’alot oto bi-nkuda le-xol talmid.
*with the-teacher that decided to-raise him in-point to every student

‘The principal will send home the grade on his exam, that we talked to the teacher who decided to raise by a point for every student.’

(27) a. ‘im ha-maskoret šel-o še kol po’el mekabel (ota) be-sof
    *with the-salary of-his that every worker receives her at-the-end
ha-xodeš ‘af exad lo ‘it’asek.

With his salary, that every worked receives at the end of the month, nobody will mess around.’

b. ‘im ha-maskoret šel-o še dibarnu ‘im kol po’el še mekabel ota be-sof

With the-salary of-his that spoke.1pl with every worker that receives her at-the-end

ha-xodeš ‘af exad lo ‘it’asek.

With his salary, that we spoke with every worked receives at the end of the month, nobody will mess around.’

2.3. Scope reconstruction

(28) a. šnei talmidim mi-beyn talmida-i še kol more baxar z bi-fras.

Two students from-among students-my that every teacher chose will win prize

‘Two students from among my students that every teacher chose will win a prize.’

∀ > 2

b. šnei talmidim mi-beyn talmida-i še kol more baxar otam yizku bi-fras.

Two students from-among students-my that every teacher chose them will win prize

‘Two students from among my students that every teacher chose them will win a prize.’

∀ > 2

2 >∀

(29) šnei talmidim mi-beyn talmida-i še hikarti kol more še baxar otam yizku bi-fras.

Two students from-among students-my that knew.1m every teacher that chose them will win prize

‘Two students from among my students that I knew every teacher who chose them will win a prize.’

∀ > 2

2 >∀

2.4. Condition C

Shlonsky 1992 gives examples such as the following to argue that Condition C (Strong Crossover) holds of resumptives.

(30) a. *ze ha-baxur še- yida’ti oto še ha-more yaxšil.

This the-guy that-(I) informed him that the-teacher will flunk

‘This is the guy that I told him that the teacher will flunk him’

b. ze ha-baxur še- yida’ti oto še ha-more yaxšil oto

This the-guy that-(I) informed him that the-teacher will flunk him.

‘This is the guy that I told him that the teacher will flunk him’

(31) a. *ze ha-baxur še- yida’ti et ha-idiot še ha-more yaxšil.

This the-guy that (I) informed acc the idiot that the-teacher will flunk

‘This is the guy that I informed the idiot that the teacher will flunk!’

b. *ze ha-baxur še- yida’ti et ha-idiot še ha-more yaxšil oto

This the-guy that (I) informed acc the idiot that the-teacher will flunk him

‘This is the guy that I informed the idiot that the teacher will flunk him.’
3. Another (weak) argument for movement: Weak Crossover

(35) a. *?ze ha-baxur še- yida’ti ‘et ha-horim šel-o še ha-more yaxšil.
   this the-guy that-(I) informed acc the-parents of-him that the-teacher will flunk
   ‘This is the guy that I told his parents that the teacher will flunk him'

   b. ze ha-baxur še- yida’ti ‘et ha-horim šel-o še ha-more yaxšil oto.
   this the-guy that-(I) informed acc the-parents of-him that the-teacher will flunk him.
   ‘This is the guy that I told him that the teacher will flunk him'

(36) a. *?ze ha-baxur še- yida’ti ‘et ha-horim šel ha-‘idiotšē ha-more yaxšil.
   this the-guy that (I) informed acc parents of the idiot that the-teacher will flunk
   ‘This is the guy that I informed the idiot’s parents that the teacher will flunk'

   b. ??ze ha-baxur še- yida’ti et ha-horim šel ha-‘idiotšē ha-more yaxšil oto.
   this the-guy that (I) informed acc parents of the idiot that the-teacher will flunk him.
   ‘This is the guy that I informed the idiot’s parents that the teacher will flunk him.'

4. An argument against movement

- Resumptive relatives are impervious to islands; gap relatives are not.

5. Why are there islands?

Responses:
- Islands are a class of constraints on transformations ((E)ST).
- Subjacency (EST) + ECP (GB)
- Relativized Minimality refines the story, providing an explanation for argument–non-argument asymmetries in the domain of weak islands. This ECP-based approach sharpens the problem: What are ‘strong’ islands and why are arguments sensitive to weak ones?
• Chomsky’s 2000, 2001 *Phase Impenetrability Condition*
  In phase $\alpha$ with head $H$, the domain of $H$ is not accessible to operations outside $\alpha$, but only $H$ and its edge.

→ These are all syntax-internal structural conditions.

**Fox & Pesetsky 2003, 2004** propose that the existence of islands follows from conditions on the syntax-phonology interface. In particular:

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**Linearization Preservation**
The linear ordering of syntactic units is affected by Merge and Move *within* a phase, but is fixed once and for all at the end of each phase.

**Phases:** CP, DP and vP

**Case#1**

(37) a. The man that John thinks Bill met.
   b. The man that John thinks [CP the man Bill [vP the man met the man]]

i. Movement of <the man> to the edge of vP revises the order within vP but it is phase-internal and therefore doesn’t count for linearization.

ii. Movement of <the man> to the edge of CP revises the order within CP but it does not revise movement with respect to elements in vP.

iii. Movement of <the man> to the position of the relative head revises the order within the higher CP but it does not revise movement with respect to elements in lower CP.

**Hence, Linearization is preserved. This is so because <the man> moves out of a phase through its edge.**

**Case#2**

(38) a. *This is the man you wonder why Bill talked about.
   b. *This is the man that you wonder [CP why Bill [vP the man talked about the man]]

i. Movement of <the man> to the edge of vP revises the order within vP but it is phase-internal and therefore doesn’t count for linearization.

ii. Movement of <the man> to the edge of CP is blocked by the wh-word in Spec/C.

iii. Movement of <the man> to the position of the relative head revises the order within the higher CP *but crucially also* with respect to elements within the lower CP in violation of Linearization Preservation.

**Case#3**

(39) a. hine ha-balšan še ata lo yode’a lama Bill diber ‘al-av.
   *Here the-linguist that you neg know why Bill talked about-3ms*
   ‘Here is the linguist that you don’t know why Bill talked about (him).’

b. This is the linguist that you don’t know [CP why Bill [vP (the linguist) talked [D/PP the linguist about-him the linguist]]]
Assume, from now on, that resumptive pronouns have the form in (40): [Shlonsky 1997:Ch. 9, Shlonsky 1994]

\[(40)\]

\[
\begin{array}{c}
\text{DP}_{i} \\
\text{D/P} \\
\text{D/P'} \\
\text{D/P} \\
\text{D/P + Agr} \\
t
\end{array}
\]

Why does the presence of the resumptive pronoun preserve linearization?

--Actually it doesn’t.

--But that doesn’t matter!

Why?

--Because from the perspective of PF (i.e., of linearization), the pronoun and the relative head are distinct objects.

Are there other cases in which islands can be violated without revising linear order?

Yes, Sluicing:

(41) a. John left after he talked to a certain boy.  
    But I don’t remember which boy John left [after he talked to].

b. *Which boy did Jon leave after he talked to?

Consequences:

(i) Movement of a DP stranding a resumptive pronoun does not have to be successive-cyclic since linearization preservation does not require it.

(ii) From the perspective of LF, however, there is a chain, with copies, and ‘reconstruction’ is possible.

(iii) Sensitivity to WCO is explained.

Questions:

(i) Are phase edges ever utilized for movement stranding a resumptive pronoun? Probably not Spec/C when it is filled by a wh-word.

(ii) What about Spec/C when it isn’t filled?

References