Resumptive pronouns across components: evidence from Hebrew
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Summary: Theories of resumption disagree about the division of labor between syntax and phonology in accounting for the distribution of resumptive pronouns (RPs). RPs that show a gap-like behavior have motivated theories that assign an exclusive role to the phonology in spelling out a gap as a RP, but the incompatibility of some RPs with well-known properties of movement (and therefore with the idea that all RPs are syntactic gaps) has suggested a non-trivial role for the syntax. Claim: A unified account of the distribution and interpretation of RPs in Hebrew supports a non-trivial division of labor between syntax and phonology in generating RPs even within a single language. The evidence comes from puzzles discussed by Doron (1982), Shlonsky (1992), Arad (2014), and Sichel (2014), including new data regarding reconstruction blocking in island contexts:

**Distribution:** Non-subject RPs are obligatory in island contexts and in some phonologically well-defined environments but are otherwise optional (can be replaced with a gap).

**Interpretation:** Obligatory RPs in non-island contexts allow reconstruction but obligatory RPs in island contexts and optional RPs block reconstruction.

**Analysis:** The reconstruction asymmetries follow from a modified version of Shlonsky’s (1992) Last Resort theory of the distribution of Hebrew RPs. In the modified theory, an obligatory PF rule spells out traces as RPs in the relevant phonological environments. These RPs are syntactic gaps, which explains their compatibility with reconstruction. Other RPs are bound pronouns inserted in the syntax as a last resort and are incompatible with reconstruction.

**Previous accounts** where RPs are generated in a single component require special principles to account for the facts and fail to account for reconstruction blocking in island contexts.

**Data:** Distribution: In contexts with no overt islands, a direct object RP is optional and can be replaced with a gap (1) but a RP that is a complement to a preposition is obligatory (2). A RP is also obligatory when it is the experiencer object of a psych verb, when it follows a noun in the construct state, or when it is the associate of a focus-sensitive operator such as rak (‘only’) or gam (‘even’). RPs are obligatory in island contexts as demonstrated in (3).

1. **RP in direct object position:** optional  
   \[ ze \ ha-iši śe-raiti ti/otoi \]  
   this the-man that-I.saw ti/him  
   ‘This is the man I saw’

2. **RP following a preposition:** obligatory  
   \[ ze \ ha-iši śe-xašavi (*ti)/alav \]  
   this the-man that-I.thought (*ti)/on-him  
   ‘This is the man that I thought about’

3. **RP in a complex NP island context:** obligatory  
   \[ ze \ ha-iši śe-raiti et ha-iša śe-paša (*ti)/otoi \]  
   this the-man that-I.saw ACC the-woman that-met (*ti)/him  
   ‘This is the man x such that I saw the woman who met x’

Interpretation: In contexts with no overt islands, obligatory RPs show various reconstruction effects but optional RPs do not. Example: the *de re/de dicto* asymmetry in (4a)-(4c) reported in Sichel (2014). Example (4a) with no RP is compatible with two readings: 1) *de dicto:* the woman Dani is looking for does not necessarily exist. 2) *de re:* there is an actual woman that Dani is trying to find. Example (4b) has an optional RP and the *de dicto* reading is unavailable. In (4c), the intensional verb takes a PP argument, the RP is obligatory, and the *de dicto* reading is available. Example (4d) further demonstrates that the *de dicto* reading is unavailable in island contexts. Arad (2014) provides an explicit semantics for these sentences (attributed to Fred Landman) where the different readings arise as a matter of the relative scope between the intensional verb and the relative head. See Sichel (2014) and Arad (2014) for other interpretive asymmetries where optional RPs but not obligatory RPs are claimed to block reconstruction. Those asymmetries show that direct object RPs in obligatory contexts with no overt islands behave like obligatory P-complement RPs in terms of their interpretation, suggesting that it is indeed the distribution and not the structure of the pronoun that correlates with reconstruction (a relevant *de re/de dicto* example is difficult to construct).
As a first approximation, obligatory PP pronouns are inserted by the Lexicon. Result: in contexts with no overt islands, an obligatory RP (2) is ambiguous (de re, de dicto), where (\(X \rightarrow \text{Pf} \rightarrow Y\)). The spell-out rule: [\(t \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)]. The RPs are inserted. Phonological component (et seq.). In overt-island contexts (3), movement is illicit regardless of C choice and an RP is obligatorily inserted. Object RPs (1): in derivations with \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\), movement is illicit so no RP is inserted. The motivation for locating the ambiguity in C comes from Arabic, where gap chains and RP chains are marked by phonologically distinct C’s (McCloskey 1990 et seq.). In overt-island contexts (3), movement is illicit regardless of C choice and an RP is obligatorily inserted. Phonological component: As a first approximation, obligatory PP pronouns are inserted by the PF rule [\(t \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)]. Result: in contexts with no overt islands, an obligatory RP (2) is ambiguous between a RP inserted as a last resort (in derivations with \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)) and a RPs inserted at PF (in derivations with \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)). One observation is that RPs are obligatory in the local environment of a leaner – an element requiring a phonological host – suggesting that a more general PF rule can be stated. The relevant morphological relationship between the trace and the leaner might be adjacency within a complex head. Using Embick’s (2007) notation, the general PF rule is [\(t \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)], where (\(X \rightarrow Y\)) stands for the relationship between two linearly-adjacent syntactic elements X and Y that have merged morphologically.

**Summary of the proposal:** Lexicon: two complementizers (\(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)). Syntax: RPs are inserted as a last resort. Phonology: spell-out rule: [\(t \rightarrow \text{Pf} \rightarrow X \rightarrow Y\)]. The reconstruction asymmetries in (4a)-(4d) follow immediately from this proposal: it is precisely in (4b) and (4d) that the RP is necessarily syntactic and no movement (therefore no syntactic reconstruction) is involved.

**Previous accounts:** Sichel (2014) and Arad (2014) leave the distribution of RPs as a black box and offer special economy principles designed to block reconstruction when a RP can be replaced with a gap in non-island contexts. Both accounts fail to account for (4d) where an obligatory RP in an island context blocks reconstruction. The accounts must also be amended with a theory of RP distribution that generates obligatory RPs in island contexts (as well as obligatory RPs corresponding to phonological RPs on the present account), but, as shown here, such a theory is already sufficient to derive the interpretive asymmetries, making the special economy principles redundant.

**Implications:** If the present account is on the right track, the Hebrew reconstruction asymmetries allow teasing apart two sources for resumption (Aoun and Benmamoun (1998) make similar claims regarding Lebanese Arabic) and provide evidence for a theory of distributed resumption over theories that attribute RPs to a single mechanism of syntactic resumption or phonological spell-out.

**Proposal:** Syntactic component: Shlonsky (1992) proposes that RPs are available as a last resort in the syntax whenever a gap is unavailable. Hebrew relative clauses are ambiguous, the source of ambiguity being the complementizer (C) \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\), which is the surface realization of two homophonous C’s: \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\) is not. Free C choice leads to an illusion of optionality in direct object RPs (1): in derivations with \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\), movement is illicit and a RP is inserted. In derivations with \(\text{C} \rightarrow \text{Pf} \rightarrow X \rightarrow Y\), movement is licit so no RP is inserted. The motivation for locating the ambiguity in C comes from Arabic, where gap chains and RP chains are marked by phonologically distinct C’s (McCloskey 1990 et seq.). In overt-island contexts (3), movement is illicit regardless of C choice and an RP is obligatorily inserted.

**No RP: two readings**

dani yimca et ha-iša\(\_\)i še-hu mexapes ti \\
Dani will-find ACC the-woman\(\_\)i that-he seeks ti \\
‘Dani will find the woman he is looking for’ (de re, de dicto)

**Optional direct object RP: blocker**

dani yimca et ha-iša\(\_\)i še-hu mexapes ota\(\_\)i \\
Dani will-find ACC the-woman\(\_\)i that-he seeks her\(\_\)i \\
‘Dani will find the woman he is looking for’ (de re, *de dicto)

**Obligatory (P-complement) RP: non-blocker**

dani yimca et ha-iša\(\_\)i še-hu xolem (*ti*)/aley\(\_\)a\(\_\)i \\
Dani will-find ACC the-woman\(\_\)i that-he dreams (*ti*)/of-her\(\_\)i \\
‘Dani will find the woman he is dreaming of’ (de re, de dicto)

**Obligatory direct object RP, island context: blocker (de re, *de dicto)**

dani yimca et ha-iša\(\_\)i še-hu šama al ha-šoter še-mexapes ota\(\_\)i \\
Dani will-find ACC the-woman\(\_\)i that-he heard about the-policeman that-seeks her\(\_\)i \\
‘Dani will find the woman x such that he heard about the policeman who is looking for x’

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