

Resumptive Pronouns as a Last Resort

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Resumptive Pronouns as a Last Resort

This article has two interrelated goals: first, to provide a description and a unified analysis of the distribution of resumptive pronouns in relative clauses in Hebrew and Northern Palestinian Arabic (henceforth Palestinian);¹ and second, to examine the theoretical consequences of the apparatus employed in implementing the descriptive goal.

The seeming free variation in the occurrence of gaps and resumptive pronouns in languages like Hebrew has been used to argue for the existence of an optional resumptive strategy that is employed in the formation of relative clauses alongside the more familiar strategy of *wh*-movement (see Chomsky (1977) and much subsequent work). A close study of the Hebrew data and a comparison with Palestinian leads me to believe that this is not the case—that there is no independently occurring resumptive strategy. The thrust of this article is to show that resumptive pronouns only occur as a *last resort*, when *wh*-movement fails to yield a grammatical output. Though concentrating mainly on Hebrew and Palestinian relative clauses, I conjecture that resumptive pronouns are never freely generated, their distribution being universally regulated by last resort considerations.

I argue further that the parametric difference between Hebrew and Palestinian (both of which make productive use of resumptive pronouns) and English (which does not) is ultimately lexical in nature. Hebrew and Palestinian are endowed with complementizers with certain properties that severely restrict syntactic *wh*-movement; English lacks such complementizers.

If resumptive pronouns occur only as a saving device for an otherwise ungrammatical derivation, then the investigation of their distribution should focus not on where resumptive pronouns are allowed to occur but rather on where *wh*-movement is blocked.

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¹ I am grateful to S. Hasan-Shlonsky for judgments and appraisal of the data. Thanks are also due to many of my students at Haifa University and especially to O. Awad. The data were systematically checked with several speakers of the Galilean *koiné* (Blanc (1953)), and the cited sentences are taken from a dialect spoken in Nazareth and some neighboring villages. See also Feghali (1928) for similar data from Lebanese Arabic. The distributional pattern of resumptive pronouns in Egyptian Arabic very much resembles that of Palestinian; see Wahba (1984).

Similarly, the syntactic behavior of resumptive pronouns vis-à-vis, say, the binding theory cannot properly be explained by attributing some special properties to them, since they have none. When it is discovered that resumptive pronouns fail to pattern exactly like traces of *wh*-movement, the explanation for the contrast must be sought in some other, though perhaps related, difference between the internal syntax of structures containing a gap and those containing a resumptive pronoun.

The article is structured as follows. Section 1 sets out the basic Hebrew and Palestinian data to be considered and presents an analysis by drawing upon certain similarities in the syntax of these two related languages. I argue that Hebrew manifests nonovertly a distinction that is overtly represented in the morphology of Palestinian. Thus, in the spirit of much recent research in comparative syntax, I show that abstracting away from details of phonetic realization leads to formulating a novel cross-linguistic generalization. Section 2 extends the analysis to Irish, where the distribution of resumptive pronouns is remarkably similar to that of Hebrew. The analysis paves the way for an account of the complementizer alternations in Irish. Section 3 attempts to assimilate into the theory some of the assumptions made in the account of Hebrew and Palestinian. Finally, section 4 studies what it is that makes resumptive pronouns *resumptive*. I argue that resumptive pronouns in Hebrew are best viewed as \bar{A} -bound variables in Logical Form (LF), a result I believe follows from the null hypothesis: If the occurrence of resumptive pronouns is designed only to void a violation of some syntactic condition, the interpretation of the position they occupy should not be affected.

1. Resumptive Pronouns in Hebrew and Palestinian

1.1. *The Distribution of Resumptive Pronouns in Hebrew and Palestinian*

Descriptively, there are three patterns of distribution of resumptive pronouns in Hebrew relative clauses, as discussed originally in Borer (1984) (see also Sells (1984)). In certain positions, resumptive pronouns appear to vary freely with gaps. In other positions, resumptive pronouns are obligatory and gaps are ruled out. Finally, there is one position where, in general, only a gap is possible.

In Palestinian relative clauses, resumptive pronouns are never optional. Rather, they are obligatory everywhere except in one position, where they are impossible.

1.1.1. Resumptive Pronouns in Hebrew Pronouns and gaps vary freely in direct object, embedded subject, and all direct object positions, as shown in (1)–(3), respectively.

- (1) ha-ʔiš še- raʔiti (ʔoto)
 the-man that- (I) saw (him)
 ‘the man that I saw’
- (2) ha-ʔiš še- xašavt še-(hu) melamed ʔanglit
 the-man that- (you.F) thought that-(he) teaches English
 ‘the man that you thought teaches English’

- (3) ha-ʔiš še- xašavt še-Dani pagaš (ʔoto)
 the-man that- (you.F) thought that-Dani met (him)
 ‘the man that you thought that Dani met’

Resumptive pronouns are obligatory and gaps are excluded from oblique object positions and from NP-internal positions, as shown in (4) and (5).

- (4) ha-ʔiš še- xašavti šal-*(av)
 the-man that- (I) thought about-(him)
 ‘the man that I thought about’
 (5) ha-ʔiš še- raʔiti ʔet ʔiš-*(o)
 the-man that- (I) saw ACC wife-(his)
 ‘the man whose wife I saw’

Finally, a resumptive pronoun may not appear in the highest subject position of the relative clause, as shown in (6).

- (6) ha-ʔiš še-(*hu) ʔohev ʔet Rina
 the-man that-(he) loves ACC Rina
 ‘the man who loves Rina’

1.1.2. Resumptive Pronouns in Palestinian Unlike the situation in Hebrew, resumptive pronouns are obligatory in Palestinian direct object, embedded subject, and embedded object positions, as shown in (7)–(9).

- (7) l-bint ʔilli šufti-*(ha)
 the-girl that (you.F) saw-(her)
 ‘the girl that you saw’
 (8) l-bint ʔilli fakkarti ʔinno *(hiy) raayha šalbeet
 the-girl that (you.F) thought that *(she) going to the house
 ‘the girl that you thought that (she) is going home’
 (9) l-bint ʔilli fakkarti ʔinno Mona ḥabbat-*(ha)
 the-girl that (you.F) thought that Mona loved-(her)
 ‘the girl that you thought that Mona loved’

As in Hebrew, resumptive pronouns are obligatory in oblique and object-of-noun positions:

- (10) l-bint ʔilli fakkarti fii-*(ha)
 the-girl that (you.F) thought on-(her)
 ‘the girl that you thought about’
 (11) l-bint ʔilli šufti beet-*(ha)
 the-girl that (you.F) saw house-(her)
 ‘the girl whose house you saw’

Wherever a resumptive pronoun is obligatory, a gap is impossible; the two never overlap in their distribution in Palestinian.

Finally, as in Hebrew, there is one position where a resumptive pronoun is impossible and a gap is obligatory, namely, the highest subject position in the relative clause:

- (12) l-bint ʔilli (*hiy) raayha ʕal beet
 the-girl that (she) going to house
 'the girl that is going home'

In summary, the distribution of resumptive pronouns and gaps in these two languages differs only in that Hebrew allows both a gap and a pronoun in direct object, embedded subject, and embedded object positions, whereas Palestinian requires a resumptive pronoun in these positions. In all other positions, the pattern of gaps and resumptive pronouns is exactly the same in both languages.

1.2. Analysis of the Data

1.2.1. Obligatory Resumptive Pronouns As a first step toward analyzing the Hebrew and Palestinian data, consider the claim that the obligatory occurrence of resumptive pronouns in the Hebrew (4)–(5) and the Palestinian (10)–(11) is directly related to—indeed, a direct consequence of—the fact that a gap in the same position violates some grammatical constraint.

The grammars of Hebrew and Palestinian possess a constraint against preposition stranding that I assume, without further discussion, to be reducible to the Empty Category Principle (ECP). Thus, when an oblique object is relativized, a gap in the [NP/PP] position violates the ECP. We could then view the resumptive pronoun that occurs in place of the gap as a saving device for an otherwise ungrammatical sentence. (For discussion, see for example Borer (1983).)

Moreover, since pied piping is not permitted in Hebrew and Palestinian relative clauses, (4) and (10) illustrate the only valid option for relativizing oblique arguments.²

² Contrary to Borer (1984), I do not consider pronoun fronting as in (i) to be operator movement or the fronting of a PP or NP containing a pronoun as in (ii) and (iii) to constitute pied piping, that is, movement of the NP or PP that contains the relativized site *into* [Spec/C]. Rather, I follow Doron (1982, 10) and Shlonsky (1985) in viewing it as a subcase of topicalization, that is, of adjunction to IP, as in (iv).

- (i) ha-ʔiš ʕe-ʔoto raʔiti
 the-man that-him (I) saw
 'the man that I saw'
 (ii) ha-ʔiš ʕe-ʕal-av xaʕavti
 the-man that-about-him (I) thought
 'the man that I thought about'
 (iii) ha-ʔiš ʕe-ʔet ʔiʕt-o raʔiti
 the-man that-ACC wife-his (I) saw
 'the man whose wife I saw'
 (iv) Dan taʕan ʕe-ʔota hizmanu la-mesiba.
 Dan argued that-her (we) invited to-the-party
 'Dan argued that we invited her to the party.'

Moreover, topicalization of this sort is considered quite marginal in Palestinian. Consequently, an account of the distribution of resumptive pronouns in Hebrew that crucially relies on this process fails to carry over to Palestinian.

In a similar vein, the obligatoriness of a resumptive pronoun in (5) and (11) is due to the fact that extraction of elements internal to NP is completely ruled out in Hebrew, again for ECP-related reasons, as discussed by Borer (1984) and Shlonsky (1988a), among others.

The obligatory occurrence of resumptive pronouns is not, however, restricted to oblique and NP-internal positions; nor is it unique to Hebrew or Palestinian. For instance, resumptive pronouns are obligatory in the following English relative clauses, precisely where a gap is ruled out:

- (13) a. the guy who we wondered whether **(he)* was sane (Safir (1986, 684))
- b. the book that I wondered whether I would get **(it)* in the mail (Kayne (1984, chap. 3, n. 23))

Since Chomsky (1977), it has been widely assumed that the rule that generates resumptive pronouns in examples such as (13) constitutes a last resort operation designed to rescue an otherwise illicit structure.

In more recent work, Chomsky (1991) attempts to explicitly characterize last resort operations by relating them to principles of economy that impose a markedness hierarchy on grammatical operations. Chomsky argues that last resort operations are language-specific rules that come into play only when operations general to Universal Grammar are blocked. The essence of Chomsky's argument, and the testable prediction that it implies, is that language-specific rules will always be blocked if a UG-general strategy is available.

Rizzi (1990, chap. 2, n. 25) suggests that resumptive pronoun insertion might best be construed as a type of last resort strategy, available when movement violates some grammatical constraint. This suggestion is reasonable in light of the English facts in (13) and aptly captures Chomsky's (1977) characterization of resumptive pronoun generation as a saving device.

If movement is ruled out from oblique and NP-internal positions in Hebrew and Palestinian, the obligatory occurrence of resumptive pronouns in, for example, (4), (5), (10), and (11) can be reasonably regarded as the consequence of the application of a last resort operation.

1.2.2. The Resumptive Strategy as a Strategy of Last Resort The claim that I make here is, however, stronger. I argue that not only do relativized oblique objects and NP-internal arguments utilize resumptive pronouns to circumvent ungrammaticality, but in fact the full distributional paradigm of resumptive pronouns in Hebrew and Palestinian can be assimilated to the last resort strategy. This view is attractive, I believe, because it is substantially more restrictive than the view that a resumptive strategy per se is generally available as an independent process alongside a movement strategy.

My discussion suggests that if neither Hebrew nor Palestinian possesses an optional resumptive strategy, and if perhaps no language does, then it is not necessary—in fact,

it is redundant—for a grammar to include any characterization of resumptive pronouns that attributes to them *sui generis* properties. I will attempt to demonstrate that the syntactic properties of resumptive pronouns, such as their sensitivity to Condition C of the binding theory and their failure to enter into parasitic gap constructions as the licensing variables, can be fully explained without making any statements specific to resumptive pronouns; their behavior follows entirely from independent principles of grammar.³

In order to show that resumptive pronoun insertion is always a last resort device, never a freely available grammatical strategy in its own right, all the positions where resumptive pronouns occur must be examined and it must be demonstrated, for each and every case, that the occurrence of resumptive pronouns is sanctioned by the illicitness of gaps.

This is rather straightforward for the examples where a gap can be shown to violate the ECP, as in (4), (5), (10), and (11). However, I also argue that in some instances movement is blocked, and hence a resumptive pronoun is generated, from positions that proverbially allow movement, such as matrix and embedded direct object positions. This will account for the obligatoriness of resumptive pronouns in the Palestinian examples (7) and (9).

The apparent free variation illustrated in the Hebrew examples (1) and (3) is taken up in section 1.2.6. I argue that there is no free variation between gaps and resumptive pronouns; rather, there is an illusion of free variation that is propped up by the morphological nondistinctness of two crucially different types of relative clauses. The first is Palestinian-like in that movement is blocked from direct object position and resumptive pronouns occur, and the second is English-like in that movement from direct object position is possible (hence, by economy, necessary) and resumptive pronouns are unavailable.

1.2.3. Obligatory Gap in the Highest Subject Position The other notable similarity between Hebrew and Palestinian is that in neither language is a resumptive pronoun found in the highest subject position of a relative clause. In this subsection I consider Hebrew examples, the analysis of which I believe carries over to Palestinian as well. I return to consider some details pertinent only to Palestinian in section 1.5.2.

I consider the *highest subject restriction*, as McCloskey (1990) labels a basically

³ Sells (1984, 7ff.) and Chao and Sells (1983) claim that resumptive pronouns, unlike traces, cannot be linked to a quantificational relative head in certain languages. This is probably independent of whether the resumptive pronoun is syntactically sanctioned in that language or not, as argued by Safir (1986, 683). (I use *linked* in a pretheoretical sense; Sells's actual claim is that the relative head *binds* the variable.) I believe that Sells is wrong in claiming that Hebrew allows resumptive pronouns to be linked to quantificational heads, whereas English does not. This is manifest if one considers relative clauses headed by negative quantifiers rather than universal ones. (i) is as unacceptable in Hebrew as it is in English.

(i) *Rina lo ?ahava ?af baššan še-Dalya hikira ?et ha-?iša še-*hu* pagaš.
 Rina not loved no linguist that-Dalya knew ACC the-woman that-*he* met
 'Rina did not love any linguist that Dalya knew the woman that he met.'

identical phenomenon in Irish, to be a direct consequence of the economy guidelines. Since nothing prohibits short *wh*-movement from [Spec/I] to [Spec/C], it follows *by economy* that a last resort strategy is blocked. The absence of a resumptive pronoun in, for example, (6) and (12) is thus a direct result of the possibility of movement.

Additional confirmation for this approach comes from Doron's (1982) observation that a topicalized phrase that appears immediately to the right of the complementizer makes it possible—and for many speakers, obligatory—to generate a pronoun resuming the clausal subject. Contrast (14a), with a topicalized adjunct PP, and (14b), without one.

- (14) a. ha-ʔiš še-ʕal politika ʔʔ(hu) lo ʔohev le-daber
 the-man that-about politics he NEG likes to-talk
 'the man who doesn't like to talk about politics'
- b. *ha-ʔiš še-hu ʔohev le-daber ʕal politika
 the-man that-he likes to-talk about politics
 (same as (14a))

A natural explanation for this contrast is that the presence of a Topic creates a barrier for *wh*-movement from [Spec/I] to [Spec/C], facilitating the introduction of a last resort device.

The barrierhood of Topics is documented in Shlonsky (1987b) for Hebrew and has been the focus of some recent work, notably Lasnik and Saito (1992). The reason why some speakers marginally accept (14a) without a resumptive pronoun is that the deviance manifested by movement across a Topic is mild, Subjacency-like, as opposed to the more robust unacceptability that accompanies typical ECP violations.⁴

Finally, note that resumptive pronouns are obligatory inside a coordinate subject, as in (15a). To see that this follows from the principle of last resort, consider (15b), where movement that leaves a gap inside a coordinate subject violates the Coordinate Structure Condition.

⁴ A reviewer wonders whether the variant of (14a) in which there is no pronoun should not be expected to be more strongly deviant than indicated by the ʔʔ diacritic, given the fact that subject extraction over a Topic as in (i) is generally considered to be a robust, ECP-like violation.

(i) *The only person (that) about politics should never speak is John.

Although both Doron (1982) and Borer (1984, 247–248) judge the variant of (14a) in which there is no pronoun to be fully acceptable, I believe that it is marginal, though perhaps not as unacceptable as (i).

In Shlonsky (1990) I show that subjects may be generated postverbally in Hebrew when a Topic of some sort is adjoined to IP. I argue that in such cases [Spec/I] is filled by an expletive *pro* so that extraction of the subject proceeds from a postverbal (hence, properly governed) position. However, I note that extraction of the subject is nevertheless unacceptable. Since the ECP cannot be the cause of ungrammaticality—given the option of postverbal subjects—I reason that the features needed to identify *pro* in [Spec/I] can only be assigned by an element manifesting overt ϕ -features. Movement of the postverbal subject leaves a trace incapable of successfully identifying *pro*. (14a), although fine with respect to the ECP, is therefore ruled out for other reasons: movement over a Topic crosses a barrier, as noted in the text, and additionally, the preverbal null expletive is not identified.

- (15) a. ha-ʔiš še-Ruti ve-hu ʔohavim kesef
 the-man that-Ruti and-him love money
 'the man that Ruti and him love money'
 b. *ha-ʔiš še-Ruti ve t ʔohavim kesef
 the-man that-Ruti and love money
 (same as (15a))

1.2.4. Resumptive Pronouns in Embedded Subject Position A resumptive pronoun is optional in embedded subject position in Hebrew but it is obligatory in Palestinian; compare (2) and (8). Postponing a more detailed discussion of the Hebrew data to section 1.2.6, I will note here only that the optionality of resumptive pronouns in (2) implies that a gap (hence, *wh*-movement) is *possible* from Hebrew embedded subjects, whereas the obligatoriness of a resumptive pronoun in Palestinian indicates that movement is blocked. The relevant contrast between the two languages is given in (16).

- (16) a. ha-ʔiš še- xašavt še-melamed ʔanglit
 the-man that- (you) thought that-teaches English
 'the man that you thought teaches English'
 b. *l-bint ʔilli fakkarti ʔinno raayḥa šal beet
 the-girl that (you) thought that going to house
 'the girl that you thought is going home'

The possibility of movement from [NP/S] in the Hebrew (16a) has been argued in Shlonsky (1988b) to follow from the clitic properties of the subordinating complementizer *še*, which may be met at S-Structure, thereby evacuating C⁰ and allowing the ECP to be met by a nominative trace.

The subordinating complementizer in Palestinian, *ʔinno*, is not a clitic, and it is therefore not surprising that familiar *that*-trace effects show up in (16b).

Kenstowicz (1984) points out that null subjects are not licensed in Palestinian embedded clauses headed by *ʔinno*, as shown in (17). Rather, a phonetically realized pronominal must appear, the only optionality resting in the choice between a free-standing pronoun in [Spec/I], as in (8), and a clitic suffixed onto *ʔinno*. This is illustrated in (18).

- (17) *Saliim fakkar ʔinno raayḥa šalbeet.
 Saliim thought that (she) going to the house
 'Saliim thought that she is going home.'
 (18) a. Saliim fakkar ʔinno *hiy* raayḥa šalbeet.
 Saliim thought that *she* going to the house
 b. Saliim fakkar ʔinn-*ha* raayḥa šalbeet.
 (same as (18a))

1.2.5. Resumptive Pronouns in Palestinian Direct Object Position The analysis I have been developing predicts that resumptive pronouns are sanctioned only where *wh*-traces are not. The obligatoriness of resumptive pronouns in Palestinian direct object position, as in (7), is consequently quite surprising. It is generally acknowledged that if there is

one position from which *wh*-movement may unproblematically be launched, it is the direct object position.

1.2.5.1. Spec of C⁰ as an A-Position My contention is that movement from direct object position to [Spec/C] is blocked in Palestinian by the *Specified Subject Condition* (SSC), made relevant by a lexical property of the complementizer *ʔilli*. I hypothesize that the Palestinian C⁰ *ʔilli* identifies its Specifier as an A-position.⁵ Therefore, movement to [Spec/*ʔilli*] is a subcase of A-movement that is constrained by the SSC (or the *Minimality Condition*, relativized to A-chains; see Rizzi (1990)). Crucially, movement from the direct object position to [Spec/*ʔilli*] crosses over a specified subject (namely, the clausal subject), yielding an SSC violation. The identification of [Spec/C] as an A-position has the effect of rendering illegitimate any chain formed by movement from any position other than [Spec/I]. This is so because only a chain rooted in [Spec/I] is well formed with respect to the SSC. Since movement from positions such as [NP/NP] and [NP/PP] is also ruled out by the ECP, the impact of the SSC is only perceptible in cases of direct object extraction, where the ECP is neutralized. It is when movement is thus ruled out that a last resort strategy is sought and a resumptive pronoun occurs.

1.2.5.2. The Syntax of the Palestinian C⁰ *ʔilli* In the course of our discussion of Palestinian syntax, we have come across two complementizers, *ʔinno* and *ʔilli*. The former is the complementizer that signals regular subordination. The latter, on the other hand, is restricted to head CPs that serve as predicates (see Browning (1987), Tellier (1991)). Thus, it shows up in relative clauses of all kinds, in clefts, and in interrogative clauses, which Shlonsky (1991) analyzes as disguised copular constructions. *ʔilli* never heads subordinate clauses. The feature system developed by Rizzi (1990) for classifying complementizers can be usefully deployed in Palestinian: *ʔinno* is the [–predicational] C⁰, and *ʔilli* is [+predicational].⁶

⁵ The claim that [Spec/C] may function as an A-position is developed by Déprez (1990). For Déprez, however, *all* Specifiers are, by definition, A-positions. I argue that this is not the case, however, and that the identification of the A/Ā nature of [Spec/C] follows from particular properties of C⁰; see section 3.

⁶ When the relative head has a generic referent, *ʔilli* may not appear. Nevertheless, the distribution of resumptive pronouns in relative clauses predicated of generic heads is identical to that of relative clauses with a specific head and with *ʔilli*.

(i) a. *Direct object*

Šuft šabaaya Mona btišrif-*(hin).
(I) saw girls Mona knows-*(them)
'I saw girls who Mona knows.'

b. *Highest subject*

Šuft šabaaya (*hinni) ḥaku maš l-šabb.
(I) saw girls (*they) spoke with the-youth
'I saw girls who spoke with the youth.'

I interpret these facts to mean that *ʔilli* has a phonetically null counterpart, [Ø], which appears when the relative head is marked [–specific] but which is otherwise identical to it. Thus, when the head of the relative clause is *three boys*, either *ʔilli* or [Ø] can be used. If *ʔilli* is used, it is implied that there are three specific boys of whom the relative clause is predicated; and if [Ø] is used, the intended meaning is that a nonspecific group of three boys is the subject of the predicate CP.

As shown in (18), *ʔinno* can optionally host a subject clitic, which appears suffixed onto it. (The optionality is marked by a slash in (19a).) *ʔilli*, however, cannot host a pronominal clitic, as shown in (19b).

- (19) a. Mona fakkarat ʔinn-ak/ʔinno ʔinti bitruuḥ salmasraḥ.
 Mona thought that-you/that you.M go to the theater
 'Mona thought that you go to the theater.'
 b. Mona šaafat l-bint ʔilli-(ʔk)/ʔinti btiʔrif-ha.
 Mona saw the-girl that-(you.M)/you.M know-her
 'Mona saw the girl that you know.'

Furthermore, Kenstowicz's observation that null subjects are not licit under *ʔinno* carries over to *ʔilli* as well, as shown in (20) (compare with *ʔinno* in (17)).

- (20) *Mona šaafat l-wlaad ʔilli (*pro*) biʔrif-hin.
 Mona saw the-boys that (*he*) knows-them
 'Mona saw the boys that he knows.'

These observations, taken in tandem, demonstrate that the gap that appears in the highest subject position of a relative clause *is not* a phonetically null resumptive pronoun but a trace. If *ʔilli* shows up paired both with traces (when traces are sanctioned) and with resumptive pronouns (when traces are not sanctioned), it follows that the uniqueness of *ʔilli* cannot be said to lie in *selecting* a resumptive pronoun in some sense.

On the contrary, my view is that resumptive pronouns are never *selected* in any sense. As devices of last resort, their distribution follows from the conspiracy of independent principles of grammar. I find the Palestinian data particularly illuminating because their surface appearance suggests that Palestinian indeed utilizes a resumptive strategy as a relativization strategy per se, signaled by the appearance of *ʔilli*. However, the fact that *ʔilli* shows up both with gaps and with resumptive pronouns, but never with both, argues against such a view and supports an alternative approach according to which the distribution of resumptive pronouns follows not from any specific strategy but from the impossibility of movement.

1.2.6. The Optionality Problem in Hebrew Perhaps the most superficially compelling piece of evidence that Hebrew has a resumptive strategy *alongside* a movement one (Hayon (1973), Borer (1984)) is the apparent free variation in gaps and resumptive pronouns in direct object, embedded subject, and embedded object positions. This is illustrated in (1)–(3), repeated here as (21a–c).

- (21) a. ha-ʔiš še- raʔiti (ʔoto)
 the-man that- (I) saw (*him*)
 'the man that I saw'
 b. ha-ʔiš še- xašavt še-(*hu*) melamed ʔanglit
 the-man that- (you.F) thought that-(*he*) teaches English
 'the man that you thought teaches English'

- c. ha-ʔiš še- xašavt še-Dani pagaš (ʔoto)
the-man that- (you.F) thought that-Dani met (him)
'the man that you thought that Dani met'

I propose an alternative analysis of these data, drawing upon the same resources utilized in my analysis of Palestinian. Suppose that Hebrew has two morphologically nondistinct complementizers. The first, which I heuristically label $\$e_A$, is basically like Palestinian $\$illi$ in that it selects an A-Specifier. The second, $\$e_{A'}$, lacks what it takes to identify an A-Specifier and hence its Specifier is an \bar{A} -position. Assume further that the choice between the two is free. When $\$e_A$ is selected, a paradigm such as that of Palestinian is manifested, with obligatory resumptive pronouns everywhere except in the highest subject position. On the other hand, when $\$e_{A'}$ is selected, *wh*-movement is not subject to the SSC and may proceed freely from direct object, embedded subject, and embedded object positions. It follows, now, that the optionality of resumptive pronouns in Hebrew is an illusion created by the lack of discrete morphological forms for the two complementizers.

The fact that C⁰ elements may be morphologically ambiguous is well attested across languages (see, for example, the discussion in Rizzi (1990) and the cases mentioned in McCloskey (1990, 242, n. 7)). Indeed, Borer (1984) has already observed that *še* in Hebrew is ambiguous between a relative clause complementizer (which freely varies with the more antiquated form *šašer*) and a subordinating complementizer equivalent to Palestinian *šinna*.⁷

The difference between Palestinian and Hebrew relative clauses, then, reduces to the following: Palestinian has only a single complementizer in relative clauses, one that identifies an A-Specifier, whereas Hebrew has two complementizers, one that identifies an A-Specifier and one that does not.

2. Resumptive Pronouns and Complementizer Alternation in Irish

One language where the presence or absence of resumptive pronouns correlates with a morphological alternation in the form of C^0 is Irish, as described in McCloskey (1990) (see also McCloskey (1979), Sells (1984)).

Exactly as in Hebrew, resumptive pronouns in Irish are obligatory in positions where traces violate familiar grammatical constraints such as the ECP, impossible in the highest subject position, and apparently optional (i.e., in free variation with traces) in positions

⁷ Hebrew *ʔašer* should thus be classified as [+predicational], like Palestinian *ʔilli*. However, it is unlike *ʔilli* and like *še* in that it is ambiguous between a C⁰ that identifies an A-Specifier and one that does not. It follows that the properties that accrue to a C⁰ that identifies an A-Specifier are formally independent of the feature [\pm predicational]. The same conclusion holds for Irish; see section 2.

If it turns out that base-generated resumptive pronouns are always restricted to predication structures—that is, if all cases of interrogatives containing base-generated resumptive pronouns can be analyzed as, for example, disguised clefts or relative clauses where the *wh*-element is taken to be the subject of a CP-predicate—an interesting generalization would emerge, namely, that Agr features can only occur on a [+predicational] ζ^0 .

such as direct object, embedded subject, and embedded direct object. Irish differs from Hebrew, however, in that the complementizer that introduces clauses with resumptive pronouns is formally distinct from the one that introduces clauses containing gaps. Following McCloskey (1979), I represent the former as *aN* and the latter as *aL*. Furthermore, every intermediate Comp separating the gap from the matrix CP is obligatorily filled by *aL*, whereas an embedded pronoun induces the occurrence of *aN* only in the matrix CP, the intermediate Comps being filled by the regular subordinating particle *go*. These options are illustrated schematically in (22).⁸

- (22) a. [_{NP} NP [_{CP} *aN* [_{IP} . . . pronoun . . .]]]
 b. [_{NP} NP [_{CP} *aL* [_{IP} . . . t . . .]]]
 c. [_{NP} NP [_{CP} *aN* [_{IP} . . . [_{CP} *go* [_{IP} . . . pronoun . . .]]]]]
 d. [_{NP} NP [_{CP} *aL* [_{IP} . . . [_{CP} *aL* [_{IP} . . . t . . .]]]]]

It is quite tempting to consider the formal distinctions manifested in the Irish complementizer system to be a surface reflection of the sort of morphologically invisible alternation that I have posited for Hebrew. One could suppose that *aN* is the complementizer that identifies an A-Specifier, equivalent to *ʔilli* and *še_A*, whereas *aL* is equivalent to *še_{A'}*.

Things are not as simple as that, however. I have argued that it is not the choice of complementizer per se that determines whether the relativized position is marked by a pronoun or by a trace. The occurrence of resumptive pronouns is regulated by the possibility or impossibility of movement to [Spec/C]. The reason why the selection of a complementizer appears to correlate with the occurrence of a resumptive pronoun is that the choice of an *ʔilli*-type complementizer severely reduces the number of positions accessible to movement, thus forcing the use of a last resort strategy that inserts resumptive pronouns in a greater number of cases.

I have also shown that this correlation breaks down when the relativized site is the highest subject position precisely because the selection of the complementizer is independent of the appearance of a resumptive pronoun. Only when the highest subject position is relativized does the identification of [Spec/C] as an A-position by an *ʔilli*-type complementizer fail to block movement. This is why *ʔilli* and presumably *še_A* can be paired with traces in the highest subject position.

Yet in Irish, relativization of the highest subject position cannot go hand in hand with the selection of *aN*, as shown by the ungrammaticality of (23) (adapted from Sells (1984, 152)).

- (23) an leabhar a bhi ar an tabla
 the book **aN/aL* be.PAST on the table
 'the book that was on the table'

⁸ McCloskey also discusses several marked alternatives to these, which I put aside.

It must be the case, then, that the formal alternation between *aN* and *aL* does not reflect the distinction between a Comp that selects an A-Specifier and one that does not and is therefore not equivalent to the alternation between $\check{s}e_A$ and $\check{s}e_{A'}$. Rather, the choice of complementizer in Irish seems to signal whether movement of an operator to [Spec/C] has taken place or whether an operator is generated in [Spec/C] in the base: *aN* is the phonetic realization of a Comp that has a base-generated operator as its Specifier, whereas *aL* is a Comp node the Specifier position of which is filled only at S-Structure.⁹

Suppose that Irish has only two lexical complementizers: /*aN*/ and /*go*/. (Thanks to D. Pesetsky for discussion of this point.) The first is inserted whenever [Spec/C] is filled in the base, the second when the Specifier position is empty or absent altogether. In addition, Irish grammar has a rule that applies between S-Structure and PF and transforms /*go*/ to [aL] if its Specifier position is filled. This rule is formalized in (24), where X designates material in [Spec/C], for example, a *wh*-operator.¹⁰

(24) *Complementizer Spell-Out Rule* (obligatory)

/go/ → aL / [_{CP} X ____]
X ≠ {∅}

The lexical choice between /*go*/ and /*aN*/ is basically free. The features that serve to identify an A-Specifier in Irish are completely abstract, as in Hebrew, and correlate with the alternation between *go*, *aN*, and *aL* only partially and indirectly. Indeed, these features may, in principle, show up at D-Structure on either one of the lexical complementizers, *go* or *aN*.

Suppose /*go*/ is inserted along with the features that identify [Spec/C] as an A-position. With regard to the local subject position, movement is possible and therefore obligatory. Hence, /*go*/ can be retained, surfacing as [aL] in accordance with (24). With regard to all other positions, movement would violate the SSC, so a pronoun is needed. But in order for the pronoun to be licensed, [Spec/C] must be filled in the base; hence, /*aN*/ is selected.

⁹ The presence of a base-generated operator in clauses containing resumptive pronouns is assumed in this discussion but is argued for at length in McCloskey (1990) and in section 4 of this article.

¹⁰ A reviewer asks how the system prevents the ill-formed S-Structure representation in (ii) from being derived from the well-formed D-Structure representation in (i).

- (i) . . . go . . . go . . . [Op aN . . . go . . . pronoun]
- (ii) Op aL . . . t aL . . . [t aN . . . go . . . pronoun]

Note first that the derivation of (ii) is consistent with my analysis of the complementizer alternation in Irish: the operator is base-generated in an A-[Spec/C]. Subsequent movement through the higher Comps transforms /*go*/ to [aL]. It is not obvious that the principles governing complementizer alternation should be responsible for ruling (ii) out. Rather, (ii) is probably ruled out for reasons having to do with an independent requirement that operators appear at S-Structure in the highest [Spec/C] in the clause.

Now suppose that [Spec/C] is identified as an \bar{A} -position. The only possibility is to keep /go/, since /aN/ requires that [Spec/C] be an A-position. With /go/, movement from all positions will be possible, modulo any ECP effects.¹¹

3. Agreement in CP and the Identification of A-Specifiers

3.1. Agreement in CP

Recent research into the internal syntax of CP (in particular, Déprez (1990), Rizzi (1990, chap. 2)) suggests a conceptually satisfying way of integrating into the theory the hypothesis that the Specifier position in CP can function as an A-position.

Let us begin by observing that under standard assumptions, the class of A-positions is coextensive with the class of θ -positions and Specifiers of inflectional nodes, specifically of Agr. It is natural, therefore, to integrate the A-[Spec/C] in Palestinian and Hebrew into the standard A/ \bar{A} system by subsuming it under the existing generalization. Since there is surely no sense in which a [Spec/C] could be a θ -position, consider the idea that it is a Specifier of some Agr.

The notion of agreement figures in the theory in two different ways. First, there is a structural relation of agreement, embodied in (for example) the notion of Spec(ifier)-head coindexing. Second, there is a more traditional use of the term *agreement* that refers to the sharing of features among elements (see, for example, Barlow and Ferguson (1988)).

The formal relation of Spec-head coindexing figures quite extensively in the current literature (e.g., Chomsky (1986a)). Agreement qua feature sharing in the domain of Comp is developed in Rizzi (1990, chap. 2) in several different ways, some orthogonal to the interests of this article. For our purposes it suffices to draw on his insight that some instances of C^0 are provided with an Agr specification in C. Pursuing this idea, we might think of C^0 elements such as *ʔilli* and *ʃe_A* as being lexically endowed with a feature grid consisting of slots that must be, loosely speaking, saturated by coindexation with a Specifier. (Note the analogy with Stowell's (1981) thematic grids. See also Borer (1983, 37–41).)

It must be emphasized that the type of agreement feature grid that these complementizers are presumed to carry is precisely the sort of grid of ϕ -features that characterizes agreement between a clausal subject and Infl. It is on analogy with the I system,

¹¹ Awbery (1976), Harlow (1981), Sadler (1988), and Rouveret (1990) note that Welsh resumptive pronouns are ruled out not only in the highest subject position, but also in the matrix direct object position of a tensed verb. According to these authors, the occurrence of a resumptive pronoun goes hand in hand with the occurrence of a particular complementizer, [y(r)], whereas the absence of a resumptive pronoun is coupled with the complementizer [a]. Although a full treatment of Welsh resumptive pronouns lies beyond the scope of this article, I conjecture that the alternation of complementizers in Welsh is related neither to the status of [Spec/C] with respect to the A/ \bar{A} dichotomy nor to the issue of whether [Spec/C] is filled or empty at D-Structure. Indeed, de Freitas and Noonan (forthcoming) argue that there is no connection between the occurrence of resumptive pronouns and complementizer type in Welsh. Rather, the choice of complementizer reflects the S-Structure position of the head that Case-marks the variable.

in fact, that the Specifier of such an agreeing complementizer is determined as an A-position. This should be borne in mind, especially because *structural* Spec-head agreement between C^0 and its Specifier holds regardless of the type of features shared.¹²

None of the C^0 elements we have encountered so far manifest agreement overtly. Although Irish does provide overt evidence for a distinction *among* complementizers, it does not overtly represent the agreement features themselves. One language that does provide this missing morphological link, however, is Standard Arabic.

3.2. Resumptive Pronouns in Standard Arabic

In place of the frozen form *ʔilli* that appears in Palestinian, Standard Arabic employs a form that alternates in accordance with the gender and number of the relative head. A partial paradigm is given in (25).

- (25) a. ʔal-rajul-u *llaðii* raʔaytu-(hu)
 the-man-NOM that.MS (I) saw-(him)
 ‘the man that I saw’
- b. ʔal-marʔat-u *llatii* raʔaytu-(ha)
 the-woman-NOM that.FS (I) saw-(her)
 ‘the woman that I saw’
- c. ʔal-ʔawlaad-u *llaðiina* raʔaytu-(hum)
 the-boys-NOM that.MPL (I) saw-(them.M)
 ‘the boys that I saw’
- d. ʔal-nisaʔ-u *llawaati* raʔaytu-(hunna)
 the-women-NOM that.FPL (I) saw-(them.F)
 ‘the women that I saw’
- e. ʔal-waladaani *llaðaaani* raʔaytu-(huma)
 the-boys.DUAL + NOM that.M-DUAL (I) saw-(them.DUAL)
 ‘the two boys that I saw’

Standard grammars regard this alternation as signaling agreement between the complementizer and the relative head. Suppose, however, that the agreement manifested in (25) holds between C^0 and a (null) operator in its Specifier position. We could then argue that although both Standard Arabic *llaðii* (and related forms) and Palestinian *ʔilli* agree with their Specifiers, only Standard Arabic overtly represents the agreeing features. I believe, moreover, that this minimal difference also accounts for the fact that resumptive pronouns are obligatory in Palestinian relative clauses but optional in Standard Arabic, as denoted by the parentheses in (25) (Cantarino (1975, vol. 3, 165–167), Fassi-Fehri (1982, 179)).

If Standard Arabic *llaðii* identifies an A-Specifier in virtue of agreeing with it, it

¹² The idea that a Specifier coindexed with Agr is an A-position was suggested by Rizzi (class lectures, GISSL, 1990), following Déprez (1990).

follows that movement to [Spec/C] from the direct object position is ruled out by the SSC, as it is in Palestinian. Therefore, the optionality denoted by the parentheses in (25) cannot signal a free choice between a resumptive pronoun and a *wh*-trace. Rather, the choice seems to lie in the phonetic realization of the resumptive pronoun itself. In Standard Arabic, but not in the other languages we have surveyed, a phonetically null resumptive pronoun, a *pro*, can fill the position of the direct object. This is because only in Standard Arabic are the features of *pro* fully recoverable from the overt features on C^0 . Since Standard Arabic has “rich” agreement in Comp, *pro* can be identified; conversely, since agreement in Comp is impoverished in Palestinian and in the other languages we have surveyed, *pro* cannot be identified. Thus, the parentheses in (25) indicate optionality in the *phonetic realization* of a resumptive pronoun and not a free choice between a resumptive pronoun and a *wh*-trace.

Llaḏii does not show up in relative clauses in which the head is indefinite or generic. Suppose that, as in Palestinian (see note 6), *llaḏii* has a phonetically null alternant that fills C^0 when the relative head is indefinite. Since it is phonetically null, this alternant of *llaḏii* does not manifest overt ϕ -features, and in this respect it is formally identical to *ʔilli* and *še_A*. My analysis predicts that in relative clauses with an indefinite head, *pro* will not show up, since its features cannot be properly identified. Fassi-Fehri (1982, 163) shows that this prediction is borne out: a phonetically *overt* resumptive pronoun is obligatory, as illustrated in the contrast shown in (26) (compare (26b) with (25a)). The null counterpart of *llaḏii* patterns with *ʔilli* and *še_A* in that it identifies an A-Specifier but cannot serve to identify the features of *pro*.

- (26) a. *ʕaada rajul-un raʔaytu.
 returned man-NOM (I) saw
 ‘A man I saw returned.’
 b. ʕaada rajul-un raʔaytu-*hu*.
 returned man-NOM (I) saw-*him*
 ‘A man that I saw returned.’

One conclusion to be drawn from this discussion is that the identification of an A-Specifier requires only the presence of an Agr feature matrix in Comp, whereas the identification of phonetically null pronominals requires in addition that the Agr features be discretely or overtly represented. This difference surely reflects the fact that the distinction between A- and \bar{A} -positions is a purely formal one, whereas the difference between an overt and a null pronominal is also crucially phonetic.¹³

¹³ Clearly, something more must be said about the mechanism of identifying *pro*, since embedded object resumptive pronouns may also be null in Standard Arabic. In Shlonsky (1990) I argue, contra Rizzi (1986), that the features of a subject *pro* may be retrieved not only from the Case-assigning Infl but also via a CHAIN formed between an expletive *pro* in [Spec/I] and a postverbal subject. The Standard Arabic data further suggest that *pro*-identification is nonlocal in the sense that clausal boundaries in themselves do not constitute barriers to identification.

In section 4 I argue that resumptive pronouns become variables in LF. A phonetically null resumptive

4. Resumptive Pronouns as Variables in Logical Form

The discussion in the preceding sections has centered on questions relating to the distribution of resumptive pronouns. This section investigates what makes resumptive pronouns variable-like and in what sense they differ from regular pronouns.

One obvious sense in which the so-called resumptive strategy coexists with a movement strategy for relativization in, for example, Hebrew is that relative clauses with gaps by and large mean the same thing as relative clauses with resumptive pronouns.¹⁴ Since the former are generally viewed as open sentences in LF that contain a variable marked by a trace, it is plausible that resumptive pronouns are LF variables as well.

In the first part of this section I argue that since resumptive pronouns produce strong crossover (Condition C) effects, as well as weak crossover effects, they should be regarded as variables, that is, as being \bar{A} -bound by an operator.

This consequence conflicts with my earlier hypothesis that when a resumptive pronoun occurs in Hebrew relative clauses in, say, direct object position, as in (1), [Spec/C] is an A-position. If resumptive pronouns are variables, there must be an operator in an \bar{A} -position to bind them; but if [Spec/C] is an A-position, an operator in that position would not be able to bind the resumptive pronoun, resulting in a violation of the principle of Full Interpretation (Chomsky (1986b)). I contend that this paradox disappears once we exploit the power afforded by a theory incorporating distinct levels of representation.

Concurring with Chomsky (1982, 59ff.), I argue that the resumptive pronoun comes to be a variable—that is, comes to be bound by an operator in an \bar{A} -position—only in LF. The base-generated resumptive pronoun is licensed as a regular (unbound) pronoun at S-Structure and as a bound pronoun (i.e., a variable) in LF (cf. the notion of a “derivative variable” in Kayne (1984, chap. 4, fn. 14 and corresponding text)). I show further that if the base-generated resumptive pronouns only come to be variables in LF, they are predicted not to license parasitic gaps, crucially an S-Structure process, and indeed they do not. I consider that the rather unique combination of sensitivity to crossover (weak and strong) and inability to license parasitic gaps can be accounted for precisely in a theory in which resumptive pronouns are variables in LF and \bar{A} -free at S-Structure.

pronoun thus comes to resemble, in LF, the type of \bar{A} -bound *pro* studied by Cinque (1990, chap. 3). Cinque argues that \bar{A} -bound *pro* moves in LF and is therefore sensitive to (some) islands. Although I have not studied island effects in Standard Arabic (such a task is, moreover, hampered in principle by the fact that the subtle judgments necessary to establish the data with any degree of certainty are not readily accessible in a language that is not natively acquired), it is clear that *pro* may not occur inside NP, PP, or a complex NP island, where only overt pronouns may occur. All three might be taken to constitute opaque domains for LF movement of *pro*, if Cinque is correct.

¹⁴ A caveat is in order here. Doron (1982) and Sells (1984) discuss some of the differences in interpretation between gaps and resumptive pronouns and devise semantic procedures for representing them. Doron’s basic observation is that relative clauses with resumptive pronouns constitute semantically opaque domains, whereas relative clauses with gaps do not. For one attempt to account for (a subset) of the facts she describes within a syntactic framework, see Shlonsky (1987a). For the purposes of this article, however, it suffices that both resumptive pronouns and traces display characteristics of variables, and as such are treated in a syntactically uniform manner at LF.

4.1. Strong Crossover

McCloskey (1990) points out a serious flaw in the data allegedly taken to demonstrate that resumptive pronouns do not produce strong crossover effects. Applying his argument to Hebrew, the contrast in (27) cannot be taken in and of itself as evidence that resumptive pronouns differ from traces in failing to produce Condition C effects.

- (27) a. *Ze ha-baxur še- yidaʕti ʔoto_i še-ha-more yaxšil t_i.
 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- yidaʕti ʔoto_i še-ha-more yaxšil ʔoto_i.
 this the-guy that- (I) informed *him* that-the-teacher will flunk *him*
 (same as (27a))

This is so because nothing prevents the first rather than the intended second pronoun to be taken as the resumptive (i.e., bound) pronoun in (27b). In such a case, the second pronoun can be interpreted as coreferential with the first pronoun rather than as bound by the (null) operator in Comp. Hence, the sentence in which both pronouns are co-indexed, (27b), can be derived without violating Condition C. Such an option is unavailable in (27a) because there is only one pronoun in the sentence and it c-commands the trace, inevitably yielding a violation of Condition C. Thus, McCloskey concludes, the determination of whether resumptive pronouns pattern with variables with respect to Condition C requires a different diagnostic.

His proposed test, which I apply to Hebrew, is to replace the first pronoun in, say, (27b) with an epithet, as in (29b). Then, if epithets themselves cannot be resumptive—at least not in examples such as (28)—the ungrammaticality of both (29a) and (29b) is due to a violation of Condition C.¹⁵ In both sentences, a variable, trace or resumptive pronoun, is bound by the epithet in the domain of its operator.¹⁶

- (28) *Ze ha-baxur še- yidaʕti ʔet ha-ʔidiot.
 this the-guy that- (I) informed ACC *the-idiot*
 ‘This is the guy that we informed the idiot.’
 (29) a. *Ze ha-baxur še- yidaʕti ʔet ha-ʔidiot_i še-ha-more yaxšil t_i.
 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.’

¹⁵ That epithets can be used resumptively is pointed out in, for example, Kroch (1981) (*There was one prisoner that we didn't understand why the guy was even in jail*). However, this is controlled for in the text discussion by (28), the unacceptability of which is due to the fact that an epithet cannot function resumptively in direct object position. See also Hornstein and Weinberg (1988, 147ff.) and Lasnik (1989, chap. 9).

It should be borne in mind that nothing prevents a pronoun that is free in its governing category from being coindexed with a c-commanding epithet, as in (i).

- (i) Ramazti la-ʔidiot_i še-ha-more yaxšil ʔoto_i.
 (I) hinted to-the-idiot that-the-teacher will flunk him
 ‘I hinted to the idiot that the teacher will flunk him.’

¹⁶ For the sake of convenience, the resumptive pronouns that figure in (29) and throughout this section appear in direct object position. It must be borne in mind that the properties described hold of all resumptive pronouns in Hebrew, regardless of their position. This is explained in section 4.4.1.

- b. *Ze ha-baxur še- yidafti ʔet ha-ʔidiot_i še-ha-more
 this the-guy that- (I) informed ACC *the-idiot* that-the-teacher
 yaxšil ʔoto_i.
 will flunk *him*
 (same as (29a))

4.2. Weak Crossover

McCloskey's diagnostics can also be used to test for weak crossover (WCO) effects. The sentences in (30) show that WCO effects arise in relative clauses in which the variable is a trace (30a) but are suspended when a pronoun fills the same position (30b). The grammaticality of (30b), like that of (27b), is made possible in a derivation in which the NP-internal possessive pronoun (*his* in *his parents*) is taken to be the bound variable and the second pronoun (*him*) is coreferential with it.

- (30) a. *ʔZe ha-baxur še- yidafti ʔet ha-horim šel-o_i še-ha-more
 this the-guy that- (I) informed ACC the-parents of-*him* that-the-teacher
 yaxšil *t_i*.
 will flunk
 'This is the guy that I informed his parents that the teacher will flunk.'
 b. Ze ha-baxur še- yidafti ʔet ha-horim šel-o_i še-ha-more
 this the-guy that- (I) informed ACC the-parents of-*him* that-the-teacher
 yaxšil ʔoto_i.
 will flunk *him*
 (same as (30a))

The sharp deviance of both of the sentences in (31) indicates that in the absence of another potential variable, the resumptive pronoun must be taken to be the variable.¹⁷

- (31) a. *ʔZe ha-baxur še- yidafti ʔet ha-horim šel ha-ʔidiot_i
 this the-guy that- (I) informed ACC the-parents of *the-idiot*
 še-ha-more yaxšil *t_i*.
 that-the-teacher will flunk
 'This is the guy that I informed the idiot's parents that the teacher will
 flunk him.'
 b. *ʔZe ha-baxur še- yidafti ʔet ha-horim šel ha-ʔidiot_i
 this the-guy that- (I) informed ACC the-parents of *the-idiot*
 še-ha-more yaxšil ʔoto_i.
 that-the-teacher will flunk *him*
 (same as (31a))

¹⁷ Interestingly, the Irish equivalent of (31b) is perfectly grammatical. Noting this fact, McCloskey argues that WCO is subject to Safir's (1984) Parallelism Constraint on Operator Binding (PCOB). Mutatis mutandis, the Hebrew facts argue *against* the PCOB. I put this fascinating difference between Hebrew and Irish aside. For evidence against the PCOB, see also Sells (1984, 69–85).

4.3. Parasitic Gaps

In Hebrew, relative clauses formed by movement diverge from relative clauses with resumptive pronouns in that parasitic gaps are licensed only in the former.¹⁸ Since parasitic gaps must be licensed by an \bar{A} -chain at S-Structure (which is why they are not licensed by *wh*-elements in situ), a natural way to account for the contrast in (32) is to assume that only in the relative clause formed by movement is an \bar{A} -chain formed at S-Structure.¹⁹

- (32) a. ?*elu ha-sfarim še-Dan tiyek ?otam_i bli likro ?otam_i.*
 these the-books that-Dan filed *them* without to-read *them*
 ‘These are the books that Dan filed without reading.’
 b. ?*elu ha-sfarim še-Dan tiyek t_i bli likro p_i.*
 these the-books that-Dan filed without to-read
 c. *?*elu ha-sfarim še-Dan tiyek ?otam_i bli likro p_i.*
 these the-books that-Dan filed *them* without to-read

As mentioned briefly in footnote 2, Hebrew possesses a rule that optionally fronts

¹⁸ Parasitic gaps appear not to be licensed at all in Palestinian, as opposed to the related Syrian dialect reported in Mouchaweh (1986).

¹⁹ Though agreeing with the type of data displayed in (32), Sells (1984) notes two structures where resumptive pronouns do appear to license parasitic gaps. First, he records an improvement in, say, (32c), when the resumptive pronoun is separated from its operator by a tensed clausal boundary, as in (i).

- (i) ?*elu ha-sfarim še-Dan lo haya batu?ax še-ha-mazkira tiyka ?otam_i bli likro p_i.*
 these the-books that-Dan not was certain that-the-secretary filed them without to-read
 ‘These are the books that Dan was not certain that the secretary filed them before he read them.’

Not all speakers of Hebrew concur with his judgment, though. Note that distance from an operator serves to ameliorate the status of resumptive pronouns in English relative clauses as well, as discussed in, for example, Erteschik-Shir (forthcoming, (1)–(3)).

- (ii) This is the girl that John likes \wedge **her*.
 (iii) This is the girl that Peter said that John likes \wedge ??*her*.
 (iv) This is the girl that Peter said that John thinks that Paul likes \wedge ?*her*.

We can relate Erteschik-Shir’s observation to Sells’s by supposing that distance is measured in terms of the number of barriers (in the sense of Chomsky (1986a)) that intervene between the operator and the resumptive pronoun and by calculating finite tense as a barrier (again as in Chomsky (1986a)).

Sells’s second counterexample is of a resumptive pronoun inside a VP licensing a parasitic gap inside a subject, as in (v). However, it is not clear that parasitic gap constructions of this type are licensed in the same way as those where a trace inside a VP licenses a parasitic gap inside an adjunct phrase. For one view on this matter, see Shlonsky (1987a).

- (v) ?*Zo-hi ha-baxura še-ha-?anašim še-te?aru p_i lo hikiru ?ota_i heitev.*
 this-is-the-girl that-the-people that-described not knew *her* well
 ‘This is the girl that the people who described her did not know her well.’

Sells concludes that resumptive pronouns do in fact license parasitic gaps but that the unacceptability of (32c) is due to a leftness restriction, which is violated in (32c) but respected in (v). He shows that the distribution of resumptive pronouns in across-the-board extraction configurations is subject to a similar leftness restriction.

Although I find Sells’s observations cogent and worthy of further study, I do not share his conclusions. It is perfectly conceivable that a leftness condition is at work above and beyond the other independently motivated mechanisms that serve to license parasitic gaps, but it is hardly the case that the properties of this construction can all be reduced to it.

a resumptive pronoun or a phrase containing one and adjoins it to IP. Interestingly, a fronted resumptive pronoun licenses a parasitic gap, as in (33), which contrasts with (32). This is so because the S-Structure position of the topicalized pronoun, unlike that of the operator in [Spec/C], is an \bar{A} -position and a parasitic gap can be licensed.

- (33) ?elu ha-sfarim še-?otam_i Dan tiyek bli likro p_i.
 these the-books that-*them* Dan filed without to-read
 'These are the books that Dan filed without reading.'

The evidence in sections 4.1–4.3 argues that resumptive pronouns are \bar{A} -bound by an operator only by LF; the data in section 4.4 strongly suggest that this happens no earlier.²⁰

4.4. The Position of the Operator

If the operator associated with a resumptive pronoun is in an \bar{A} -position only in LF, it must be that it is either inserted into position after S-Structure or base-generated in an A-position and moved to an \bar{A} -position in LF. The issues that need to be considered at this point conveniently cluster around two major questions, which I discuss in turn:

²⁰ McCloskey (1990, 226–235) presents data to show that resumptive pronouns are \bar{A} -bound at S-Structure in Irish interrogatives, contrary to my conclusions for Hebrew. Briefly, a PP containing a resumptive pronoun can be optionally fronted to a position immediately to the right of the interrogative phrase. McCloskey argues that it is adjoined to a *wh*-phrase that is itself adjoined to CP. In this construction Irish dialects differ in complementizer selection, as diagrammed in (i) and (ii).

- (i) *Dialect A*
 [WH PP + R.pro.] aL [_{IP} . . . t . . .]
 (ii) *Dialect B*
 [WH PP + R.pro.] aN [_{IP} . . . t . . .]

McCloskey argues that dialect A is characterized by the application of the PP-fronting rule prior to S-Structure. Consequently, the complementizer that typically shows up with traces is manifested. In dialect B, PP-fronting occurs between S-Structure and PF so that at S-Structure the resumptive pronoun is in situ, which is why the complementizer *aN* occurs.

In the theory defended here, Irish complementizers are not designated as “linked” to either a gap or a resumptive pronoun. Let us adopt McCloskey’s hypothesis that the two dialects indeed differ with respect to the level of application of PP-fronting; but let us also impose a restriction on PP-fronting, as follows. In dialect A, where PP-fronting occurs prior to S-Structure, the PP is first fronted to [Spec/C] and only subsequently adjoined to the *wh*-phrase. A locality constraint of this sort seems to be independently required to permit antecedent government of the PP-trace. In dialect B, however, PP-fronting occurs between S-Structure and PF and may proceed directly to its final position adjoined to the *wh*-phrase since the ECP does not apply to PF representations.

In dialect A, *aN* is ruled out because it would define the landing site of PP-fronting as an A-position, thus rendering movement over the clausal subject ungrammatical for reasons already discussed. Consequently, /go/ is selected, PP-fronting occurs unhindered, and /go/ is phonetically realized as *aL*. In dialect B, PP-fronting does not occur before S-Structure. The complementizer *aN* can be selected, [Spec/C] is identified as an A-position, and an operator is base-generated. Between S-Structure and PF, the PP is fronted and directly adjoined to the *wh*-phrase. Crucial to my reinterpretation of these facts is that complementizer selection in Irish is carried out on the basis of D-Structure properties of the CP node, as discussed in the text.

If the above analysis is tenable, it eliminates McCloskey’s (only) argument that resumptive pronouns are defined as variables at S-Structure.

where the operators originate, namely, the source problem, and where the operators end up in LF, the landing site problem (terminology borrowed from Rizzi and Roberts (1990)).

4.4.1. The Source Problem We might begin by prohibiting insertion of an operator by a principled ban on lexical insertion after D-Structure. This leaves us with the base-generation hypothesis.

Recall, now, our conjecture that at least some occurrences of resumptive pronouns result from the identification of [Spec/C] as an A-position. The relevance of that hypothesis for the present discussion is that it provides an *extra* A-position for base-generating an operator. Indeed, an operator base-generated in an A-[Spec/C] will not bind a variable unless it moves to an \bar{A} -position. If this last step is held off until LF, the facts in sections 4.1–4.4 fall rather naturally into place.

Note that the view advocated in, for example, Engdahl (1985), Sells (1984), Cinque (1990), and Tellier (1991), according to which languages with resumptive pronouns are allowed to base-generate operators in \bar{A} -positions and freely index them at S-Structure, is empirically untenable for Hebrew, since it wrongly predicts that parasitic gaps are licensed by resumptive pronouns.

Chomsky (1982, 59–61) aims for roughly the same empirical coverage by proposing that the operator is not coindexed with the resumptive pronoun until LF', at which level the resumptive pronoun is bound by it. However, Chomsky's approach also engenders the prediction that resumptive pronouns should produce no variable-binding effects such as WCO, a prediction that is not met in Hebrew, as we have seen.

I have argued that the Agr-bearing complementizers of Hebrew and Palestinian identify an A-Specifier. No additional stipulation is needed to allow the base generation of an operator in [Spec/C] where C⁰ is filled by an *ʔilli*-type complementizer, since base generation in an A-position is allowed in the theory.

It would appear that nothing a priori prevents the occurrence of resumptive pronouns in, say, [NP/PP], coupled with $\bar{s}e_{A'}$ rather than $\bar{s}e_A$. Reasoning through this option, however, it becomes clear that by denying the base generation of operators in \bar{A} -positions, we have perforce ruled it out. If a resumptive pronoun bearing characteristics of a variable in LF is base-generated, the operator that comes to bind it must also be inserted at D-Structure. Yet this is only possible if [Spec/C] is an A-position. Thus, Hebrew is like Palestinian in that all occurrences of resumptive pronouns in relative clauses are accompanied by $\bar{s}e_A$. Although the choice between the two complementizers in Hebrew is in principle free, giving rise to the seeming optionality of resumptive pronouns in, for example, direct object position, it is always the case that when the choice of one complementizer fails to yield a grammatical output, the other complementizer is automatically selected. This occurs, for instance, when the relativized position is internal to a PP or an NP.²¹

²¹ It is not unreasonable to expect that the availability of Spec-head coindexing can be utilized even by languages that do not have a C⁰ such as *ʔilli* as part of their stock of complementizers. It might be that the

To reiterate, then, my answer to the source question is that operators may be base-generated in [Spec/C] just in case [Spec/C] is an A-position.

4.4.2. The Landing Site Problem If [Spec/C] is an A-position, it is not a position from which an operator can bind a variable. In order for the operator to bind the resumptive pronoun variable, it must appear in an \bar{A} -position. The evidence provided in the previous sections shows that resumptive pronouns are variables in LF. This means that the operator cannot be in [Spec/C] in LF.

In order for an \bar{A} -chain to be well formed in LF, the operator must be in an \bar{A} -position, it must be coindexed with the resumptive pronoun, and it must c-command it. Moreover, the resumptive pronoun must be A-free in the c-command domain of the operator. There are a number of essentially technical moves that could achieve this desideratum, the choice among which must for the time being remain inconclusive, given the present rather incomplete understanding of LF processes and the absence of any directly testable empirical predictions.

One might consider the possibility that the operator is moved and adjoined to CP and that its trace in the A-[Spec/C] is deleted. Both moves are rather natural and require no additional machinery. Adjunction to a maximal projection is a familiar device for moving operators from A- to \bar{A} -positions, and traces that are required neither for interpretation nor as antecedent governors should, in general, be allowed to delete. Following LF movement and trace deletion, a well-formed \bar{A} -chain is established and the resumptive pronoun comes to be a variable bound by the CP-adjoined operator.

5. Conclusion

In this article I have tried to argue that there is no freely occurring *resumptive strategy* in, for example, Hebrew and Palestinian. Rather, in these languages and perhaps more generally, resumptive pronouns occur only as a last resort, when two independent circumstances arise. First, some syntactic constraint prevents *wh*-movement from being employed to derive an \bar{A} -chain, and second, the language allows pronouns to be used resumptively, that is, to function as variables in LF.

In these respects, the occurrence of resumptive pronouns is similar to the occurrence of *do* in modern English. According to Chomsky's (1991) proposal, *do* occurs when two conditions are met. First, movement of V to I is ruled out, and second, the language has a pleonastic verb that may be inserted to support tense and agreement morphemes. The last resort nature of both *do*-support and resumptive pronoun insertion is a consequence of the impossibility of movement. The latter condition, however, is necessary

marginal occurrence of resumptive pronouns in English is due to this sort of "piggy-backing" on Spec-head agreement. Indeed, Rizzi (1990, chap. 2, n. 29) cites evidence from Kayne (1984) showing that *that* cannot be deleted in relative clauses containing resumptive pronouns, as shown in (ib). He then suggests that its undeletability is a signal that it differs from the deletable *that* in that it agrees with its Specifier.

- (i) a. the book I got in the mail
- b. the book *(that) I was wondering whether I would get it in the mail

but not sufficient: *do* must be independently available in the grammar of English. Likewise, the grammars of Hebrew and Palestinian allow pronouns to behave resumptively, that is, to function as variables. It is perfectly conceivable that some languages may simply lack resumptive pronouns even though *wh*-movement may be as restricted as it is in Palestinian relative clauses. The point to bear in mind is that the capacity of pronouns to be variables is independent of the conditions under which they are allowed to occur, the latter being regulated, I have argued, by the principle of last resort.

I further argued that in Palestinian and in one type of Hebrew relative clause, *wh*-movement is restricted not only by familiar constraints such as Subjacency and the ECP, but also by the SSC, which renders ungrammatical movement from all but the highest subject position of the relative clause. My claim has been that these two languages employ complementizers with Agr specifications that identify the Specifier of CP as an A-position. Consequently, *wh*-movement must take the form of A-movement and therefore abide by the SSC.

Thus, one locus of variation that bears on the relative freedom of *wh*-movement, and thereby modulates the extent to which last resort strategies are sought, is the choice of complementizer or, more precisely, the marking of certain complementizers as capable of bearing agreement features.

The idea that parametric differences are rooted in differences in inflectional systems is developed in Borer (1984) and extended by Manzini and Wexler's (1987) study of binding theory parameters. Manzini and Wexler argue that parameters are associated not with particular grammars but with particular lexical items; moreover, they show that different anaphors select different governing categories and that this choice is a lexical property of the anaphor (the Lexical Parameterization Hypothesis).

Along similar lines, one might say that complementizers may or may not have an agreement specification and that this too is a matter of lexical choice. Indeed, the existence of two complementizers in Hebrew, one that bears agreement and one that does not, shows that the selection of an agreeing complementizer is not a choice made by the grammar as a whole but rather is a property of a particular complementizer.

References

- Awbery, G. W. (1976) *The Syntax of Welsh: A Transformational Study of the Passive*, Cambridge University Press, Cambridge.
- Barlow, M. and C. Ferguson, eds. (1988) *Agreement in Natural Language*, Center for the Study of Language and Information, Stanford University, Stanford, California.
- Blanc, H. (1953) *Studies in North Palestinian Arabic*, Israel Oriental Society Publications 4, Jerusalem.
- Borer, H. (1983) *Parametric Syntax*, Foris, Dordrecht.
- Borer, H. (1984) "Restrictive Relatives in Modern Hebrew," *Natural Language and Linguistic Theory* 2, 219–260.
- Browning, M. (1987) *Null Operator Constructions*, Doctoral dissertation, MIT, Cambridge, Massachusetts.

- Cantarino, V. (1975) *Syntax of Modern Arabic Prose*, Indiana University Press, Bloomington, Indiana.
- Chao, W. and P. Sells (1983) "On the Interpretation of Resumptive Pronouns," in P. Sells and C. Jones, eds., *Proceedings of NELS 13*, GLSA, University of Massachusetts, Amherst.
- Chomsky, N. (1977) "On *Wh*-Movement," in P. Culicover, T. Wasow, and A. Akmajian, eds., *Formal Syntax*, Academic Press, New York.
- Chomsky, N. (1982) *Concepts and Consequences of the Theory of Government and Binding*, MIT Press, Cambridge, Massachusetts.
- Chomsky, N. (1986a) *Barriers*, MIT Press, Cambridge, Massachusetts.
- Chomsky, N. (1986b) *Knowledge of Language*, Praeger, New York.
- Chomsky, N. (1991) "Some Notes on Economy of Derivation and Representation," in R. Freidin, ed., *Principles and Parameters in Comparative Grammar*, MIT Press, Cambridge, Massachusetts.
- Cinque, G. (1990) *Types of \bar{A} -Dependencies*, MIT Press, Cambridge, Massachusetts.
- Déprez, V. (1990) *On the Typology of Syntactic Positions and the Nature of Chains*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Doron, E. (1982) "The Syntax and Semantics of Resumptive Pronouns," in *Texas Linguistics Forum* 19, Department of Linguistics, University of Texas, Austin.
- Engdahl, E. (1985) "Parasitic Gaps, Resumptive Pronouns and Subject Extractions," *Linguistics* 23, 3–44.
- Erteschik-Shir, N. (forthcoming) "Resumptive Pronouns in Islands," in H. Goodluck and M. Rochemont, eds., *The Psycholinguistics of Island Constraints*.
- Fassi-Fehri, A.-K. (1982) *Linguistique Arabe: Forme et interprétation*, Faculté des Lettres et des Sciences Humaines, Rabat.
- Feghali, M. (1928) *Syntaxe des parlers Arabes actuels du Liban*, Librairie Orientaliste Paul Geuthner, Paris.
- de Freitas, L. and M. Noonan (forthcoming) "Head Movement, Agreement and Negation in Welsh Relatives," in *Papers from the Twenty-seventh Regional Meeting, Chicago Linguistic Society*, Chicago Linguistic Society, University of Chicago, Chicago, Illinois.
- Harlow, S. (1981) "Government and Relativization in Celtic," in F. Heny, ed., *Binding and Filtering*, MIT Press, Cambridge, Massachusetts.
- Hayon, Y. (1973) *Relativization in Hebrew*, Mouton, The Hague.
- Hornstein, N. and A. Weinberg (1988) "Logical Form: Its Existence and Its Properties," in A. Cardinaletti, G. Cinque, and G. Giusti, eds., *Constituent Structure: Papers from the 1987 GLOW Conference*, Annali di Ca' Foscari, Venice.
- Kayne, R. (1984) *Connectedness and Binary Branching*, Foris, Dordrecht.
- Kenstowicz, M. (1984) "The Null Subject Parameter in Modern Arabic Dialects," in C. Jones and P. Sells, eds., *Proceedings of NELS 14*, GLSA, University of Massachusetts, Amherst.
- Kroch, A. (1981) "On the Role of Resumptive Pronouns in Amnestying Island Constraints," in R. Hendrick, C. Maseh, and M. Miller, eds., *Papers from the Seventeenth Regional Meeting, Chicago Linguistic Society*, Chicago Linguistic Society, University of Chicago, Chicago, Illinois.
- Lasnik, H. (1989) *Essays on Anaphora*, Kluwer, Dordrecht.
- Lasnik, H. and M. Saito (1992) *Move α* , MIT Press, Cambridge, Massachusetts.
- McCloskey, J. (1979) *Transformational Syntax and Model Theoretic Semantics: A Case Study in Modern Irish*, Reidel, Dordrecht.
- McCloskey, J. (1990) "Resumptive Pronouns, \bar{A} -Binding and Levels of Representation in Irish," in *The Syntax and Semantics of Modern Celtic Languages*, Syntax and Semantics 23, Academic Press, San Diego, California.

- Manzini, M. R. and K. Wexler (1987) "Parameters, Binding Theory, and Learnability," *Linguistic Inquiry* 18, 413–444.
- Mouchaweh, L. (1986) *De la syntaxe des petites propositions*, Thèse de doctorat, Université de Paris VIII.
- Rizzi, L. (1986) "Null Objects in Italian and the Theory of *pro*," *Linguistic Inquiry* 17, 501–558.
- Rizzi, L. (1990) *Relativized Minimality*, MIT Press, Cambridge, Massachusetts.
- Rizzi, L. and I. Roberts (1990) "Complex Inversion in French," *Probus* 1, 1–30.
- Rouveret, A. (1990) "X-Bar Theory, Minimality and Barrierhood in Welsh," in R. Hendrick, ed., *The Syntax of the Modern Celtic Languages*, Academic Press, San Diego.
- Sadler, L. (1988) *Welsh Syntax: A Government-Binding Approach*, Croom Helm, London.
- Safir, K. (1984) "Multiple Variable Binding," *Linguistic Inquiry* 15, 603–638.
- Safir, K. (1986) "Relative Clauses in a Theory of Binding and Levels," *Linguistic Inquiry* 17, 663–690.
- Sells, P. (1984) *Syntax and Semantics of Resumptive Pronouns*, Doctoral dissertation, University of Massachusetts, Amherst.
- Shlonsky, U. (1985) "The Syntax of Comp in Hebrew and the ECP," ms., MIT, Cambridge, Massachusetts.
- Shlonsky, U. (1987a) "Donkey Parasites" in J. McDonough and B. Plunkett, eds., *Proceedings of NELS 17*, GLSA, University of Massachusetts, Amherst.
- Shlonsky, U. (1987b) *Null and Displaced Subjects*, Doctoral dissertation, MIT, Cambridge, Massachusetts. Distributed by the Indiana University Linguistics Club, Bloomington, 1989.
- Shlonsky, U. (1988a) "Complementizer Cliticization in Hebrew and the Empty Category Principle," *Natural Language and Linguistic Theory* 6, 191–205.
- Shlonsky, U. (1988b) "Government and Binding in Hebrew Nominals," *Linguistics* 26, 951–976.
- Shlonsky, U. (1990) "*Pro* in Hebrew Subject Inversion," *Linguistic Inquiry* 21, 263–275.
- Shlonsky, U. (1991) "Strategies of Wh-Movement in Palestinian Arabic," ms., Université du Québec à Montréal.
- Stowell, T. (1981) *Origins of Phrase Structure*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Tellier, C. (1991) *Licensing Theory and French Parasitic Gaps*, Kluwer, Dordrecht.
- Wahba, W. (1984) *Wh-Constructions in Egyptian Arabic*, Doctoral dissertation, University of Illinois at Urbana-Champaign.

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