Weak Resumption and Ellipsis

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ABSTRACT
In Jordanian Arabic (JA), we distinguish strong resumption (SR) (strong pronouns and epithets) from weak resumption (WR) (clitics and doubled clitics). SR has all diagnostic properties of movement: 1) reconstruction effects appear in no island contexts; and 2) presence of cyclicity effects. Therefore, I argue that SR admit a movement analysis (Aoun et al. 2001, Lebeaux 1990).
However, WR does not have diagnostic properties of movement: 1) reconstruction effects appear in island contexts; and 2) absence of cyclicity effects. Consequently, I support the idea that WR admit an ellipsis analysis (see also Malkawi 2009) but only PF ellipsis analysis (Winkler 2006) in the following way: reconstruction with negative binding condition (condition C) *applies* in $P_{onological} F_{orm}$ whereas, reconstruction with positive binding conditions (BVA condition) *applies* in $L_{ogical} F_{orm}$.
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1.   Resumption
Resumption corresponds to a second detachment strategy by which a pronoun occupies the thematic position of the detached constituent (1b). So, where movement strategy leaves a gap (1a), resumption inserts a pronoun (-*hu*, him) which doubles the displaced constituent (Zayd). The following examples are from Demirdache (1997):

a) zayd-an$_1$ ra?atu   **t$_1$**
Zayd-*Acc*   see. *Past. 1sm*
'*Zayd*, I saw.'

b) zayd-an$_1$ ra?atu-**hu$_1$**
Zayd-*Acc*   see *Passé 1sm*-him
'*Zayd*, I saw *him*.'
A major property of resumption in many languages, is its ability to overcome locality constraints that movement displays. Consider indeed the French *wh-* structure in (1), and the JA dislocation structure in (2) (these examples are from Guilliot and Malkawi 2011):

? Quel étudiant es-tu fâché [parce que le doyen **l'**a renvoyé]?
'Which student are you furious because the principal expelled him?'

ha-l-muttahammih   tfaja?to   lamma ɕrifto ?ennu ħabasu – **ha**
this the defendant   surprised, 2pl   when   learnt, 2pl   that   imprisonned-her
'This defendant, you were surprised because you learnt that they sent her to jail.'

(2) and (3) show that a resumptive pronoun can occur within (strong) islands, hence suggesting that resumption should be derived, at least in the present cases, without movement (see Sells (1984), McCloskey (1990), Rouveret (2002) and Adger & Ramchand (2005)). However, how can we explain the presence of resumptives in no island contexts, as in (4), and even required in some contexts, such as cleft questions in (5) or relatives in (6):

$miin_1$	Mona	darbt - $\mathbf{uh_1}$ / $\mathbf{t_1}$?
who	Mona	hit. *Past. 3sf* –him / t

'*Who* did Mona hit?'

$miin_1$	illiMona	darbt - $\mathbf{uh_1}$ / $\mathbf{*t_1}$?
who	that Mona	hit. *Past. 3sf* –him / *t

'*Who* did Mona hit?'

$l\text{-}walad_1$	illiMona	darbt - $\mathbf{uh_1}$ / $\mathbf{*t_1}$?
The-boy	that Mona	hit. *Past. 3sf* –him / *t

'*The boy* that Mona hit'

In the literature, about this question, two hypotheses were suggested: 1) no movement assumption since resumptives can occur within islands (see Sells (1984), McCloskey (1990), Rouveret (2002) and Adger & Ramchand (2005)); and 2) movement assumption (Demirdache (1991, 1997), Aoun and Benmamoun (1998), Aoun, Choueiri and Hornstein (2001) –henceforth Aoun et *al* (2001)- Boeckx (2003) and Demirdache & Percus (2007)).

In this paper, I'll present arguments in favor of the coexistence of these two assumptions of resumption in the same language, JA: movement and no movement strategy.

1.1 Resumption in JA

Morphologically, JA distinguishes two types of resumptive elements: weak elements (clitic and clitic doubled by a strong pronoun) and strong elements (strong pronoun and epithets) as shown in the following table:

		Masculine	Feminine
Weak elements	Clitics	*-uh* '-him'	*-ha* '-her'
	Doubled clitics	*-uh hu* '-him he'	*-ha hi* '-her she'
Strong elements	Strong pronoun	*hu* 'he'	*hi* 'she'
	Epithet	*(ha)*-l-NP (Demonstrative)–definite article-NP	

In (7) and (8), the dislocated constituent 'the teacher' is taken anaphoricaly by two types of anaphoric elements: weak' (en) clitic '-*ha / ha hi*' her/ her she' in (7) and strong element '*hi / ha-l-habilih*' she / the idiot' in (8).

Weak elements:

ha – l – mudarisah₁,   *∫uft –ha_i / -$ha\ hi_i$*   *mbariħ*
this -the -suspect   see. *Past.1s* –her /-her she   yesterday
'*This teacher*, I saw (*her*) yesterday'

Strong elements:

ha – l – mudarisah₁,   *ʕreftu*   *ʔennu*   ***hi_1 / (ha)-l-$habilih_1$***   *nʒarħat*
this -the -suspect   know. *2pl*   that   *she/ this-the-idiot*   injured
'*This teacher*, you know that she's injured'

The difference between these two classes of elements is: 1) weak elements (7), in contrast to strong elements (8), attach adjoined to the right of Xs° that governs them

and 2) strong elements can be focused and form thus, unlike weak elements, an independent prosodic unit, which contains clitic. This clitic cannot be focused, as illustrated by the following contrast[1]:

a) Strong element:

hi / (ha)-l-habilih   *nʒarħat*

she/ this-the-idiot   injured

 'she / this idiot is injured'

                    b) Weak element:

ʃuft –ha** /- **ha hi**   mbariħ*

saw–her / - her she   yesterday

1.2 Resumption with Reconstruction

Reconstruction is the interaction between movement (dislocation, topicalization, interrogation, relativization) and interpretation, in particular binding and scope.

**[Which photograph$_1$ of John$_2$]$_1$ did he$_2$ give t$_1$ to Mary ?

The coreference between *John* and *he* is impossible. However, condition C is not violated. To account for this, most studies on the subject agree on the *copy theory of movement*, a syntactic mechanism given by Lebeaux (1990) among others, to allow interpretation of a displaced constituent in its base position:

 a)*[Which photograph$_1$ of John$_2$]$_1$ did he$_2$ give [Which photograph$_1$ of John$_2$]$_1$ to Mary ?

 b) [Mary saw the picture of him$_2$]$_1$ that each man prefers [picture of him$_2$]$_1$.

The copy would trigger a condition C violation (11a) and allows Bound Variable Anaphora (BVA) in (11b), or condition A, to be satisfied in the appropriate configuration.

In the traditional literature dealing with reconstruction effects (see Chomsky (1977), Bianchi (1999) among others), there is generally an agreement that these effects originate from the presence of *movement*. Nevertheless, the problem with this assumption comes from the study of reconstruction with resumption. A number of studies on resumption argue that resumptive strategy should be derived without movement, as a kind of last resort strategy. A natural reasoning from this is then that reconstruction should never arise when a resumptive element resumes the displaced constituent.

This prediction does not hold, as reconstruction effects can appear with the resumptive strategy, as the following examples from JA show (see also Aoun et al. 2001 for Lebanese Arabic, LA):

a) Weak element:

[ʔaya Surah il-uh$_1$]$_2$ kul zalamih$_1$ bihib-**ha**$_2$ Surah il-uh ?

which picture for-him every man   like-her   which picture for-him

                    'Which picture of him does every man like picture of him ?'

                    b) Strong element:

                    ţalib $_2$ - [ha]$_1$ -l-kassul   gulna   l- kul mʕallmeh$_1$
                    ʔinnu

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[1] For more details, see Malkawi (2009) and Edward (2006).

student-her-the- bad   said   to- every professor that

[[ṭalib $_2$ - [ha]$_1$ -l-kassul] **hu $_2$/(ha)- l-ġabi$_2$**]]   ġa ʃ   b-l- mtiħan

student-her-the- bad   he / (this)-the-idiot   cheated   in- the-exam

'Her bad student, we said to every professor that he / the idiot cheated in the exam'

Supposing reconstruction as a result of movement, leads us to the conclusion that movement strategy is actually available with resumption (at least when no island intervenes). Thus, the functional reading (a different *picture / student* for *each man / teacher*) is allowed in (12) suggesting a kind of (binding) reconstruction of the displaced constituent in the site occupied by the resumptive.

1.3 Resumption, reconstruction and islandhood
A main property of resumption in many languages, including JA, is its ability to overcome locality constraints that movement shows. Consider indeed the wh-movement structure from french (13a, from Malkawi 2009) and JA (13b) :
a) Quelle photo$_1$ de lui$_2$ es-tu fâché [parce que chaque homme$_2$ *(**l**$_1$)'a déchirée]?
            'Which picture of him are you furious because each man tore it?'
            b) ʔaya Talib il-uh   zʕ ilit [liʔanu el-mudir   Tarad- *(**uh**)]?

            Which student for-him furious because the-principal expelled-him

'Which student of him are you furious because the principal expelled **him**?'

Both examples in (13) show that resumption can occur within (strong adjunct) islands. Furthermore, the insertion of resumptive elements in (13) rescues the sentences. Now, if reconstruction is only a consequence of syntactic movement (that islands block[2]), as suggested in Lebeaux (1990), Chomsky (1995) among others, how is reconstruction possible in a strong island?
I mentioned that we have two classical approaches with resumption: resumption with movement and resumption without movement. The question I pose here, what are the arguments in favor or against these analyzes? I mainly study the interaction of weak resumptive strategy versus strong resumptive strategy with the phenomenon of reconstruction.
Most studies about reconstruction converge towards a minimalist analysis of this phenomenon based on the copy theory of movement and therefore to the exclusive presence of a syntactic movement in the structure (Lebeaux 1990).
For Aoun Benmamoun (1998) and Aoun et al (2001), the presence vs absence of movement with resumption is determined by the presence vs absence of a syntactic island. In no island contexts (14a), resumptive is generated in its base position adjoined to a DP antecedent. It then moves leaving a copy in LF deleted in PF (strategy called apparent resumption). In contrast, in island contexts (14b), no

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[2] Traditionally, we distinguish 2 types of islands: weak islands (*wh*- island, …), which are sensitive to the nature of the moved phrase (argument/adjunct), and strong islands which are not (adjunct, complex-NP,…).

movement is involved and the relation of the syntactic dependency between the resumptive and its antecedent is a binding relation (strategy called true resumption).

a) [ʔaya Surah il-uh$_1$]$_2$ illi   kul zalamih$_1$ bihib-**ha**$_2$?

         which picture for-him   that   every man   like-her

           'Which picture of him does every man like (it) ?'

         b) *[ţalib - [ha]$_1$ -l-kassul]$_2$ ziʕlat   kul mʕallmeh$_1$ liʔanu

         student-her-the- bad   furious   every professor because

           hu $_2$/**(ha)- l-ġabi**$_2$ ġa ʃ   b-l-mtiħan

           he / (this)-the-idiot   cheated   in-the-exam

           'Her bad student, every professor got furious because he / the idiot cheated in the exam'

Based on resumptive nature, I present an analysis that admits these two strategies: resumption with and without movement within the same language, JA. I present arguments that justify, in one hand, that weak resumption does not involve movement and in the other hand that strong resumption involves movement following Aoun et al (2001).

1.4 Strong Resumption

Recall that In JA, we distinguish strong resumption (strong pronouns and epithets) from weak resumption (clitics and doubled clitics). Strong resumption has all diagnostic properties of movement:

First, reconstruction with positive binding conditions (B$_{ound}$ V$_{ariable}$ A$_{naphora}$ and Condition A) is only possible in no island contexts (see the following contrast in (15)):

a) No island context:

         ţalib $_2$ - [ha]$_1$ -l-kassul   gulna   l- kul mʕallmeh$_1$ ʔinnu **hu**

$_2$/**(ha)- l-ġabi**$_2$

         student-her-the- bad   said   to- every professor   that   he / (this)-the-idiot

         ġa ʃ   b-l-mtiħan

         cheated   in-the-exam

'Her bad student, we said to every professor that he / the idiot cheated in the exam'

         b) Island context :

         *ţalib$_2$-[ha]$_1$ l-kassul   ħakiina   maʕ   kul mʕallmih $_1$ gabil ma

         student- her the –bad   said   with   every professor befor

         (ha)-l-habilih$_2$/ **hu**$_2$ ġa ʃ   b-l-mtiħan

         this-the-idiot / he   cheated   in-the-exam

'Her bad student, we talked to every professor befor he / the idiot cheated in the exam'

Secondly, reconstruction effects appear with negative binding condition (Condition C) only in no island context (see (16)):

a) No island context:

*[ʔaxu Laila₁]₂ pro₁ galat   ʔinnu   **hu₂/ (ha)-l-habilih₂**
safar
brother Laila   say. Past 3sf   that   he / this-the-idiot
travel Past.3sm
'The Brother of Laila, she said that he / the idiot went'
b) Island context :
[ʔaxu Laila₁]₂ pro₁   ziʕlit   liʔannu   **hu₂/ (ha)-
l-habilih ₂**
brother Laila   she   got upset   because   he/ (this)-
the- idiot
ġaʃ   b-l-mtiħan
cheated   in-the-examen
'Brother of Laila, she got upset because he / the idiot cheated in
the examen'

Thirdly, presence of cyclicity effects. If reconstruction is a consequence of a syntactic
movement, it should then have cyclic properties (Chomsky 1995). In fact, the
presence of intermediate sites for movement should give rise to intermediate sites for
reconstruction. To explain, I give examples that concern the interaction between two
binding conditions, condition C and BVA condition (Fox 2000). Consider the
following contrast in JA:
a) ṭalib ₂ - [ha]₁ -l-kassul la-Laila₃ kul mʕallmeh₁   bitfakir   √_   ʔinn-ha₃
student-her-the- bad-of-Laila   every professor   think
that-she
ʃafat   ʔinn   **hu ₂/(ha)- l-ġabi₂   *_   ġaʃ   b-l-
mtiħan
saw   that   he/ (this)-the-idiot   cheated   in-
the-exam
'Laila's bad student, every professor thinks that she saw that he / the idiot cheated in
the exam'
b) *ṭalib ₂ - [ha]₁ -l-kassul la-Laila₃ pro₃   bitfakir ʔinnu   *_   kul mʕallmeh₁
student-her-the- bad-of-Laila   think   that   every professor
ʃafat   ʔinn   **hu ₂/(ha)- l-ġabi₂   *_   ġaʃ   b-l-
mtiħan
saw   that   he/ (this)-the-idiot   cheated   in-the-
exam
Laila's bad student, she thinks that every professor saw that he / the idiot cheated in
the exam'

Reconstruction in the intermediate site (17a), denoted √, can satisfy a) Bound
Variable condition: the pronoun '*her'* can be interpreted as a variable bound by every
professor since it is within the scope of the QP and b) Condition C: the copy of the R-
expression *Laila* in the same position does not violate the condition C since it is not
within the scope of her pronoun '*she*' in contrast with (17b).
These cyclicity effects with strong resumption can provide another argument in
favour of movement analysis (Fox 2000).
1.4.1 Movement analysis

In previous section, I showed that strong resumptive elements have diagnostic
properties of movement: in one hand, reconstruction with strong resumption is

sesitive to islandhood (present in no-island contexts, but absent in strong island contexts), but insensitive to the type of binding condition; and in the second hand presence of cyclicity effects.

To account for these properties, I propose following (Guilliot & Malkawi 2007, Malkawi 2009) that Aoun et al. (2001)'s distinction between apparent and true resumption should be maintained, but only for strong resumption. A natural question is then: why should it be restricted in that way? Recall that Aoun et al. (2001)'s structure for apparent resumption in (18) crucially relies on an adjunction structure between the copy of the moved constituent and any resumptive element (RE), be it weak or strong:

Apparent resumption:

$$[_{DP} ... \text{pronoun}_1 ...]_2 [_{IP} ... QP_1 ...[_{CP} ...[_{DP} [_{DP} ... \text{pronoun}_1 ...]_2 RE_2]]]$$

But, as pointed out by (Elbourne, 2001, chap.3), weak pronouns cannot be cliticized onto DPs in the surface, as (49a) shows, whereas both strong pronouns in (49b) and epithets in (49c) can appear overtly adjoined (be used in apposition) to a DP (Guilliot & Malkawi 2007):

a).*Samia-ha   illiʃuft-ha   matat
Samia-Cl   that   saw.1sg-Cl   dead
              b). hi Samia   illi   ʃuft-ha   matat

she Samia   that   saw.1sg-Cl   dead
'Samia that I saw is dead'
              c). ʃuft   Samia   ha-l-habilih
saw.1sg   Samia   this-the-idiot
              'I saw Samia, the idiot.'

Now, our proposal to restrict Aoun et al. (2001)'s analysis to strong resumption comes as no surprise, as only strong pronouns and epithets can be adjoined to a DP. Furthermore, this claim nicely accounts for the fact that reconstruction with strong resumption is sensitive to islandhood (available only when no/weak island intervenes), but insensitive to binding conditions. Consider the contrast between no-island contexts in (20a and 16a, repeated in 20b) and strong island contexts in (21b and 16b, repeated in 21a):

a).[ţalib-[ha]_1 l-kassul]_2   ma biddna   nxabbir [wala mҫalmih]_1 ?innu
              student-her the bad   Neg want.1pl   tell.1pl no teacher that
              hu _2 / ha-l- habilih _2   ğaʃ   bi-li- mtiħan
              he / this-the-idiot cheated.3sm   in-the-exam
'Her bad student, we don't want to tell any teacher that he/the idiot cheated in the exam.'
              b)*[ʔaxu Laila_1]_2 *pro_1* galat   ?innu **hu_2/ (ha)-l-habilih_2** safar
              brother Laila   say. Past 3sf that   he / this-the-idiot travel Past.3sm
              'The Brother of Laila, she said that he / the idiot went'

a). *ţalib _2 - [ha]_1 -l-kassul la-Laila_3 *pro_3*   bitfakir?inn   *_   kul mҫallmeh_1

student-her-the- bad-of-Laila think that every professor

ʃafat ?inn **hu ₂/(ha)- l-ġabi₂** *__ ġa ʃ b-l-mtiħan

saw that he/ (this)-the-idiot cheated in-the-exam

Laila's bad student, she thinks that every professor saw that he / the idiot cheated in the exam'

b). [?akhu Laila_i]_j pro_i ziʕlat li?annuh **hu_j/ha-l-habilih_j** safar

brother Laila upset.3sf because he/this-the-idiot left.3sm

'The brother of Laila, she got upset because he/the idiot left.'

Whenever movement is licit, as in (20), apparent resumption will be at stake. Creation of a copy adjoined to the strong resumptive then triggers reconstruction, hence satisfaction of BVA in (20a) and condition C violation of in (20b). On the contrary, strong island contexts in (21) ban reconstruction. Strong resumption will be derived as a case of true resumption (without any movement): the absence of any copy then triggers BVA violation in (21a), but satisfaction of condition C in (21b).

1.5 Weak Resumption

Contrary to strong resumption, weak resumption doesn't have diagnostic properties of movement: first, reconstruction effects appear with positive binding conditions in island contexts (22):

Strong (adjunct) island context:

[ṭalib-[**ha**]₁ l-kassul]₂ l-mudiirah ziʕlat la?annuh [**kul mʕalmih**]₁

student-her the-bad the-principal upset.3sf because every teacher

ʃafat – **uh₂** /- **uh hu₂** ğaʃ bi-li- mtiħan

saw.3sf –CL / -CL he cheated.3sm in-the-exam

'Her bad student, the principal got upset because every teacher saw him cheating in the exam.'

BVA constraint is satisfied in (22). The clitic *ha* "her" within the left-dislocated DP, can fall within the scopal domain of the universal quantifier QP *kul mʕalmih* "every teacher", and then the distributive functional reading becomes available.

Secondly, no reconstruction appears with weak resumption when condition C is at stake, as co-reference between *Karim* and the embedded subject is available in (23). The absence of any copy (absence of movement) predicts the absence of condition C violation.

Condition C with no island

[ʕalamit **Karim _i**]_j, bitfakir ?innu **pro_i** lazim ?iġayyar - **ha_j**

Note Karim think.2sm that must change-Cl

'The note of Karim , you think that he must change (it).'

Thirdly, unlike reconstruction with SR, reconstruction with WR is not cyclic as shown by the grammaticality of the following examples in French (24) and JA (25) (Guilliot 2006 and Malkawi 2009):

a) Le cadeau que Marie₂ lui₁ a offert, chaque homme₁ pense √ q̶u̶'elle₂ **l**'a
— vole *

"Marie's gift for him, every man thinks that she stole it"

b) Le cadeau qu'il₁ a offert à Marie₂, elle₂ pense * __ que chaque homme₁ **l**'a volé * . —

"His gift to Marie, she thinks that everyman stole it"

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a) [hadiyyt-uh$_1$la Marie$_2$]$_3$ kul zalamih$_1$ bifakir   √

gift-his   to Marie   every man   think.3sm   ——

                   ?inn-ha$_2$ ramat-**ha$_3$**   *

that-Cl   threw.3sf-Cl

'His$_1$ gift to Marie$_2$, every man$_1$ thinks that she$_2$ threw it$_3$"

                   b) [hadiyyt-uh$_1$la Marie$_2$]$_3$ pro$_2$ bitfakir *   ?innu   kul

zalamih$_1$

gift-his   to Marie   she   think.3sf   that   every man

                   sarag-**ha$_3$**   *

                   stol-Cl

 'His$_1$ gift to Marie$_2$, she thinks that everyman$_1$ stole it$_3$"

The grammaticality of (24) and (25) suggest that there is an intermediate site allows to satisfy BVA condition and avoids condition C violation. (25b) allows both bound variable reading of the pronoun –*uh* 'his' and the co-reference between *Marie* and the subject *pro* 'she'. Postulate an intermediate site, arising from cyclicity in the scope of *every man* and outside the scope of pronoun *pro* could explain this fact.

However, (24b) and (25b) reject this hypothesis. In these examples, the pronoun (refers to R-expression) has a wide scope more than the QP that has to bind the possessive pronoun in the displaced DP. This configuration predicts that no reconstruction site created by movement can satisfy both binding conditions in the same time.

So, (24b) and (25b), just like (24a) and (25a), license in the same time BVA of possessive pronoun and co-reference between *Marie* and *pro/she.* This fact, no contrast appears between examples (a) and (b), confirms that no cyclicity effects appear with weak resumption. In other words, it's not reconstruction intermediate site that could explain the grammaticality of (24b) and (25b) as this hypothesis predicts the ungrammaticality of these examples.

Thus, supposing an ellipsis analysis with weak resumption could perfectly explain these facts. Actually, reconstruction in the position of weak resumption is not a consequence of a movement copy but of an elided copy of the antecedent.

1.5.1 Ellipsis analysis

Two kinds of syntactic operations make use of the copying process: movement and ellipsis. Movement is produced when a constituent (NP, DP, ...) is fronted from an argumental position to a peripheral one, and leaves a copy (i.e. copy theory of movement):

?aya Surah il-uh   kul zalamih   bifaDil   Surah il-uh ?   JA

                   'Which picture of him does every man prefer   picture of him ?'

Movement[3] is sensitive to islands as shown before and repeated below :

*ţalib$_2$-[ha]$_1$ l-kassul   ħakiina   maʕ   kul mʕallmih $_1$ gabil ma

                   student- her the –bad   said   with   every professor

                   befor

                   (**ha)-l-habilih$_2$/ hu$_2$**   ġa ʃ   b-l-mtiħan

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[3] Recall that movement analysis is proposed to strong resumption (section 2.4.1).

this-the-idiot / he   cheated   in-the-exam

'Her bad student, we talked to every professor befor he / the idiot cheated in the exam'

In the other hand, ellipsis is produced when a constituent (NP, VP, ...) can be omitted, as it can be recovered from the linguistic context as we can see in the following example from JA:

a) Nadia	ʔixtarat	el-galam el-ʔazrag		liʔanu Sarah ʔixtarat l-aswad.
Nadia	choosed	the-pen the-blue		because Sarah choosed the-black
	b) Nadia	ʔixtaratel-galam	el-ʔazrag	liʔanu Sarah
Nadia	choosed	the-pen	the-blue	because Sarah
ʔixtarat	el-galam	l-aswad.		
	choosed	the-penthe-black		

'Nadia chosed the blue pen because Sarah preferred the black pen.'

Contrary to movement, ellipsis is **not** sensitive to islands as we can see in the following example:

Talib-**ha**$_1$ l-kasul $_2$ ma   ziɛlat   wala mɛallmih $_2$ laʔanno
     student-her-the bad   *Neg*   got upset.   no professor because
     l - mudiirah   kaħchat – **uh** $_2$ mn l- midrasih
     the-director   expelled-him   from-the-school

'Her bad student no professor was angry because the director expelled (him) from school'

We distinguish two phenomenon's of ellipsis (Smith 2001, Winkler 2006, Lasnik 2007 among others): first, LF (copying) phenomenon which maintains that there is full internal structure, but only at the level of LF as necessary material for semantic interpretation is recovered from the linguistic context (known as the identification or *recoverability condition* on ellipsis, cf. Sag 1976; Johnson 2001; Merchant 2001; among others). This copying phenomenon is illustrated in (30):

Mary will see someone, but I don't know who.   (Ross 1969)
a) Overt syntax
Mary will see someone, but I don't know [$_{CP}$ [$_{DP}$ who [$_{IP}$ Δ]]].
b) LF
Mary will see someone, but I don't know [$_{CP}$ [$_{DP}$ who [$_{IP}$ Mary will see]]].
And, secondly, PF phenomenon since, by definition, missing material or not pronounced implies PF. Two approaches distinguish PF ellipsis phenomenon: a) PF deletion approach (Sag 1976, Chomsky 1995, Rouveret 2008, etc.) and b) PF empty category (e) in the ellipsis site (Williams 1977, Winkler 2006, etc.).
According to PF deletion approach, the ellipsis site is fully represented syntactically, and is simply not pronounced. Consider the following examples that involve, respectively, VP and NP ellipsis (from Winkler 2006):

a) They **play the piano** but Anna doesn't Δ.
b) Many played a solo with one **hand** and Anna with two Δ.

In this approach the ellipsis site is argued to be base-generated with a full-fledged internal and lexical contents that are identical to those of its antecedent. The surface

effect is then achieved by the full deletion (or non-pronounciation) of these materials at PF (see PF of 31 in 32).
a) They play the piano but Anna doesn't play the piano.
b) Many played a solo with one **hand** and Anna with two **hand**.
In (32), the ellipsis site contains material elided under identity with its antecedent in the part of the coordinated structure. This deletion may occur in PF with recoverability of the content elided in LF (Sag 1976). In other words, the semantic interpretation takes place in LF by the hypothesis of copying of VP/NP in the ellipsis site in (31). This VP/NP is then eliminated in PF:
a) VP ellipsis :

LF :	They **play the piano** but Anna doesn't **play the piano**.
PF :	They **play the piano** but Anna doesn't **play the piano**.

b) NP ellipsis :

LF :	Many played a solo with one **hand** and Anna with two **hand**.
PF :	Many played a solo with one **hand** and Anna with two **hand**.

The syntactic structure in the ellipsis site in (33) is strictly identical to the syntactic structure of its antecedent and is maintained for a semantic interpretation at LF (Smith 2001). However, this analysis cannot account for cases where the syntactic identity between ellipsis content and its antecedent is not the same as shown in (34, from Winkler 2006) and (35, from Reinhart 1983):

a) John: Do you think they will like **me**?
b) Bill: Yes, I'm sure they will _. [like **you**]
John$_1$ voted for **himself$_1$** and his lawyer$_2$ did _ too. [voted for **himself$_2$**]
The pronoun *me* of VP antecedent in (34) changes its referent in the ellipsis site *you* (identity loose *vs* strict identity phenomenon) and the strict reading of the variable *himself* in (35) is absent in the case of VP ellipsis. Further more, If we adopt PF deletion hypothesis with condition C, the following structure will be illegal (Winkler 2006):
I expected Jan$_1$ to win even when he$_1$ didn't [expect Jan$_1$ to win].
The coreference between *Jan* and *he* in (36) should be excluded as a violation of condition C that is not the case because this example is good.
According to PF empty category (e) approach, the ellipsis site is base generated empty, and the identity of the elliptical constituent is reconstructed by a *copying operation at LF* (Williams 1977, Winkler 2006). The result of applying this hypothesis to ellipsis sites in (31) is the following:
a) VP Ellipsis :

PF :	They **play the piano** but Anna [$_{TP}$ Anna [$_{T'}$ doesn't [$_{VP}$ e]]]
LF :	They **play the piano** but Anna doesn't **play the piano**.

b) NP Ellipsis :

PF :	Many played a solo with one **hand** and Anna with [$_{DP}$ two [$_N$ e]].
LF :	Many played a solo with one **hand** and Anna with two **hand**.

The advantages of this approach (e) are: first, no syntactic structure in the ellipsis site is identical to the syntactic structure of its antecedent. Thus, the phenomenon of identity loose observed in (34) and (35), repeated below, does not arise again with this hypothesis:
a) John: Do you think they will like **me**?
b) Bill: Yes, I'm sure they will _ [e]

John$_1$ voted for himself$_1$ and his lawyer$_2$ did _ too. [e]

Secondly, PF empty category (e) approach, may explain the lack of condition C effects in (40). The ellipsis site is shown empty without any linguistic material:

I expected Jan$_1$ to win even when [$_{TP}$ he$_1$ [$_{T'}$ didn't [$_{VP}$ e]]]

Note, however, that both assumptions of PF ellipsis assume that LF is active. In other words, the elided ellipsis site or empty (not pronounced) is lexically represented for a *semantic interpretation at LF* (Chomsky 1995a). If this prediction is correct, the next LF of (41), shown in (41b) below, will be illegal because it is filtered by condition C which is not the case:

a) PF : I expected Jan$_1$ to win even when [$_{TP}$ he$_1$ [$_{T'}$ didn't [$_{VP}$ e]]]

b) LF : I expected Jan$_1$ to win even when he$_1$ didn't [expect Jan$_1$ to win].

We conclude from this observation that condit*ion C can be applied only where* the PF ellipsis site is empty (41a) (see also Freidin and Vergnaud 2001).

1.5.2 What about weak resumption cases

The goal now is to have a uniform analysis for cases of reconstruction with WR in JA. Based on binding condition nature (positive *versus* negative), I adopt the PF Empty category (*e*) hypothesis as a follow: a) reconstruction with negative binding condition (condition C) *applies* in PF (42a); and b) reconstruction with positive binding conditions (BVA condition) *applies* in LF (42b).

a) PF : [NP] ….. [$_{DP}$ [$_{D \circ}$ WR] $_e$]

b) LF : [NP] ….. [$_{DP}$ [$_{D \circ}$ WR] NP]

Consider now (43) where no reconstruction effects appear with condition C in the position occupied by WR in no island contexts:

[ςalamit$_2$ Karim$_1$] gult-u   ?innu lazim pro $_1$?iġayyar - **ha$_2$**
note Karim   said-you   that   must   he   change- it
'Karim's note, you said that he must change (it)'

The lack of condition C effects in (43) is accounted now since reconstruction with this condition (negative condition) *applies* in PF as structure (44a) shows: the ellipsis site is base generated empty (e) without linguistic material :

PF: [ςalamit$_2$ Karim$_1$] ….   pro $_1$?iġayyar [$_{DP}$ **-ha** [**e**]]
note Karim   ……   he   change [$_{DP}$**-it** [*e*]]

The absence of any linguistic material at PF predicts the absence of condition C violation. Consider now (45) where cases of reconstruction with BVA condition appear in the position of WR inside (45a) *and or* outside (45b) island contexts:

a) Talib-**ha$_1$** l-kasul $_2$ ma   ziςlat   wala mςallmih **$_2$**   la?anno
student-her-the bad   Neg   got upset.   no professor   because
l - mudiirah   kaħchat – **uh $_2$**   mn l- midrasih
the-director   expelled-him   from-the-school
'Her bad student no professor was angry because the director expelled (him) from school'

b) Talib-**ha$_1$** l-kasul $_2$ wala mςallmih **$_2$**   bi-tħib – **uh $_2$** bi l- madrasih
student-her-the bad   no professor   imp-like-him in the-school
'Her bad student no professor likes (him) in the school'

According (42b), reconstruction with WR involving positive binding condition (BVA condition) *applies* in LF. That is, the ellipsis site is base generated empty (e) at PF,

then the identity of the elliptical constituent is lexically represented for a *semantic interpretation at LF*:

LF:Talib-**ha**$_1$ l-kasul $_2$…[**wala mʕalmih**] $_2$……[$_{DP}$– **uh** [$_{NP}$ ṭalib-[**ha**]$_1$ l-kassul]] $_2$
student-her the-bad   no teacher   [$_{DP}$ **-him** [$_{NP}$ bad student of **her**$_1$]]$_2$
Presence of an identical linguistic material of the antecedent at LF allows for bound variable interpretation of *-ha.* In fact, this possessive pronoun (contained within the copy of the antecedent) falls under the scope of QP 'no teacher'.

2. Conclusion:

In this paper, I tried to show that SR is accounted through movement (Aoun et al 2001, Guilliot 2006, Malkawi 2009) and WR through ellipsis. Reconstruction with WR based on Empty Category (e) PF ellipsis (Winkler 2006, Freidin and Vergnaud 2001) in the following way: reconstruction with negative binding condition (condition C) applies in PF whereas reconstruction with positive binding conditions (BVA condition) applies in LF.

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Obligatory Resumption In Iraqi Arabic: A Narrow Syntax Phenomenon

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ABSTRACT

This paper focuses on obligatory resumption in Iraqi Arabic, which appears in relative clauses. I argue that obligatory resumption in Iraqi Arabic is a purely syntactic phenomenon that follows strictly from requirements in the syntax and arises because of (i) the nature of the D involved: the relative pronoun illi "which" has a categorial selectional feature that requires it to take a complement headed by the resumptive pronoun, (ii) the resumptive pronoun is of category φ (Déchaine & Wiltschko 2002; Roberts 2010) and (iii) the resumptive pronoun is a clitic in the sense of Cardinaletti and Starke (1999) and therefore cannot surface in its base position, but must raise to a derived one.

Keywords: resumptive, relativization, complementizer, clitic, pronoun

1.　　　　INTRODUCTION

　　　　This paper focuses on the properties of obligatory resumption in Iraqi Arabic relative clauses: Iraqi Arabic has an obligatory resumptive pronoun (1) in the position where an obligatory gap is expected in a relative clause in English (2):

IRAQI ARABIC

(1)RELATIVE CLAUSE:

الرجال إللي شفته/*___ ببيت سهى كاتب عظيم.

ir-ridʒa:l　illi　ʃuft=**ah**/*___　bi=beyt　Suha　ka:tib　ʕaðʔyim
the-man　whom　saw.1S=**3MS/*___** in house Suha　writer　great

'The man whom I saw [**him**] at Suha's house is a great writer.'

　　　　ENGLISH

(2)RELATIVE CLAUSE

The man whom I saw_____ at Suha's house is a great writer.

In the English relative clause in (2), a gap indicated by "___" occupies the thematic position of the moved direct object *whom* which is found in a non-argumental position – an A'-position. The relation between *whom* which is in an A'-position and the gap – its extraction site - is known as an A'-dependency. In English, the gap strategy is the only strategy to form relative clauses. Notice that where the English sentence in (1) has "___", the Arabic sentence in (2) has the pronoun *ah* "him". In the literature, this kind of pronoun is known as *resumptive* and the syntactic strategy in which it participates is known as *resumption*.

1.1　　　　Resumption

On the empirical side, resumption is observed in Celtic (Irish, Welsh, Scottish Galic) and Semitic (Arabic, Hebrew). It occurs either as an option (i.e. Hebrew) or obligatorily (i.e. Arabic). In these languages, resumptionmay occur with direct objects, indirect objects and objects of preposition, but not with subjects or adjuncts. The definition of a true resumptive pronoun assumed in this paper is given in (3):

(3)DEFINITION OF ARESUMPTIVE PRONOUN (Rouveret 2011):

The overt pronominal element found in some languages in the variable position of unbounded A'-dependency constructions—the latter include relative clauses, constituent questions, comparative clauses, dislocation and focus constructions.

Previous work on resumption in other varieties of Arabic includes Lebanese (Aoun et al. 1998; 2000; 2001; Choueiri 2003), Palestinian (Shlonsky 1992; 1997), Egyptian (Wahba 1984; Demirdache 1991) and Jordanian (Guilliot 2006; Guilliot and Malkawi 2006; 2009; 2011; Malkawi 2009). The most recent analyses of resumption approach this phenomenon by taking into consideration that resumptive pronouns may have different internal structures (Boeckx 2003; Guilliot 2006; Malkawi 2009; Sterian 2011).As such, the resumptive pronoun is part of a complex-DP at the start of the derivation. Authors (Boeckx 2003; Guilliot 2006; Malkawi 2009) adopt Elbourne's (2002) analysis of pronouns as definite descriptions and extended it to resumptive pronouns. Elbourne (2002) proposes that pronouns are definite determiners whose NP-complement has undergone deletion in the phonology (4):

(4)ELBOURNE'S (2002) INTERNAL STRUCTURE OF A PRONOUN
[$_D$ pronoun [$_{NP}$noun]
The analyses based on Elbourne (2002) propose that the resumptive pronoun and its antecedentare part of a complex-DP at First Merge (Boeckx 2003; Guilliot 2006; Malkawi 2009). However, authors differ in the approach to the make-up of this complex-DP. One such analysis of resumption proposes that the resumptive pronoun is a D-head and a copy of the antecedent exists as complement of this D by a special kind of ellipsis (Guilliot 2006; Malkawi 2009). In Sterian (2011) I propose an analysis of resumption in Iraqi Arabic D-linked content questions in which the resumptive pronoun is of category φ (5):

(5) *Internal structure of D-linked interrogative expressions*
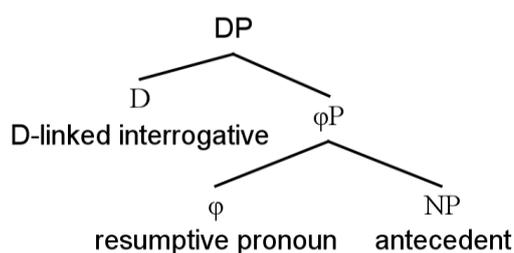
In this paper I propose that the analysis of resumption presented in (6) can be extended to relative clauses. I also argue that the nature of the D involved in relativization is the trigger for the obligatoriness of resumption: the relative pronoun is of category D and has categorical -selectional requirement to take a φP as complement. In the next section I present an overview of the resumptive data in Iraqi Arabic and focus on relativization.

2. Resumption in Iraqi Arabic

2.1 Overview

In Iraqi Arabic, resumption can be impossible, obligatory, or it can alternate with a gap. The contexts in which resumption is obligatory are relativization and left dislocation. Resumption is optional in D-linked content questions and impossible with bare interrogatives (except for long distance direct object extraction). Table 1 shows this distribution.

Table 1. Distribution of resumption in Iraqi Arabic

	Relativization		Interrogation			
			Bare interrogatives		**D-linked interrogatives**	
	Gap	Re	Gap	Re	Gap	Re
Subject	√	x	√	x	√	x
Direct Object	x	√	√	x	√	√
Prepositional Object	x	√	√	x	x	√

In the next sections I present the data in relativization (§2.2)and I discuss key players in relativization: the relative pronoun and the resumptive pronoun (§2.3).

2.2 Relativization in Iraqi Arabic

Right from the start I want to draw attention to the following facts about relativization in [Iraqi] Arabic[4]:

(i) it is constructed with a designated relative pronoun: *illi "which"*; unlike English, relative clauses in Iraqi Arabic cannot be constructed with a complementizer (i.e. "that") and cannot have a silent relative pronoun/ complementizer as English does either (i.e. "The man I saw…"); this is detailed in (§2.3), and

(ii) wherever there is resumption in relativization, it is always obligatory (unlike Hebrew, for example, where it is always optional).

Resumption is obligatory with direct objects and prepositional objects (the indirect object is also prepositional, therefore I do not list it separately from the prepositional object example). Resumption is illicit with subjects and adjuncts. Though some languages such as Catalan (Lopez 2009) have a designated resumptive adverbial for adjuncts, Arabic does not. These descriptive details are shown in Table 2.

Table 2. Resumption and Gap strategies in Iraqi Arabic relativization

		Gap	Resumption
Argument	Subject	√	x
	DirectObject	x	√
	ObjectofPreposition	x	√

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[4] Whenever I use square brackets, i.e. "[Iraqi] Arabic", the statements following apply to all varieties of Arabic, namely Classical, Modern Standard and modern vernaculars (eg. "relativization is constructed with a designated relative pronoun") but the empirical data is from Iraqi. Whenever a phenomenon appears (to my knowledge) only in Iraqi Arabic, then I use "Iraqi Arabic".

In the following I present the relativization data in Iraqi Arabic: with subjects (6) directobjects (7) and prepositional objects (8):

IRAQI ARABIC

(6)SUBJECT RELATIVIZATION

الرجال اللي___/*هو اجى من بغداد كان قاعد هناك، عالقنفة.

il=reʤa:l   illi ___/*hwwa ʔidʒa   men Bagdad   ʧa:n ga:ʕed hna:k, ʕal qana:fa.

the=man   who ___ /*hecame.3S from Baghdad was sitted   there   on armchair

'The man who came from Baghdad was sitting there, on the armchair.'

(7)DIRECT OBJECT RELATIVIZATION

الكاتب اللي شفته /*___ بالبيت سهى كان خليل جبران.

il=ka:teb   illisheft=**ah**/*___   eb-be:t   Suha ʧa:n Khalil Jubran

the=writer   whom saw.1S=**him**/*___at=house   Suha was Khalil Jubran

'The writer whom I saw [him] in Suha's house was Khalil Jubran.'

(8)PREPOSITIONAL OBJECT

الرجال اللي التقى به/*___ بالمكتبة كان دارس ابغداد.

il=reʤa:l   illi elteqa   bi=**h**/* ___   bi=l-maktaba ʧa:n da:res   eb-bagdad[5]

 the=man   who met.3S with=**him**/*___at=the=library   was learner in=Baghdad

'The man with whom he met with [him] in the library studied in Baghdad.'

The example in (6) illustrates how subject resumption is illicit in Iraqi Arabic. Resumption is obligatory with direct objects (7) and prepositional objects (8).

In this section I presented the relativization data in Iraqi Arabic. In the following section I focus on the relative pronoun.

2.3   *Complementizers versus relative pronouns*

In this section I focus on the distinction between elements that can introduce relative clauses: (i) the element residing in C, which in traditional grammar is known as *subordinative conjunction* and (ii) the element residing in SpecCP, known in traditional grammar as *relative pronoun*. In the literature, these two distinct categories are often thrown under the generic umbrella of "complementizer", which I find inaccurate. The distinction is necessary because the subordinative conjunction and the relative pronoun (i) are two distinct categories, (ii) each is involved in a different relativization syntactic strategy and (iii) I argue that the relative pronoun is tied to obligatory resumption, while the subordinative conjunction is not.

Authors (Shlonsky 1992; Boeckx 2003; Alexopoulou 2006) have looked at elements that introduce relative clauses in connection with resumption, but do not draw the distinction between their different categories in a systematic way.Shlonsky (1992) argues that the type of "complementizer" used in Hebrew and in Palestinian Arabic has a role in the choice of either gap or resumption; however, he does notdiscuss the fact that Hebrew uses a subordinative conjunction in relativization, while Palestinian

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[5] Notice that the preposition *bi* occurs three times in this Iraqi Arabic sentence, though I glossed it differently each time, because I don't have a one-to-one translation for it. In Modern Standard it is used with the instrumental complement, but in Arabic dialects it has also taken up the task of *fyi* "in" which is extinct, and sometimes it takes up the task of *maʕa* "with" which in Modern Standard (as well as some varieties) it is used to form the associative complement.

Arabic uses a relative pronoun. In fact, Hebrew does not have relative pronouns (Sells 1984); Arabic, on the other hand, can relativize only with the designated relative pronoun. A fundamental difference between Hebrew and Arabic is that where Hebrew has optional resumption, Arabic has obligatory resumption, and I argue that this difference is easily captured if we take into account the nature of the elements in CP: in Hebrew, there is a conjunction in C and no overt category in SpecCP, while in Arabic there is a relative pronoun in SpecCP and no overt category in C. Boeckx (2003) looks at chain formation in resumptive constructions and argues that complementizers play a decisive role in whether resumption is possible or not. However, Boeckx (2003) does not make a distinction between the different categories of "complementizers"; he does not draw the distinction between obligatory and optional resumption either. In conclusion, these authors use the term "complementizer" for different categories, such as conjunctions and relative pronouns. I think this distinction is highly relevant however, because there seems to be a systematic distribution: languages with designated relative pronouns, like Arabic and Romanian, have obligatory resumption (note that this is just one of the requirements for resumption and it is not enough on its own). From now on in this paper I reserve the term "complementizer" to refer to subordinative conjunctions. In this paper, I use the following working definitions of complementizer (9) and of relative pronoun (10).

(9) *definition of complementizer*
subordinative conjunction that introduces declarative clauses and which is base generated in C: for example "*that*" in *I know that you read Dickens;* in this example, *that* is the head of the CP and resides in C.

(10) *definition of relative pronoun*
An element introducing relative clauses which is analysed as having moved from its base position to SpecCP: for example "*which*" in *The book which I read is by Dickens*; in traditional grammar it is called **relative pronoun**. This element is of category D (Kayne 1994) and moves from its base position to SpecCP (by a raising analysis of relative clauses).
Comparative data from Middle English is more revealing than modern English with respect to *that* being base generated and *which* having moved from a base position to a higher position: *that* is a complementizer residing in C and *which* moves in SpecCP (Keyser 1975; Chomsky and Lasnik 1977). Consider for exemplification the following excerpt from Chaucer, where *which that* occurs very frequently (11):

(11) *WHICH THAT* IN MIDDLE ENGLISH
'The ascendent sothly, as wel in alle nativites as in questions and eleccions of tymes, is a thing **which that** these astrologiens gretly observen.'

           (Chaucer's Astrolable Treatise of 1391, edited by James E. Morrison)

Chomsky & Lasnik (1977) note that of all the known cases of *which that*, *which* appears to the left of *that* and argue that *which* moves from a base position all the way up to COMP to the left of the complementizer *that* (12):

(12) CHOMSKY & LASNIK'S (1977) RULE OF *WH*-MOVEMENT:
Move the wh-phrase in the COMP position, to the left of the complementizer.

Elements that reside in C – complementizers - are generally non-inflected, while those residing in SpecC – relative pronouns - are inflected. The relative pronoun *illi* from Iraqi Arabic can be traced diachronically to the relative pronoun *al-laδyi* from Classical Arabic which inflects for number, gender and case. Number, gender and case are typical properties associated with pronouns. This variation is lost in modern vernaculars, nevertheless the diachronic evidence brings further support to the claim that *illi* from Iraqi Arabic is a relative pronoun.

Unlike English and many other languages including Greek and Spanish, in relativization Arabic uses only a designated relative pronoun. Example (13a) shows a relative clause in English formed with the complementizer *that*and (13b) a relative clause in English formed with *which*:

(13)*English relativization*

a. The book that I read…

b. The book which I read…

Assuming the raising analysis of relative clauses, the derivation of (13a) is different than the derivation of (13b), because the complementizer*that*in (13a) resides in C, *book* originates as complement of the verb *read* and it raises through SpecDP to SpecCP, while in the construction with the relative pronoun *which*in (13b) C is empty, *which book* originates as complement of *read* and raises to SpecCP, where *book* further raises to SpecDP in order to obtain the linear word order *the book which* (Kayne 1994).

Consider again the relative clause in (1), repeated below for convenience as (14):

IRAQI ARABIC
(14)RELATIVE CLAUSE

الرجال إللي شفته/*___ ببيت سهى كاتب عظيم.

ir-riʤa:l illi ʃuft=**ah/*___** bi=beyt Suha ka:tib ʕaδʔyim
the-man whom saw.1S=**him/*___**in house Suha writer great
'The man whom I saw [**him**] at Suha's house is a great writer.'

Recall that the relative clause in (14a) has obligatory resumption. Observe now that the same relative clause cannot be formed by using a complementizer(15).Notice that the relative pronoun *illi* is replaced by the declarative complementizer *ennu:*; the presence of the obligatory resumptive pronoun *h* "him" in the (15a) or its absence in (15b) make no difference: both relative clauses in (15) are ungrammatical because there is a complementizer instead of a relative pronoun.

IRAQI ARABIC
(15)RELATIVIZATION ILLICIT WITH CONJUNCTIONS
a. *resumption*

الرجال إنو شفته ببيت سهى كاتب عظيم.*

*ir-riʤʤa:l**ennu:** ʃuft=hu/___   bi=beyt Suha ka:tib ʕaδʔyim
the-man **that** saw.1S=3MS/___ in house Suha writer great
*'The man that I saw [**him**]/___ at Suha's house is a great writer.'

b.*gap*

الرجال إنو شفت ___ ببيت سهى كاتب عظيم.*

*ir-ridʒdʒa:l **ennu:** ʃuft___ bi=beyt Suha ka:tib ʕaðˀyim

the-man **that** saw.1S___ in house Suha writer great

*'The man that I saw ___ at Suha's house is a great writer.'

The examples in (14) and (15)illustrate that (i) Iraqi Arabic relative clauses are formed only with a relative pronoun and not with a complementizer and (ii) Iraqi Arabic relative clauses require an obligatory resumptive pronoun.Note that the strategy used in (15) – relativization with complementizer - is the strategy used in Hebrew (16):

HEBREW (Sells 1984)

(16)RELATIVIZATION

ha=ʔiʃ ʃe pagaʃti **oto/___**

the=man that met.1S **him/___**

'The man that I saw [him].'

The relative clause in (16) is introduced by *ʃe,* the Hebrew declarative complementizer (17):

HEBREW

(17)DECLARATIVE COMPLEMENTIZER

אמרתי לאדריאןשהספרים על השולחן

amarti le-Adrian **ʃe** ha=sfarim al=ha=ʃulhan

said.1S to=Adrian **that** the=books on=the table

"I said to Adrian that the books are on the table."

As pointed out earlier, Sells (1984) notes that Modern Hebrew does not have relative pronouns. Notice in (16) that (i) relativization is formed with the declarative complementizer observed in (17) and (ii) resumption is optional.

The fact that Arabic uses a designated relative pronoun and not a complementizer to form relative clauses is essential to my analysis, because I argue that resumption is obligatory in Arabic because the relative pronoun *illi* - of category D - has a categorial selectional feature that requires it to merge with a φP – the resumptive – at First Merge. On the other hand, in D-linked content questions, which are formed with an interrogative pronoun that is not morphologically similar with the relative pronoun, resumption is not obligatory, but only optional. Consider the example in (19) which shows a D-linked content question in Iraqi Arabic; notice the presence of the D-linked interrogative *ya* 'which' and the possibility of both gap (18a) and resumption (18b):

IRAQI ARABIC

(18)D-LINKED CONTENT QUESTION

إيمان يا رجال شافته/ ___ بالحفلة ؟

Iman ya: ridʒa:l ʃa:fit=**ah**/____ bi-l-Hafla

Iman which man saw.3FS=him/____ at-the-party

'Which man did Iman see**[him]**/ ___ at the party ?'

From examples (14) and (18) we retain that in Iraqi Arabic (i) the presence of the relative pronoun requires obligatory resumption and (ii) resumption is no longer obligatory, but optional (both gap and resumption are grammatical) when the D-linked interrogative which is morphologically different from the relative pronoun is used.

3. **Resumption: an analysis**

In (1.1) I mentioned briefly that in Sterian (2011) I proposed an of resumption in D-linked content questions analysis in which the resumptive pronoun is of category φ and it is part of a complex-DP at First Merge. In the next section I extend this analysis to relative clauses.

3.1   The resumptive pronoun is of category φ

That pronouns are not a uniform class has been discussed extensively in the literature (Evans 1980; Reinhart 1983; Cardinaletti & Stark 1999; Déchaine & Wiltschko's 2002; Roberts 2010). The resumptive pronoun in Arabic is always a clitic.As mentioned earlier, resumptive pronouns are treated in the literature as D-heads (Demirdache 1991; Guilliot 2006; Malkawi 2009). I treat the resumptive pronoun as a clitic in the sense of Cardinaletti and Starke (1999): it is a defective element that never occurs in its base position, but in a derived one; cliticsare heads. I argue that cliticisation plays a central factor in resumption.

The resumptive pronoun appears overtly adjacent to the verb. Arabic is a verb raising language. The verb raises to I, where it appears in overt syntax. It must be the case that the clitic pronoun also is found in a derived position, since it surfaces next to the verb. This could be tested by showing that the surface evidence is such that a full NP object would follow obligatorily a full NP subject, but a clitic object would obligatorily precede the subject. This would be straight forward to show for Classical and Modern Standard Arabic, where the word order is VSO. But it is a bit more complicated to show for Iraqi Arabic, because modern vernaculars display both VSO and SVO (Shlonsky 1997; Aoun 1998; Brustad 2000; Owens et al 2009). This alternation in word order between VSO and SVO in Arabic vernaculars is the object of lively research, but it is not discussed here, because it is not relevant to the current analysis. Nevertheless, for the purpose of flushing out the position of the clitic pronoun in direct object constructions, consider (19) which is a VSO sentence in which the direct object is a full NP and (20) which is a VOS sentence in which the direct object is a clitic pronoun:

IRAQI ARABIC
(19)FULL NP DIRECT OBJECT
a._direct object follows subject_
شاف سامر البنية بالمكتبة.
ʃa:f   Samer il=bneyya bi=l=maktaba
saw.3MS Samer the=girl   in=the=library
'Samer saw the girl in the library.'

b. _direct object cannot precede subject_
*شاف سامر البنية بالمكتبة.
*ʃa:f   il-bneyya   Samer bi=l=maktaba
 saw.3MS the=girl   Samer in=the=library
'Samer saw the girl in the library.'

(20)CLITIC PRONOUN DIRECT OBJECT
a._direct object precedes subject_
شافها سامر بالمكتبة.
ʃa:f=ha   Samer bi=l=maktaba
saw.3MS=her Samer   in=the=library

'Samer saw her in the library.'

b.*direct object follows subject*

*شاف سامر ها بالمكتبة.

*ʃa:f   Samer ha   bi=l=maktaba
 saw.3MS Samer   her in=the=library

'Samer saw her in the library.'

The sentence in (19a) contains a full NP direct object, *il-bneyya* "the girl"; this direct object obligatorily follows the subject Samer. If *il-bneyya* "the girl" precedes the subject Samer (19b), then the sentence becomes ungrammatical. This indicates that a full NP direct object can remain in its base position. The sentence in (20a) contains the direct object *ha:* "her" which is a clitic pronoun; it precedes the subject *Samer* and is cliticised to the verb. This indicates the clitic is no longer in its base position (i.e. following the subject), but has raised to a derived position. The sentence becomes ungrammatical if the direct object *ha:* "her" follows the subject *Samer*(20b). In brief, direct object clitic pronouns in Arabic raise from their base position and are found in overt syntax in a derived position.

3.2   *Resumption in obligatory contexts: an analysis*

In this paper I argue that in environments where resumption is obligatory, it follows from requirements in the syntax. Two basic principles to assume for the current analysis are the Inclusiveness Condition (Chomsky 1995) and the Copy Theory of Movement (Chomsky 1995; Lebeaux 1990). The definition of the Inclusiveness Condition is given in (21) and the definition of the Copy Theory of Movement is given in (22):

(21)*Inclusiveness Condition*
Any structure formed by the computation is constituted of elements already present in the lexical items selected for numeration; no new objects are added in the course of the computation apart from the rearrangement of lexical properties.

(22)*Copy Theory of Movement*
A moved element leaves behind a copy of itself (rather than a trace).

One consequence of the Inclusiveness Condition and of the Copy Theory of Movement for the current paper is that pronouns exist in the numeration (i.e. they are not spelled-out traces or anything of the sort) and when they move, they leave behind a copy. Authors working on pronouns (Cinque 1990; Hoekstra 1990) or even more specifically on clitic-doubling Kayne (2002) have convincingly argued that pronouns cannot be spelled-out traces of movement.
According to Chomsky's (1995) Inclusiveness Condition, only the elements present in the numeration can participate in the derivation (23):

(23) Merge (Chomsky 2000)
Merge $\{\alpha\}$ and $\{\beta\}$ = $_{def}$ $\{\alpha, \beta\}$

As observed earlier in this paper, resumption is optional in D-linked content questions, but it is obligatory in relativization (§2.3). I argue that the obligatoriness or optionality of resumption is caused by the nature of the D involved: in relativization,

the relative pronoun *illi* – of category D - has a categorial selectional feature which requires it to merge with a φP at First Merge. The D involved in D-linking *ya:*, however, does not have this categorial selectional feature which requires it to merge with a φP, therefore it may merge with a φP – resulting in a D-linked content question with resumption – or it may merge with an NP – resulting in a D-linked content question with gap.

As we have seen, [Iraqi] Arabic has obligatory resumption in relativization with direct objects and objects of preposition (§2.2). Consideragain the relative clause in (24):

IRAQI ARABIC

(24)DIRECT OBJECT RELATIVIZATION

الكاتب اللي شفته/*___ بالبيت سهى كان خليل جبران.

il=ka:teb illi   sheft=**ah/*___**   eb-be:t   Suha tʃa:n Khalil Jubran
the=writer whom saw.1S=**him**   at=house Suha was Khalil Jubran
'The writer whom I saw **[him]** in Suha's house was Khalil Jubran.'

The relative clause in (24) contains an obligatory resumptive pronoun. As I explained in (§2.3), the relative clause can be realised only via the relative pronoun. There are therefore two obligatory elements in the sentence in (24): (i) the relative pronoun *illi* "which" and (ii) the resumptive pronoun *h* "him". The derivation in which the relative pronoun *illi* "which" has a categorial selectional requirement to merge with the phrase headed by the resumptive pronoun is illustrated in (25), assuming the raising analysis of relative clauses (Kayne 1994):

(25)*derivation of (24)*
a. [$_V$ [*ʃeft*$_V$] [$_D$ [illi$_D$] [$_φ$ [h$_φ$] [ka:teb$_N$]]]]
b. [$_{DP}$[$_D$ il][$_{CP}$[$_{DP}$[ka:teb$_N$]][$_D$[illi$_D$] [$_φ$ [h$_φ$] [ka:teb$_N$][$_C$ [$_{IP}$ [$_I$[*ʃeft*$_V$]] [$_I$h$_φ$][$_I$[*ʃeft*$_V$]…[$_D$ [illi$_D$][$_φ$ [h$_φ$] [ka:teb$_N$]]]]]]]

In (25) the derivation develops by phases, where each maximal projection represents a domain for the application of rules (Chomsky 1995; Epstein et al 1998; Wojdak 2005; Hornstein 2008; Roberts 2010)[6]. Thus, in (25a)the DP is built bymerging the pronoun *h* 'him' with the noun *ridʒdʒa:l* "man" and then by merging this complex syntactic object with the relative pronoun *illi* "which". Then the verb V *ʃa:fet*"she saw" merges with the DP *illi h ridʒdʒa:l* "which him man". The verb raises to *v* and after that it will move to I. As for the clitic pronoun, in (§3.1) I proposed that it raises from its base position and moves up all the way to I. To obtain the enclitic order, the verb further moves over the clitic. In (25) the complement of the verb is a complex-DP. Two movement requirements appear at the moment: one is for the clitic to raise from its base position to the derived one and the other is for the interrogative to move to SpecCP.

One of the questions that arises at this point regards the lack of subject resumption. As mentioned in (§2.3), subjects in Arabic can only be strong pronouns, which are of category D. The resumptive pronoun in Arabic is of category φ, therefore it cannot surface in a subject position. So far I proposed that the relative pronoun *illi* "which" has a categorial selectional feature which requires it to take a φP as complement. A solution to the puzzle given by the lack of resumption with subjects

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[6]I assume that each maximal projection represents a domain for the application of rules. The other possibility would be to consider only *v*P and IP/ CP as domains for application of rules.

is to propose that when the complex-DP is merged in the subject position, φ remains overt, a silent resumptive.

In this section I argued that the relative pronoun has a categorial selection feature which requires it to merge with a φP at First Merge. In other words, the relative pronoun, the resumptive pronoun and the antecedent form a complex-DP at First Merge. The resumptive pronoun is a clitic pronoun which cannot surface in its base position, but must raise to a derived one (§3.1). The remnant DP raises to SpecCP following the raising analysis of relative clauses.

4.   Summary

Obligatory resumption is a purely syntactic phenomenon. In Iraqi Arabic relativization there is a designated relative pronoun and resumption is obligatory. The relative pronoun is of category D and has an obligatory selection requirement to take as complement a phrase headed by the resumptive pronoun that is of category φ.

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