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Reconstruction and A'-Movement in Relative Clauses and Wh-Interrogatives in Standard Arabic

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Abstract

Objectives: This study investigates reconstruction in wh-interrogative and relative clause dependencies in Standard Arabic (SA).

Methods: Two experiments were conducted to assess the acceptability of reconstructed interpretations with respect to three variables: type of islands, dependency-resolving strategy, and binding principles. The experiments were conducted on sixty individuals who willingly volunteered to take part in the study, with the stipulation that their identities would be kept confidential. All participants were experts in Standard Arabic syntax and semantics, holding Ph.D. degrees from Jordan, Morocco, Saudi Arabia, and Egypt.

Results: The results indicate that the presence and type of islands, as well as the type of binding principles, play a significant role in the availability of reconstruction in SA. However, the presence or type of resumptive pronouns has no effect.

Conclusions: These findings hold true for both wh-interrogative and relative clause dependencies. Therefore, the main theoretical implication of this study is that relative clauses in SA are CPs derived via A'-movement.

Keywords: Movement, islands, reconstruction, resumption, Standard Arabic.

إعادة التفسيروالحركة في جمل صلة الموصول والجمل الاستفهاميّة في اللغة العربية الفصحى

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ملخّص

الأهداف: تبحث هذه الدراسة في ظاهرة إعادة التفسير في الجمل الاستفهامية وجمل صلة الموصول في اللغة العربية الفصحى.

المنهجية: جُمِعَت المعلومات من خلال تطبيق أداتي دراسة لاختبار مدى قبول التفسيرات المعاد بناؤها فيما يتعلق بثلاثة متغيرات: نوع الجزر، واستراتيجية حلّ التبعية، والمبادئ الملزمة. اشتملت كل أداة على جزئين: يتطلب الجزء الأول أن يختار المشاركون التفسير الملائم للجمل قيد الدراسة، بينما جرى تصميم الجزء الثاني ليقوم المشاركون بتقييم مدى قبول التفسيرات المعطاة باستخدام مقياس ليكرت السباعي. ولقد شملت عينة الدراسة (60) مختصًّا بعلم النحو وعلم الدلالة في اللغة العربية الفصحى.

النتائج: أظهرت النتائج أنّ توافر التفسيرات المعاد بناؤها يعتمد على وجود الجزر ونوعها، إضافة إلى نوع المبادئ الملزمة، في حين أنّ وجود أو حذف الضمير العائد أو اختلاف نوعه ليس له دور مؤثّر في مدى توافر مثل هذه التفسيرات في اللغة العربية الفصحى. وأشارت النتائج إلى أنّ هذه العوامل ذاتها هي المؤثرة في نمطيّ الجمل قيد البحث.

الخلاصة: وعليه، إنّ أهم الآثار النظريّة لهذه النتائج هو أنّ جمل صلة الموصول هي جمل أي (CP) وليست أسماء أي (DP) ويجري اشتقاقها نحويًّا من خلال الحركة (A'-movement)، تماما كما الحال في الجمل الاستفهاميّة.

الكلمات الدالة: الحركة، الجزر، إعادة التفسير، عود الضمير، اللغة العربية الفصحى.

1. Introduction

Reconstruction in syntax literature is a term that unearths interconnection between syntactic operations like movement and semantic referential relationships related to binding and scope. In fact, reconstruction is related not only to A'-movement but also to A-movement; however, the current study focuses on A'-movement and whether relative clause dependency (RC), in particular, patterns with wh-interrogative dependency (WH) in being derived via A'-movement in Standard Arabic (SA). Furthermore, I refer to the variety of Arabic of interest in this study by SA as a neutral term that covers both Classical Standard Arabic and Modern Standard Arabic because the background information concerning gap and resumption strategies in Arabic represented in Section 3 incorporates examples from both Classical and Modern SA.

Reconstruction effects are evidenced by the availability of certain interpretations. These interpretations are not possible given the surface position of a certain fronted phrase. As a result, reconstruction has traditionally been taken as a diagnostic of A'-movement as illustrated below.

1. [which picture of herself$_i$]$_j$ did Ann$_i$ like [~~which picture of herself$_i$~~]$_j$

The anaphor *herself* in its surface position precedes its antecedent *Ann* with which it is coindexed and corefer. The grammaticality of this example in English and the acceptability of the interpretation resulted from coindexation are taken in syntax literature as a clear indication that the fronted phrase containing the anaphor behaves as if it moves backward, viz. **reconstructs** into, a lower position, namely, its extraction cite, which is here illustrated by the position of the direct object of the transitive verb *like*. Additionally, the phrase at issue is pronounced in its surface position rather than the assumed extraction site. Consequently, the mainstream assumption is that it is invisible to the PF. Rather, it operates as a covert movement at the LF for the sake of interpretation. Movement in the syntax proper operates upwards, whereas syntactic reconstruction results from LF movement that occurs downwards. (Sternefeld 1997; Heim 1994; Katz, Kim and Winhart 1998; Lebeaux 1991; Chomsky 1995; Sauerland 1998; Fox 2000; Barss 2001).

The semantic principles that are often addressed in the literature on reconstruction are binding and scope principles (Chomsky 1995; Fox 2000; Sportiche 2006 for a review). Below is a detailed definition of the oft-studied principles in previous studies on reconstruction as reported below.

2. Binding Principles: (Barss 2001, 674)
i.   Principle A: If α is [+Anaphoric], α must be A-bound in the minimal CFC containing it, its governor, and a potential antecedent.
ii. Principle C: If α is an R-expression (= [−Anaphoric], [−Pronominal]), α must be A-free (within the domain of the operator binding it).

3. **Principle of Pronominal Binding** a pronoun can behave as a variable bound by X only if it can be interpreted in the scope of X giving the bound variable reading alluded to in the literature as BVA. (Sportiche 2006, 9)

Putting all these pieces together, I illustrate the concept of reconstruction in relation to A'-movement and binding principles below.

4. a. [Which photos of *himself$_i$*]$_j$ did Ben$_i$ like [~~which photos of himself~~]$_j$?
b. *[Which photos of *Ben$_i$*]$_j$ did he$_i$ like [~~which photos of Ben~~]$_j$?
c. [Which photos of *his$_i$* daughter] did [$_{QP}$ every employee]$_i$ liked [~~which photos of his daughter~~]$_j$?

The set exemplifies reconstruction for Principle A (4a), Principle C (4b), and BVA (4c). The fronted DP contains an

element whose current surface position cannot yield the intended interpretation to which coindexation leads. For example, the anaphor *himself* can be c-commanded, bound, and interpreted only if it reconstructs to its extraction site as indicated by the elided copy. The grammaticality of this sentence under this interpretation can only be explained by reconstruction since the surface position renders the anaphor unbound because it precedes its c-commanding antecedent and so violates binding Principle A. On the other hand, the ungrammaticality of (4b) under the given coindexation unravels an obvious violation of binding Principle C which can only be triggered by reconstruction when the R-expression *Ben* ends up bound by the pronoun *he*. The bound variable anaphoric reading indicated by the coindexation in (4c) can only be captured by assuming that the fronted DP along with the pronominal element it contains has reconstructed into its extraction site indicated by the elided copy. From this position, *his* falls in the scope of the quantifier phrase (QP) *every employee*, and so gets bound giving the functional distributed interpretation that there are different photos for different employees. The grammaticality of the BVA interpretation clearly proves that reconstruction occurs.

Previous literature on reconstruction in Arabic manifests conflicting proposals and even some studies challenge the association between reconstruction and A'-movement (Guilliot and Malkawi 2006). In the current study, I provide an experimentally-based account of reconstruction and A'-movement in RC and WH dependencies in SA.

The organization of the current study is as follows. Section 2 presents a brief review of the main studies and proposals of reconstruction in Arabic. Section 3 highlights the extent of the availability of gap and resumption strategies in RC and WH dependencies in SA. Section 4 offers a detailed presentation of the experiments undertaken on reconstruction in SA. Section 5 concludes with a proposal of how RC and WH dependencies, with special focus on RC, are syntactically derived given the findings of the experiments in the current study.

2. Previous studies on reconstruction in Arabic

The influential studies in the literature written on reconstruction and its association with A'-movement were conducted on Lebanese Arabic (LA) and Jordanian Arabic (JA) which are spoken varieties of Arabic. Observations and conclusions from a number of previous studies on LA support the typical assumptions in previous syntax literature that reconstruction is only available in LA when A'-movement is allowed, specifically, when no island is present. Ross (1967) defines islands as constructions that ban moving constituents out of them. The convention in syntax literature is to refer to the unacceptability of having a gap within an island as an island effect (Ross, 1967; Postal, 1998; Szabolcsi, 2006 and references therein). Following previous literature on Arabic, I use adjunct island as an example on strong islands and *wh*-island as an example on weak islands throughout the current study (Aoun *et al.* 2010 and references therein). The constructions examined in the most common previous literature on Arabic include relative clauses (Aoun and Choueiri 1996; Aoun, Choueiri, and Hornstein 2001) and clitic-left-dislocated constructions (Aoun and Benmamoun 1998). In all these constructions, only resumption strategy is available in LA. Below are some illustrative examples (Aoun and Choueiri 1996, 20).

5. a. shɪfɪt   [ɪ<u>s</u>-<u>s</u>u:ra   taba^c ibn-a_i]$_j$ yalli [kul   muwazzafe]$_i$?a:lit   innu
saw.1sg [the-picture of   son-her] that [every employee.f] said.3sf   that
badda   it^{c}ali?-a_j bi-maktab-a
want.3sf   hang.3sf-it   in-office-her
'I saw the picture of her son that every employee said she wants to hang in her office.'

b. *shifit   [is-<u>s</u>u:ra   taba^c ibn-a_i]$_j$ yalli zi^{c}il-tu   la?innu
saw.1sg [the-picture of   son-her] that upset.2pl   because
[kul   muwazzafe]$_i$ badda   it^{c}ali?-a_j bi-maktab-a
[every   employee.f]   want.3sf   hang.3sf-it   in-the-office

'I saw the picture of her son that you were upset because every employee wants to hang it in the office.'

Aoun and Choueiri (1996) show that the pronominal element -*a* 'her' within the bracketed, relativized DP is c-commanded, bound, and so interpreted in coreference with the resumptive pronoun (RP) attached to the transitive verb inside the noisland embedded *ɪnnʊ* 'that'-clause in (5a) given the bound variable anaphoric interpretation, i.e., the distributed reading of different photos for different employees. However, this distributed, i.e., reconstructed interpretation, is blocked when the related RP occurs inside an island as the ungrammaticality of (5b) delineates.

To account for how the RP is related to the DP heading the dependency in presence of islands, Aoun, Choueiri, and Hornstein (2001) claim that there are two types of RPs: true RPs versus apparent RPs, derived by two different mechanisms as schematized below (Choueiri 2018, 141).

6.   a. True resumption
Antecedent$_i$ ……. [$_{Island}$ ……….] RP$_i$

b. Apparent resumption
Antecedent$_i$ ……. Antecendent$_i$-RP

When an island is present, the antecedent is base-generated in the left periphery and is related to the true RP via binding (6a). On the other hand, when there is no island, the apparent RP related to its antecedent via movement (6b). As a consequence, the RP in (5a) is an apparent RP that is related to the relativized DP via movement given the reconstructed reading. The RP in (5b) is a true RP that is related to its base-generated antecedent via binding.

The other argument is advanced by Guilliot and Malkawi (2006) and Malkawi and Guilliot (2007) who call for disassociating reconstruction from A'-movement due to empirical observations from JA. They found that reconstruction is available in JA in presence of islands, and it can be unavailable in JA in absence of islands. Instead, they argue that three other criteria count with respect to reconstruction in JA: the type of RP, the type of islands, and the type of the binding principle.

In the context of strong islands, weak RPs, but not strong RPs, allow reconstruction (Guilliot and Malkawi 2006, 170-1).

7.   a. [ṭalɪb-[ha]$_i$ l-kassul]$_j$ ma   ħakeɪna   maʕ   [wala mʕalmɪh]$_i$ gabl-ma
student-her   the-bad   Neg   talked.1pl   with   no   teacher   before
tʃu:f-uh$_j$ /   -uh$_j$ huwwa$_j$ l-mudiirah
saw.3sf-him/ -him   he   the-principal.3sf
'Her bad student, we didn't talk to any teacher before the principal saw him.'

b. *[ṭalɪb-[ha]$_i$ l-kassul]$_j$ ma   ħakeɪna   maʕ   [wala mʕalmɪh]$_i$ gabl-ma
student-her   the-bad   Neg   talked.1pl   with   no   teacher   before
huwwa$_j$ ha-l-ɣabi$_j$ yeʂal
he   the-idiot.3sm   arrive.3sm
'Her bad student, we didn't talk to any teacher before he/ this idiot arrived.'

They define the weak RP as a pronominal clitic -*uh* 'him' *per se* or a clitic with a doubled clitic -*uh huwwa* 'he'. The grammaticality of (7a) under the distributive (reconstructed) reading even is accounted for by assuming that reconstruction takes place and so should be dissociated from movement since the weak RP is inside an island. On the contrary, the strong RP refers to a strong tonic pronoun *huwwa* 'he' or an epithet *ha-l-ɣabi* 'the-idiot'. The ungrammaticality of (7b) under the distributive reading reveals that reconstruction is unavailable when the strong RP is inside a strong island contra to weak RPs.

The type of the island whether strong or weak is influential with strong RPs only. More specifically, they argue that reconstruction is unavailable in JA when strong RPs occur inside strong islands as demonstrated by the ungrammaticality of (7b). However, reconstruction is available when the strong RPs occur inside weak islands as shown in the grammaticality of (8).

8. [ʈalɪb-[ha]ᵢ   l-kassul]ⱼ   ma   badku   tɪsʕal   [wala mʕalmɪh]ᵢ   leɪʃ
student-her   the-bad   Neg   want-2plm   ask.2plm   no   teacher   why
huwwaⱼ/   ha-l-ɣabij   ɣaʃ   b-l-mtɪħa:n
he/   this-the-idiot.3sm   cheated.3sgm   in-the-exam
'Her bad student, you don't want to ask any teacher why he/this idiot cheated in the exam.'

On the other hand, they observed that while the availability of reconstruction with strong RPs is affected by the type of the island whether strong or weak, its availability with weak RPs is affected by binding principles in that reconstruction for Principle A (9a) and BVA (9c) is available with weak RPs but reconstruction for Principle C (9b) is not.

9.   a. [ʈalɪb-[ha]ᵢ   l-kassul]ⱼ   ma   bɪddna   nxabbɪr   [wala mʕalmɪh]ᵢ   ɪnnʊ
student-her   the-bad   Neg   want-1pl   tell.1pl   no   teacher   that
l-mʊdi:rah   kaħʃat-uhⱼ /   -uh   huwwaⱼ   mɪn   l-madrasɪh
the-principal   expelled.3sgf-him /   -him   he   from   the-school
'Her bad student, we don't want to tell any teacher that the principal expelled him from school.

b.   *[ʕalamɪt   kari:mᵢ]ⱼ   bɪtfakɪr   ɪnnu   *pro*ᵢ   lazɪm   ɪɣayyɪr-*ha*ⱼ
grade   Karim   think.2sgm   that-   he   must   change-   it
'The grade of Karim, you think that he must change (it).'

c.   [ʈa:lɪb-[ha]ᵢ   l-kasul]ⱼ   ma   bɪddku   tɪsʔal-u   [wala maʔlmɪh]ᵢ
student-her   the bad   Neg   want-2plm   ask-2plm   no   teacher
leɪʃ   l-mʊdi:rah   kaħʃat -uhⱼ /   -uh   huwwaⱼ   mɪn   l-mɪdrasɪh
why   the-principal   expelled-3sgf-him /   -him   he   from   the-school
'Her bad student, you don't want to ask any teacher why the principal expelled him from school.'

All in all, they argue that reconstruction is available with weak RPs regardless of the presence or absence of islands and their types. However, it is available with strong RPs in absence of islands or presence of weak islands only. Accordingly, they propose that reconstruction is available as far as a copy is present in the position subject to reconstruction but this copy is made available by two different mechanisms depending on the type of RPs. More precisely, it is made available by means of movement with strong RPs but ellipsis along Elbourne's (2001) NP-deletion of pronouns with weak RPs. They assume that this is the reason why sensitivity to islands is not shown to play a role in the derivation of these constructions (Malkawi and Guilliot, 2006).

In a nutshell, empirical facts from previous syntax literature on Arabic contradict. For instance, reconstruction patterns with islands as predicted in languages like LA in which only the resumption strategy is licit in some constructions. On the other hand, reconstruction does not patten with islands as predicted in some other languages like JA in which resumption and gap strategies alternate. Instead, the availability of reconstruction varies according to the type of RPs in the sense that reconstruction effects are only available with strong RPs unless strong islands are present; reconstruction effects are available with weak RPs for Principle A but not C regardless of the presence or absence of islands. The underlying objectives of conducting this study is to investigate reconstruction in SA in light of all these contradictory observations, which, in turn, provide some implication regarding how WH and RC dependencies are syntactically derived.

3. Gap and resumption strategies in SA

SA is a formal variety used in formal settings like writing and formal speeches delivered in formal occasions; therefore, I rely on some typical sources on the syntax of SA including Sibawayhi (1966), Ibn Jinni (1970), Ibn Hisham (1964), besides some recent works such as Al-Hroot (1994), and Hassan (2008) that address congruent issues to the current study in order to provide a relevant description of the licit dependency-resolving strategies in RC and WH dependencies. This section summarizes and presents descriptive details relevant to the current study from these sources. In SA, there are some relative pronouns that exhibit number and gender agreement with the relativized category such as *allaði* 'the+sgm', *allati* 'the+sgf', *allaða:n* 'the+dlm', *allata:n* 'the+dlf', etc. and some other relative pronouns that do not manifest number and gender agreement, but they rather have strictly rigid morphological forms regardless of the features of the relativized category including: *ma:* 'what', *man* 'who', *ʔayya* 'which+NP', etc. These can also be used as *wh*-fillers. Relevant to the theme of the study, the pronouns that may function as *aḍḍami:r alʕa:ʔd* 'resumptive pronoun (RP)' can be strong RPs that can be nominative like *huwwa* 'he', *hiya* 'she', *hum* 'they', etc. besides their accusative respective, counterparts such as: *ʔiyyahu, ʔiyyaha, ʔiyyahum*, etc., and weak RPs that are cliticized to case-assigners like *-uh*. SA is a *pro*-drop language that allows the subject to be null, and it does not allow preposition stranding. Therefore, I exclude these two sites from the experiments I conducted to investigate both gap and resumption strategies. Consequently, the discussion throughout is devoted to the direct object position of transitive verbs and so only accusative RPs are included.

SA allows both gap and resumption strategies in object position in RC and WH dependencies.

10.   a. ʃarɪb-tu   al-ma:ʔa   allaði: ʔaħḍar-ta-hu /___
drank-1sg the-water   that   brought-2sgm-it/ ___
'I drank the water you brought (it) /_.'

b. la   ʔaʕlamu   ʔayya   darsɪn   taqşidi:n-hu/ _
not   know   which   lesson   mean.3sgf-it/_?
'I don't know which lesson did you mean (it)/_.'

c. ʔayya   darsɪn   taqşidi:n-hu/ _
which   lesson   mean.3sgf-it/_?
'Which lesson did you mean (it)/_?'

Both types of relative pronouns whether those that exhibit agreement (10a) or those that do not exhibit agreement with the relativized category (10b) as well as wh-fillers used in wh-interrogatives (10c) pattern the same with respect to gap and resumption strategies. In spite of this similar behavior, gaps are assumed to relate to the relative pronoun or wh-filler via A'-movement in English that was extended to Arabic gapped constructions. However, several accounts were proposed to account for how RPs are instead related to the fronted phrase including: base-generation, ellipsis, etc. (Aoun et al. 2010; Choueiri 2018, and references therein). All these accounts are addressed in detail in the last section.

4. The current study

Recall that SA is a formal variety of Arabic taught at schools; it is unacquired by children as typical mother tongues are acquired. Therefore, I contend that it is not viable to ask native speakers of spoken varieties of Arabic to judge sentences in SA as done in previous experimental studies, for example, Tucker *et al.*'s (2019) study. Instead, I assume that it is better to ask scholars of SA syntax and semantics to participate in this study, particularly, because the study includes examples constructed in a way to include islands which cannot be found as actual examples in books and corpora. Accordingly, I

assume that the acceptability and availability of reconstruction in presence of islands can better be judged by the scholars using experimental method designed carefully to yield more controlled material as made clear below.

4.1. Design, method, and material

I incorporated the variable alluded to earlier with respect to reconstruction in Arabic upon designing the experiments in the current study. Following Sprouse et al (2016), I employed a 3*3*3 factorial design with three independent variables (all capitalized) along with their respective values (given within parentheses): BINDING_PRINCIPLES (Principle A, Principle C, and BVA), ISLAND (Strong_Island, Weak_Island, NoIsland), and dependency_resolving strategies dubbed for brevity as TAIL (Weak_RP, Strong_RP, and Gap). The design yielded (27) conditions. The experiment is divided into two parts. The first part was designed along a forced-choice paradigm in which a sentence was given followed by two interpretations: a reconstructed interpretation (11a) versus an unreconstructed interpretation (11b) and participants were required to provide either a (✓) or a (X) revealing if they thought the given interpretation was acceptable or not, similar but not identical to the methodology adopted by Bruening and Al Khalaf (2019) and Georgi et al. (2018). Unfortunately, forced-choice paradigms were generally restrictive in forcing participants to choose either response. To rectify this shortcoming, I included a second part designed in a way to give participants more room to judge the acceptability and suitability of the two interpretations following each given sentence on a 7-point Likert scale (1 = completely unacceptable; 7 = perfectly acceptable). In adherence to previous literature on Arabic, I included adjunct island as a strong island and the wh-island as a weak island (Aoun *et al.* 2010).

11.   raʔaytu   [tilmi:ða-ha$_i$]$_j$ allaði: ɣaḍibtum   liʔanna   muna$_i$ ṭaradat-**uh**$_j$
saw-1sg   [student-her]   that   angered   because   Muna   expelled-him
'I saw her student whom you got angry because Muna expelled him.'

a.   at-tilmi:ðu   allaði: ṭurida   huwwa   tilmi:ðu   muna
the-student   who   was.expelled   he   student   Muna
'The student who was expelled is Muna's student.'

b.   at-tilmi:ðu   allaði: ṭurida   laysa   tilmi:ðu   muna
the-student   who   was.expelled   not   student   Muna
'The student who was expelled isn't Muna's student.'

Each participant would see one experimental sentence on each condition in each part. I included filler items on the ratio 1:1 with experimental sentences in each part given (27) items besides one practice item for each part. The total number of items was (110) including: (54) experimental items, (54) filler items, and (2) practice items, distributed evenly into both parts. I adopted the same design in two experiments. Experiment 1 tested RC dependency; Experiment 2 tested WH dependency headed by *ʔayya*+NP 'which+NP'.

12.   a. qaraʔ-atu   [madiħa li-nafsiha$_i$]$_j$ allaði: qultum   ʔanna suha$_i$ katab-at-**hu**$_j$
read-1sg   [compliment for-herself]   which   said-2plm   that   Suha   wrote.3sgf-***it***
'I read the compliment for herself which you said that Suha wrote (***it***).'

b. raʔaytu   [ibnata ʕablata$_i$]$_j$ allati: ðahabtum   qabala   ʔan   tuṣilu-**ha**$_j$ hiyya$_i$
saw-1sg   [daughter Abla]   which   went-2plm   before   part.   drove.3sgf-***her***   she
'I saw Abla's daughter whom you went before she gave (***her***) a ride.'

c.   qa:baltu   [ibnat-ha_i   almudʒtahida]_j   allati: saʔaltum   lima:ða

met-1sg [daughter-her the-hard-working]   whom   asked-2plm   why

ka:faʔat-ha   [kul   muʕalimatin]_i

awarded-3sgf-her   [every   teacher.3sgf]

'I met her hard-working daughter whom you asked why every teacher awarded (*her*).'

The bracketed phrase in (12a) contains an anaphor that is coindexed with an R-expression inside a noisland declarative clause that does not include an island. This example tested reconstruction for Principle A in noisland conditions. In (12c), the bracketed phrase contains an R-expression that is coindexed with a strong pronoun inside a strong island. This is an instance on the target sentences that were constructed to test reconstruction for Principle C in strong island conditions. In (12c), the bracketed fronted phrase contains a pronominal element that is coindexed with an RP inside a weak island. This example represents the items tested BVA interpretation. This set is only an exemplary set of how the sentences were constructed according to the conditions of interest.

Half of the filler items in each part were grammatical while the other half were ungrammatical. All filler and experimental items were distributed into two lists in a Latin-Square design that were pseudo-randomized on these lists in order not to provide consecutive items presented on the same condition. The task was emailed to the participants who were told to do it on their own pace and email it back to the researcher.

4.2. Participants

Sixty participants agreed to volunteer to participate in the study on the condition that their names remained anonymous. All of them were PhD holders of Standard Arabic syntax and semantics from Jordan, Morocco, Saudia Arabia, and Egypt. The data from all the participants were included in the final analysis because all of them completed the task appropriately and judged all the filler items correctly rated above (97%). The age range was 35-62 (median age = 53) distributed into (24) male and (9) female. Thirty participants participated in Experiment 1; the other (30) participants took part in Experiment 2.

4.3. Results

The first table below presents the percentages of choosing the reconstructed interpretation in RC dependency.

Table 1: The percentages of choosing the reconstructed interpretation in RC

	Strong_Islands			Weak_Islands			No_Islands		
	StrongRP	WeakRP	Gaps	StrongRP	WeakRP	Gaps	StrongRP	WeakRP	Gaps
A	33.1%	31.2%	29.8%	41%	43.9%	42.4%	83%	84%	87%
C	19.4%	20.7%	21%	25%	26.9%	23.8%	52.1%	55%	53.8%
BVA	21.1%	21.7%	20.7%	31.1%	34%	35.3%	49.3%	53%	51.5%

The results revealed an obvious impact of the presence and type of islands and the type of the binding principles on the availability of reconstruction, yet there was no difference with respect to the type of the dependency-resolving strategy. The percentage of choosing the reconstructed interpretation was the lowest in strong islands with respect to all binding principles even though the availability of choosing reconstructed interpretation was slightly higher in Principle A conditions. As far as weak RPs are concerned, the percentage of choosing the reconstructed reading increased, but again the increase was more evident with Principle A than BVA and Principle A conditions, which were still lower. The obvious increase in choosing reconstructed reading can be seen in the percentages of choosing reconstructed interpretation when no island intervened and it was obviously higher in reconstruction for Principle A while it was around 50% in reconstruction

for Principle C and BVA.

Turning to the results of the first part in Experiment 2, the table below displays the percentages of choosing the reconstructed interpretation in WH dependency.

Table 2: The percentages of choosing the reconstructed interpretation in WH

	Strong_Islands			Weak_Islands			No_Islands		
	StrongRP	**WeakRP**	**Gaps**	**StrongRP**	**WeakRP**	**Gaps**	**StrongRP**	**WeakRP**	**Gaps**
A	35.8%	33.8%	31.7%	43%	42.1%	41.9%	85.1%	87.2%	86.7%
C	21.5%	23.2%	22.8%	23.2%	24.3%	26.4%	55%	53.7%	55.2%
BVA	20.5%	21.4%	22.3%	35%	32.3%	34.1%	50.7%	51.1%	49.7%

The percentages obviously delineated that the availability of reconstruction in WH dependency was affected by the presence and type of islands while the type of the dependency-resolving strategy did not play a role in this regard. The findings showed that reconstruction was the least available in strong islands for all binding principles. Reconstructed readings were chosen more in weak island conditions. The results also revealed that the availability of reconstruction clearly varied in terms of the binding principles such that reconstruction for Principle A was available more than other principles in all conditions and in particular when no island intervened. Comparing the results of the first parts of the experiments demonstrated that both RC and WH dependencies patterned similarly with respect to sensitivity to islands and availability of reconstruction across the studied binding principles.

The results of the second part in each experiment replicated the findings of the first part by showing that two factors mattered with respect to the availability of reconstruction in SA: the presence and type of islands and the type of binding principles. However, the type of the dependency and the dependency-resolving strategy were not found to have any significant impact on determining the availability of reconstruction in SA. In order to facilitate observing and detecting the similarity in behavior in both dependencies across the three dependency-resolving strategies, I present the averages and standard deviations (SDs) of the ratings of the reconstructed and unreconstructed interpretations in both dependencies in strong island conditions (Table 3), weak island conditions (Table 4), and noisland conditions (Table 5).

Table 3: The means and (SDs) of ratings of reconstructed (+R) and unreconstructed (-R) interpretations in RC and WH in strong islands

	RC						WH					
	Strong RPs		Weak RPs		Gaps		Strong RPs		Weak RPs		Gaps	
	+R	**-R**	**+R**	**-R**	**+R**	**-R**	**+R**	**-R**	**+R**	**-R**	**+R**	**-R**
A	1.9 (.79)	5.0 (1.27)	1.8 (.83)	4.9 (.62)	1.5 (1.03)	5.1 (1.06)	1.8 (1.03)	4.9 (.95)	1.7 (1.73)	4.4 (1.33)	1.5 (1.31)	4.8 (1.12)
C	1.3 (1.11)	4.8 (1.18)	1.4 (1.13)	4.7 (1.63)	1.2 (1.05)	4.9 (1.15)	1.4 (.81)	4.7 (.61)	1.6 (.91)	4.7 (1.27)	1.4 (.91)	4.1 (1.69)
BVA	1.50 (.98)	4.5 (1.01)	1.3 (.92)	4.2 (.77)	1.3 (1.15)	4.8 (.87)	1.4 (.77)	4.2 (1.01)	1.5 (.80)	4.9 (1.17)	1.7 (1.01)	4.0 (1.19)

Table 4: The means and (SDs) of ratings of reconstructed (+R) and unreconstructed (-R) interpretations in RC and WH in weak islands

	RC						WH					
	Strong RPs		Weak RPs		Gaps		Strong RPs		Weak RPs		Gaps	
	+R	-R	+R	-R	+R	-R	+R	-R	+R	-R	+R	-R
A	3.4 (.51)	4.9 (1.03)	3.1 (1.35)	5.5 (.92)	2.9 (.76)	5.0 (1.08)	3.0 (1.91)	5.1 (.93)	3.1 (.84)	5.3 (.75)	2.8 (1.21)	5.2 (1.81)
C	3.0 (.73)	5.1 (.91)	2.9 (.97)	4.8 (.74)	3.1 (.71)	4.9 (.47)	2.9 (1.81)	4.8 (.92)	3.3 (1.77)	5.0 (.81)	2.8 (1.38)	4.8 (.89)
BVA	3.3 (.87)	4.8 (1.12)	3.0 (.39)	5.1 (1.11)	3.2 (1.05)	5.1 (.65)	3.1 (1.27)	4.6 (1.08)	2.8 (1.93)	4.5 (.92)	3.0 (1.27)	4.5 (.77)

Table 5: The means and (SDs) of ratings of reconstructed (+R) and unreconstructed (-R) interpretations in RC and WH in no islands

	RC						WH					
	Strong RPs		Weak RPs		Gaps		Strong RPs		Weak RPs		Gaps	
	+R	-R	+R	-R	+R	-R	+R	-R	+R	-R	+R	-R
A	5.9 (1.09)	3.8 (1.18)	6.2 (.71)	3.9 (1.30)	6.3 (1.12)	4.0 (.91)	6.1 (.59)	3.5 (.81)	5.8 (.79)	3.8 (1.51)	6.2 (.71)	3.8 (1.01)
C	3.8 (1.73)	4.2 (1.03)	4.0 (.63)	4.2 (1.07)	4.0 (1.14)	4.1 (.92)	3.9 (.67)	3.8 (.52)	4.1 (1.01)	4.3 (.95)	3.9 (.69)	4.2 (1.12)
BVA	4.1 (1.46)	4.5 (.97)	4.0 (.83)	4.2 (1.15)	3.9 (1.61)	4.2 (1.13)	4.3 (1.06)	4.5 (.78)	4.1 (1.17)	4.2 (1.32)	3.8 (.82)	4.3 (1.39)

I employed a linear mixed-effects model using SPSS IBM version 23 to statistically analyse the results of the second part of both experiments each one at a time with BINDING_PRINCIPLE (Principle A. Principle C, and BVA), ISLAND (Strong_Island, Weak_Island, and No_Island), and TAIL, dependency-resolving strategies, (Strong_RPs, Weak_RPs, and Gaps) incorporated as fixed-effect factors while items and subjects were included as random-effect factors. The results of Experiment 1 that tested RC dependency revealed a main effect of BINDING_PRINCIPLE ($F = 201.217$ (.000), $p < 0.05$) and main effect of ISLAND ($F = 198.718$ (.000), $p < 0.05$), but no main effect of TAIL ($F = .937$ (.722), $p < 0.05$). Only interaction effects of BINDING_PRINCIPLES*ISLAND were found to be statistically significant ($F = 25.984$ (.000), $p < 0.05$). No statistically significant interaction effects of BINDING_PRINCIPLES*TAIL ($F = 1.127$ (.601), $p > 0.05$), TAIL*ISLAND ($F = 17.144$ (.803), $p > 0.05$), or BINDING_PRINCIPLE*TAIL*ISLAND ($F = 2.095$ (.583), $p > 0.05$) were depicted. Likewise, the statistical analysis of the results of the second part of Experiment 2 that targeted WH dependency unravelled a main effect of BINDING_PRINCIPLE ($F = 250.113$ (.001), $p < 0.05$) and main effect of ISLAND ($F = 208.754$ (.000), $p < 0.05$), but no main effect of TAIL ($F = 1.853$ (.603), $p < 0.05$). Only interaction effects of BINDING_PRINCIPLES*ISLAND were found to be statistically significant ($F = 208.112$ (.000), $p < 0.05$). No statistically significant interaction effects of BINDING_PRINCIPLES*TAIL ($F = 1.105$ (.678), $p > 0.05$), TAIL*ISLAND ($F = 15.222$ (.689), $p > 0.05$), or BINDING_PRINCIPLE*TAIL*ISLAND ($F = 3.081$ (.620), $p > 0.05$) were elicited.

5. Conclusions and theoretical implications

The conclusions drawn from the experiments in this study can be summarized as follows. First, there was no difference with respect to the availability of reconstruction effects and sensitivity to islands among dependency-resolving strategies, viz. weak RPs, strong RPs, and gaps. All were found to exhibit similar behavior in both dependencies. Second,

reconstruction effects were attainable as far as there was no island intervening between the fronted nominals and the resolving strategies. Third, reconstruction effects were almost unavailable in presence of strong islands represented by adjunct island in SA. These conclusions elucidated that relative clauses like wh-interrogatives exhibited sensitivity to islands clearly with strong islands, and this sensitivity was similar across both dependencies regardless of the dependency-resolving strategies. Fourth, the results of the current study lent further support to the claims that the type of the binding principle was crucial to reconstruction. While reconstruction for Principle A was obviously available and highly rated as acceptable, reconstruction for Principle C and BVA was neutrally available and seemed ambiguous between reconstructed and unreconstructed interpretations. The unreconstructed reading was the preferred reading when islands were present.

The intriguing question now is: what are the theoretical implications of these experimentally-based conclusions? In what follows, I address the aforementioned results in order. The lack of different behavior among weak RPs and strong RPs is predicted if facts about the grammar of SA are reconsidered. As accusative pronouns, the difference between weak and strong RPs seems superficial on the grounds of the morphological composition of these pronouns. Indeed, weak RPs are clitics that have to be attached to case-assigner heads, i.e., the transitive verb in the experimental items as in *daʕa:-**hu*** 'invited him', whereas accusative strong RPs like *ʔyya-**hu*** 'SUPPORT+him', show identical forms. Consider the morphological decomposition of the RPs at issue.

Table 6: The morphological decomposition of accusative weak and strong RPs

	Support	**Pronouns**
Weak RPs	*daʕa-* 'invited'	*-ha* 'her' ; *-hu* 'him'; *hum* 'them'
Strong RPs	*ʔyya-*	*-ha* 'her' ; *-hu* 'him'; *hum* 'them'

Inspecting closely the morphological formation reveals that the assumed different categorization in traditional and modern studies on Arabic syntax is superficial because both types ended up formed as having a weak RP attached to an accusative-case assigner. The truly strong RPs are *huwwa* 'he', *hiya* 'she', *hum* 'they', etc. are always nominative and since SA is a *pro*-drop language, it is not clear how to assume different behavior, and they are out of the scope of the current study.

The significant result lies in the lack of difference in behavior between gaps and RPs, in general. I would assume this finding is predicted if both RPs and gaps are variables as proposed in the literature (Heim 1994). I would argue that the different syntactic derivations assumed for gaps and RPs in literature on Arabic are due to extending proposals from English, a language with intrusive resumption in which resumption is not part of its grammar, to Arabic, which is a grammatical resumption language in which resumption is part of its grammar (Sells 1984; McCloskey 2006). The lack of different behavior between gaps and RPs undermines the different syntactic proposals to relate gaps and RPs to the fronted elements. Instead, I would assume that gaps in SA are in reality null RPs. This assumption conforms with the syntactic properties of null-subject languages (Perlmutter 1971; Chomsky and Lasnik 1977; Kayne 1980; Jaeggli 1982; Rizzi 1982; Safir 1985; Jaeggli and Safir 1989; Camacho 2013). It is also compatible with what traditional grammarians of SA assume that *ħaðif alʕa:ʔid* 'deletion of the resumptive pronoun' is allowed in SA as far as no ambiguity arises. I would argue that this is only a PF difference as they differ mainly in being pronounced or unpronounced, and so they differ in their visibility to the PF. In fact, their difference is not subject to different syntactic derivations given the similar behavior with respect to sensitivity to islands and reconstruction as the results of this study demonstrate.

Another important finding is the consistent pattern with respect to sensitivity to islands and availability of reconstruction effects in relative clause and wh-interrogative dependencies in SA. While there is a census among scholars that the dependency between the wh-filler and gaps in wh-interrogatives is derived via A'-movement (Aoun *et al.* 2010, and references therein), there is no agreed-on account of relative clause dependency in Arabic, in general, but the proposals advanced for some Arabic varieties like LA, for example, fall within two main accounts: (a) promotion/ raising/ movement (Aoun *et al.* 2001; Choueiri 2002; Aoun and Li 2003; Ouhalla 2004) and (b) base-generation (Sells 1984; Shlonsky 1992;

Aoun et al 2010). In what follows, I address only the versions of these accounts pertinent to definite restrictive relative clauses, the construction at issue in the current study.

One version of the promotion/ raising/ movement account is proposed by Ouhalla (2004) who claims that relative clauses in Arabic are DPs that internally contain TPs rather than CPs. His proposal is primarily based on the morphological composition of relative pronouns as consisting of the definite article *-al* 'the' with number and gender inflections as in *allaði* 'the+sgm', *allati* 'the+sgf', *allaða:n* 'the+dlm', *allata:n* 'the+dlf', *allaði:n* 'the+plm', *allawati:* 'the+plf' following (Fassi Fehri 1981). The second piece of evidence he advances is that relative pronouns in Arabic differ from the typical sentential complementizer that introduces declarative statements realized in SA as *inna* 'that' and *ʔnno* 'that' in LA. Third, the relative pronoun in SA agrees with the relativized category in number, gender, person, and case. For all of these pieces of evidence, Ouhalla proposes that the relative pronoun is a determiner heading the outer DP realized as the+Agr below rather than a C (complementizer) heading a CP. Accordingly, the promotion version he adopts hinges on the assumption that the relative pronoun (or marker in his terms) occupies the outer D position and the relativized category is an inner DP that is promoted (raised) to the outer Spec-DP where it agrees with the head D in a Spec-Head configuration. Below is the syntactic representation Ouhalla (2004, 291) suggests to represent the derivation of the relative clause in (13a), which is originally cited from Haddad and Kenstowicz (1980, 144). (The transcription of the example is modified to comply with the IPA symbols utilized for all the examples throughout the current study.)

13.   a. ɪl-baṭṭa   ɪllɪ   aʔakl-na:-ha
the-duck   that   eat-we-it
'The duck we ate it.'

b. [$_{DP}$ the [$_{NP}$ [$_{DP}$ the+Agr [$_{TP}$ we-eat-it]] [$_{N'}$ the duck]]]
c. [$_{DP}$ the [$_{N}$ duck]$_i$ [$_{NP}$ [$_{DP}$ the+Agr [$_{TP}$ we-eat-it]] [$_{N'}$ [e]$_i$]]]

The other version of the promotion/ raising/ movement account agrees with Ouhalla (2004)'s proposal in that what moves/ raises/ promotes is the nominal relativized category, but they diverge from his account with respect to the internal structure as containing a CP rather than a TP (Aoun *et al.* 2001; Choueiri 2002; Aoun and Li 2003). Aoun and Li (2003) adopt Schachter's (1973) and Vergnaud's (1974) promotion analysis of English relative clauses to account for definite restrictive relative clauses in LA. Per this version of the promotion/ movement analysis, the relative pronoun (or marker) is a typical complementiser like English *that* which heads a CP, i.e. the relative clause, and the nominal relativized category raises from within the relative clause and occupies the specifier position of this CP. According to this account, the relationship between the gap and the nominal relativized category is derived by A'-movement because the moved nominal lands in the left periphery of the CP- relative clause. It also assumes that the outer D is base-generated and it selects a CP, the relative clause, as its complement as sketched below from Aoun and Li (2003, 97).

14.   [$_{DP}$ D [$_{CP}$ NP/DP$_i$ [C [$_{IP}$ ….. t$_i$ ……]]]]

The advocates of this proposal (Schachter 1973; Vergnaud 1974) originally capitalize on empirical data from the distribution of idiom chunks (15a) and reconstruction effects (15b) in English to provide evidence that the relativized nominal category originates inside the relative clause then it moves higher to its surface position preceding the complementiser. (The examples below are taken from Schachter (1973, 31-32). The brackets and underscores are provided here, yet not in the original source, for the sake of clarity.)

15.   a. The headway [that Mel made ___] was impressive.

b.   The portrait of himself₁ [that John₁ painted ____] is extremely flattering.

In (15a), the idiom *make headway* originally has the object after the verb. Typically, idiom parts are generated as one unit. This means that the object *headway* surfaces in a derived position in this example. Similarly, the grammaticality of (15b) under the coindexation between the anaphor *himself* in the fronted DP *The portrait of himself* and the R-expression *John*, which is structurally lower than the surface position of the anaphor, can only be accounted for on the assumption that the fronted DP originates where the gap is. From there the anaphor it contains is c-commanded and so bound by the antecedent *John*. Again, this lends further support to the assumption that the relativized nominal category has undergone movement.

The base-generation account of relative clause dependency in Arabic varieties in general assumes that the resumption strategy is the only licit strategy to resolve this dependency in Arabic (See Aoun et al., 2010 for a review). Furthermore, the widespread assumption is that this dependency because of the presence of RPs does not show sensitivity to islands. Therefore, this account implies that the nominal relativized category is base-generated in its surface position, and it is related to the RP inside the relative clause via binding rather than movement.

To recapitulate, the theoretical implications of the current study lie in providing ample experimentally-based evidence that the second version of the promotion/ raising/ movement account can better explicate how the definite restrictive relative clauses in SA are syntactically derived. Since definite restrictive relative clauses in SA with both gap as well as resumption strategies show sensitivity to strong islands and that reconstruction effects are available on the condition that there is no strong island intervenes between the relativized category and the gap or the RP relating to it, then it is clear that the construction is derived by A'-movement. Below, I would detail the account that the results of the current study theoretically imply.

First, I would argue that relative markers in SA are typical complementizers, and that the internal structure of the relative clause involves a CP rather than a TP, contra Ouhalla's (2004) proposal by reconsidering the evidence advanced by Ouhalla (2004) himself, first, and the results of the current study, second. As stated in Section 3, relative pronouns in SA include relative pronouns such as *ma:* 'what', *man* 'who', *ʔayya* 'which+NP', etc. These pronouns do not involve the definite article *al-* 'the', nor they agree with the relativized category. Furthermore, they are used as wh-fillers in wh-interrogatives that are typically CPs. Below is an illustration.

16. a. la   ʔudriku   ħaqi:qata   ma: ʔara.
not   realize.1sg   reality   what   saw.1sg.
'I don't realize the reality of what I saw.'

b. ma: ʔismu-ka?
What   name-your
'What is your name?'

Given the identical forms these relative pronouns manifest with respect to the wh-fillers heading typical CPs, then SA relative markers should, in fact, be categorized as complementizers heading CPs as well.

Second, sensitivity to islands is a typical diagnostic of A'-movement in syntax literature. This study concludes that relative clauses are similar to wh-interrogatives in SA in exhibiting sensitivity to islands. Furthermore, it reveals that reconstruction effects are available in absence of strong islands. Consequently, I would propose that relative clauses in SA are derived via A'-movement just like wh-interrogatives.

Third, considering further empirical data from SA pertinent to the distribution of idiom chunks (17a) and reconstruction effects (17b) elucidate that the nominal relativized category originates inside the relative clause and then it moves higher to its surface position preceding the complementizer, i.e., relative marker. (The idiom and its idiomatic meaning, but not

the example itself, are taken from Jamal-Aldin & Hammadi (2022)).

17. a. tuħzɪnu.nɪ   dɪma:ʔa-u   al-ʔabrɪya:ʔ [allati tuhdar-u __   bɪ-ɪstɪxfa:f]
make sad.3sgf-me   blood.pl-NOM the-innocent [that   waste.PAS __ in-disregard]
Literal meaning: 'The innocents' blood that has been shed with disregard made me sad.'
Idiomatic meaning: 'Forfeiting the innocents' lives with disregard made me sad.'

b. qaraʔ-atu [madi:ħa li-nafsiha$_i$]$_j$ allaði: qultum   ʔanna suha$_i$ katab-at-*uh*$_j$
read-1sg [compliment for-herself]   which   said-2plm   that   Suha   wrote.3sgf-*it*
'I read the compliment for herself which you said that Suha wrote (*it*).'

The idiom in (17a) *ahdar dam* 'forfeit one's life' consists of a verb followed by its object. Given that idiom parts are generated as one unit, then the object *dɪma:ʔau al-ʔabrɪya:ʔ* 'the innocents' blood' in the example clearly starts as the object of the verb *tuhdaru* 'waste', then it moves higher in the structure. Therefore, its surface position is a derived one. It is not base-generated there. In Example (17b), the anaphor *nafsiha* 'herself' is included within the relativized category in its surface position. If this category is base-generated in its surface position, then the anaphor cannot be bound since it precedes its c-commanding antecedent with which it is coindexed. Nonetheless, the sentence is grammatical and this means that the relativized nominal category along with its anaphor have undergone movement.

Putting all these qualitative and quantitative pieces of evidence together, the current study advocates that SA definite restrictive relative clauses internally include a CP headed by a complementiser, the relative marker. Furthermore, the relativized nominal category from inside this relative clause to the Spec-CP. This movement results in a copy in the original site from which the nominal category moves. At the Spell-Out, this copy can be realised as an RP or a gap, given that both RP and gap exhibit similar behavior. All in all, the movement proposal better accounts for the results of the current study with respect to how SA relative clauses are derived when no islands are present. On the other hand, the base-generation account which assumes that the nominal category is base-generated in its surface position can better account for the unavailability of reconstruction effects when strong islands are present and so ban movement.

Final remarks on the variation of the extent of acceptability of reconstructed interpretation in terms of binding principles need to be made. The results revealed that reconstruction for Principle A ($\approx 80\%$) was evidently rated much more acceptable in noisland conditions than reconstruction for Principle C and BVA ($\approx 50\%$). Even though there is a difference, yet these percentages delineate that these grammatical constraints are available. I would argue that the ambiguity in reconstruction for Principle C and BVA does rule out the availability of reconstruction, but the variation can be better accounted for in terms of pragmatic preferences. This pragmatic line of research should be addressed in future relevant studies.

References

Al-Ansari, I. (1964). *Mughni al-Labib*. Cairo: Al-Maktaba at-Tijariyyah al-Kubra.

Al-Aqarbeh, R. (2022). Reconstruction in Jordanian Arabic Relative Clauses: An Experimentally-Based Syntactic Account. *International Journal of Arabic-English Studies*, *22*(2), 1-24.

Al-Hroot, A. (1994). *Some Aspects of Deletion in Arabic. Unpublished Master's Thesis*, Mutah University, Jordan.

Aoun, J., & Choueiri, L. (1996). Resumption and last resort. *DELTA: Documentação de Estudos em Lingüística Teórica e Aplicada*, *16*, 13-43.

Aoun, J., & Li, Y. H. A. (2003). *Essays on the representational and derivational nature of grammar: The diversity of wh-constructions*. MIT press.

Aoun, J., Choueiri, L., & Hornstein, N. (2001). Resumption, movement, and derivational economy. *Linguistic inquiry*, *32*(3), 371-

403.

Barss, A. (2001). Syntactic reconstruction effects. *The handbook of contemporary syntactic theory*, 670-696.

Bruening, B., & Al Khalaf, E. (2019). No argument–adjunct asymmetry in reconstruction for Binding Condition C. *Journal of Linguistics*, *55*(2), 247-276.

Camacho, J. (2013). *Null Subject*. Cambridge Studies in Linguistics.

Chomsky, N. (1995). *The Minimalist Program*. Cambridge, MA.: MIT Press.

Chomsky, N. A. & H. Lasnik. (1977). Filters and Control. *Linguistic Inquiry,* 8, 425-504.

Choueiri, L. (2017). Resumption in varieties of Arabic. In *The Routledge Handbook of Arabic Linguistics* (pp. 131-154). Routledge.

Choueiri, L., Aoun, J. E., & Benmamoun, E. (2010). *The syntax of Arabic*. Cambridge University Press.

Choueiri, Lina. (2002). *Issues in the syntax of resumption: Restrictive relatives in Lebanese Arabic*. *Unpublished PhD dissertation*, University of Southern California, Los Angeles.

Demirdache, H., & Percus, O. (2011). Resumptives, movement and interpretation. *Resumptive pronouns at the interfaces*, 369-393.

Elbourne, P. (2001). *Situations and Individuals*. Cambridge, MA.: MIT Press.

Fox, D. (2000). *Economy and the Semantic Interpretation*. Cambridge, MA.: MIT Press.

Guilliot, N., & Malkawi, N. (2006, March). When resumption determines reconstruction. In *Proceedings of the 25th West Coast Conference on Formal Linguistics* (Vol. 25, pp. 168-176). Cascadilla Proceedings Project Somerville, MA.

Hassan, A. (2008). *Al-Naħau Al-Wafi. Egypt:* Dar Al-Maʕrif.

Heim, I. (1994). Interrogative semantics and Karttunen's semantics for know. In *Proceedings of IATL* (Vol. 1, pp. 128-144).

Ibn Jinni, A.U. (1970). *Al-Khasaʔis,* Beirut: Dar al-Huda.

Jaeggl, O. (1982). *Topics in Romance Syntax*. Dordrecht: Kluwer.

Jaeggli, O., & Safir, K. J. (1989). The null subject parameter and parametric theory. In *The null subject parameter* (pp. 1-44). Dordrecht: Springer Netherlands.

Jamal-Aldin, L., & Hammadi, A. (2021). *650 Idioms and Proverbial Phrases in Modern Standard Arabic: For Intermediate to Advanced Students*. Routledge.

Kayne, R., (1980). Extensions of binding and case-marking. *Linguistic Inquiry* 11, 75–96.

Lebeaux, D. (1991). Relative clauses, licensing, and the nature of the derivation. In *Perspectives on phrase structure: Heads and licensing* (pp. 209-239). Brill.

Malkawi, N., & Guilliot, N. (2007). Reconstruction and islandhood in Jordanian Arabic. *AMSTERDAM STUDIES IN THE THEORY AND HISTORY OF LINGUISTIC SCIENCE SERIES 4*, *290*, 87.

McCloskey, J. (2006). Resumption. *The Blackwell companion to syntax*, 94-117.

Ouhalla, J. (2004). Semitic Relatives. *Linguistic Inquiry,* 35, 288–300.

Perlmutter, D. (1972). Evidence for shadow pronouns in French relativization. *The Chicago which hunt*, 73-105.

Postal, P. (1998). *Three investigations of extraction*. Cambridge, Massachusetts: MIT Press.

Rizzi, L. (1982). *Issues in Italian syntax*. Dordrecht, Holland: Foris Publications.

Ross, J. R. (1967). *Constraints on variables in syntax*. Cambridge, MA: MIT dissertation.

Rouveret, A. (2011). Some issues in the theory of resumption: A perspective on early and recent research. *Resumptive pronouns at the interfaces*, *5*, 1-62.

Salzmann, D. G. P. M., & Wierzba, M. (2018, November). Condition C reconstruction in German: Methodological insights and theoretical implications. In *Workshop on Condition C Reconstruction–Queen Mary* (Vol. 16).

Sauerland, U. (1998). *The Meaning of Chains*. Cambridge, MA: MIT.

Schachter, P. (1973). Focus and relativization. *Language, 49*, 19–46.

Sells, P. (1984). *Syntax and semantics of resumptive pronouns. Unpublished PhD dissertation*, University of Massachusetts, Amherst.

Shlonsky, U. (1992). Resumptive pronouns as last resort. *Linguistic Inquiry* 2, 443–468.

Sibawayhi, A. (1986). *Al-Kitab.* Cairo: Al-ʕammah Li al-Kitab.

Sportiche, D. (2006). Reconstruction, binding, and scope. *The Blackwell companion to syntax*, 35-93.

Sprouse, J., Caponigro, I., Greco, C., & Cecchetto, C. (2016). Experimental syntax and the variation of island effects in English and Italian. *Natural Language & Linguistic Theory*, *34*, 307-344.

Sternefeld, W. (1997). Comparing reference sets. *The role of economy principles in linguistic theory*, *81114*.

Szabolcsi, A. (2006). Strong vs. weak islands. *The Blackwell companion to syntax*, 479-531.

Tucker, M. A., Idrissi, A., Sprouse, J., & Almeida, D. (2019). Resumption ameliorates different islands differentially: Acceptability data from Modern Standard Arabic. Perspectives on Arabic linguistics, 30, 1-52.

Vergnaud, J. R. (1974). *French relative clauses, unpublished Ph. D* (Doctoral dissertation, dissertation, MIT, Cambridge, MA).