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العلمي
جامعة الاندلس للعلوم والتقنية
عمادة الدراسات العليا

The Syntax of Relativization in English and Arabic: A Phase Approach

A Thesis Submitted to the Department of English and Translation, Faculty of Arts and Humanities, in Partial Fulfillment of the Requirements for Master Degree of Arts in Linguistics

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نحو الصلة والموصول في اللغتين الانجليزية والعربية: منهاج الرحيلة

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The syntax of relativization in English and Arabic : a phrase approach

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وقد أوصت اللجنة بطباعة ونشر الرسالة

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المختص

مدير الدراسات العليا

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أ.م د/ يحيى عبدالرزاق قطران

قَالَ تَعَالَىٰ: ﴿ وَمَآ أُوتِيتُم مِّنَ ٱلْعِلْمِ إِلَّا قَلِيلًا ﴿٨٥﴾ ﴾

الإسراء

Dedication

I dedicate this study to you, mother,
Father, siblings, husband and daughter;
With whose love, patience and prayer,
I could stand mesmerizingly brighter
At home or within the realm of my career.

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LIST OF ABBREVIATIONS AND SYMBOLS

Abbreviations:	**Full Forms:**
ACC/Acc	Accusative
AdvP	Adverb Phrase
AGRP	Agreement Phrase
AP	Adjective Phrase
ApplP	Applicative Phrase
CFR	Coordination, free relativization and raising analysis
CoP	Conjunction Phrase
CP	Complementizer Phrase
CS	Construct State
Dat	Dative
DEF	Definite
DL/Dl	Dual
DP	Determiner Phrase
ECP	Empty Category Principle
EPP	Extended Projection Principle
F	Feminine
FinP	Finiteness Phrase
FocP	Focus Phrase
ForceP	Force Phrase
FRC	Free Relative Clause
GEN/Gen	Genitive
IHRC	Internally Headed Relative Clause
INDEF	Indefinite
LCA	Linear Correspondence Axiom
LDA	Long Distance Agreement
LDR	Long Distance Relativization
LF	Logical Form
M	Masculine
MP	The Minimalist Program
NOM/Nom	Nominative

NP	Noun Phrase
Num	Number
PF	Phonetic Form
pg	parasitic gap
PIC	Phase Impenetrability Condition
PL/Pl	Plural
PP	Prepositional Phrase
Prs	Present
RC	Relative Clause
Rel	Relative
RelP	Relative Phrase
RLP	Relative Pronoun
RM	Relativized Minimality
RP	Resumptive Pronoun
SAR	Syntactically Active Resumptive
SG/Sg	Singular
SIR	Syntactically Inactive Resumptive
Spec	Specifier
Spf	Specificity
TopP	Topic Phrase
TP	Tense Phrase
UG	Universal Grammar
VP	Verb Phrase
vP	Light Verb Phrase
&P	Coordination Phrase

Symbols:	**Full Forms:**
*	ungrammatical structure
?	odd structure
>>>	absorption force
ɵ	theta
ϕ	phi

___	gap
___pg	Parasitic gap

ABSTRACT

The present study aims to study the nature of relativization particularly in English and Arabic, employing the phase approach. Actually, this study abstracts away from the old strategies of the matching and promotion analyses. It is, however, based on the base-generation analysis whereby the relative pronoun is assumed to base-generate in Rel^0 (=the relative head), the antecedent determiner phrase in the Spec-RelP, and the complement in TP. The relative pronoun is assumed to enter the derivation with interpretable valued [relative] and [specificity] Features. However, the resumptive pronoun and the antecedent determiner phrase are assumed to come out of the lexicon with interpretable valued phi-Features but with unvalued [relative] and [specificity] Features.

Primarily employing the Feature sharing mechanism, the relative pronoun's valued [relative] and [specificity] Features value the unvalued matching Features of the resumptive pronoun and the antecedent determiner phrase. Also, the unvalued phi-Features of the relative pronoun get valued by the valued matching ones of the resumptive pronoun. Regarding the nature of the relative resumptive pronouns and gaps, the relative pronoun, as I argue, is a Bermuda-Triangle-like constituent; it is endowed with absorption and annihilation forces. On the one hand, it could absorb the [indefiniteness] and [nominal] Features of the coindexed embedded determiner phrase, pronominalizing it into a resumptive pronoun. On the other hand, it could annihilate the [overtness] Feature of the resumptive pronoun and thus it transforms it into a gap, and this is actually as long as the resumptive pronoun is local and outside the islands' borders.

With respect to the nature of *Agree* in long distance relativization, the study at hand holds the view that *Agree* could be in effect even after the derivation and transfer of phases. This study also attempts to address the nature of the reduced relative clauses' formation, arguing that the nullness of the finite [tense] Feature is in complementary distribution with the nullness of the relative pronoun. Moreover, this study traces the phenomenon of extraposition, concluding that this phenomenon can be found in English but not in Arabic. Finally, in terms of the phenomenon of relativization as a whole, this study puts forward the similarities and differences between the two studied languages (i.e. English and Arabic) in terms of Universal Grammar.

ملخــص

تهدف هذه الدراسة الى تناول جملة الصلة والموصول في اللغتين الانجليزية والعربية على وجه الخصوص، باستخدام منهاج الرحيلة. إنه وللأهمية، تجدر الإشارة إلى أن هذه الدراسة لا تعتمد على تحليلات الحركة والتوافق، بل أنها تقوم على التحليل التوليدي التكويني والذي بموجبه يفترض أن ضمير الصلة يُكوَّن تحت الرأس Rel^0 (صل^0)، بينما يُكوَّن التركيب الحدي الموصول تحت مخصص تركيب الصلة، وتُكوَّن التكملة — بشكل عام — ضمن التركيب الزمني. وبإعتبار أن تركيب الصلة إسقاط لتركيب التكملة الإنشطاري، تفترض الباحثة أن ضمير الصلة يُكوَّن كرأس لجملة الصلة، بِسِمَتَي [الصلة] و [الخصوصية] المُقَيمتين والمُفَسَرتين. كما تفترض أن الضمير العائد والتركيب الحدي الموصول يخرجان من المعجم بسمات الفاي المقيمة والمفسرة وبسمتي [الصلة] و [الخصوصية] الغير مقيمتين.

وبإستخدام آلية تقاسم السمة، فإن السمات المُقيَّمَة لضمير الصلة يُقَيِّمنَ السمات المتوافقة الغير مقيمة للتركيب الحدي الموصول والتركيب الحدي الموصول؛ كما أن السمات المُقيَّمَة للضمير العائد يُقَيِّمنَ السمات المتوافقة الغير مقيمة لضمير الصلة.

أما فيما يتعلق بضمائر الإستئناف والفجوات، فإن الباحثة تفترض أن ضمير الصلة مشابه لمثلث برمودا؛ فهو مزوَّد بقوَّتَي الإمتصاص والإبادة. فمن ناحية، يفترض أن لديه قوة إمتصاص لسمتي [التنكير] و [الإسمية] التابعتين للتركيب الحدي العائد، وبالتالي يتم تحويل هذا التركيب الحدي العائد إلى ضمير إستئناف. ومن ناحية أخرى، يفترض أن لديه قوة إبادة لسمة [البروز] التابعة للضمير العائد وتكون هذه القوة فعالة إذا لم يكن هذا الضمير العائد بداخل جزيرة وكان محلي، فتحوله هذه القوة إلى فجوة.

وفيما يتعلق بطبيعة التطابق في الصلة ذات المسافة البعيدة، فإن هذه الدراسة تتبع الأفتراض الأدنوي الأكثر حداثة وهو أن التطابق (تط) فعال حتى بعد عملية إشتقاق ونقل الرحائل.

كما تهدف الدراسة إلى كشف بناء جملة الصلة المخففة، فترى أن غياب سمة [الزمن] المحدود يؤدي إلى توزيع تكاملي لغياب ضمير الصلة. وعلاوة على ذلك، فإن هذه الدراسة تتتبع ظاهرة التأخير، وتخلص إلى أن هذه الظاهرة موجودة في الإنجليزية دون العربية. وتختتم الباحثة الدراسة بعرض أبرز أوجه التشابه والإختلاف بين اللغتين الإنجليزية والعربية من وجهة النحو الكلي.

Chapter I

Rationale of the Study

1.1. Introduction

Relativization manifests itself to be one of the most complicated linguistic phenomena largely characterized with complexity in its underlying internal structure. Following the recent syntactic advancements, I approach the analysis of relative clauses (=RCs) in terms of Phase Theory, mainly in Arabic and English. The strategies adopted for relativization are actually controversial. The derivation of RCs is the primary concern of the study at hand. Though *Merge*, as put by Chomsky (2001: 3; 2004: 108; 2008: 137) and also in Soltan (2007),[1,2] naturally "comes free," not needing any justification,[3] there is a crucial need to investigate the controversial phenomenon of RCs derivation significantly from a structural perspective and from the most recent mechanisms of *Agree*. More significantly, due to the inadequacy of the analyses long-held in the literature which have encountered a number of problems, the study at hand offers an attempt to solve them, presenting a novel analysis essentially advocated to account for the RCs derivation.

1.2. Statement of the Problem

Being a spot of controversy among scholars of syntax, the literature has not sufficiently nor that adequately accounted for how agreement in English and more particularly in Arabic fulfills between the antecedent DP,[4] the relative pronoun (=RLP) and the resumptive pronoun (=RP) within a phase, in terms of ϕ-Features, and additionally in Case. Also, I observe that, in the literature, RLPs and interrogative *wh*-elements are somehow identified with one another and, accordingly, are often positioned interchangeably in the ForceP

[1] Soltan (2007) enforces that the internal merge is not as free as the external one, and this concords with my point given above.

[2] Significant to mention that the label *Internal Merge* could stand for '*Move*', and that the label '*Merge*' in this study as also in most of other traditional studies refers, interchangeably, to *External Merge*.

[3] Based on this is the essence of the supposition of *'Merge* over *Move*.' For more details, see, for example, Citko (2014).

[4] In this study, the label 'antecedent DP' interchangeably stands for the label 'relativized DP'.

Projection of CP-split; the former in the higher ForceP while the latter in the lowest one (cf. Radford, 2009; Alexiadou et al., 2000). However, because of the asymmetries between RCs and interrogative constructions, such an identical position is, presumably, not adequate nor logical any longer.

Moreover, finding that antecedent DPs in English can be definite, such definiteness is justified in the literature in terms of the assumption that there is a DP projection posited as an antecedent for the relative CP, with a definite D^0 (cf. Aoun & Li, 2003; Borsley, 1997; Demirdache, 1991). On the contrary, however, there are a number of cases in which the antecedent DP is indefinite. Put in other words, the assumption of D^0 filled by '*the*' as a higher projection for the relative CP (as provided in Aoun & Li, 2003; Borsley, 1997; Demirdache, 1991), is incompatible with cases in which the antecedent DPs are indefinite as follows:

1. a. I saw ***a*** man who speaks English.
   b. I bought ***some*** books which you enjoy reading.

Furthermore, there are languages like Chinese and Japanese which plainly disallow CPs to be complements of D^0s (cf. Aoun & Li, 2003; Ross, 1986). As a result of that, the assumption that there is an antecedent D^0 higher than CP is inapplicable. Such an analysis seems illogical even in English and Arabic simply because the relative CP cannot be the complement of D^0. The following English example—in which the antecedent NP which is not basically as a one constituent with D^0 is phonetically unrealized—challenges that assumption more clearly:

2. *I saw the who I respect.

This actually comes in line with Borsley's (1997) view against Kayne's (1994) proposal; Borsely (and also Aoun & Li, 2003) refutes Kayne's view by declaring that what is raised out of the RC cannot be an NP. Also, he argues that Kayne's proposal entails the trace to be just an NP, and that that is not logical since NPs (but only DPs) cannot be viewed as sufficient proper arguments. Even if one follows the assumption that the antecedent NP alone or even the RLP along with the antecedent NP raises from the RP slot (as assumed, for example, by Bianchi, 1999; Kayne, 1994), such a view actually contradicts with the proclamation that DPs are phases (cf. Shormani, 2016; Citko, 2014).

Given also that gaps are prevented in islands, then how does relativization take place inside them? Though being not accounted for in terms of head movement (viz. movement of antecedent DP) but, as supposed in the literature, in terms of the movement of the *wh*-element, such an analysis suffers from a number of problems, too. To put it simply, within islands, the existence of resumptive pronouns (=RPs) in English and Arabic is a must for the grammaticality of the RCs, but those pronouns are disapproved elsewhere. Bearing that in mind, matching and also promotion analyses by which the RLP in the former and the antecedent DP in the latter move are violations of islands. If we stick to the notion of islands, no constituent is allowed to move outside. Also, direct base-generation of RPs within islands is inadequate, too, because there is no initial motivation for the choice of RPs, which are pronominal, rather than nominal constituents. That is to say, putting in mind bottom-up derivation called for by Chomsky (2007, 2015a) and Pesetsky & Torrego (to appear), and recalling Robert's (2003) proclamation that pronouns are for the sake of maintaining the focus of discourse, direct base-generation of RPs as pronouns is illogical ever.

Even if one follows the movement analysis, this entails that all the ϕ-Features of the moved constituent be moved, too; otherwise, we would confront two copies with two thematic instances of the same constituent, and this case is counter-grammar. This necessitates that the ϕ-Features of one instance be inactive/frozen, and this instance, presumably, should be the trace but not the moved realized copy of the constituent. However, bearing in mind the Locality Condition and the constraints of successive movements, we would, as the examples in (3) show, encounter another problem which is how binding, licensing a parasitic gap and controlling PRO take place if the ϕ-Features of the trace are inactive.

3. a. The student$_i$ who $\_\__i$ says that he$_i$ is hardworking
   b. The book$_i$ that we read $\_\__i$ without criticizing $\_\__{pgi}$
   c. The student$_i$ who $\_\__i$ tried PRO$_i$ to work hard

More further, with the analyses of promotion and matching, through the recursive and reiterated process of *Move*, there is a violation of the movement condition which is proclaimed in consensus to be a Last Resort but not an option (cf. Baltin, 2006; Boeckx, 2003b; Zwart, 1998; Chomsky & Lasnik, 2015; Chomsky, 2015b; Seuren, 2004; Bobaljik & Wurmbrand, 2005; Abels, 2003; Pesetsky & Torrego, to appear; *inter alia*). In effect, recursive *Move* violates also the Structure Preservation Condition (cf. Shormani, 2014).

In addition, null antecedents are accounted for in terms of the DP promotion, claiming that a raised DP can have a null form (cf. Kayne, 1994; Aoun & Li, 2003; Aoun et al., 2010; Galal, 2005; Baltin, 2006). However, it is not declared clearly what motivates such a null realization. Consequently, this is another gap in the assumptions given in the literature. Therefore, there is a dire need to closely investigate such a phenomenon of relativization.

1.3. Objectives of the Study

Revolving around English and Arabic RCs, the study at hand aims at:

(1) Investigating how Features valuation among the RLP, the antecedent DP and the RP could take place in the most recent advancement of the syntactic theory of phases and the current mechanisms of *Agree*,

(2) Exploring the distinction between RCs and interrogative constructions and attempting to figure out what the proper projection for RCs and the suitable slot for RLPs are,

(3) Identifying the reason behind the definiteness and specificity of antecedent DPs in general and RPs in particular, and

(4) Coming up with an adequate account for the obligatory existence of RPs within islands and for the disapproval of those pronouns elsewhere.

1.4. Significance of the Study

The significance of the study at hand lies first on its daring attempt to tackle the intricate linguistic phenomenon of relativization mainly in English and Arabic, and, second, in its investigation of the issue in question from the perspective of Phase Theory which is the latest notion in minimalism. Notwithstanding is the availability of a number of works that have tackled the issue at hand; however, some of them have held it from the traditional transformational grammar perspective. Above that, on the contrary to the other works which have adopted the Minimalist Program (=MP) in their analysis of RCs, my account here—though remaining compatible in spirit with the recently prominent advancements of MP and phases—differs to a large extent from their proposals of either promotion, matching or base-generation analyses provided in the literature (cf. Aoun & Li, 2003; Demirdache, 1991; Kayne, 1994; Shormani, 2015; Riemsdijk, 2006, 2008; Legate, 2005; Boeckx & Hornstein, 2008) and from the "topic-comment" account (cf. Suaieh, 1980) and also from the coordination analysis (cf. Vries, 2006; Heim & Kratzer, 2000; Al-Tarouti, 1991; Isac, 2003).

Hence, this study is to investigate the most appropriate position of the RLP in accordance with the other constituents attached to it, proposing a novel analysis for the relativization phenomenon mainly in English and Arabic.

Along with that, the significance of this study lies also on its questioning nature of the essence of *Agree* and gaps in such RCs. It is to trace the source of definiteness and specificity in RCs, and also to investigate and highlight the similarities and differences between English and Arabic RCs. In short, though this study is but a modest endeavor to adequately investigate the derivational nature of RCs, it is indeed worthy of observation and can be considered a novel addition to the syntactic account of relativization in particular and to the syntactic operations in general.

1.5. Questions of the Study

This study seeks to answer the following questions:

(1) From the viewpoint of Phase Theory, how can valuation take place among the Features of the RLP, the antecedent DP and the RP primarily in English and Arabic?

(2) Why should the projection of RCs be distinct from the ForceP projection of interrogative constructions?

(3) Why are the RPs and most of the antecedent DPs in the English and Arabic RCs characterized with the [DEF] and [Spf] Features?

(4) In English and Arabic, how can we account for the obligation of RPs within islands and the general disapproval of those pronouns elsewhere especially in subject positions? Put in other words, following Aoun et al.'s (2001: 373), what is the justification behind the phenomenon that "apparent resumption does block the use of true resumptive elements within nonislands"?

1.6. Methodology of the Study

Plainly, the methodology employed in this study is analytic descriptive qualitative in nature, according to which English and Arabic RCs are presented and analyzed qualitatively. Actually, a comparative methodology is also employed but primarily later in Chapter V. This is to manifest the similarities and differences between English and Arabic RCs.

Noteworthy stating that the approach employed in the study is Phase Theory. Actually, English and Arabic RCs are to be exposed to highlight the different aspects concerning phasal agreement within RCs, the most appropriate projection assumed for RCs and the different characteristics of RPs vs. gaps in connection with RLPs. Additionally, the study adopts an analogy criterion with the related phenomenon of relativization in other languages like Irish, French, Italian and Hebrew.

1.7. Limitations of the Study

The present study is essentially confined to restrictive RCs within the standard languages of English and Arabic. However, manifesting some similar cases in some other languages could be evidently found here and there when needed. Moreover, the account presented in this study is guided primarily by the most recent theory of MP, viz. Phase Theory.

1.8. Definitions of Terms

The following are the definitions of the very key notions employed within this study:

Relativization is the phenomenon by which two constituents are related to each other by means of an RLP within an RC. For Drozdik (2010: 276), "RC [in turn] is identified with a clause narrowing the potential reference of a referring expression by restricting the reference to those referents of which a particular proposition is true." Examples elucidating such a phenomenon and such RCs are as follows:

4. a. The girl who smells roses

   b. al -walad-u llaði ðahaba
      the-boy.M.SG-NOM who.M.SG.NOM went.M.SG
      'The boy who went'

Gap is generally the empty slot in a construction, surfacing in the form of ellipsis, as it is the case of the null object and subject RPs in the following examples:

5. a. The student I saw __

   b. al-walad-u llaði __ ðahaba
      the-boy.M.SG-NOM who.M.SG.NOM __ went.M.SG
      'The boy who went'

RPs, as defined by Suaieh (1980: 177), are those third personal pronouns which, for example, come within RCs, in the position of phonetically realized embedded coindexed DPs. Sometimes, they are actually in a complementary distribution with gaps.

Phase signifies the most economic syntactic operation for constructing a phrase, whereby the syntactic derivation of a given phrase is constructed in accordance with the general principles of simplicity and minimlity. Actually, each phase is assumed to be composed of a domain, a head and an edge (cf. Chomsky, 2001, 2004, *et seq*; Citko, 2014). Put in other words, phases such as CPs, *v*Ps and DPs have domains which get transferred to the LF (=Logical Form) and the PF (=Phonetic Form) once completed and which, then, get spelled out; thus, these domains become impenetrable to any further syntactic operations. Phase edges and heads are excluded from impenetrability, however.

Islands are the syntactic constructions out of which extraction is not allowed. To exemplify, most of embedded RCs, *wh*-clauses and adjuncts are islands in English. Along with those previous mentioned constructions, Prepositional Phrases (=PPs), in Arabic, are islands, too.

RelP is my proposed projection in this study, the head of which is occupied by the RLP, while its Spec is filled by the antecedent DP. Its complement, however, is the TP-domain.

1.9. Chapterization

The study at hand is actually organized into five chapters the first of which is an introduction to the whole study. In effect, Chapter II primarily presents firm and sufficient theoretical foundations on which the analysis of RCs would be intrinsically based on. These foundations, fundamentally, go with the most recent theories of minimalism, namely, those of phases. Furthermore, this chapter provides a background review of a number of previous studies devoted for RCs in English and Arabic and some other languages. Then, the chapter exposes the proposal concerning the RCs derivation and the mechanisms and forces needed there. Proceeding in our study, Chapter III is devoted to the core analysis of relativization in English while Chapter IV is concerned with the analysis of Arabic relativization from the perspective of the proposal provided in this study. These two chapters expose the data plainly, analyze it closely, and interpret it justifiably as much as possible. Chapter V revolves around the Universal Grammar (=UG) parameterization essentially manifesting the similarities and differences between the RCs of the two concerned languages, and, then, the chapter concludes.

1.10. Conclusion

This chapter has exposed the problem of the study, the objectives of the study, the significance of the study and the questions of the study. It has also presented the methodology of the study and the study's limitation. Then it has presented definitions for the key terms and exposed the chapterization of the whole study.

Chapter II

Theoretical Foundations and Literature Review

2.1. Introduction

To have a firm background about relativization in general and English and Arabic RCs in particular, this chapter is to present the most basic theoretical background required to comprehend the phenomenon in question adequately and to analyze and interpret the concerned constructions persuasively. The second section presents some of the most salient postulations, conditions and mechanisms in Phase Theory whereas the third section presents the literature review of a number of previous studies that would provide us with a more vivid insight into the topic. The fourth section, then, presents the proposal.

2.2. Theoretical Foundations

In this section, I exhibit the evolution of Phase Theory. Next, I proceed the discussion of phases in terms of valuation and interpretation and this necessitates tackling the issue of *Agree*. Actually, how Features get valued would be addressed in terms of Feature assignment, Feature licensing, Feature checking and Feature valuation. Then, the conditions of locality and the nature of successive movements will be exposed.

2.2.1. Evolution of Phase Theory

To trace the onset of the theory of Phases, let us first, briefly, recall the early stages of the development of Generative Grammar. The theory of Generative Grammar can be traced back to the 1950s' Standard Theory and Modified Standard Theory. Due to more development of the two previous theories, there comes the Extended Standard Theory in the 1970s, in which the x-bar theory has been presented and whereby much attention is paid to language-specific characteristics. Mainly by the coming of the framework of Principles and Parameters by the 1980s, the main focus has turned to language-general principles, paying attention to, for example, *Merge*, *Move-alpha*, Case and ϕ-Features theories, and primarily to the general theory of Government and Binding which argues that all human languages have one and only one Deep Structure and what makes them different is merely the Surface Structure which leads, in turn, to the parameteric variations among languages. In 1990s, MP has come to light, leading to a more drastic and dramatic enhancement of different assumptions in linguistics in general and syntax in particular. Remarkably, the Deep Structure and the Surface Structure levels of derivation are eliminated. Minimalism called for by MP actually

stands for simplicity, economy (via minimality in both computation and representation) and locality, and it appeals for the privilege of *Merge* over *Move*.[5,6] Detecting the derivational computation from the modern perspective of minimalism, lexes, from the lexicon and by means of the numeration, are selected fully inflected, and then they get merged into their appropriate projections each by means of *Merge*—particulary, by means of *External Merge*. Noteworthy mentioning here that, by *External Merge*, thematic roles are determined. Subject to a number of complex conditions and constraints one of the most significant is constituency, lexical items most of the time are, however, merged together in a recursive manner and moved from one slot to another, often forming longer and sophisticated phrases.

Given that, and along with the latest theories of language, namely, the cognitive theory of language acquisition, there has been a need for developing the previous theories mentioned above, leading to the crystallization of Phase Theory whereby linguistic constructions are computed in terms of phases.[7] Within the most recent proposals of MP, Phase Theory signifies that the syntactic derivation of linguistic constructions is structured in the narrow syntax and transferred to the phonetic and semantic interfaces phase by phase whereby the internal structures of such constructions are viewed in terms of domains. Each phase domain (but not the phase edge nor the phase head which are viewed as an escape hatch) is characterized as such when it becomes inaccessible for any further computation. Thus, a phase, as put by Matushansky (2005: 157-8), is characterized as a "non-exhaustive

[5] Though *Merge* and *Move* have been considered the primary generative mechanisms for computing a certain construction the well convergence of which is verified by the two interfaces of LF and PF, *Move* is largely agreed to be for no more than checking purposes while *Merge* has been given the most privilege (cf. Zwart, 1998; Boeckx, 2003b; Baltin, 2006; Chomsky & Lasnik, 2015; Chomsky, 2015b).

[6] Significant to say that the interest of minimalism is on the "generating devices" while cartography's interest, on the other hand, is on " the fine details of the generated structures" (Cinque & Rizzi, 2008: 49). Put in other words, as minimalism is, for example, concerned with the mechanisms for deriving unvalued Features, cartography highlights the whole representation of a construction along with the representation of valued and/or interpretable ones. Cartography, thus, as stated by Shlonsky (2010: 427), is "for detailed research into comparative morpho-syntax [and] for expressing crosslinguistic similarities and variation." However, cartography and minimalism, evidently, do complement one another and both seek to provide an account of the abstract processes implemented when structuring a certain linguistic construction as adequately as possible.

[7] For more detailed specifications on the development of Phase Theory and/or the motivation behind it, see Citko (2014), Robert & Van Valin (n.d.), McGinnis (2005), Butler (2004).

enumeration." Associated with that characterization is the condition of PIC (=Phase Impenetrability Condition) which seeks minimality in matching, agreement and transfer and also simplicity and manageability for memory to retain computed constructions when needed.[8] What is actually meant by PIC can be stated in (6) below (cf. Chomsky, 2001, 2004, *et seq*; Matushansky, 2005; Antonenko, 2012; Citko, 2014; Boeckx & Grohmann, 2004; Leung, 2007):

6. ***PIC:***

> In a phase α with a head (=H), the domain of H is not accessible to operations outside α, only the H *per se* and its edge (i.e. its Spec) are accessible to such operations.

Noteworthy stating that due to such a condition on the impenetrability of a phase domain, moving out of such a phase domain to the periphery of the very phase before the transfer of the domain in question to the LF and PF interfaces seems to be the optimal solution for movement to be allowed and also for minimality and accessibility of more syntactic computations to be permitted. After undergoing the required derivational process in the narrow syntax, and also once a certain phrase has phase properties, the phase domain would be transferred to Spell-Out,[9] and subsequently to the two interfaces, i.e. to LF and PF, in order to be interpreted.[10] Phases being computed, produced and transferred, a number of constraints would be actually imposed by the two interfaces of the articulatory-perceptual system and the conceptual-intentional system both of which externally interact with the Computational System through the two interfaces of PF and LF (cf. Matushansky, 2005; Zwart, 1998; Chomsky, 2001; *inter alia*). This is in accordance with the Strong Minimalist Thesis which emphasizes that there is a strong interrelation and mutual dependency between

[8] Not only for construction but also for parsing is the theory of phases crucial since reanalysis within phase domains, as put forward by Mulders (2005), is assumed to be impossible but only through the phonological border of such phases.

[9] Spell-Out is the operation which sends phases–which are structurally complete–to LF and PF. Actually, the Spell-Out operation is generally assumed to be included under the operation of Transfer which has the duty to send phasal structures to both interfaces.

[10] Actually, the transfer of a phrase to each of the two interfaces is assumed to be in isolation; that is, the spell-out of a phase domain to LF and PF cannot be at once nor are their spell-outs simultaneous (cf. Matushansky, 2005; Lohndal & Samuels, 2013; Aoun & Li, 2003; Asudeh, 2015).

the computational system and other systems of the human mind. Given that, if a given phrase diverges, for example, from such interfaces' conditions, that derived phrase crashes. On the contrary, when the phrase comes in line with those conditions of the interpretation associated with the two interfaces, it converges and gets spelled out.

A question might pop up in our minds regarding what distinguishes phasal phrases from other phrases. Phases can be defined, as assumed largely in the Chomskyan literature, as being propositional and phonetically independent and as potential sites for reconstruction (cf. Chomsky, 2001, *et seq*; Legate, 2005; Matushansky, 2005). Phases, as argued by Legate (1998) cited in Matushansky (2005: 160), are also characterized as being isolated at PF and also as liable to be targeted, to move and to be assigned phrasal stress through what she calls the "Nuclear Stress Rule." Adding to those phase characteristics mentioned above, Matushansky (2005) adds that phases are ϕ-complete while Antonenko (2012) argues that phases are also completely Feature-valued. Distinctively, Carnie (2005) actually defines phases in terms of Case properties.

Concerning what phrases are phases, Chomsky (2001: 12, 2004) assumes that CPs "with force indicators" are phases; CPs, as stated by Ndayiragije (2005: 266), are "not always […] strong phase[s]; only finite CPs are strong phases; non-finite CPs are not." Moreover, Chomsky (2001, 2004) and Radford (2009) proclaim that transitive *v*Ps which have full arguments, mainly the external arguments which occupy the subject positions, are also phases. For Tagalog language, for instance, Aldridge (2005: 4) approves that *v*Ps are phases, arguing that *v*Ps have an EPP (=Extended Projection Principle) Feature through which DPs are allowed to "undergo A'-movement" to Specs CPs. However, Legate (2005) on the contrary argues that phases are not restricted only to CPs and transitive *v*Ps but, as she assumes, they are extended even to passive and unaccusative VPs. Also, Ndayiragije (2005) examining Kirundi declares that TPs, too, could have a strong phasal status; based on the assumption that a strong phase should bear an EPP Feature, TPs have this Feature so that they, as argued by Ndayiragije (2005), are strong phases. For Citko (2014), however, CPs, *v*Ps, DPs, PPs and ApplPs (=Applicative Phrases) are argued to be all phases.

Different from the rigid confines of phases put on the specific phrases given above, Antonenko (2012: 75) states that "there is no need to stipulate which category is a phase." Rather, what determines whether a linguistic string is a phase or not, as he argues, is primarily the syntactic-semantic Features of its domain. Indeed, if a domain with one or

more unvalued Features were transferred to the interpretive component, crash would be the consequence. Such a crash is due to the domain itself which is still active for further probing; thus, phrases should not blindly be considered phases if they still have one or two unvalued Feature(s). Given that, for Antonenko (2012), not only CPs and VPs are phases, but also TPs and *v*Ps can be so. A TP, for example, is a phase when all the Features of T^0 and those of its complement are valued; an example of which can be the following declarative sentence:

7. Ali bought a book.

Above that, Antonenko argues that VPs and CPs in some cases, like those CPs of embedded control clauses, cannot be phases when some Features within their domains are still unvalued. All in all, from such a controversial debate shown above, the concept of phasehood seems to be still vague and inconclusive.

2.2.2. Valuation and Interpretation

The geometric installation for any linguistic construction is essentially composed of a set of Features manipulated by a restricted number of (syntactic) operations. Each Feature, in turn, embraces an attribute-value matrix. For example, the values of the attribute Num (=Number) can be Sg (=Singular), Dl (=Dual), or Pl (=Plural); for the tense attribute, the values can be Past, Prs (=Present) or Future. In effect, having an essential role for motivating syntactic operations, Features have two general characteristics which are coated under the labels of Valuation and Interpretation. For the former, there are valued and unvalued Features; for the latter, on the other hand, there are interpretable Features (*i*Fs) and uninterpretable Features (*u*Fs). When deriving a certain linguistic construction, a syntactic interaction, then, holds between valued Features and unvalued ones through the operation of *Agree*.

Actually, Chomsky (2001, 2004) views valuation and interpretation uniformly, presenting them as being in one direction. That is, he views that valued Features are necessarily computationally interpretable ones while unvalued Features are uninterpretable ones, as being in a 'biconditional relation'. In the same line, Legate (2002) and Radford (2004) share the same view of such a Chomskyan mutual distribution of valuation and interpretation. For instance, Radford (2004: 199) puts forth the proposition that he calls the "Feature Value Correlation," given below:

8. **Feature Value Correlation**

(i) Interpretable features enter the derivation already valued.

(ii) Features which enter the derivation unvalued are uninterpretable.

However, in a construction like the following, the expletive *there*,[11] for example, is valued but uninterpretable in Num and Person.

9. There comes a man.

Evidently, such a construction contradicts with and challenges the Chomskyan supposition given above (namely, the correlation between interpretation and valuation). Such a construction proves that interpretation does not always coincide with valuation and that a Feature being uninterpretable does not entail being unvalued or vice versa (cf. Shormani, in press; Pesetsky & Torrego, 2004; Citko, 2014; Danon, 2007; Adger & Svenonius, 2009; Zeijlstra, n.d.). Based on that, Features are better categorized into four classes, namely, interpretable valued Features; uninterpretable unvalued Features; interpretable unvalued Features; and uninterpretable valued Features.

What distinguishes interpretation from valuation, in effect, is that interpretation, as put in Citko (2014) and Danon (2007), primarily has something to do with *Merge* and also with the two interfaces (with the semantic interface in particular); however, they do not have anything to do with the computational derivation. Thus, Features which are interpretable are Features that can be semantically interpreted by the LF and PF interfaces.[12] Examples for interpretable Features are Past, Present (=Prs) and Future Featres of verbs (as it is the case with the verb *went*, for example), or Num, Gender and Person ϕ-Features of nouns. However, unintetpretable Features can be represented, for instance, by the (null) [T] Feature or the (null) ϕ-Features of on the T^0 node. It can be also represented by the uninterpreted [T] on D^0s (cf. Pesetsky & Torrego, to appear). On the other hand, valuation is more specified for syntax and syntactic operations. Though *Agree* is also the case with interpretation,[13]

[11] For details and discussion on the intrinsic nature of expletives and the nature of their agreement, see Cardinaletti (1997), Franks (1990) and Taraldsen (2002), for example.

[12] I can enforce here the proclamation that syntax really interacts with phonology, morphology and semantics. It is worth mentioning that it is also in a strict interconnection with discourse.

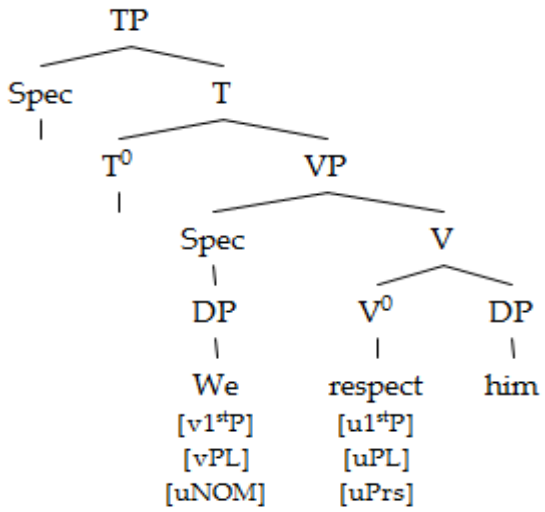
[13] Somehow similar to the case of *Agree* with valuation, uninterpretable Features could get interpretable by means of *Agree*. Actually, almost for each interpretable Feature, there is uninterpretable counterpart and vice

valuation, however, is in more tight adherence with *Match* and *Agree* relations. Through *Agree*, the unvalued Features get valued. In effect, by means of assigning the probe an identical value like that of the goal, valuation gets fulfilled (cf. Pesetsky & Torrego, 2004; Legate, 2002; Al-Shorafat, 2013; Radford, 2009, to mention but a few). However, if any Feature could not get valuation and if it has no other potential valuing Feature that it can be valued to, such an unvalued Feature has to be deleted before reaching Spell-Out; otherwise, the computed construction would crash.

To provide an example for how valuation takes place, let us take the uninterpretable unvalued [Person] Feature on V^0 as an example. Such a Feature on the verb, too, comes out of the lexicon (un)interpretable and unvalued. However, by means of *Agree* with the interpretable valued [Person] Feature on DP, valuation of the verb's unvalued [Person] Feature fulfills. In the same manner, the valuation is held among the other (un)interpretable unvalued Features of Num and Gender. To concretize such an explanation, consider the diagram in (11. a) which represents the construction (10) before valuation and the diagram in (11. b) representing the same construction but after valuation:

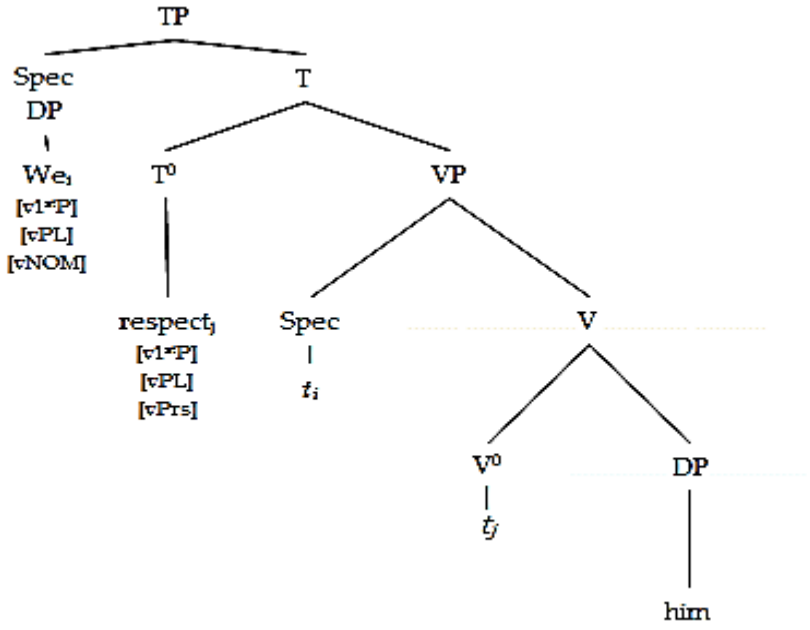
10. We respect him.

11. a.



versa; an example for that is the interpretable ϕ-Features of nouns vs. the uninterpretable ones of verbs (Citko, 2014).

b.



Here, by means of licensing, assignment and, most importantly, checking, valuation of the unvalued Features Num and Person of the verb *respect* and also the unvalued Nom Case of the subject *we* gets fulfilled so that the unvalued Features get valued. Thus, essentially for the sake of valuation here, *Agree* which would be tackled in the next section strikingly manifests itself.

2.2.3. Agree

Being one of the most operative and effective operations which significantly contribute to the derivation of convergent linguistic constructions, *Agree*,[14] cross-linguistically, could account for the mutual distribution of matching Feature values between the goal and one or more probes. In other words, it could sufficiently account for the phenomenon of agreement among various constituents. For *Agree* relation to be in effect, *Match* of identified, active Features should initially be present. What is really meant by *Match* is not merely the phenomenon where two or more nodes/entities have the very same Feature value, but, more influentially, the case when two nodes or more have the same Feature attribute, in the sense that one of the nodes would have a certain valued Feature attribute while the other has an unvalued counterpart of that Feature. *Match*, as in the words of Pan (2016: 10), signifies the

[14] *Agree* here is tackled as a relation not as a projection (i.e. not as an AGRP). To have some notes on AGRP, however, you can see Chomsky (2015a), and also Speas (2006), Radford (2009), Franco (1993) and Machado-Rocha & Ramos (2016).

"identity relationship" between the Features of the probe and those of the goal. In effect, *Match* can be the identification of the similar Features between two active entities which could be or not in a local domain. Actually, a functional head has been generally viewed as having the role of the probe that bears a set of unvalued Features, and this, in turn, highlights the Correspondence Architecture (also known as the Parallel Projection Architecture) whereby "[s]tructures are related by functions, called correspondence or projection functions, which map elements of one structure to elements of another" (Asudeh, 2015: 19).[15] Here, the functional head, i.e. the probe, by being essentially active for it is in constant search for a matching c-commanded goal with a valued Feature, seeks, metaphorically speaking, to interrelate the structure altogether with mutual values.

In privilege, *Agree* should be held between the two most closest active constituents. The relation of probe-goal from *Agree* perspective is essentially based on the shortest, closest matching subsumed under the Locality Condition of Relativized Minimality (=RM) and A-over-A condition (cf. Rizzi, 1990, 2004; Browning , 1996; Cinque & Rizzi, 2008; Boeckx, 2003a; Belletti, 2009). It is also assumed by some scholars—like Rizzi (1990, 2004) and Boeckx (2003a)—that the probe and the goal should be in the same c-commanding relation for *Agree* to be in effect; so that not every two matching entities entail *Agree*, but every *Agree* operation does entail matching. However, on the contrary to that assumption, Chomsky (2001:19) convincingly argues that *Agree* can be local or even remote as it is the case between the ϕ-Features of the T^0 node and the remote, unmoved DP in expletive constructions like the following construction he presents:

12. There is expected to arrive a man.

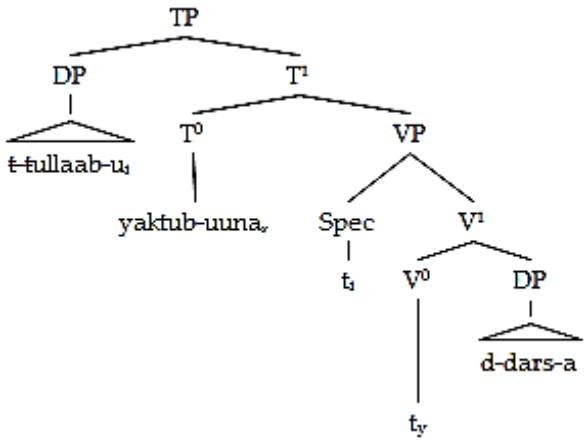
Once a pair meets, there are two possibilities for agreement to be established; the first of which is via the overt movement of the goal, let it be the Nom DP, into the Spec of the probe, say, Spec-TP, as it is the case of most English subjects each of which is remerged into Spec-TP. Noteworthy mentioning that such a type of *Agree* generally restricts the goal's movements to the successive cylicity condition. The second assumed manner of *Agree*, however, is through the direct *Agree* between constituents, without resorting to *Move*, as it

[15] Needless to say that syntax is an integration of constituent-structures and functional-structures in which the former stands for word order, dominance, sisterhood, c-command (either symmetric, asymmetric or antisymmetric) and the like while the latter represents the pair of attribute-value such as Case, [T], Aspect, Mood and so on (cf. Asudeh, 2015).

is the case of the agreement in Person and Gender between the subject and the verb in T^0 in the Arabic VSO pattern. Actually, both possibilities of *Agree* could be best exemplified by the following Arabic SVO and VSO constructions in (13) & (14) below, respectively:

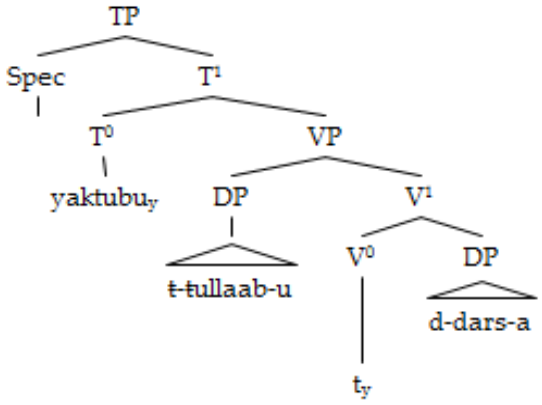
13. a. at-tullaab-u yaktub-uuna d-dars-a. (SVO)
the-students.M.PL-NOM write-M.PL the-lesson-ACC
'The students write the lesson.'

b.



14. a. yaktubu t-tullaab-u d-dars-a. (VSO)
write.M.SG the-students.M.PL-NOM the-lesson-ACC
'The students write the lesson.'

b.



From the above examples, we can notice that when *Agree* is applied via the movement of the goal subject-DP *at-tullaab-u* to the Spec of the probe T^0, as in (13) above, that would lead to a full agreement between the subject DP *at-tullaab-u* and the verb *yaktub-uuna* in Person, Gender and more importantly and distinctively in Num. However, when *Agree* is established

without recourse to the movement of the goal, as evident in (14) above, partial agreement in Person and Gender but not in Num will be the consequence.[16]

On the contrary to the first possibility of *Agree* in Arabic, for English, however, though the goal subject-DP moves to the Spec of the probe T^0, there is no overt agreement in Gender nor Person between the subject DP and the verb in T^0. Agreement can be evident merely in the present tense and exclusively in the Num Feature.[17] An exception to that is the agreement with verbs to BE; the subject DP and the verb in T^0 concord, not only in Num, but also in Person, and not only in the present tense, but even in the past tense (cf. Shormani, 2013).

Generally speaking, *Agree* can be actually fulfilled at any point of the syntactic derivation. Strictly speaking, it can be, for example, when the lexes come out of the lexicon into the imaginary projections within the derivational computation. It can be also during the derivation or at one or both of the LF and PF interfaces. Nevertheless, there is a preference for an earlier agreement to a later one, and this is in accordance with the Earliness Principle which can be defined below (cf. Pesetsky & Torrego, to appear; Radford, 2009):

15. **Earliness Principle:**

    When deriving a certain linguistic construction, syntactic operations should be in effect as early as possible.

[16] However, in varieties like Yemeni Arabic, for example, full agreement can be actually found in SVO and VSO constructions, and this can be through the direct movement of the goal subject-DP into Spec-TP of the probe T^0, in the case of SVO constructions, and through the direct agreement between the goal and the probe in question, in VSO ones; and this can be exemplified by the following constructions:

i. qaraʔuu r-rijaal r-risaalah. (VSO)
   read.PL the-men.PL.NOM the-letter

ii. ar-rijaal qaraʔuu r-risaalah. (SVO)
   the-men.PL.NOM read.PL the-letter
   'The men read the letter.'

[17] As an exception, agreement in Num is not overt with the singular pronoun "you;" always *you* comes along with the plural form of the verb; and this might be, as I assume, due to the traditional pragmatic interpretation, namely, for showing greatness or respect for the second person whom we talk with.

A condition on *Agree* to be in effect, there must be a probe searching for, and matching with, a closest goal within a local domain. To exemplify, *Agree* holds between the verb and the local matching Nom DP in Num, Person and Gender in Arabic, and between the nouns and their adjectives which are local, in Arabic and French, for example.

Regarding the mysterious nature of long-distance agreement (=LDA) between Features on two or more nodes, in which one of such nodes is liable to phase categorization, Antonenko (2012: 66) remarkably postulates two possibilities the first of which is that "complements […] are either non-phasal or are 'weak' phases, and therefore do not undergo Spell-Out, and stay accessible to the *Agree* operation all the way" till the merge of a node with matching valued Features; the second position, approved by Shormani (2017b), however, is that *Agree* is not governed by the constraints of the derivation and transfer of phases and that it can penetrate them.

To expose effectually how *Agree* is handled, there are some mechanisms posited in the literature, which are mainly, but not restrictively, Feature assignment, Feature licensing, Feature checking and Feature valuation. Such mechanisms are to be explained in the following sub-sections, respectively. Significant to note that for constructing convergent and grammatical constructions in a language, all these mechanisms should not eradicate each other; rather, they should complement one another as much as possible.

2.2.3.1. Feature Assignment

Regarded as one of the early mechanisms by which *Agree* is viewed, Feature assignment fundamentally correlates with ɵ-role relations, and traditionally branches into structural Feature assignment and inherent Feature assignment (cf. Shormani, 2013; Manzini & Savoia, 2008; Boeckx, 2003b). Inherent Features, on the one hand, have nothing to do with the syntactic relations among different constituents, particularly in terms of Case assignment, and this goes in line with Boeckx's (2003b: 89) declaration that "inherently Case-marked elements fail to trigger agreement, while structurally Case-marked elements do." Concerning inherent Cases, a lexis comes out of the lexicon having a consistent, unchanging Case, regardless of the slot that it is positioned on or the relation that it has in connection with the other surrounding constituents in a given environment.

Structural Cases, on the other hand, are determined by the interplay of the syntactic interference among different constituents mainly through ɵ-role relations in ɵ-positions. Concerning the correlation between the assignment of structural Features and ɵ-role

relations, what authorizes assigners to assign Cases to the assignees is essentially the harmony of the ɵ-roles endowed on both of the assigners and the assignees. Put in other words, ɵ-roles contribute to the interaction between the assigners and the assignees whereby each assignee is granted a Case value by the most local and interrelated assigner. Hence, according to the Feature assignment mechanism, Case, for example, is a property of the assigner but not of the assignee *per se*. For more clarity, in Arabic, for instance, Nom Case is generally assigned by T^0, Acc Case by V^0, and Gen[itive] Case by possessive D^0 or by P^0. In English, however, T^0 generally assigns Nom Case; V^0, Acc and Dat[ive] Cases; P^0, Acc Case; and D^0, Gen Case. Based on such strict relations between the assigners and the assignees, I conclude that the mechanism of Feature assignment overlaps with the condition of locality in agreement among constituents within a certain phrase. To concretize the locality of agreement in Feature assignment and to illustrate also for the structural Features assignment, observe the following two configurations, along with their accompanied Arabic and English examples; they fairly could represent the local assignment of the structural Nom and Acc Cases, respectively:

16. a. $[_{TP}\ [DP_{NOM}\ [_{T^0}\ ]]]$

    b. $[_{TP}\ [_{DP}$ muħammad-un $[_{T^0}$ yaktubu]]]
    Mohammed-NOM writes
    'Mohammed writes.'

    c. $[_{TP}\ [_{DP}$ Ali $[_{T^0}$ sings]]]

17. a. $[_{VP}\ [V\ \ [DP_{ACC}]]]$

    b. muħammad-un yuħibbu$_i$ $[_{VP}\ [_{V^0}\ t_i\ [DP$ l-luγat-a]]]
    Mohammed-NOM likes the language-ACC
    'Mohammed likes the language.'

    c. Ali is $[_{VP}\ [_{V^0}$ explaining $[_{DP}$ the lesson]]]

As evident, the subject DPs *muħammad-un* and *Ali* in (16. b & c) above are assigned structural Nom Cases by the T^0s filled by the verbs *yaktubu* and *sings*, respectively. However, the object DPs *l-luγat-a* and *the lesson* in (17. b & c) are assigned structural Acc Cases by the assigner-verbs *yuħibbu* and *explaining*, respectively. Crucial to mention here that the assigner-verb *yuħibb-u* in (17. b) has, presumably, assigned the structural Acc Case

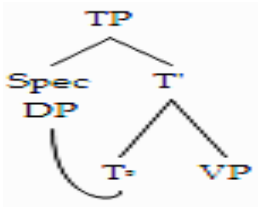
already before moving from its base-generating, assigning slot V^0 higher to T^0, and this is clearly manifested by the trace t_i coindexed with the verb in question.

2.2.3.2. Feature Licensing

As it is the case with the agreement between assigners and assignees in the mechanism of Feature assignment, agreement in the mechanism of Feature licensing should be held between licensers and licensed positions within the spheres of the Spec-Head and Head-Complement configurations.[18] Significant to state here that, like Feature assignment, Feature licensing bears the assumption that lexical entities enter the derivation uninflected so that there would be an essential need for the configurations of Spec-Head and Head-Complement to be present. That is, in order to get their inflectional Features, constituents should move into the positions licensed by their matching licensers.

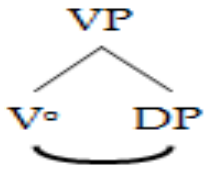
Despite the similarities between the two mechanisms in question, Feature licensing has been given a distinct significance in Generative Grammar and this is primarily when tackling agreement in terms of licensed positions allocated for certain constituents. Actually, from the perspective of the Feature licensing mechanism, agreement should be held between licensers and licensed positions (e.g. between the licenser T^0 and the licensed postion Spec-TP for the Nom DP). To exemplify, the subject-verb ϕ-Features agreement and also the Nom Case of the subject DP are mostly licensed in virtue of the Spec-Head relation. The object-verb agreement in ϕ-Features—as in Lakhota (cf. Shormani, in press)—and the Acc Case of the object DP, however, can be licensed in terms of the Head-Complement relation. Those two relations can be clearly manifested as follows (cf. Adger & Svenonius, 2009 and Soltan, 2007):

18. a.



Spec-Head Relation

b.



Head-Complement Relation

[18] From this we can trace some sort of incorporation between the mechanisms of Feature licensing and Feature checking and this enforces the proclamation given earlier that *Agree* mechanisms are supposed to work not merely separately but also cooperatively.

To concretize agreement in this mechanism, let's, for example, follow Soltan's (2007) and D'Alessandro's (2015) view that T^0 has unvalued [D] and [V] Features, so that, by licensing certain positions for such Features, relations between T^0 and DP in Spec-TP, on the one hand, and T^0 and the moved verb in T^0, on the other hand, are argued to be established in order to value the mentioned unvalued Features. Thus, for licensing to occur, overt movement of the relevant constituents into the licensed positions should be held.[19,20]

2.2.3.3. Feature Checking

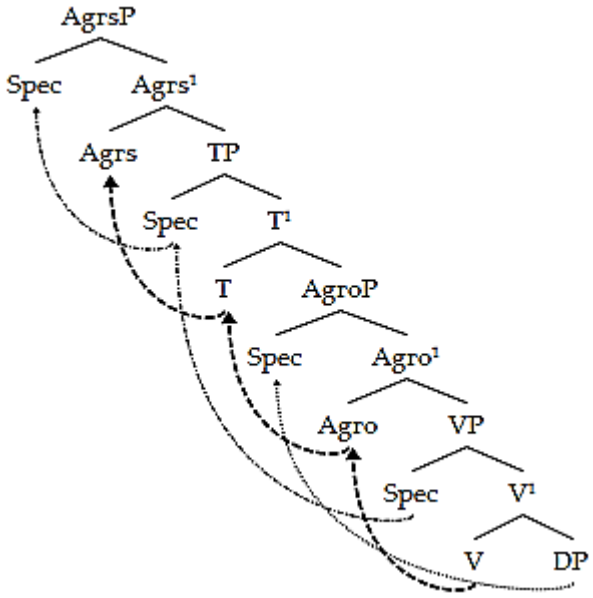
With the advent of Minimalism along with the assumption that lexical items come out of the lexicon fully inflected, the mechanism of Feature checking is postulated. Based on the Spec-Head-Complement configuration, Feature checking is fulfilled by means of *Internal Merge* necessarily before the operation of Spell-Out and this is in order to ensure the relevancy of the Features' values of the inflected items with the values of the Features of the concerned nodes, and also to converge with the Full Interpretation Principle, and also in order for the Features values to be visible at LF (cf. Shormani, in press; Bobaljik & Wurmbrand, 2005; and Black, 1999). Nevertheless, Features for Chomsky (as cited in Galal, 2005) are of two types: strong and weak; strong Features for him are only with functional categories, necessitating movement, while lexical categories are assumed to have merely weak Features that do not necessitate the movement of the lexical entity since they, as he assumes, get "checked after Spell-Out" (ibid: 9).

However, by means of checking two entities that have one or more matching Features, checking, mainly by means of movement, is in effect. To represent simply almost all of the movements that the mechanism of Feature checking can stimulate within the Principles and Parameters Framework, observe the following diagram adopted from Shormani (in press: 149):

[19] Soltan (2007)—and also Fox & Nissenbaum (1999) and Pesetsky (to appear)—states that, with the Feature licensing mechanism, there are two possible types of movement: overt and covert. The first, as he explains, is within the domain of the narrow syntax while the other at the LF interface.

[20] As assumed by Soltan (2007), the mechanism of Feature licensing can be also in effect even without recourse to (overt) movement.

19.



Feature checking fundamentally occurs when a Feature of Y necessitates the movement of a constituent Z to Y or to Y's Spec (cf. Adger & Svenonius, 2009; Shormani, in press; Bobaljik & Wurmbrand, 2005; and Black, 1999). The checking procedure proceeds when there is a probe c-commanding a satisfying goal within its minimal local domain. To exemplify how the Feature checking mechanism could operate, we can take the verb moved into T^0 and the subject DP moved into Spec-TP as a case in point. Both the verb and the DP come out of the lexicon fully inflected with ϕ-Features. Next, the Features of both the verb and the DP get checked mainly by virtue of the movement of the goal DP into Spec-TP of the probe T^0. Another instance is associated with T^0 *per se*. T^0 is assumed to have the verbal Feature [V]; however, the [V] Feature of the verb is not checked yet so that the movement of the verb to T^0 is necessitated (cf. Zeijlstra, n.d.). With the same constituents, the T^0 node is also assumed to enter the derivation with the [T] Feature not checked, whereas the verb enters with a matching valued Feature; so that, to check the T^0's [T] Feature, the verb moves to the T^0 node.[21] Noteworthy stating that the linguistic entities bearing the already checked Features do not undergo any further checking operation for any more entities whose Features are still not checked nor do they undergo any additional movement any more.

However, since movement is restricted to the locality condition, the Feature checking mechanism is uncapable to account for some sorts of agreement in which movement is not in effect. Accordingly, the mechanism of Feature checking has its own unsufficient

[21] On the contrary to the discussion provided above, Citko (2014) has restricted Featurre checking to the EPP.

limitation. For instance, it cannot account for LDA in which an unvalued constituent could not undergo a long movement. That is, the restriction of this mechanism to the condition of locality leads to the disapproval of its application in some constructions requiring LDA, as in long distance relativization (=LDR) based on the base-generation strategy.[22] It could not also account for, for example, the interrogative constructions in which the *wh*-elements remain in situ, as it is the case in some interrogative constructions in Arabic and French. In Minimalism, the strict adherence of *Agree* to Feature checking (along with Feature assignment and licensing), thus, has been reconsidered,[23] and a new mechanism has accordingly been added. This mechanism is the Feature valuation mechanism.

2.2.3.4. Feature Valuation

Chomsky's (2001) *Derivation by Phase* could be considered an inspiration key for the new mechanism of Feature valuation to be in effect. This mechanism is different from the previous ones essentially by giving 'values' *per se* more significance than positions licensed, relations assigned and/or slots requiring movements. Under its remarkable concepts, the probe which bears at least one unvalued Feature is assumed to look down at its c-commanded domain for a goal with a matching valued Feature. When finding the goal, the unvalued Feature of the probe is immediatedly and simply substituted by the valued instance (i.e. the value) of the goal, without needing any movement of the targeted constituent (cf. Zeijlstra, n.d.).

As an enhanced, but modified, extension of Feature valuation, the Feature sharing mechanism is proposed by Frampton & Gutmann (2000). It proceeds as follows. Instead of transmitting the value of the goal onto the unvalued probe by means of Feature valuation's binary strategy of 'valuation and deletion', Feature sharing advocates for forming one linked Feature shared between two (or more) probes within a (Feature-)chain[24] whereby a valued Feature percolates to and values all the linked items (cf. Frampton & Gutmann, 2000; Danon, 2007; Shormani, 2017a; González-Rivera & Delicado-Cantero, 2011). Moreover,

[22] This also deviates somehow from Crone's (2014) proclamation of the 'close' association between agreement and movement.

[23] For more on the shortcomings of the mechanism of Feature checking (and also of the mechanisms of Feature assignment and Feature licensing), see Shormani (in press).

[24] The linked probes (and also the goal) in such a Feature-chain need not to be in the very same c-command relation (cf. Shormani, 2017a).

when there are a number of matching probes all searching for the same matching valued instance of the goal, such probes will form a unified link by means of the mechanism of the permanent link; once such a link finds a matching valued Feature, the goal is added to the link and the value, thus, is shared among all the linked items.[25] With this manner, the LF interface needs not and would not distinguish between previously valued items and unvalued ones.

Feature sharing vividly presents itself in the English expletive constructions and the Arabic VOS structures and also in the semitic Construct States (=CSs), for example.[26] To illustrate for expletive constructions, consider the following (cf. Frampton & Gutmann, 2000):

20. There seems to have come someone.

21. a. *to* have come *someone*
[uSG]---------- [vSG]
[u3rd P]---------- [v3rd P]

b. *seems* *to* have come *someone*
[uSG]--------- [uSG]---------- [vSG]
[u3rd P]------- [u3rd P]---------- [v3rd P]

c. There seems *to* have come *someone*
[uSG]-----[uSG]----------[uSG]---------- [vSG]
[u3rd P]--- [u3rd P]------ [u3rd P]----------[v3rd P]

d. There seems *to* have come *someone*
[uSG]------[vSG]---------[vSG]----------[vSG]
[v3rd P]----[v3rd P]-------[v3rd P]----------[v3rd P]

As clearly shown in (21) above, the unvalued Num Features of the infinitival particle *to*, the verb *seems* and the expletive pronoun *There* get linked together with the valued counterpart of the indefinite DP *someone*. Consequently, all the linked Features eventually would share

[25] Evidently, contrary to the previous mechanisms of *Agree*, with Feature sharing, *Agree* is not always restricted to only one probe or one goal; *Agree* can also be held between a goal and two or more probes. This is justified by Danon's (2007: 55) characterization of such a mechanism as a "transitive relation."

[26] For more elaboration on Feature sharing in CSs, see Shormani (2017a).

the same value amongst them all. Likewise, regarding the unvalued Person Features[27] of the infinitival particle, the verb and the expletive pronoun *There*, they all get linked with the valued counterpart of the indefinite DP *someone*, resulting into one valued Person Feature shared among all the given constituents.

2.2.4. Locality and Successive Cyclicity

Not only with respect to the *Select* and *Merge* operations does the Locality Condition manifest itself, but also in terms of the derivational valuation and movement. Metaphorically speaking, it co-operates side by side with the successive cyclicity, outlining what local cycles moved items should take. Even the three main components of Language (namely, the narrow syntax, the LF and PF interfaces), as argued by Chomsky (2004), proceed in a cyclic fashion. Agreement, also, "applies in a cyclic fashion, through the intermediary of every intervening phase-defining head" (Legate, 2005: 148). Thus, seeking agreement from, for example, the perspective of the Feature checking mechanism,[28] a moving constituent is argued to necessarily land in each phase escape hatch it passes by, in a local cyclic fashion.

Actually, the closest constituent to the probe X, for example, is the most appropriate goal to move, and this is traditionally known as the *Shortest Move* whereby Weisler & Milekic (1999) and Zwart (1998) argue that movement is restricted to the principle of economy whereby short movements are preferred to long ones. Locality is also associated with the Superiority Condition which states that C^0 (primarily, $Force^0$) attracts the most local *wh*-element in each interrogative construction (cf. Aoun & Li, 2003; Radford, 2009). To exemplify such a case in terms of the Superiority Condition, observe the following two examples which embody multiple questions:

22. a. Who_i t_i respects whom?
    b. *$Whom_i$ does who respect t_i?

[27] Noteworthy declaring that each Feature does seek valuation and interpretation individually, and so do the Num and Person Features given above.

[28] There are two approaches attempting to depict the nature of *Move*, namely, uniform and punctuated movements (cf. Abels, 2003). The former stands for the assumption that the moving entity lands at every node it passes by, affecting them all. The latter, on the contrary, represents the phasal view that movement should be cyclic, stopping on specific intermediate slots between the base-generating and the targeted slots. Actually, the latter approach is the module that I follow in this section and also throughout the whole study.

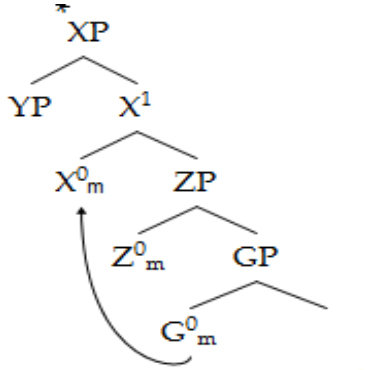
The former example (22. a) is acceptable since it is completely adherent to the Superiority Condition while the latter example (22. b) is not. The violation of the Superiority Condition in the example (22. b) lies on the movement of the far *wh*-element *whom* to Spec-CP, encroaching the locality and superiority of the *wh*-element *who*. In addition, the violation of the Locality and Superiority Conditions, here, leads also to another violation, namely, the violation of the Intervention Condition which could be defined as follows:

23. **Intervention Condition**

When there is a probe P and two goals (G1 & G2) potential for movement, and when G1 intervenes between P and G2, P cannot trigger the movement of G2.

All in all, the violation of locality (and also of the RM) is best represented by the following diagram in which there are two matching candidates (i.e. Z^0_m and G^0_m) to value the matching unvalued probe X^0_m.[29,30]

24.



When the probe X^0_m, in (24), searches for a matching constituent to agree with, it finds the two matching candidates Z^0_m and G^0_m. The closer candidate Z^0_m, however, intervenes[31] between the constituents X^0_m and G^0_m so that it is the best candidate but not the other distant goal G^0_m. Hence is the unacceptability of the movement of the distant G^0_m to X^0_m.

[29] Here, the subscript '$_m$' stands for 'matching.'

[30] However, as cited in Salzmann (2009), Boeckx (2003) states that the violation of the Locality Condition seems to be invalid when *Move* applies not for the sake of *Agree*. Salzmann (2009:34) assumes that "[m]ovement without *Agree* is possible if the [ϕ]-Features of the goal are not activated."

[31] Noteworthy mentioning that intervention has to do with c-command but not with domination (cf. Abels, 2003; Pesetsky & Torrego, to appear).

Concerning the acceptable long-distance movements, like that of the interrogative construction provided below which is comprised of the matrix and embedded clauses, the *wh*-element is generally assumed to have intermediate steps, moving through the edges of the phases of the embedded CP and *v*P:

25. a. What does Mohammed believe that Ali wrote?

b. [$_{CP}$ What$_i$ [$_C{}^0$ does [$_{TP}$ Mohammed [$_T{}^0$ [$_{VP}$ [$_V{}^0$ believe [$_{CP}$ t'_i [$_C{}^0$ that [$_{TP}$ Ali [$_T{}^0$ wrote [$_{vP}$ t'_i [$_V{}^0$ [$_{VP}$ [$_V{}^0$ [t_i]]]]]]]]]]]]]]

2.3. Literature Review

This section highlights a number of syntactic conceptions and notions very much significant and related to the study at hand that have been postulated in the literature. Actually, this section covers most of the related literature on relativization especially in English and Arabic, based on traditional, modern and also contemporary views. Such a background gives the reader a good snapshot of the phenomenon of relativization and also a justification for the proposed analysis that this study puts forward later on.

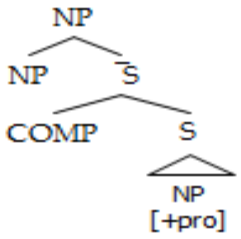
2.3.1. The Traditional View of Relative Clauses

The long-held debate concerning the derivational structure of RCs, to the best of my knowledge, goes back to Sibawayhi's *l-Kitaab*, discussed in Al-Sirafi (2008), and also to the exchangeable competition between the matching analysis—employed, for example, by Galal (2005), Aoun & Li (2003), Salzmann (2009) and Demirdache (1991)—and the promotion analysis—strongly adopted by Vergnaud (1974) and Kayne (1994). Though both of these analyses adopt the transformational grammar, the pivot of contention between these two analyses, as a matter of fact, revolves around what is moved. For the matching analysis, the RLP is what is assumed to move out of the RP's slot. For the promotion analysis, however, the RLP is generally assumed to be base-generated while the antecedent DP is assumed to move out of the RP's slot.

To begin with the traditional analysis of RCs, mainly in terms of the Phrase Structure Rules and its Deep Structure, Suaieh (1980) provides an analysis by which the RC in Modern written Arabic is viewed as an $\bar{S}$ embedded under NP whereby, according to him—and also as assumed by Galal (2005), Rizzi (1997, 2001), Alexiadou et al. (2000), Koster (in preparation), Rouveret (2008) and Radford (2009)—the relative head is considered a relative

complementizer but not a relative pronoun.[32,33] Insisting that *llaði* is a complementizer,[34] Suaieh (1980: 58) adopts the following format: [35]

26.



Furthermore, Suaieh assumes that the head in the Arabic RC is the antecedent noun preceding the relative complementizer, claiming that the RC occupies "the same position as attributive adjectives do in the language" (ibid: 32). Like Suaieh (1980), Galal (2005) and Heim & Kratzer (2000) argue that RCs are generally adjectival and attributive in function. Arnold (2009), too, proclaims that the *wh*-relatives with the indefinite adjectives in Western Neo-Aramaic RCs can substitute the definite attributive adjectives, interchangeably.

2.3.2. The Underlying Structure of Relative Clauses

For Rizzi (1997), the underlying structure of clauses consists of three main types of structural layers. One of them, which we are more concerned with here in the study at hand,

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[32] Drozdik (2010), investigating relativization in Arabic, presents a unified account for both non-finite RCs and finite relatives. He declares that non-finite RCs include adjectival, verbonominal or primarily participial predicates whereas finite RCs include finite verbs. He also exhibits the divided agreement manner within Arabic RCs; antecedents with predicates agree in (in)definiteness and Case while predicates, in turn, agree with the following nouns in Gender and Num, as shown in the following modified example (ibid: 294):

i. ʔamiirat-un hasan-un qasr-u-ha (Predicate-subject RC)
princess.F-NOM.INDEF beautiful.M.SG-NOM.INDEF palace.M.SG-NOM-her
'A princess whose palace is wonderful'

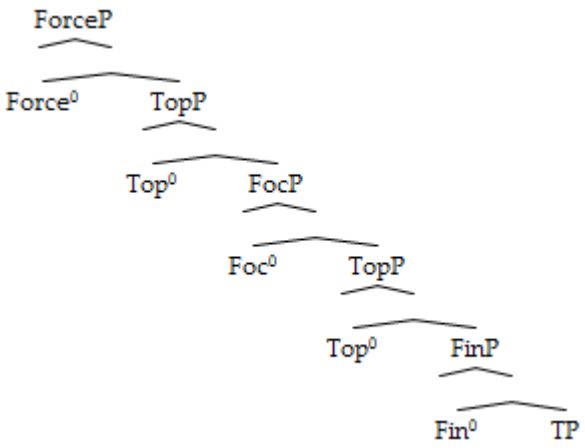
[33] Both interestingly and intricately, in Welsh RCs, the *wh*-relative *a*, on the contrary to the Irish's—though they both are assumed, as given in Rouveret (2008), to be accompanied with movement—cannot be the head of embedded declarative clauses. For more elaborated details, see Rouveret (2008).

[34] Al-Tarouti (1991) and Arnold (2009), however, claim that the *wh*-relative is not a relative pronoun but a relative particle joining two complete independent clauses.

[35] Similarly, Ross (1986) adopts the assumption that RCs, especially in English, have the underlying Deep Structure 'NP S' structure.

is that of the complementizers. This complementizer layer, as Rizzi (1990, 1997, n.d., *et seq*) postulates, primarily hosts topics, relative and interrogative pronouns and focalized elements.[36] He also argues that the relative head "enters into some kind of 'action at a distance' with the specifier of its complement (for Case assignment/checking or the licensing of different kinds of effects)" (Rizzi, 1997: 282). Based on this very structural layer of complementizers, he has proposed the cartography slightly modified below, positing the relative 'operator' in the highest position of Spec-ForceP (ibid: 297; see also Rizzi, n.d.):[37]

27.



Adopting the traditional theory of C^0, Rizzi (1997: 307) assumes that there is an "abstract agreement" on C^0, triggered by the operator in Spec-CP; accordingly, the head C^0, as he assumes, becomes the "head-governor for the trace." Actually, such a cartography of the left periphery of the clause—regardless of the internally sequenced order of the projections—is confirmed by Cinque & Rizzi's (2008) hypothesis that there might be a functional design that is crosslinguistically shared among all human languages. This cartography has been reinforced also in Rizzi (2005) and adopted in many other studies such as in Bianchi (2003).

[36] Another configuration for RCs, different from that of the complementizer layer, Isac (2003) argues that restrictive RCs are but Conjunction Phrases (=CoPs) and that those CoPs are complements of preceding D^0s. The head of such a Conjunction Phrase, as she proclaims, is the functional category Co^0. She assumes that the two conjuncts of the head Co^0 are the Spec (on which the antecedent DP/NP would be) and the complement. Similar to a large extent with Isac's (2003) and also Vries' (2006) conjunct projection, Heim & Kratzer (2000: 87) state that nonrestrictive RCs, too, are "only stylistic variants of coordinate sentences."

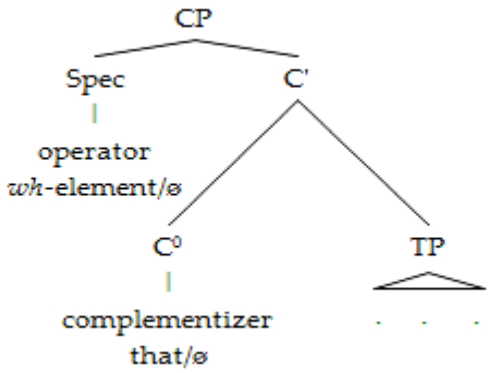
[37] For interrogative constructions, on the contrary, operators are assumed to be positioned in the lower TopP/FocP.

How the CP could be split, Rizzi (2001, 1997) endeavors to differentiate between RCs and interrogative constructions, manifesting that, though both of them are posited within the ForceP, what makes each one distinct is that topicalized constructions follow RCs but precede interrogative constructions. Based on this, he presents the following modified form as a model (Rizzi, 2001: 5, 1997: 289):

28. … (*wh*-relative) … topic … (interrogative *wh*-element) … TP

Also, he states that unlike the TopPs, the FocP is incompatible with the interrogative *wh*-elements. That is to say, focalized phrases and interrogative *wh*-elements are in complementary distribution; once one is overt, the other is not. However, the matter, as he argues, differs with the *wh*-relatives; *wh*-relatives precede focalized phrases. Also, Radford (2009) declares that the Spec of the finite RC, whose C^0 is occupied by *that*, is filled by the *wh*-operator. In accordance with the *Complementizer Condition*, however, either C^0 or its Spec can actually be overt. Hence, what Radford calls for could be represented by the following diagram:

29.



Tackling RCs in terms of interpretable Features, Grosu (2000)—along with Rouveret (2008, n.d.), Leung (2007), Suaieh (1980), to mention but few—significantly highlights that there is a [Rel] Feature on the C^0 of the RC's CP projection. Grosu argues that this [Rel] Feature is the core Feature for relativization to be established and for the internal dependencies, either through *Merge* or *Move*, to be fulfilled. Such a Feature is the one that fundamentally distinguishes RCs from interrogative constructions. Another distinction is proclaimed by Galal (2005), Amer (n.d.), Ross (1972) and Heim & Kratzer (2000), saying that RCs are of a modifier-head sort. As Galal declares, the modifier RC in Arabic is to agree with the

modified DP in (in)definiteness, Person, Gender, Num and Case. The same is also viewed by Kornfilt (2000) when tackling relativization in Turkish.[38]

2.3.3. Agreement in Relative Clauses

Concerning agreement in RCs from the perspective of the CP layer, however, for Rouveret (2008), as cited in Freidin et al. (2008), the dependency between the *wh*-relative and the RP site is assumed to be due to the cyclic *Agree* in terms of phases since the intervening phase heads, as he alludes, bear the Features of the *wh*-relative that need to be checked. In terms of *Agree*, too, Rouveret (2008) proclaims that there are three essential possibilities accounting for structuring Welsh RCs; these possibilities are: (a) movement which results from *Agree* followed by *Move* as in the case of gap RCs, (b) base-generation accompanied with *Agree* as in the case of resumptive RCs, or (c) pure base-generation in isolation from *Agree* as it is the case with the RCs whose islandic RP sites are filled by 'intrusive pronouns'.[39] Rouveret, moreover, insists that the effects of subjacency and successive cyclicity within RCs reflect the operation *Agree* in phase terms that these effects along with the reconstruction effects[40] should not be viewed exclusively in terms of *Move*. *Agree*, too, he claims, "applies phase by phase, in a cyclic fashion" (ibid: 170). Further, Pan (2016) insists that, when forming RCs with either RPs or gaps, *Agree* goes along with the locality constraints and the multiple Transfer and also with the multiple Spell-Out.

2.3.4. (Non-)Subject Relativization

With respect to (non-)subject relativization, Drozdik (2010) states that, in Arabic, there are subject-predicate RCs and predicate-subject RCs.[41,42] For Miyagawa (2005), who takes

[38] In Turkish RCs, as Kornfilt (2000) declares, there is no overt *wh*-relative, however.

[39] Actually, the term 'intrusive pronouns' is used to refer to the RPs which are restricted within the boundaries of islands (cf. Boeckx, 2003a, 2003b; Rouveret, 2008). However, Beltrama (2013a, 2013b) has restricted such a term to English and Italian RPs, excluding the Arabic, Irish and Hebrew ones.

[40] Traditionally, reconstruction has been defined as "the successful detection of [the] unpronounced copy" of the moved constituent (Darrow, 2003: 53). However, Darrow acclaims that reconstruction, on the other hand, could also be a consequence of the semantic enrichment of interpretation and that it may have nothing to do with the copy theory nor with the movement analysis.

[41] Predicate-subject RCs are known by the traditional Arab grammarians as '*naʕt sababi*'. To have a view on such a categorization, see Al-Hemiary et al. (2009) and Abdul-Mutalib (2005).

Turkish and Flemish as two cases for his study, and who argues that agreement does originate on C^0, it is claimed that what distinguishes Turkish and Flemish subject relativization from non-subject relativization is that in the former (i.e. subject relativization) the embedded verb is suppressed from being in agreement with the subject RP since such an agreement in this case is held between the relative element in C^0 and the subject RP. On the contrary, in non-subject relativization, agreement which basically originates on C^0, as assumed, percolates down onto T^0 so that the embedded verb becomes in agreement with the embedded subject. Similarly, Kornfilt (2000: 123) says there is no agreement nominalization morphology in Turkish subject relativization, as the first slightly modified example (30. a) below shows, contrary to the second slightly modified example of non-subject (i.e. direct object) relativization in (30. b):

30. a. [[ei geçen yaz ada-da beni gör-en] kişi-leri] *[subject as target]*
last summer island-on me see-*(y)An* person-PL
'The people who saw me on the island last summer'

b. [[*pro* geçen yaz ada-da ei gör-dügˇ-üm] kişi-leri] *[non-subject as target]*
last summer island-on see-*DIK*-SG person-PL
'The people who(m) I saw on the island last summer'

Put simply, more concerned with the nominalization morphology and the nominalized modifiers of Turkish RCs, and stating that -(*y*)*An* is a morpheme lacking agreement while -*DIK* is the agreement morpheme in Turkish,[43] Kornfilt elucidates that the former morpheme is with subject RPs while the latter is with other RPs. In non-subject relativization which comes along with the agreement morpheme -*DIK*, she argues that the bound phonetically null pronoun is necessitated to be covertly present, however.

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[42] In terms of the Accessibility Hierarchy, however, whereby a hierarchical order is proposed according to which each constituent is empirically found to be more accessible to be relativized than the following one, the accessibility for subject relativization, as Drozdik (2010)—and also Friedmann et al. (2009), in their empirical study conducted on Hebrew-speaking children, and also Hamdallah & Tushyeh (1998)—states, is first and more easier and more potential than the relativization of objects, for example. Acquisitionally speaking, Drozdik signifies that, depending on a number of recent psychological studies, subject relativization is the most easiest sort of RCs comprehended by the child. He actually presents another approach to detect the most accessible pattern for the acquisition of relativization, and this approach, as he declares, is Tarollo and MyHill's Linear Distance Hypothesis.

[43] Actually, Turkish is a Null Subject Language and also a head-final language.

Regarding the subject RPs in Arabic, Suaieh (1980) assumes that there is always an intrinsic RP in the Deep Structure and that the nullness of this RP in the subject position is primarily due to the subject-pronoun deletion. For Asudeh (2015) and also Beltrama (2013b), RPs are said to exist in all syntactic positions in Irish RCs save in subject positions merely due to the Highest Subject Restriction. However, Boeckx (2003a: 89) attributes the nullness of subject RPs to the:

> automatic *Agree* relation established upon *Merge* (*Match*) between C^0 and [T^0]. This automatic Φ-feature sharing relation has the immediate consequence of triggering the *Agree* strategy in order to meet [the Principle of Unambiguity Condition], blocking the alternative, stranding (resumption) strategy. The present account predicts that when the [C^0–T^0] relation is not local, *Agree* [will not] be automatic, and therefore stranding will be an option.

Boeckx (2003a: 81) also enforces that "relativization of [the] indirect object […] requires the presence of a pronominal clitic in *co*-relatives" in Czech Language. Thus, for non-subject relativization, RPs are generally overt.

2.3.5. Definite and Indefinite Relative Clauses

Turning to the issue of the distinction between definite and indefinite RCs in Arabic,[44] Suaieh (1980), Al-Tarouti (1991), Darrow(2003), Galal (2005), Aoun et al. (2010) and Alqurashi (2012) argue that there is an interactive relationship between the presence of the *wh*-relative and the definiteness of the antecedent DP.[45,46] The presence of one almost entails

[44] Definite RCs and indefinite RCs have been interchangeably labelled by Al-Tarouti (1991) as syndetic RCs and asyndetic RCs, respectively.

[45] Needless to say that definite RCs are simply RCs whose antecedents are definite, as shown in the following examples in English, Arabic and French, respectively:

i. *The* man who wrote the letter is here.

ii. *ar*-rajulu llaði kataba r-risaalata hunaa.
the-man who wrote the-letter here
'The man who wrote the letter is here.'

iii. *L'*homme qui ecrit le mot est ici.
the-man who wrote the word is here
'The man who wrote the word is here.'

the presence of the other. For indefinite RCs and complementarily for participial predicates in Arabic, however, there is no overt C^0 (cf. Galal, 2005; Darrow, 2003; Suaieh, 1980; Drozdik, 2010). This is why the old Arab grammarians assume such indefinite constructions to be '*ṣifah*' but not '*ṣilah*', i.e. to be mere adjectives but not RCs (cf. Suaieh, 1980; Hamdallah & Tushyeh, 1998; Al-Hemiary et al., 2009).

Not only that difference, but also, as Galal (2005) strongly argues and Hamdallah & Tushyeh (1998) manifest, there is a consequent relation between the overtness of the *wh*-relative and the optionality of the gap/RP occurrence on the one hand and the covertness of the *wh*-relative and the necessity of the RP occurrence on the other.[47] Observe the following examples modified from Galal (2005: 108):

31. a. *qaraʔtu kitaab-an ʔiʃtaraa ___ ṯ-ṯaalib-u
read.I book-ACC.INDEF bought the-student-NOM

b. qaraʔtu kitaab-an ʔiʃtaraa-hu ṯ-ṯaalib-u
read.I book-ACC.INDEF bought-it the-student-NOM
'I read a book that the student bought.'

Somehow related to such a point is Aoun & Li's (2003) and Darrow's (2003) proclamations that, unlike definite RCs whose RPs are not within islands, indefinite ones do not exhibit reconstruction. Aoun & Li (2003) also claim that definite RCs whose RPs are not within

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Indefinite RCs, on the other hand, are RCs whose antecedent DPs are conjoined with one of the indefinite articles *a* or *an* in English, and RCs whose antecedent DPs include one of the indefinite nunation suffixes, namely, *-un* (for Nom), *-an* (for Acc) or *-in* (for Gen) in Arabic, or the indefinite articles *un*, *une* or *des* in French, to mention but three languages. More further, Demirdache (1991) has presented another distinction between definite and indefinite RCs but from the prespective of the English *wh*-elements *per se*. She states that definite *wh*-relatives (e.g. *which*) have the underlying structure '*wh+that*' while the indefinite *wh*-relatives (e.g. *what* or *whatever*) could have the underlying structure *'what+some'* or *'what+any*.'

[46] Like Arabic, Western Neo-Aramaic language undergoes the same restriction of the complementary distribution between definiteness and the presence of the *wh*-relative (cf. Arnold, 2009). However, unlike Arabic, Western Neo-Aramaic RCs can be definite by means of definite antecedent DPs and also by means of following adjectives annexed to them even if the antecedent DPs are indefinite. Definiteness in the second case, Arnold says, is marked by the presence of the suffix *–il* on the verb.

[47] However, this is not the case in English. In English, there is no strict interrelation between the overtness/covertness of the *wh*-relative and the (in)definiteness of the antecedent DP.

islands are best analyzed in terms of movement while indefinite RCs are accounted for in terms of base-generation.

More remarkably, there are also some other differences between definite and indefinite RCs and also among the different types of RCs. From semantics and discourse perspectives, definite restrictive RCs and Free relative clauses (=FRCs), as explained in Mughazy (2008), present presumed old information for specific referents known by the addressee, in contrast with non-restrictive RCs and indefinite RCs which apparently and pragmatically express new information with new referents. Generally speaking, the presence of the RC in a sentence, however, as manifested in Robert (2003) and also in Drozdik (2010), is to present adequate, referential, familiar and unique information which has the prime role of referentiality for accommodating the discourse and for specifying and restricting entities. RCs, thus, are said to provide the hearer "a much clearer picture" concerning the discourse, satisfying a given context (Robert, 2003: 326). Consistent with that, Robert offers a somehow detailed explanation of how RCs entail the strength of the uniqueness effect, as the following examples he provides elucidate, (ibid: 326):

32. a. Every man that owns a donkey beats it.
    b. Every man that owns a donkey beats the poor beast.
    c. Every man that owns a donkey beats the donkey (he owns).

33. a. Every man who had two quarters put them in the meter.
    b. Every man who had two quarters put the damn things in the meter.
    c. Every man who had two quarters put the (two) quarters (he had) in the meter.

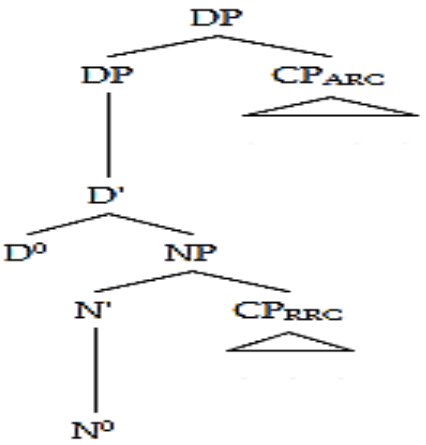
2.3.6. Types of Relative Clauses

With regard to the RCs' types, the literature has broadly exposed three main categories the first of which is the appositive RCs; the second, the (non-)restrictive RCs; and the third, the FRCs. For Rizzi (1997), for example, appositives are typically characterized with null anaphoric operators in most languages. What determines their being as either null or overt, as he assumes, is a matter of language-specific variations depending on the "abstract structural difference[s]" among languages (ibid: 293). Also, as Vries (2006) puts it, what distinguishes appositive RCs from other types of RCs is that the former are characterized with their specification for and coordination with the antecedent DPs. They are also argued to differ from the restrictive RCs essentially with respect to the antecedent DPs, the RPs,

extraposition and scope. Primarily, the coordination hypothesis, as alluded to above, is employed by Vries (2006) when analyzing the structure of appositive RCs. The antecedent DP is considered the first conjunct while what he calls the 'false FRC' of the appositive RC is the second. He assumes that the second conjunct is structurally a semi-FRC since it is an apposition for the first conjunct, i.e. for the antecedent DP which is assumed to be the head. Furthermore, he calls for the CFR approach which is a combination of coordination, free relativization and raising analysis.[48] In addition to this approach, he views two main contradictory hypotheses accounting for the syntactic nature of the appositive RCs. The first is the Subordinate Clause Hypothesis while the second is the Main Clause Hypothesis. Vries argues that appositive RCs are exhibited in the light of non-restrictive RCs since they both (namely, the appositive RCs and the non-restrictive RCs), as he assumes, are conjuncts to their antecedent DPs. Nevertheless, he argues that appositive RCs are appositions to their antecedent DPs. However, Koster (in preparation) states that appositive RCs signify specification which is a characteristic attached also to appositions.

As Grosu (2000) argues, one could identify the RCs' types via their configurations. Put in other words, he proclaims that no more Features could distinguish between appositive RCs and restrictive RCs. Proceeding further, Vries (2006) proposes that appositive RCs are adjoined to the right of DPs while restrictive RCs to the right of NPs.[49] To make such a difference more concrete, he provides the diagram slightly modified below (ibid: 235):

34.



[48] In effect, the label 'raising analysis' refers interchangeably to the 'promotion analysis'.

[49] For a similar view, see Rizzi & Roberts (1989: 27-8, fn. 20).

Demirdache (1991), furthermore, assumes that the dependency between the RPs and the antecedent DPs in appositive RCs is different from that in restrictive RCs. In appositive RCs, RPs are assumed to be referring pronouns while, in restrictive RCs, they are considered to be bound pronouns. Somehow like Al-Tarouti's (1991) view, Demirdache postulates that appositive RCs, though basically regarded as one constituent with antecedent NPs, entail being independent clauses.

Regarding restrictive vs. non-restrictive RCs, Kayne (1994) proposes that restrictive RCs differ from non-restrictive ones at LF but not structurally nor derivationally in the narrow syntax.[50] More specifically, though he emphasizes that the right-adjunction has nothing to do with both of the restrictive and non-restrictive RCs, he proclaims that the difference is that, with the non-restrictive RC, the internal TP of this RC moves higher to Spec-DP so that this TP does not remain any more in the domain of the D^0 head. Isac (2003), moreover, proposes that there is a similarity in interpretation between restrictive RCs, and attributive, intersective and extenstional adjectives modifying nouns, despite the distinct conjunction projection he has proposed for restrictive RCs. Kayne (1994:110), along with Lohndal & Samuels (2013), however, proclaims that a distinguishing aspect between restrictive RCs from non-restrictive ones in English is that there is "an intonation break, usually indicated by commas" with non-restrictive RCs but not with restrictive ones, attributing such a break to the further movement of the TP, at LF, to Spec-DP. Observe the following examples which represent non-restrictive and restrictive RCs, respectively (ibid: 110):

35. a. The young man, who I saw yesterday, is a linguist.
    b. The young man who I saw yesterday is a linguist.

With respect to Arabic FRCs, however, there are two sub-types, the first of which is initiated with *llaði* while the second with *wh*-relatives such as *man* (i.e. *who*) and *maa* (i.e. *what*) (cf. Suaieh, 1980; Alqurashi, 2012).[51] To have special *wh*-relatives specified for FRCs is actually not restricted to Arabic or English; other languages such as Bulgarian and Greek also have special *wh*-relatives for their FRCs (cf. Alexiadou et al., 2000). From another perspective,

[50] Somehow different from such an assumption, Rizzi & Roberts (1989: 27-8, fn. 20) simply assume that full RCs whose *wh*-relatives are overt are all CPs at LF, not distinguishing between restrictives and nonrestrictives nor between restrictives and appositives.

[51] In fact, Suaieh (1980) and Alqurashi (2012) claim that the *m*-elements (i.e. *man* and *maa*) in FRCs occupy the 'head' positions (i.e. the positions of the antecedent DPs).

Alexiadou et al. (2000: 20) also argue that there are two general types of FRCs, the first of which is the internally headed RCs (=IHRCs) in which each FRC consists of an internal head that "is generated, and situated […] within the clause." For this type of IHRCs, Alexiadou et al. provide Japanese, Lakhota and Quechua as examples.[52] The other type is the correlative RCs; Hindi and Marathi, as given in Alexiadou et al. (2000), are two examples of this type. To concretize this type, observe the following Hindi construction slightly modified from Alexiadou (2000: 21):

36. [Jo larkaa mere paas rahtaa hai], vah meraa chotaa
who boy me near living is he my small
bjaaii hai.
brother is
'The boy who lives near me is my small brother.'

Concerning the formation of FRCs primarily in English and Arabic, Alexiadou et al. (2000) compare it with the process of forming interrogative clauses; meaning, via the movement of the *wh*-element to Spec-CP due to the assumed presence of the [+wh] Feature on C^0, as the following modified configuration manifests (ibid: 22):

37. $[_{CP}$ *wh*-element$_j$ $[C^0{}_{+wh}$ $[_{TP}$ … t_j …]]]

However, Alqurashi (2012) argues against that assumption, presenting a number of differences regarding the *wh*-element between interrogative clauses and FRCs. Unlike the interrogative ones, the FRC *m*-elements in Arabic cannot pie pipe prepositions. Riemsdijk (2006), however, has another view. He states that FRCs are "construction[s] occupy[ing] a position somewhat intermediary between questions and (headed) relative clauses" (ibid: 361).

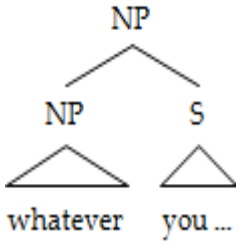
Another salient property distinguishing FRCs from interrogative constructions and also from the other types of RCs is the 'matching effect' whereby it is assumed that FRCs are subcategorized and selected by the matrix predicates so that all of the *wh*-relative and the remnant construction of each FRC would have the very label of the matrix predicate's subcategorized category (cf. Leung, 2007; Riemsdijk, 2006). Not only that but also the

[52] These languages are characterized also as being "prenominal RCs" languages (Alexiadou et al., 2000: 27). For more explanation on IHRCs in Japanese, see Riemsdijk (2006), and in Lakhota, see Robert & Van Valin (n.d.).

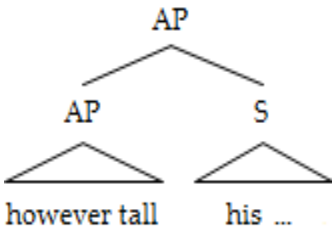
syntactic categories of FRCs are assumed to match with the subcategorized slots of both the matrix predicates and the internal predicates within the FRCs, and this is why the property of the 'matching effect' is called so. According to such a property, Leung (2007: 193-4) presents the examples in (38) roughly diagramed in (39):

38. a. I will buy [$_{NP}$ [$_{NP}$ whatever] you want to sell]
    b. John will be [$_{AP}$ [$_{AP}$ however tall] his father was]
    c. I'll word my letter [$_{AdvP}$ [$_{AdvP}$ however] you word yours]
    d. I'll put my books [$_{PP}$ [$_{PP}$ wherever] you put yours]

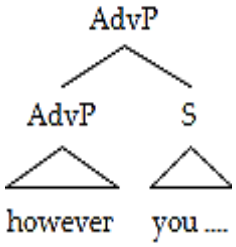
39. a.



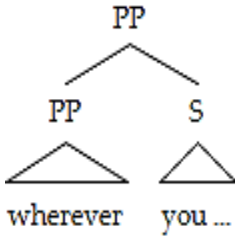
b.



c.



d.

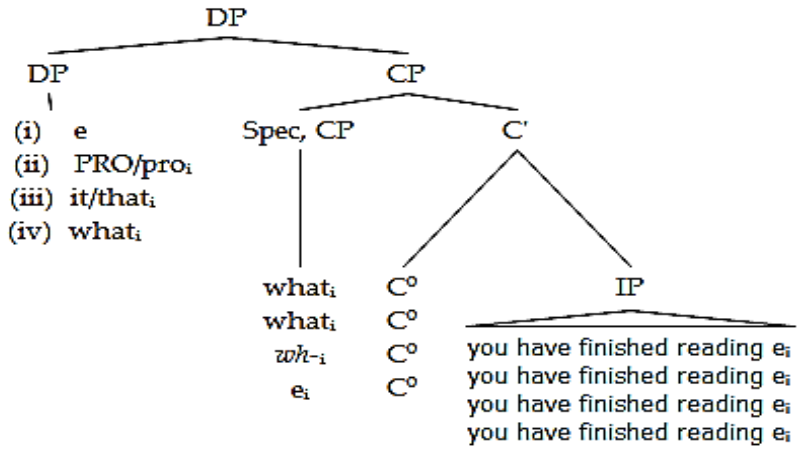


When investigating the real nature of FRCs as whether they have a [$_{DP}$ CP] or a [$_{DP}$ DP CP] configuration, Riemsdijk (2006) manifests that there are four postulations two of which are related to the former given configuration while the two others to the latter. The first postulation is that FRCs are 'headless' (i.e. without antecedent DPs). The second is that there is a PRO or *pro* in the position of the assumed head.[53] That there is "a pronominal element in the head position which ends up being coalesced with the *wh*-[relative], e.g., *it*/*that*+*wh* → *what*" is the third postulation (ibid: 341). The fourth one is that the assumed 'head' is not empty, assuming that it is filled by the *wh*-relative; that is, it is assumed that the *wh*-relative is not in its canonical slot. It is assumed that the *wh*-relative does not occupy Spec-CP position but rather the position of the antecedent DP. This latter interpretive postulation

[53] Both *pro* and PRO are empty categories. However, the former is widely assumed to be assigned a Case while the latter is not.

which has been actually called 'the Head Hypothesis' seems to be approved by Riemsdijk (2006). All these four interpretive postulations, however, are represented in the following diagram (ibid: 341):

40.



Another categorization of the RC types, mainly by employing the Doubly Filled Complementizer Filter—which is proposed by Bianchi (1999)—in order to avoid identity, Riemsdijk (2008) classifies Swiss German RCs into: (a) resumptive RCs in which there is an RP that is either a clitic adjoined to C^0 (which is assumed as being adjacent to the RC's 'head') or an instance of in-situ relativization and (b) locative RCs within which there is either an overt or covert locative operator, and also (c) aboutness RCs which witness the nullness of the correlative *wh*-elements.[54] However, aboutness RCs which include RPs are supposed to have what Riemsdijk (2008) calls a bridge adjunct which results from the haplological reduction of the complementizer *wo* with the locative relative *wo*. Due to this reduction which he labels as 'the Kamikaze Conspiracy', he tends to include aboutness RCs under locative ones.

Semantically speaking, however, RCs have another categorization by Vries (2006). For him, RCs can be of the appositive, restrictive or maximalizing sorts. Despite the fact that Grosu (2000) insists that the [Rel] Feature exists with the three semantic categories of the RCs in question (viz. the postnominal appositive RCs, the restrictive RCs and the maximalizing RCs), he, however, argues that, due to the presence of the 'maximalizing-operator', there is an additional Feature on C^0, which he labels as the [Maximal] Feature. Noteworthy stating

[54] Actually, there are a number of other distinct categorizations of RC types, but I do not mention them here due to their insignificance to the study at hand. For more exploration, see, for example, Khan (2009) and Heim & Kratzer (2000).

that maximalizing RCs generally include, as Grosu puts forward, FRCs, Degree RCs, IHRCs and correlative RCs.

2.3.7. Types of *Wh*-Relatives

Concerning the *wh*-relatives employed within all RCs in general, there are a number of relative elements each of which has a distinct semantic identity seemingly with a different semantic implementation. In Standard Arabic, *llaði*, *llati*, *llaðayni*, *llatayni*, *llaðaani*, *llataani*, *llaðiina*, *llaati*, *man* and *maa* are all, generally but not restrictively, relative elements.[55,56] In modern English, we have *who*, *what*, *whom*, *where*, *when*, *why*, *how*, *whose*, *which* and also *that*.[57] In effect, regarding the very nature of the English *wh*-relatives, Aoun & Li (1993: 154) assume that:

> […] *why* and *how* differ from *when, where, who*, and *what*. Categorially, the former cannot be treated as NPs but the latter can. With respect to quantification, the former quantify over propositions or predicates but the latter quantify over individuals. The gaps bound by *who/what/when/where* are treated as referential expressions, whereas the gaps bound by *how/why* are not referential expressions. In brief, we are distinguishing two types of *wh*-operators. One type binds gaps that are referential expressions and the other binds gaps that are not referential. The former consists of *who, what, where*, and *when*; the latter consists of *why* and *how*. Since *where, when, how*, and *why* have traditionally been referred to as adjuncts, in contrast to *who* and *what* [which are considered to be complements], we will refer to *where* and *when* as *referential adjuncts* and to *how* and *why* as *nonreferential adjuncts*.

[55] Effectively, due to the terminal sound *i* which does not accept any overt marking, Case in *llaði* and *llati* is unmarked.

[56] For Classical Arabic, as given in Al-Sirafi (2008), we have *ʔayy* (Sg=*which*), *ʔayyan* (Dl, for Acc/Dat/Gen altogether=*which*), *ʔayyaan* (Dl, for Nom=*which*), *ʔayyuun* (Pl, for Nom=*which*), *man* (Sg & Pl=*who*), *manyan* (Dl, for M=*who*), *mantayn* (Dl, for F=*who*), *manaat* (Pl, for F=*who*), *mahma* (=*whatever*), *haiθu(-ma)* (=*wherever*), *ʔayn* (=*where*), *mata* (=*when*) and *ʔanna* (=whatever). For modern dialectical Arabic, the RLP *illi* which signifies no Gender, no Num nor Case is used. However, whatever the RLP is, either classical or modern, the computation of the RCs, presumably, is nearly the same, particularly in terms of the overtness/covertness of the RLPs and the RPs.

[57] Noteworthy declaring that the English RLPs *where*, *when*, *why* and *how* are actually known as relative adverbials and so are the Arabic RLPs *haiθu(-ma)*, *ʔayn* and *mata* (cf. Hillberg, 2015).

The nonreferential adjuncts *why* and *how*, Aoun & Li argue that *why* adjoins the T^0 projection while *how* adjoins the V projection. This is actually because the former modifies a proposition while the latter modifies a verb.

2.3.8. Relative Clauses and Coindexation

With respect to the abstract phenomenon of coindexation which is so intrinsic to our discussion of the strategies of the RCs formation, and also for accounting for the anaphoricity[58] of RPs with *wh*-relatives, the role of coindexation is substantially presented when the RP, the *wh*-relative and the antecedent DP are assigned the same index (cf. Suaieh, 1980; Hamdallah & Tushyeh, 1998; Riemsdijk, 2006; Sciullo, 2003; Aoun & Li, 1993; Galal, 2005). With the intricate issue of the relative scope and also coindexation, Aoun & Li (1993) and Browning (1996) manifest that the operators are intrinsically included within chains. Each chain,[59] as Aoun & Li (1993: 123) state, "contains the operator, intermediate traces in [A'-positions], variables, and NP-traces [all] coindexed with the operator." An element is assumed by them to be coindexed with a given operator through the recurrence of intermediate movements and/or through the interpretive rules.

On the contrary to constructions of parasitic gaps and *tough*-constructions, Aoun & Li (1993)—and also Riemsdijk (2006)—significantly state that the coindexation presented between the operator and the relevant intermediate traces within a given RC may not be accounted for in terms of movement. Aoun & Li (1993) and Rouveret (n.d.) insist that such a coindexation is best attributed to the interpretive mechanism held between the antecedent DP and the RC. Thus, they present two mechanisms of coindexation the first of which is a result of interpretation while the second is an effect of movement. Proceeding their analysis, Aoun & Li (1993) insist that the coindexed, assumed non-overt operators, and also the coindexed intermediate traces within RCs have nothing to do with the identification of the relative scope. What determine the relative scope, as they proclaim, are the raised c-commanding elements.

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[58] Noteworthy stating that Hudson-D'Zmura (1988), as cited in Robert (2003: 322), states that while both definite nouns and pronouns are anaphors, the latter are to "maintain the focus of a discourse" whereas the former is to change it.

[59] For more details on chains, see Rizzi (1990, 2005, 2004), Chomsky & Lasnik (2015), Radford (2009), Leung (2007), Weisler & Milekic (1999).

2.3.9. The Strategies of the Relative Clauses Formation

Turning to the strategies of the RCs formation proposed in the literature, there are three main views attempting to depict the derivational processes and the I-language structures required to derive RCs. The first strategy is the old, long-held matching analysis; the second, the raising/promotion analysis; and the third, the bas-generation analysis.[60] The strategy of the matching analysis approved by Galal (2005), Aoun & Li (2003) and Demirdache (1991) is called so because the *wh*-relative is assumed to raise higher to match with the antecedent DP and to be its adjunction. Some syntacticians assume that the *wh*-relative moves to Spec-CP and, hence, it is considered an operator (cf. Salzmann, 2009; Aoun et al., 2010). Some others, however, claim that it moves to C^0 so that it is considered a complementizer (cf. Demirdache, 1991). Generally speaking, the matching analysis proclaims that no transformational relation is directly held between the antecedent DP, which is assumed to be the head, and the trace. Rather, the antecedent DP is generally assumed to base-generate in its position while what moves up to the beginning of the RC, as mentioned above, is the *wh*-relative (cf. Aoun & Li, 2003; Demirdache, 199l; Radford, 2009). Hence, the matching analysis could be represented by the following schemata:

41. $[_{DP}$ [the antecedent DP] $[_{CP}$ *wh*-relative$_i$ $[_{TP} \ldots t_i \ldots]]]$

From the schemata above, *wh*-movement is assumed to have a major role in forming not only interrogative and exclamation constructions, but also RCs (cf. Radford, 2009; Galal, 2005; Aoun & Li, 2003). As an attempt to prove the applicability of the *wh*-movement strategy, Radford (2009: 188) presents some structures, two of which are the following:

42. a. But if this ever changing world [*in* which we live *in*] makes you give in and cry, say 'Live and Let Die' (Sir Paul McCartney, theme song from the James Bond movie Live and Let Die) *[squares and brackets are his but italics are mine]*

    b. Tiger Woods (*about* whom this Masters seems to be all *about*) is due to tee off shortly (Sports reporter, BBC Radio 5) *[brackets are his while italics are mine]*

[60] In addition to the strategies in question, Citko (2000), cited in Citko (2014) and Leung (2007), has proposed a new strategy for deriving FRCs (namely, the *Parallel Merge strategy*), under which it is assumed that three entities are selected from the lexicon and joined all together in a binary form. According to this strategy, both of the FRCs and the matrix clauses are assumed to derive simultaneously. However, this strategy, as argued by Leung (2007) has a number of defects.

Another attempt to confirm the strategy of the *wh*-movement is by alluding to the following "speech error" construction (ibid: 191):

43. It's a world record [*which* many of us thought *which* wasn't on the books at all]
(Athletics commentator, BBC2 TV) *[italics are mine]*

In effect, Radford claims that these speech-error constructions are attributed to the deletion failure. Through all the sentences above, it is supposed that, for deriving grammatical RCs, the *wh*-movement strategy should be viewed as a binary process, the first of which is that of 'copying' whereby a copy of the constituent moves higher leaving behind the original copy whereas the second process is 'deletion' according to which the copy in-situ gets deleted. What triggers the *wh*-relative to move higher is argued to be the C^0's edge Feature.

Holding the same line of the strategy of the matching analysis, Demirdache (1991) supposes that the *wh*-relative and the RP in the RC generate as one constituent by means of right-adjunction, but, at LF, the *wh*-relative gets lifted and, hence, separated from the RP. She also assumes that resumption is initially an instance of relativization in-situ at the Surface Structure. At LF, as she argues, the moved *wh*-relative lands in C^0 but not in Spec-CP; she thus deviates somehow from the derivational account of the *wh*-movement adopted by Galal (2005), Aoun & Li (2003) and Radford (2009), to mention but only few. She also argues against the assumption of the existence of pronouns which are structurally operator-bound because resumption, as she assumes, is in-situ relativization of the operator remaining in the RP slot.

However, Bianchi (2000), examining RCs in Old English, Ancient Greek, Hindi and Latin, mainly through presenting the diachronic changes with respect to the phenomena of correlative structures and Case Attraction, disapproves the matching analysis. She comes up with the conclusion that the matching analysis (along with its view of the RCs as adjunctions) is unsatisfactory since, from the perspective of the matching analysis, the head 'NP' and the 'relative morpheme'/*wh*-relative are improperly viewed as not appropriately correlated with but independent of one another; while this is not the right case.[61] Put in other

[61] Significant to state that, based on the promotion analysis, Bianchi (2000)—and also Zwart (2000) and Aoun & Li (2003)—has actually adopted the Split-CP hypothesis to analyze RCs whose 'relative determiners' (i.e. *wh*-relatives) are postposed, e.g. Latin RCs. According to such an analysis, she proposes that the embedded coindexed DP "moves to a low [Top^0 or Foc^0] position; the NP 'head' is then extracted and moves to the most

words, Bianchi insists that the matching analysis could not account for the correferentiality between the antecedent DP and the *wh*-relative. She also argues that, in terms of the matching analysis, the CP is a barrier for "the dynamic agreement relation between the [RP] and its antecedent NP [which] necessarily [and contrary to the postulations of the matching analysis] crosses this barrier" (ibid: 58-9). Actually, Bianchi claims that the promotion analysis is adequate[62] enough to account for the phenomena of such a correlation and also for Case Attraction and, thus, to also analyze the derivational structure of RCs more properly. That is primarily, as she assumes, due to the morphosyntactic interaction that the promotion analysis posits between the internal D^0 of the RP and the raised governed NP.

Similar to Bianchi's account to a large extent, Kayne (1994), following Vergnaud's (1974) promotion analysis, proposes a determiner complementation analysis for RCs and approves that RCs are CPs *headed* by C^0s whose Specs are basically NPs and that RCs, as a whole, are but complements of D^0s, claiming that such an analysis is compatible with the LCA (=Linear Correspondence Axiom) which is based on asymmetric c-command relations.[63] To make that assumption clearer, I concretize the promotion analysis simply in the configuration below:

44. $[_{DP}\ D^0\ [_{CP}\ NP_i\ [\ C^0\ \ldots\ [t]_i\ ]]]$

Kayne effectually provides the following schematized construction as an example (ibid: 90):

45. the $[_{CP}\ [[_{DP}\ man_i\ [who\ [e]_i\ ]]$'s wife] $[C^0$ ...

Providing the construction above, he assumes that *who man's wife* as a whole undergoes *Move* to Spec-CP, and then *man* moves higher to Spec-DP while *who* to the head D^0 within Spec-CP of the same relative CP. Thus, by means of more raising, the initial complement of

---

prominent position, [Spec-ForceP], to the left of the topicalized phrase occurring in the specifier of an intermediate [TopP]" (ibid: 72).

[62] Kornfilt (2000) argues that Turkish RCs undergo A'-movement. Grosu (2000), too, through the course of his paper, seems to be in pro with the common raising analysis.

[63] Leftward Dislocation adopted, Kayne (1994: 88) argues that no RC can be adjoined to the right of any node, so he postulates that the head N^0 of NP in Spec-CP, in some languages such as Romanian, for instance, "raise[s] out of CP and left-adjoin[s] to D^0" as in the example slightly modified below:

i. cartea pe care am citit-o
book.the *pe* which I.have read-it

the 'relative pronoun' is argued to become its specifier.[64] Further, Kayne proposes that the relative pronouns preceded by DPs within PPs "originate as determiners that are split off from their associated NP[s] by movement of the latter [followed by the *wh*-movement] of the PP to Spec-CP," and then succeeded by the NP raising to the Spec of a higher PP (ibid: 89). To put it in other words, he assumes that, first, the DP or PP containing the *wh*-relative moves to Spec-CP and, second, the internal NP of the moved DP or the PP as a whole moves further to Spec-DP or Spec-PP, respectively.[65] Thus, with the promotion analysis which has been influentially advocated for by Vergnaud (1974), Kayne (1994), Darrow (2003), Boeckx (2003a) and Salzmann (2009), what is argued to raise is the 'head NP' and this entails RCs to be complements of D^0s. However, like the matching analysis, the promotion analysis is argued to have a number of flaws.

Against the NP raising in particular and the promotion analysis in general,[66] Borsley (1997) remarks that Kayne's (1994) given proposal is unsatisfactory because it does lack a number of adequate mechanisms. Commenting that movement is not of NPs but of DPs, Borsley, besides, gets the assistance of the *Complementizer Condition* which states that an overt C^0 cannot simultaneously exist when its Spec is filled. Also, he proclaims that 'DP-traces' have a number of characteristics which are as follows: (a) they can be coindexed with non-c-commanding pronouns, (b) they can control PRO subjects, (c) they can license controlled parasitic gaps, and (d) they must be in Case-marked slots.

Concerning the base-generation analysis, Isac's (2003) proposition of the CoP projection mentioned earlier for the restrictive RCs can be considered, in one way or another, a rejection of the promotion analysis and also of the matching analysis. Also, on the contrary to the Big-DP analysis mainly adopted by Boeckx (2003b) and Boeckx & Hornstein (2008) and the LF-movement hypothesis adopted by Demirdache (1991), Salzmann (2009) assumes that operators are of two types: Case-unmarked operators and (silent) Case-marked ones. For the former type, both the RP and the operator, he states, are base-generated to check the [Op]

[64] Like Kayne (1994), Zwart (2000), Bianchi (2000) and Aoun & Li (2003) have adopted the split CP hypothesis whereby more than one CP layer is employed.

[65] However, such a postulation which states that the internal NP moves higher out of its base-generating DP slot contradicts with the in-consensus view that DPs are phases.

[66] Actually, Murasugi (2000) argues against the promotion analysis, approving the old strategy of the matching analysis and suggesting that the antecedent noun in the Japanese RC is base-generated in Spec-CP and that a phonetically null pronoun moves leftwards.

Feature on C^0 and to check the Case Feature on T^0. Here, it is assumed that, through binding, a dependency relation between the operator and the RP is held. With respect to the second type of operators, however, the operator is assumed to move in order not only to check the [Op] Feature on C^0 but also the Case Feature on T^0. The following somehow modified configurations concretize his point more clearly (ibid: 42):

46. $[_{CP}$ Op_i C^0 $[_{VP}$ $[_{VP}$ $pron_i$ V] v]]
[~~Op~~] [ca~~se~~]
base-generation

47. $[_{CP}$ Op C^0 $[_{VP}$ $[_{VP}$ Op — V] v]]
[~~Op/case~~] [Op/c~~ase~~]
movement

When tackling Celtic RCs in his study, Rouveret (2008) proclaims that RCs with resumption do not undergo RPs movement nor any movement of null operators, and that, due to the syntactic processes in the narrow syntax, the dependency relation between the heads and the RPs outside islands is established. He states that the non-movement account of RPs seems to be the most convenient account. Bearing the same view, Freidin et al. (2008: xviii), providing Welsh prepositional objects as a case of study, allude to Rouveret's declaration that RPs are essentially spelled-out ϕ-Features which "are not accessible to the edge of the phase."[67]

Another distinct view actually adopts the three main strategies in question (namely, the matching, the promotion and the base-generation analyses) altogether to derive RCs. Remarkably, Aoun & Li (2003: 107)—and, similarly, Freidin et al. (2008), Cinque (2015), and also Rouveret (2008)—argue that "languages do not exclusively apply either [h]ead raising […] or operator movement […] to derive their relative constructions." Aoun & Li also proclaim that head-initial RCs should be viewed in terms of complementation, as it is the case in English, while head-final RCs should be interpreted as adjunctions as it is the case in Chinese.[68] They also argue that the definite article is not a part of the raised NP in

[67] Salzmann (2009) and Galal (2005), however, view RPs as spelled-out traces.

[68] Aoun & Li (2003) argue that there are three potential derivations for Chinese RCs; they are NP relativization, adjunct relativization and gapless structures.

some languages. They—like Darrow (2003)—say that the raised head can be either an NP or a DP; it is a raised-NP in Chinese while it is a raised-DP in English.

For cliticized pronouns which are assumed to be of a weak type, Darrow (2003), citing Aoun & Choueiri (1997), states that the *pro* essentially occupies the Spec of the resumptive DP which is cliticized, afterwards, onto the verb. He assumes that the clitic itself occupies the head D^0 of this clitic DP.[69] Further, like Aoun et al. (2010), Darrow concludes that the gap, in contrast, results from the movement of DP (which is assumed to be then the head for the 'gap RC'). Also, he assumes that the *pro* resumption, in contrast, results from the mere movement of NP (which is also assumed to be the head for the '*pro* RC'). Based on this account, he assumes that there are two types of movements: the NP movement and the DP movement.

Actually, Aoun & Li (2003) argue that relativization in Japanese, which is of the IHRCs type,[70] is not by means of the NP or DP raising nor by the operator movement, but via base-generation. Through reconstruction, they, however, strengthen the validity of the promotion and the matching analyses; but if not valid, the base-generation analysis, they claim, comes to the light, and, accordingly, the head is assumed to be base-generated.

2.3.10. The Nature and Types of Resumptive Pronouns

Turning to the question of RPs, in most cases, as Riemsdijk (2008) for example manifests, there are RPs in English RP sites except in subject and object positions and also in indirect object positions of topicalized relative CPs. Asudeh (2015: 11) significantly attempts to depict the nature of RPs, presenting two theories which are as follows:

48. ***Ordinary Pronoun Theory (of Resumption):***

    No lexical/morphological/featural/syntactic difference between resumptive pronouns and referential or bound pronouns

[69] Actually, this contradicts with the view that, for cliticization to hold, there should be no intervening constituent between the very clitic and the constituent on which the clitic gets attached.

[70] In effect, Murasugi (2000) argues that Japanese RCs are IHRCs only apparently; she claims that they are adjuncts whose primary function is to bind the matrix clauses' thematic DPs. She proclaims that Japanese RCs are but "pure complex NPs" (ibid: 260).

49. ***Special Pronoun Theory (of Resumption):***
    Some lexical/morphological/featural/syntactic difference between resumptive pronouns and referential or bound pronouns

Also Boeckx & Hornstein (2008)—along with Riemsdijk (1989, 2008), Alexiadou et al. (2000), Demirdache (1991) and McCloskey (2006)—postulate that RPs are ordinary pronouns but with an extra Feature [+wh].

Regarding the underlying nature of the RPs derivation, Salzmann (2009) enumerates three traditional approaches incorporated with the movement strategy, the first of which bears the assumption, fundamentally called for by Demirdache (1991), that RPs are in-situ operators that move at the LF interface. The second approach views RPs as spelled-out traces (see also Galal, 2005). The third approach views RPs as Big-DP heads whereby both RPs (which are accordingly viewed here as proper pronouns and not as phonetically realized traces) and 'head NPs'/operators are assumed to be basically integrated as one constituent.

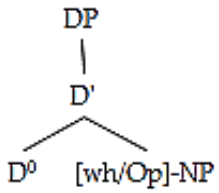
In the course of his study in question, Salzmann, however, comes up with an opposing argument against Demirdache's assumption that RPs in non-islandic sites are operator-variables generated by *wh*-movement at LF. Also, Galal (2005), in contrast to Demirdache (1991), proclaims that each of the RPs and gaps has a distinct numeration, claiming that the former has a slight additional meaning at the LF interface. According to this, resumption is present as a last resort and also as a 'saving strategy' (cf. Galal, 2005; Salzmann, 2009; for a contrary view, however, see McCloskey, 2006). Put in other words, Galal (2005: 70) insists that the presence of the RP is but a kind of "'support' [for] ambiguity [to be] avoided." Salzmann (2009) (along with Galal, 2005; Aoun et al., 2001) argues that resumption is a 'last resort' presented in slots wherein gaps would lead to a derivational crash; the presence of RPs, hence, saves the derivation. Galal (2005) also argues that the optionality between the resumption and the gap is not 'true' but apparent. Also, he insists that the resumption/gap alternation is the concern of syntax more than mere semantics and enforces the view that resumption—mainly in Arabic—is compulsory in RCs with indirect objects RP, possessor DPs and also prepositional objects. In effect, he justifies for such a compulsion in terms of Feature checking and he accounts for the nullness of RPs in subject RP slots simply in terms

of the Economy Principle and minimality.[71] RPs, as Salzmann (2009: 34) says, could confront "somehow amnesty locality violation." Salzmann states that:

> For gap relatives to be able to block resumptive relatives for subjects/direct objects, they must be based on a resumptive derivation and then involve phonetic deletion of the resumptive. Otherwise, gap and resumptive relatives have different numerations, do not belong to the same reference set and therefore do not compete. Again the question [that] arises [is] why gap derivations block resumptive derivations. (ibid: 32-3)

With respect to the Big-DP approach, Boeckx (2003a) assumes that RPs are D^0 heads stranded under the A'-movement, and that operators are basically their complements before movement takes place.[72] This can be illustrated more clearly as follows:

50.



Thus, adopting one of the most recent assumptions of A-binding whereby both the binder and the 'bindee' are merged first as one constituent, and then, later on, by means of movement, such a constituent gets split, Boeckx (2003a) claims that resumption is a product of the split movement but not of the RP's base-generation nor of the trace lexicalization. He also proclaims that movement out of islands becomes insensitive when accompanied with resumption. To put it simply, he follows the raising analysis even within islands. What makes islands insensitive to movement, as he proclaims, is the remaining split resumption. Similarly, Boeckx (2003b) tackles the nature of RPs from Kaynean LCA, approving the Big-DP assumption and consequently arguing that RPs, similarly with floating quantifiers, are formed via the A'-movement. He states that resumption equals stranding, assuming that RP

[71] For further details on the Economy Principle, see Chomsky (1992, *et seq*), Kennedy (2000), Zwart (1998), Weisler & Milekic (1999), Speas (2006), Pesetsky & Torrego (to appear).

[72] In Boeckx (2003b), it is viewed that both definite determiners and pronouns—here, RPs—are the same, occupying the same D^0 slot. The following slightly modified schemata illustrates clearly the very assumption (ibid: 85):

i. $[_{CP}\ Wh_i\ [\ldots[_{VP}\ldots[_{DP}\ t'_i\ \ [D^0\ t_i]]]]]$

sites are basically composed of D^0-heads (which are the RPs left behind the movement of the *wh*-relatives) along with *wh*-elements which rise higher. After the rise of the *wh*-elements, what remain are the RPs.

Another account is that of Aoun et al. (2001) who assume that both resumption and gap RCs undergo the same numeration. They claim that the operator, during the computation of the RC, gets merged into the very thematic position of the RP, and when such an operator is out of island, it would be attracted to the slot of Spec-CP, and accordingly we find a gap. However, when such an operator is initially merged into an island, an operation of demerge and remerge is assumed to be in effect. That is, disregarding the main principles of minimalism, namely, simplicity and economy, and also neglecting the significant role played by Features, Aoun et al. (2001) proclaim that this operator demerges from its initial thematic base-generating slot to get remerged into Spec-CP; nevertheless, since the RP slot is within the island, the RP is assumed to substitute the demerged operator. Noteworthy mentioning that Aoun et al. (2001) implement this 'Bind operation' (which is an amalgamation of merge, demerge and remerge processes, or which, to put it in Aoun et al.'s (2001) words, is a combination of *'Merge*, *Demerge* and *Pronominalize'*) to derive true resumption. However, they adopt *Move* to derive apparent resumption.

Distinguished category labels, Aoun & Li (2003) and Aoun et al. (2001) actually state that resumption is of two types, the first of which is the true resumption characterized by an intervening island between the RP and the antecedent DP, while the second category is the apparent resumption in which there is no intervening island. Like Postal's (1998) and Aoun et al.'s (2010) view, Riemsdijk (2008), emphasizing that RCs are subject to the sensitivity of islands, proclaims that resumption (particularly, the true resumption which, as viewed in consensus, is insensitive to islands) is the solution.[73,74] That is, gaps are not allowed to exist within islands.[75] However, when the RP site is accessible to the antecedent DP and is not

[73] For a similar view, you can also see Riemsdijk (1989), Darrow (2003), Salzmann (2009), Pesetsky (to appear) and Boeckx (2003a).

[74] Actually, Aoun et al. (2010) state that, in some cases, primarily when the embedded coindexed DPs within islands are abstract and non-referential, RPs, like gaps, could be sensitive to islands.

[75] Szabolcsi (2006) provides some explanations accounting for the islandhood of *wh*-constructions and embedded RCs in terms of subjacency and barriers crossing violations and for adjuncts in terms of ECP (=Empty Category Principle) and for coordinate structures in terms of the 'ECP's Path Containment' version.

within islands, resumption, as declared by Rouveret (2008), is prevented mainly due to the Locality Condition. Similarly, Salzmann (2009) states that, in Zurich German RCs, being postnominal like English and Arabic, gaps occupy subject and direct object positions as long as such positions are not islands. RPs, he argues, "are found from the [Dat] object on downwards," as the following modified examples manifest (ibid: 27-8):

51. a. d Frau, wo (*si) immer z spaat chunt (subject: *wo* + gap)
the woman who (she) always too late comes
'The woman who is always late'

b. es Bild, wo niemert (*s) cha zale (direct object: *wo* + gap)
a picture that nobody (it) can pay
'A picture that nobody can afford'

c. de Bueb, wo mer *(em) es Velo versproche
the boy who we (he.DAT) a bike promised
hand (indirect object: *wo* + RP)
have.PL
'The boy we promised a bike'

d. d Frau, won i von *(ere) es Buech überchoo
the woman whom I from (she) a book got
han (Prepositional object: *wo* + RP)
have.SG
'The woman from whom I got a book'

e. d Frau, won i mit *(ere) is Kino ggange
the woman whom I with her in.the movie went
bin (Prepositional adjunct: *wo* + P + RP)
am
'The woman that I went to the movies with'

Asudeh (2015), too, argues that there are two sorts of RPs, the first of which is what he calls SARs (=Syntactically Active Resumptives) which do not bear the properties of gaps while the second is SIRs (=Syntactically Inactive Resumptives) which conversely do regarding, for example, being sensitive to islands and licensed in terms of parasitic gaps and

reconstruction. Thus, as he puts it, the SAR is the only sort allowed in islands, whereby no reconstruction is available since there are RPs already within islands. Also, he declares that what distinguishes SARs from SIRs is that the relation between binders and SARs is anaphoric whereas the relation between binders and SIRs is a sort of "functional equality" (ibid: 20). He actually approves the account of RPs and gaps in terms of the syntax-semantics interface. Semantically speaking, he states that gaps differ from RPs in specificity and weak crossover. With gaps, he argues that there is no specificity. He provides the following as examples from Hebrew (ibid: 10):

52. a. dani yimca et ha-iša še hu mexapes
Dani will.find ACC the-woman that he seeks

b. dani yimca et ha-iša še hu mexapes ota
Dani will.find ACC the-woman that he seeks her

With respect to the difference between gaps and RPs in terms of weak crossover, Asudeh provides the following Hebrew examples, paying attention to the difference in coindexation (ibid: 10):

53. a. ha-iš$_1$ še im-o$_{*1/2}$ ohevet ___$_1$
the-man that mother-his loves

b. ha-iš$_1$ še im-o$_{1/2}$ ohevet oto$_1$
the-man that mother-his loves him

2.3.11. The Nature of Gaps

Detecting the nature of gaps more closely, gaps, as generally assumed in the literature, appear due to movement. In effect, Suaieh (1980: 14) argues that subject gaps in RCs are due to the dropping of the subject pronouns, especially in Arabic, while object gaps are accounted for in terms of the "controlled Pro-deletion." Actually, Riemsdijk (2006), too, has alluded to that condition of the controlled Pro-deletion. He exposes the idea behind it, saying that the gap position is fundamentally filled by a pronominal constituent that gets deleted afterwards due to the referential identity and the matching coindexation with its local

head.[76,77] Somehow like Arabic RCs in which gaps are obligatory in subject slots while optional in direct object positions, in Swiss German RCs as manifested by Riemsdijk (1989), gaps are found in subject and direct object positions but, both, in an obligatory manner, however. Concerning English, on the contrary, gaps are obligatory in subject positions while preferred in (in)direct object positions.

Freidin et al. (2008), too, present two distinct approaches attempting to expose the nature of ellipsis (i.e. gaps) in the Celtic languages of Welsh and Irish. These approaches are the PF deletion approach and the interpretive approach. For Isac (2003: 40), however, gapping in restrictive RCs is attributed to the Conjunction Reduction, giving the following examples for more clarity:

54. a. Some visited NY on Monday and others v~~isited~~ LA on Friday.
    b. Some visited NY on Monday and others v~~isited New York~~ on Friday.
    c. The monkey which Mr. Yamada keeps m~~onkey.~~

In his *Connectedness*, Kayne (1983), furthermore, tackles the conditions posed on the existence of real and parasitic gaps, based on his graph theory of connectedness.[78] Mentioning that the ECP is indifferent to the distinction of whether the gap is in accordance with the base-generation analysis or the promotion analysis, he remarkably presents a definition for the g-projection (=graph projection), as follows (ibid: 225):

55. **Definition**: Y is a g-projection of X iff
    a. Y is a projection of X (in the usual sense of X-theory) or of a g-projection of X
       or
    b. X is a structural governor and Y immediately dominates W and Z, where Z is a maximal projection of a g-projection of X, and W and Z are in a canonical government configuration.

[76] In his study on Swiss RCs, Riemsdijk (1989) states that such a coindexation between RPs and head DPs is compulsory, leaving open whether the complementizer *wo* (or even Spec-CP) is a mediator between the two or not.

[77] Such a view goes in line with Ross's (1972) to a large extent; however, it actually contradicts with Galal's (2005) view mentioned earlier.

[78] The Connectedness Condition, Kayne (1983) applies it also to negation, multiple interrogatives, pied piping structures and lexical anaphors.

A projection being a structural governor, Kayne argues, entails being a g-projection. Moreover, he says that, for English and French, the configuration of the canonical government is ($_{Y}$ W Z) where Z is a maximal projection. Unifying g-projection, canonical government and ECP, he declares that empty categories, particularly in English and French, must be bound within higher, left maximal projections. In addition, he states that the parasitic gap, governed by the g-projection V^0 which contains its 'antecedent', is accepted. More further, he proclaims that the parasitic gap which is not governed by the g-projection holding the antecedent is unaccepted. As manifested, parasitic gaps are allowed when fulfilling the conditions of being connected with other gaps within one subtree, and thus being c-commanded by and local with their antecedents.

In long distance dependency constructions in Swiss German locative RCs whose *wh*-relative is *wo* (viz. *where*), Riemsdijk (2008: 220) manifests that the presence of the gap is due to the *wh*-movement, as clarified in the modified examples below:

56. a. s huus wo de Hans wont
the house where the Hans lives
'The house where Hans lives'

b. s fäscht wo de Hans anegaat
the party where the Hans to.goes
'The party that Hans is going to'

c. s huus wo mer säit das de Hans wont
the house where one says that the Hans lives
'The house where people say Hans lives'

d. s fäscht wo i ghöört han das de Hans anegaat
the party where I heard have that the Hans to.goes
‘The party that I have heard Hans is going to’

Comparing the occurrence of either the RP or the gap as being in competition, Salzmann (2009: 31) argues that, within Zurich German subject RPs, direct object RPs and unembedded non-individual denoting RP slots, both RPs and gaps belong to "the same reference set." He also affirms the postulation that relativization strategies vary cross-linguistically, giving Palestinian, Palauan and Yiddish as examples of the resumption

strategy; Standard German and Standard Dutch as examples of the consistent gap strategy; and Zurich German as an example of the implementation of both strategies. To account for gap occurrences and RP existence, Salzmann evidently adopts both of the movement analysis and the base-generation analysis, respectively. However, despite the employment of the two sorts of analyses in question, based on Pesetsky's (to appear) Silent Trace,[79] Avoid Pronoun Principle[80] and the constraint of Fewest Steps, the privilege is generally given to gaps rather than RPs.

Another issue associated with RCs in general and the occurrences of either gaps or RPs in particular is concerned with islands and also with reconstruction. Generally, coordinated nodes, CSs, embedded RCs, PPs, sentential subjects, *wh*-constructions and adjuncts are islands, and these islands are sensitive to gaps and thus to extraction and stranding (cf. Ross, 1967; Corver, 2006; Shormani, 2017b, in press; Suaieh, 1980; Aoun et al., 2001; Aoun & Li, 2003; Boeckx, 2003a; Kayne, 1994; Demirdache, 1991). Within islands, reconstruction effects are also largely argued to be absent. Actually, Freidin et al. (2008) attribute the absence of the reconstruction effects in islands to the prohibition of movements out of islands.[81] In other words, the impossibility of reconstruction in islands is due to the impossibility of the movement strategy within islands.[82] Similarly, Rouveret (2008: 179) tackling Welsh and also Irish states that "*Move* obeys conditions that *Agree* is insensitive to" such as the conditions of strong islands.

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[79] Working under the phonetic optimality within the Optimal Theory, Pesetsky (to appear) postulates that there is a PF-like constraint, calling it the 'Silent Trace', that, as he assumes, selects unrealized traces (i.e. gaps).

[80] Employing the Avoid Pronoun Principle in his study of relativization in Swiss and also in Zurich German, Riemsdijk (1989) adopts base-generated RPs to account for both resumption and gap relatives. Those base-generated RPs which are within islands or prepositions, he says, stay as they are without any change. However, he argues that those RPs which are out of islands or prepositions or which are relativized in subject or object slots move to C^0s and the copies would then get null realization, leaving gaps behind.

[81] Different from the above analytic findings, Pan (2016), however, presents a study of Mandarin Chinese RCs and Left-dislocated structures within the minimalist framework, demonstrating that when the strategy of gaps is employed, effects of islands and crossover are not violated. He says that resumption within RCs rises violation of both effects of islands and crossover. However, adopting resumption in Left-dislocated structures, as he argues, is not sensitive to those effects.

[82] Accordingly, Aoun & Li (2003) state that definite RCs in Lebanese Arabic allow reconstruction while indefinite ones do not.

As manifested in Riemsdijk (1989), for instance, gaps are not permitted within Swiss German PPs since PPs are considered islands in that language. Due to that is the presence of the weak form of the RPs, represented by the clitics, as manifested below (ibid: 343):

57. a. de vründ wo ich immer mit em gang go suuffe
the friend that I always with him go (to) drink
'The friend that I always go drink with'

b. s auto wo du gsäit häsch das mer s ois nöd chönd läischte
the car that you said have that we it us not can afford
'The car that you said we cannot afford'

Arguing also that (embedded) RCs are islands, Radford (2009: 191) cites Pesetsky's (to appear) view that the presence of RPs within RCs are due to the principle that necessitates that the original copies of the constituents moved higher be "as close to unpronounceable as possible" which is primarily because islands prevent the complete phonetic nonrealization within their spheres. Due to such an islandhood restriction, reconstruction as Radford proclaims is broadly not allowed. Unreasonably, however, Boeckx & Hornstein (2008) postulate that the lack of reconstruction in islands is due to the islands' nature of being antiagreement domains. They also expose that reconstruction is in adherence to the Inclusiveness Condition which signifies that "the computational system only manipulate[s] lexical Features [prohibiting the inclusion of new] devices such as indices and traces" (Boeckx & Hornstein, 2008: 199; see also Shormani, in press; Szendrői, 2006; Zwart, 1998; Chomsky, 2004; Citko, 2014). Aoun & Li (2003) also proceed that reconstruction in English is allowed with *wh*-RCs while it is not allowed when there is no *wh*-relative.

Also, Boeckx & Hornstein (2008) assume that one condition for movement to be held is that what would be left behind movement is not linearized in order not to get a phonetic realization though having a logical one. Applying that restriction of movement to islands, they state that movement out of islands is not possible since linearization there is formed and movement, hence, is not allowed to "'undo' the order of the larger structure" (ibid: 216). And this generally confirms that movement from within islands is impossible while movement from elsewhere is allowed, and so is reconstruction.

However, Rouveret (2008) exposes that while gaps are inclinable to full reconstruction effects, RPs of definite RCs are subject to partial reconstruction effects. Also, Salzmann

(2009) examining Zurich German argues that reconstruction is not found only in RCs which possess RPs but also in those which contain gaps. He actually declares that reconstruction should not be taken for granted as a sign for movement. Somehow on the same track, Boeckx & Hornstein (2008) claim that, across islands, movement is not impossible, postulating—in terms of the split Big-DP analysis—that what frees *wh*-relatives from islandhood is the presence of RPs. Given that, they accordingly loosen the notion of movement, as not necessarily entailing reconstruction, primarily alluding to German RCs. Reconstruction, as Boeckx & Hornstein (2007) and Panitz (2014) put forward, is not a sign of movement but rather of *Agree*. Reconstruction effects, thus, would not be simply due to the copies or traces left behind the moved constituents. Moreover, Boeckx & Hornstein (2008) state that it cannot be generalized that A-movement can be always reconstructed simply and blindly only because some other instances of A-movement could be reconstructed. Simply put, they argue that some A-moved constituents cannot be reconstructed, providing the following examples to support such a view (ibid: 210):

58. a. No one is certain to solve the problem.
    b. *It is certain that no one will solve the problem.

2.3.12. Extraction

Let us now detect the process of extraction more closely. Believing that the underlying canonical word order of the syntactic representation of language is Specifier-Head-Complement, and that all the other apparent orders are but by means of movement,[83] and that the LCA is what links the hierarchical structures with the linear orders, Kayne (1994: 74) argues that though movement is allowed in most cases as in (59. a) below, there is an extraction violation in (59. b), for instance, due to the preposition which is stranded from its original PP whose complement is dislocated leftwards:

59. a. The problem which I understand only part of
    b. *The person who(m) John gave to all his old linguistics books

Also, there is a difference between adjuncts and arguments regarding the acceptability of extraction, as Rizzi (2004: 229) presents and manifests in the following examples:

[83] Koster (in preparation), however, has accounted for extraposition, particularly in Dutch, not in terms of *Move* α but rather in terms of parallel construal which has some similar properties of coordination.

60. a. ?Which problem do you wonder how to solve <which problem> (Huang 1982)
    b *How do you wonder which problem to solve <how>?

As evident from the examples above, *wh*-adjunct extraction is strongly disapproved in this very environment since there is a phrase, namely, the argument *which problem*, which is more candidate for extraction than the adjunct *How*, and this could be also accounted for in terms of locality. In addition, Cinque (1990), as cited in (Rizzi, 2004: 230), argues that not all arguments are extractable, as it is the case with weak islands; for extraction to be held, "arguments must have special interpretive properties, they must be specific, or presupposed, or D(iscourse)-linked."

With respect to topicalization in relation to extraction from RCs, however, Rizzi (1997: 306-7) states that "complement extraction across a topic is quite degraded" and that subject extraction across a topic is not allowed; otherwise, ungrammaticality would be the consequence, as manifested in the following examples that he gives:

61. a. ?? The man to whom [that book [I gave *t* *t*]]
    b. *The man who [that book [*t* gave *t* to me]]
    c. ? A man to whom [liberty [we should never grant *t* *t*]]
    d. *A man who [liberty [*t* should never grant *t* to us]]

He adds that, on the contrary to the arguments of topicalization given above, preposing adverbs does not affect the extraction of subjects; observe the following examples (ibid: 309):

62. a. *I wonder who, this book, would buy around Christmas.
    b. I wonder who, around Christmas, would buy this book.

Concerning extraposition *per se*, however, Baltin (2006) argues that, in subject relativization, the restriction on the extraposition of the NP from within the DP headed by the definite article *the* is 'stronger' than the restriction on the extraposition of the NP from within the DP headed by a demonstrator. He gives the following as examples (ibid: 257-8):

63. a. *The man showed up that hated Chomsky.
    b. Those students will pass this course who complete all of their assignments on time.

Actually, he attributes such a difference to the assumption that demonstratives as in (63. b) are "lower within the DP than the definite article, perhaps within the NP itself" as manifested in the schemata slightly modified below (ibid: 258):

64. $[_{CP}\ [_{DP}\ [_{DP}\ [_{NP}$ those students$]$ $[_{D'}\ [_{D^0}$ who$]]]_i$ $[_{C^0}\ [_{TP}$ t_i $[_{T^0}$ $[_{VP}$ complete all their work on time$]]]]]]$

2.4. The Proposal

From the analyses proposed in the literature, the present study actually differs in a number of respects. Rather being merely a [Rel] Feature relation, I propose a RelP Projection, headed by Rel^0, as a syntactic structure with a semantic content. I propose that Rel^0 hosts the RLP while Spec-RelP is filled by the antecedent DP and the complement is generally in the TP-domain. In effect, I propose that the head Rel^0 has essentially interpretable but unvalued [Rel] and [Spf] (=specificity) Features. Also, I assume that it has uninterpretable and unvalued ϕ-Features. The assumption that the Features [Rel] and [Spf] enter the derivation as interpretable but unvalued ensues from the referentiality of the antecedent DP (cf. Shormani, 2017b). Generally speaking, to construct the RC, the RLP enters the derivation with interpretable valued [Rel] and [Spf] Features. Thus, once the RLP merges, the valuation of the unvalued Features takes place.

Rightwards, the RP conversely has interpretable valued ϕ-Features but uninterpretable unvalued [Rel] and [Spf] Features, the valuation of which takes place in the derivation. The RP's valued ϕ-Features—along with the [+/-animate] Feature, particularly in English language—value the corresponding unvalued ones of the RLP, and the unvalued Features of the RP get valued, too, simultaneously and separately. Accordingly, I assume that by means of *Agree* (primarily, by means of the Feature sharing mechanism), the RP is relativized and specified and it becomes also definite by the merge of the RLP. As a matter of fact, I propose that the RP is not generated initially nor directly as an RP, but as a full indefinite DP with [+nominal] and [INDEF] Features. However, once the coindexed RLP (which is, as I assume, characterized with the [+pronominal] and [+DEF] Features) is merged, the DP's [+nominal] and [INDEF] Features, as I argue, get absorbed. Hence, after the Feature valuation and Feature absorption are held, the DP becomes pronominal and definite (viz. it becomes an RP), and this goes in line with Rouveret's (n.d.: 19) view that RPs are "definite descriptions."

Significantly, proposing that the RLP initially absorbs the embedded coindexed DP's [+nominal] Feature, transferring it into [-nominal]/[+pronominal],[84] I am not, thus, with the assumption that "pronouns are base-generated elements" nor with that traditional view of pronominalization which employs the strategy of the transformational copying (cf. Suaieh, 1980; Ross, 1986; Antonenko, 2012; Boeckx, 2003a). For me, pronominalization is held primarily by means of absorbing the [+nominal] Feature. Pronominalization within RCs, as I assume, is not held directly between the RP and the antecedent DP as in usual cases, but by means of the RLP in between. The RLP seems to participate strongly but covertly in this process of pronominalization. That is to say, the RLP, too, can be considered a coreferential antecedent for the pronominalized RP.[85] Also, due to the islands sensitivity, as given for example in Ross (1967) and Boeckx (2003a), I propose that, for embedded coindexed DPs within island boundaries, mere absorption process is in effect. That is, the RLPs' annihilation process which renders the realization of the RPs phonetically null is generally not allowed to penetrate into islands.

Leftwards, however, being in Spec-RelP, the antecedent DP gets its [Rel] and [Spf] Features valued by means of the mechanisms of the permanent link and the Feature sharing primarily applied among the RLP, the RP and the antecedent DP. Along with the process of coindexation proposed in Suaieh (1980) and held in Heim & Kratzer (2000) in terms of the syntactosemantics interplay among constituents, I assume that the RLP's [Spf] Feature is enabled to attribute to the existence of specified antecedent DPs. In Arabic, in contrast to English, the antecedent DP gets its [Spf] and [DEF] Features valued when the RLP is overt, but gets its [Spf] Feature valued when the finite [T] Feature is overt and the RLP is obligatorily covert.

Closely detecting the Arabic RC in particular, in which the RLP is obligatorily null, I find that Suaieh's (1980), Al-Tarouti's (1991), Darrow's (2003), Galal's (2005), Aoun et al.'s (2010), Drozdik's (2010) and Alqurashi's (2012) view, mentioned earlier, that there is an

[84] Such a somehow distinct proposal of pronominalization is actually, as I assume, not restricted only to RPs in regard with their coindexed RLPs, but it, along with the principles of Binding and coindexation, seems to be applicable also to almost all other sorts of pronouns.

[85] What makes me state that the antecedent DP, the RLP and the embedded coindexed DP share the same referent is that they all have the same coindexation by evidently bearing the same Features of Gender, Num and Person remarkably in Arabic, for example.

interactive relation between the presence of the RLP and the definiteness of the antecedent DP, is not that sufficient to handle the phenomenon of the (in)definiteness of the antecedent DP. This is actually due to the existence of a number of grammatical constructions in which the antecedent DP is definite despite the nullness of the RLP, as illustrated in the examples below:

65. a. taħadaθtu maʕa r-rajul-i kaatibi r-risaalat-a
talked.I with the-man-GEN writer the-letter-ACC
'I talked with the man who wrote the letter.'

b. qaabaltu r-rajul-a malṭuuma l-wajh-i.
met.I the-man-ACC slapped the-face-GEN
'I met the man whose face is slapped.'

Based on sentences similar to those provided above, I argue that though the indefiniteness of the antecedent DP entails the indispensable nullness of the RLP in the Arabic RC, the antecedent DP's definiteness seemingly has nothing to do with the presence of the RLP, not only in Arabic for the latter case, but even also in English.[86] Put in other words, with the nullness of the RLP in both Arabic and English, the definiteness or indefiniteness of the antecedent DP seems to be but a matter of optionality while the overtness of the RLP in

[86] Noteworthy stating that in the RC whose subject is relativized, the RLP in English is inevitably overt, e.g.:

i. I respect the man *(who) teaches cross-linguistic syntax.

Following Pesetsky & Torrego (to appear) and more influentially Gallego (n.d.), the compulsory presence of the RLP in the subject DP relativization can be attributed to the necessity of C^0 to value its unvalued [T] Feature. In Arabic, however, and in accordance with the literature, in the RCs whose subjects are relativized, the RLP is overt when the antecedent DP is definite, but this is not the case when the antecedent DP is indefinite even if the embedded coindexed DP is the subject:

ii. taħadaθtu maʕa r-rajul-i llaði yaktubu r-risaalat-a
talked.I with the-man-GEN who is.writing the-letter-ACC
'I talked with the man who is writing the letter.'

iii. taħadaθtu maʕa rajul-in yaktubu r-risaalat-a
talked.I with man-GEN.INDEF is.writing the-letter-ACC
'I talked with a man who is writing the letter.'

Arabic but not in English entails the definiteness of the antecedent DP. To prove this view more, observe the following constructions:

66. a. taħadaθtu maʕa rajul-in kataba r-risaalat-a
talked.I with man-GEN.INDEF wrote the-letter-ACC
'I talked with a man who wrote the letter.'

b. taħadaθtu maʕa r-rajul-i kaatibi r-risaalat-a
talked.I with the-man-GEN writer the-letter-ACC
'I talked with the man who is the writer of the letter.'

c. taħadaθtu maʕa r-rajul-i llaði kataba r-risaalat-a
talked.I with the-man-GEN who wrote the-letter-ACC
'I talked with the man who wrote the letter.'

In effect, what really obliges the RLP to get a null phonological realization in English and Arabic is, presumably, the nullness of the finite [T] Feature which marks the finiteness of the RC, as the following examples clearly manifest:

67. a. I talked with the man who read a book.
b. I talked with the man (*who) reading a book.
c. I respect the man (*who) loved by his students.

68. a. qaabaltu l-fataat-a llati tajlisu fi l-ħadiiqat-i.
met.I the-girl.F.SG-ACC who.F.SG sit.F.SG in the-garden-GEN
'I met the girl who sits in the garden.'

b. qaabaltu fataat-an (*llati) jaalisatan fi l-ħadiiqat-i.
met.I girl.F.SG-ACC.INDEF who.F.SG sitting.F.SG in the-garden-GEN
'I met a girl sitting in the garden.'

c. qaabaltu l-fataat-a (*llati) l-jaalisata fi l-ħadiiqat-i.
met.I the-girl.F.SG-ACC who.F.SG the-sitting.F.SG in the-garden-GEN
'I met the girl who is sitting in the garden.'

Actually, this proposition does not necessarily entail the other facet of the coin. That is, when proposing that the nullness of the finite [T] Feature necessitates the nullness of the

RLP[87] in English and Arabic RCs (as in 67. b & c and 68. b & c above), this, however, does NOT entail the assumption that the overtness of the finite [T] Feature permits the overtness of the RLP in Arabic indefinite RCs in particular, as shown in (69) below.

69. *taħadaθtu maʕa rajulin llaði yaktubu r-risaalat-a
talked.I with man.INDEF who is.writing the-letter-ACC

Concerning their very internal derivational structure, needless to say that the adequate projection for RCs should not be determined blindly; it is not just a matter of having '*wh*-elements' in English or in some analogous cases in Arabic. In other words, I argue that the RelP projection is distinct from the ForceP projection in a number of perspectives. In spite of being *apparently* similar in their structures, the RCs and the interrogative constructions are effectually distinct in their intrinsic Features and consequently they should be distinguished in their supposed projections, too. For instance, the *wh*-elements in the interrogative ForceP projections, I assume, intrinsically and broadly bear the [+Q], [-Person], [-Num], [-DEF], [+Spf] and [+Overtness] Features. However, RLPs in Arabic, for example, in the course of the derivation, have the [+Person], [+Num], [+DEF] and [+Spf] Features, and, more significantly, they are fundamentally endowed with the [+Rel] Feature and they also bear the [+/-overtness] Feature. Also, I postulate that the RPs in interrogative constructions have a [Q] Feature while the RPs have a [Rel] Feature. To concretize such a difference, observe the following representational diagrams:

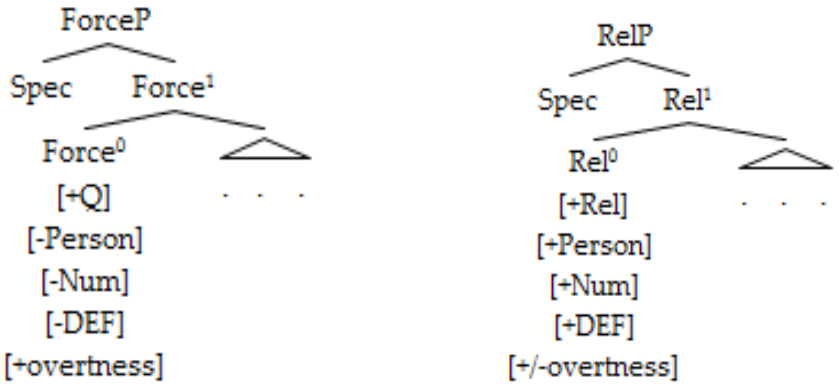
[87] We find constructions such as the following, however:

i. raʔaytu r-rajul-a yaktubu d-dars-a
saw.I the-man-ACC writing the-lesson-ACC
'I saw the man writing the lesson.'

Actually, there seems to be an ambiguity in the derivation of such a construction. That is, there are two possibilities here the first of which views that the TP *yaktubu d-dars-a* is a reduced RC associated with the DP *r-rajul-a* and this possibility seems to be not adequate at all. The second possible derivation is the subcategorization of the TP *yaktub-u d-dars-a* by the verb *raʔaytu*. With regard to the second view, the structure of the example above seemingly resembles the following construction where, though the DP *the wall* gets a semantic interpretation from both the verb *paint* and the AP *pink*, the verb *painted* subcategorizes for two slots, the first is the DP *the wall*, and the second the AP *pink*:

ii. I painted the wall pink.

70. a. b.



Moreover, the difference, as put forward by Alexiadou et al. (2000: 6), lies on that "there is no morphosyntactic or referential dependency between the [*wh*-element] and the containing DP in [the interrogative construction]; the clause itself satisfies [the] requirements of the argument position of the lexical head […] which selects it." Related to that is Antonenko's (2012) view that the matrix verb containing the interrogative CP must bear the [+Q] Feature, so that we have [+Q] Featured verbs like *ask* and *wonder* which have the sense of interrogation. In analogy with that, I argue that the matrix verb containing the RC does not necessarily have such a [Q] Feature, but possibly a [Rel] Feature, as proved in the following sentences within each of which there is an RC:

71. a. Alia *asks* the professor who teaches syntax.
    b. Alia *respects* the professor who teaches syntax.

Grammatically speaking, interrogative constructions positioned in ForceP can be mono-clausal structures. On the contrary, RCs are necessarily embedded within other matrix constructions, forming bi-clausal structures at minimum. With respect to discourse, however, I postulate that interrogative *wh*-elements are ɵ-assigned mainly due to being part and parcel of the mono-clausal structures. On the contrary, since RCs as a whole, but not only RLPs or antecedent DPs, are specificity-implemented and DP-oriented,[88] they, presumably, share the

[88] In effect, my proclamation here that RCs are DP-oriented and that DPs, in turn, have the peripheral Feature of relativization enforces Suaieh's (1980: 33) declaration that "any [DP] can be relativized" and, thus, Vries' (2006: 240) view that "the antecedent and the relative clause form [one] constituent." However, stating that RCs are DP-oriented does not mean that only pure DPs but not sentential constituents can be relativized. Actually, the antecedent of the RLP can be a DP or a verbal phrase or even a sentential clause. An example for the sentential antecedent is the following (Al-Ghamdi, 2016: 38):

very same ɵ-roles that their antecedent DPs have. Also, I postulate that, on the contrary to the interrogative *wh*-elements in Specs-ForcePs, the RLPs participate in the process of the Feature valuation held between the RPs and the antecedent DPs, with the assistance of the Feature sharing mechanism.

Another facet of difference can be in terms of coindexation. In interrogative constructions, positioned in ForceP, which have RPs, coindexation is maximally held between two entities—the *wh*-element and the RP in each. Coindexation in RCs, in contrast, holds among three entities the mediator of which (namely, the RLP) does relate between the antecedent DP and the RP. Though "the antecedent and the relative clause form a constituent," as Vries (2006: 240) states, each of those entities seemingly has a distinct theme for a distinct verb (the first verb is the matrix verb while the second is the verb within the RC). Thus, the observation that the RelP is distinguished from the other projections of CP by having the primary function of *relating* two instances of DPs which have the same coindexation enforces the assumption that the RLP is in Rel^0 but not in $Force^0$. Actually, one of the most essential functions of the RLP here is to be a mediator for relativization and coindexation, fundamentally by referring to the same referent that the antecedent DP and the RP co-refer to. In contrast with the head Rel^0, the other heads of the split projections of CP, particularly, the head $Force^0$, do not work as mediators relating between two distinct thematic constituents bearing the same index.

Another difference, when constituents focalized into FocP or moved into ForceP since they have the [+Q] Feature, the subject-auxiliary inversion is necessitated. However, we do not have such an inversion process with RCs because their head RLPs, as I argue, are base-generated constituents. Accordingly, the following RC is ungrammatical and not acceptable (cf. Rizzi & Roberts, 1989):

72. *The professor who ***do*** we respect

In effect, the analytic strategy I propose in the study at hand differs from the traditional ones which account for RCs either in terms of the NP promotion into Spec-CP preceded by D^0, or in terms of split DP according to which the RLP is assumed to get separated from the RP slot, or in terms of CP-split whereby the raised constituent is assumed to split between two

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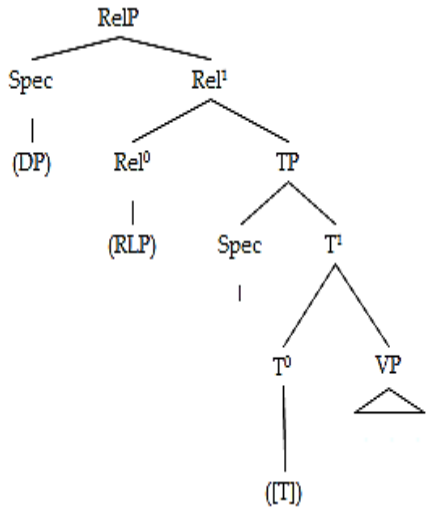
i. He supports Mr. Ahmed which I appreciate.

of the CP layers at the Surface Structure, or in terms of the *wh*-movement at LF. Actually, the proposal called for in this study has the schemata simplified in (73. a) and the format in (73. b):

73. a. $[_{RelP}\ [_{Spec}$ DP $[_{Rel}{}^{0}$ RLP $[_{TP}\ [_{T}{}^{0}\ [_{VP}$ ….

b.



From a minimalist perspective, there are a number of computational processes taking place in the narrow syntax, the most significant of which, in my proposal, are *Merge*, *Match* and *Agree*. With *Merge*, the intrinsic Features [Rel] and [Spf], for instance, are significantly encoded within the RLP in relation to the head Rel^0 and such a relation is effectively "defined over the most core operation, i.e. *Merge*" (Shormani, 2017b: 151). Then the role of *Agree* would be in effect here, codifying the unvalued Features of the probe Rel^0 with the matching valued ones of the base-generated goal RLP (cf. Shormani, 2017b; see also Frampton & Gutmann, 2000; Szendrői, 2006; Pesetsky & Torrego, to appear).[89] Following Shormani's (2017b) valuation form, I argue that the attribute-value pair of the probe Rel^0 is [Rel: __] while the pair of the goal RLP is [Rel: _valued_]. Here, I assume that by the *Match* of the Features of the probe and the goal, *Agree* gets established, codifying the Features in question.

[89] Szendrői (2006: 329) significantly exposes that, according to the MP and also to the Inclusiveness Condition, "there are two ways a node may acquire some property, i.e. a Feature. A terminal node may be assigned a Feature from the lexicon. A non-terminal node has to inherit its features from its daughters, which created the non-terminal node via merger."

For the proposed projection, I have an additional piece of evidence that the RLP is not posited in Spec-ForceP nor in Force^0. First, observe the following grammatical French construction slightly modified from Pesetsky (to appear: 41):

74. l'homme *avec qui* *que* j'ai dansé
the.man with whom that I.PAST dance

Such a construction, though grammatical, violates the Doubly Filled Complementizer Filter if I follow the assumption that *qui*, here, is positioned in Spec-ForceP and that *que* is positioned in Force^0. However, when applying the proposed RelP projection to analyze such a construction, *qui* is positioned in the head Rel^0 while *que* is positioned in the other head Force^0. Another example is the following from Arabic, in which the RLP *llaði* is in Rel^0 while *in* is positioned in Force^0:

75. ar-rajul-u llaði in taħadaθa ṣadaq
the-man-NOM who if spoke told.the.truth
'The man who, whenever he speaks, tells the truth.'

Also, in languages like Venetian and Bavarian, the RLP can be followed by and co-occur with another complementizer, as it is the case in the following examples given by Bayer (1984: 215) as cited in Cinque (2015: 6):

76. a. el posto *dove che* semo stai (Venetian)
'The place where that we have been'

b. der Mõn *dem wo* mir g'hoifa hom (Bavarian)
'The man whom where (=that) we have helped'

In effect, I assume that the RelP, along with the ForceP, TopP, FocP and FinP, is intrinsically a split projection of CP and this assumption goes with the spirit of the in-consensus view that C^0 is the locus of all Features of all constituents in a finite clause and with the proposition that C$^0_{def}$ is the locus of all Features in non-finite clauses as it is the case with Quasi-Exceptional Case Marked constructions (cf. Al-Samki, 2014; see also Radford, 2009; Al-Balushi, 2011; Chomsky, 2004). Actually, following the spirit of Bianchi's (1999) and Rizzi's (2001, *et seq*) view of the hierarchal position of RCs, I argue that RelP is the highest projection within the split CP. So that, the split projections of CP has, presumably, the following schemata:

77. [$_{RelP}$ Rel^0 [$_{ForceP}$ Force^0 [$_{TopP}$ Top^0 [$_{FocP}$ Foc^0 [$_{FinP}$ Fin^0]]]]

Regarding the assumption of the RLP's and the antecedent DP's base-generation, I familiarize it with Fukui & Takano's (2000) statement, cited in Aoun & Li (2003), that, since it cannot apply to account for the derivation of Japanese RCs, N^0-to-D^0 raising is not appropriate. So that, the base-generation analysis is approved. In effect, the assumption that the RLP is base-generated in Rel^0 could be also approved by Shormani's (2015) significant view that *wh*-relatives are not instances of *wh*-movement, but of base generation so that they cannot be accounted for in terms of the matching analysis. Shormani (2015: 27) supports that view by providing some constructions, modified as follows:

78. a. raʔaytu ṯ-ṯaalib-a llaði qaraʔa l-kitaab-a.
saw. I the-student-ACC who read the-book-ACC
'I saw the student who read the book.'

b. ʔayy-u kitaab-in raʔayta ṯ-ṯaalib-a llaði qaraʔahu?
which-NOM book-GEN saw.you the-student-ACC who read.it
'Which book did you see the student who read it?'

c. *ʔayy-a kitaab-in raʔayta ṯ-ṯaalib-a llaði qaraʔahu?
which-ACC book-GEN saw.you the-student-ACC who read.it

Substantially, he declares that "[i]f it were an instance of [*wh*-movement], we would expect that *ʔayy-a* would have preserved and surfaced with its [Acc] Case" (ibid: 27). Also, how can the DP (i.e. *kitaab*) Case-marked with the Acc Case, for instance, as in (78) above, move and stay in the slot assigned with the Genitive Case? Since Case, as Matushansky (2005: 161) states, "cannot be assigned twice," the matching analysis and also the promotion analysis actually seem to be not that adequate; let alone the complexities that the derivation of such a construction could confront when employing those analyses.

On the same track, observe the following examples which could approve more the proposed base-generation analysis:

79. a. qaabaltu r-rajul-a_i llaði$_i$ ___$_i$ yaktubu r-risaalat-a.
met.I the-man-*ACC* who is.writing the-letter-ACC
'I met the man who is writing the letter.'

b. *qaabaltu r-rajul-u_i llaði$_i$ ___$_i$ yaktubu r-risaalat-a.
met.I the-man-*NOM* who is.writing the-letter-ACC

In (79) above, the embedded coindexed DP is intrinsically the covert subject *r-rajul-u*. When we adopt the promotion analysis, we get the ungrammatical construction (79. b) because the assigned Case for the embedded coindexed DP would surface as Nom. That is, when we go along with the promotion analysis, two Cases would possibly and illicitly compete to be on the very DP, as it is the case in (79. b). Hence, the base-generation analysis whereby one and only one Case is assigned to the antecedent DP seems to be more adequate to account for such a case.

Moreover, the base-generation of the antecedent DPs would not suffer from the problem raised by the promotion analysis which assumes that NPs raise from their basic thematic argument slots to have the new role of being the antecedent DPs for the RCs and this is actually what Borsley (1997) disapproves when declaring that NPs cannot be proper arguments in their first base-generating sites. To elaborate more, the view that the RLP and the antecedent DP should be analyzed in terms of the base-generation analysis but not in terms of the promotion or matching analyses seems to be adequate since structures like the following which we might confront with the latter analyses are not possible in the former one:

80. *I saw the who I respect.

Another problem with the promotion analysis is the in-consensus proclamation that no (lexical) constituent could move out of islands. However, the base-generation analysis adheres to the general constraints of islands provided in the literature, and this is since, as I propose, most of the syntactic operations employed to derive RCs would be mainly by means of the Features manipulation among the concerned constituents. From the minimalist perspective, too, the base-generation analysis deviates from the extensive utilization of the recurrent movements of constituents employed in the promotion and matching analyses, and this, in turn, seems to be in adherence with the theory of minimalism in its simplicity and minimality when deriving RCs.

In addition to the assumptions proposed so far, I propose that RLPs are Bermuda-Triangle-like; that is, they have the capacity to penetrate into the embedded coindexed DPs to absorb some of their Features, and sometimes to annihilate their [overtness] Features, leaving them

phonetically unrealized. This actually accounts for the motivation behind the transformation of the embedded coindexed DPs to RPs, and for the nullness of RPs and the presence of gaps in non-islandic environments, too. Also, through the process of absorption, and also the base-generation of RLPs, I generally assume that no reconstruction can hold within islands, nor with the other overt RPs instances outside islands. The following constructions illustrate for the point in question:

81. a. Ali met the man who we know that Ahmed respects *him*.
    b. *Ali met the man who we know that Ahmed respects *the man*.

82. a. raʔaytu l-mudarris-a llaði nuʔminu ʔanna muħammad-an
    saw.I the-teacher.M.SG-ACC who.M.SG we.believe that Mohammed-ACC
    yaħtarimu-*hu*.
    respects-*him.M.SG*
    'I saw the teacher who we believe that Mohammed respects him.'

    b. *raʔaytu l-mudarris-a llaði nuʔminu ʔanna muħammad-an
    saw.I the-teacher.M.SG-ACC who.M.SG we.believe that Mohammed-ACC
    yaħtarimu *l-mudarris-a*.
    respects *the-teacher.M.SG-ACC*

Also, I assume that the RLP has a bidirectional capacity to match and agree with and share the Case of either the antecedent DP (as it is the case in Arabic, for example) or the RP (as it is the case in English, for instance) and that the choice of the direction depends on the parametric variation of the language. A piece of evidence for this assumption, observe the following instances modified from Drozdik (2010: 303-4), where both possibilities are available in the very same language; he says that "[t]he role of the RC's head is doubly marked: by the [C]ase, and by the choice between the definite and indefinite verb inflection (a Feature common to Uralic languages)":

83. a. a kutya kerget-i a macska-(a)t, amely néz-i
    the dog.NOM chase-3rd.SG.DEF the cat-ACC which.NOM watch-3rd.SG.DEF
    az eger-et. (subject-subject)
    the mouse-ACC
    'The dog chases the cat that watches the mouse.'

b. a kutya kerget-i a macska-(a)t, amely-et néz
the dog.NOM chase-3rd.SG.DEF the cat-ACC which-ACC watch.3rd.SG.INDEF
az egér. (subject-object)
the mouse.NOM
'The dog chases the cat that watches the mouse.'

c. a fiù-t csókol-ja a lány, aki-t meg-harap-ja
the boy-ACC kiss-3rd.SG.DEF the girl.ACC/NOM who-ACC Prf-bite-3rd.SG.DEF
a kutya. (object-object)
the dog
'The girl who the dog bites kisses the boy.'

d. a fiù-t csókol-ja a lány, aki fé l
the boy-ACC kiss-3rd.SG.DEF the girl.NOM who be afraid.3rd.SG.INDEF
a kutyá-tól. (object-subject)
the dog-of
'The girl who is afraid of the dog kisses the boy.'

2.5. Conclusion

This chapter has presented the most essential theoretical background necessitated for comprehendeing and persuing the argument primarily provided in the following chapters. It has highlighted the most slient mechanisms of *Agree*. It has also highlighted a number of syntactic notions and conceptions so much related to the phenomenon of relativization. Also, it has exposed the view of the literature regarding relativization. The chapter then has put forth the proposal that would be followed to handle the phenomenon of relativization in English and Arabic.

Chapter III
Relativization in English

3.1. Introduction

Relativization in English has been a real controversial issue among linguists. Fundamentally, in my analysis, I adopt the most recent approaches of minimalism in general and phases in particular to participate in such a debate. Based on that, this chapter is sectioned into a number of related topics essentially concentrating on English RCs. I proceed our discussion of the proposed projection of RelP along with the proposed account of the base-generation analysis. Also, I exhibit the nature of RPs, gaps and islands in English RCs, one by one. After that, I tackle the issue of LDR, the nature of reduced RCs and the phenomenon of extraposition, respectively. Finally, I conclude the chapter.

3.2. The RelP Projection

Given the proposed diagram and employing the most salient terms of minimalism, I assume that the RLP pops up from the lexicon as a lexical array, saturated with a number of Features (see Ch. II, § 4). Then, it gets merged by means of the economical *External Merge* process on its base-generating slot of Rel^0. Actually, unlike the promotion analysis which adopts the assumption of the Big-DP split, the base-generation analysis of the RLP whereby the RLP *per se* is the head is supported by Matushansky's (2006: 70) definition provided below:

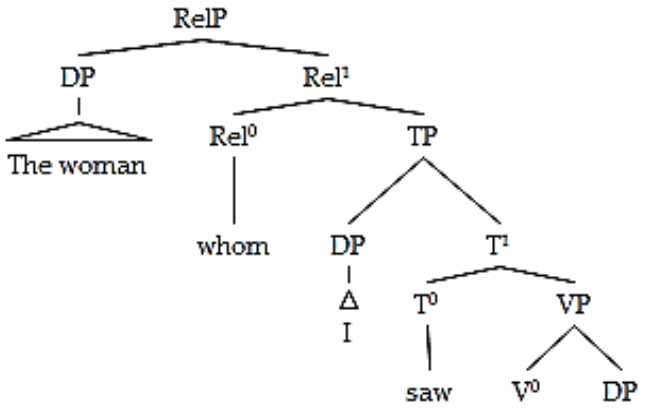
84. ***Definition***

A head is a syntactically indivisible bundle of formal Features.

With respect to the canonical Specifier-Head-Complement configuration, mentioned in Ch. II, § 3, RCs, too, have such a configuration whereby the antecedent DP for each RC is in Spec-RelP, the RLP is in Rel^0 and the complement is generally in TP. Also, according to such a base-generation analysis of the RLP and also the antecedent DP, the embedded coindexed DP consequently does not need to move nor to be split, and this concords with McCloskey's (2006: 104) statement that "[t]he binding relation between the [RP] and its binding [RLP] is […] not created by movement." To concretize the projection I propose, observe the English RC in (85. a) diagramed in (85. b):

85. a. The woman whom I saw

b.



Based on the base-generation analysis, one could adequately account for constituents' binding, parasitic gaps licensing and PRO controlling in English, as the following examples manifest respectively:

86. a. The student$_i$ who$_i$ ___ $_i$ has cut himself$_i$
    b. The book$_i$ that$_i$ we read ___ $_i$ without criticizing ___$_{pgi}$
    c. The student$_i$ who$_i$ ___ $_i$ tried PRO$_i$ to work hard

I argue that, in the example (86. a) above, the bindee-anaphor *himself*—which is coindexed with the null subject RP, the RLP and the antecedent DP—is bound by the null but unmoved RP.[90] The licensing of the parasitic gap in (86. b) and the controlled PRO in (86. c) can be analogously accounted for in terms of the null, unmoved RP. Actually, the interrelation between the bindee, the parasitic gap and the controlled PRO along with the null RP on the one hand and the RLP and the antecedent DP on the other is a result of *Match* and *Agree* and, more essentially, of coindexation that establishes the dependency relation between the constituents in question. By asymmetric coindexation and by means of the mechanism of Feature sharing, association among the given constituents is established so that related Features are facilitated to percolate amongst all the concerned constituents, valuing the unvalued ones.

Putting *Agree* in mind, as mentioned in the proposal given in Ch. II, § 4, the RLP comes out of the lexicon with uninterpretable valued [+Rel] and [+Spf] Features; however, its Case—and also its ϕ-Features and its [+/-animate] Feature—is still unvalued. Thus, the RLP in English is an active probe seeking agreement with another active matching goal, namely, the

[90] Regarding gaps as null RPs but not moved constituents is also called for in Panitz (2014).

RP. The valuation of the RLP's Case and the antecedent DP's and RP's [Rel] and [Spf][91] Features, for example, is presumably achieved by the Feature sharing mechanism. That is to say, the mechanism of Feature sharing leads to the mutual valuation of the RLP's Case with the valued Case of the RP and also the valuation of the antecedene DP's and the RP's unvalued [Rel] and [Spf] Features with the RLP's valued counterparts. For the valuation of the RLP's Case in English, it can be illustrated in the examples given below:

87. a. The grand professor who ___ teaches cross-linguistic syntax
[uNOM]..…[vNOM]
[vNOM]……[vNOM]

b. The grand professor whom we all respect ___
[uACC]……...[vACC]
[vACC]…….…..[vACC]

Here, before the RPs get their lexical [overtness] Features annihilated by the RLPs, their valued Cases, I assume, get shared with those of the RLPs, and, thus, the Nom Case of the RLP in (87. a) gets valued and so does the Acc Case of the RLP in (87. b). However, noteworthy stating that the RLP's Case in English is generally covertly valued. Meaning, Case is marked only on *whom* and *whose* but not on *that*, *what* or *which*, for example. Thus, in analogy with the Case-marked RLPs, I assume that the valuation of Case is present also with those RLPs whose Cases are unmarked.

Moreover, *Agree* in the English RC, actually, is not merely among the three coindexed entities (namely, the RLP, the RP and the antecedent DP) but is also with the local T^0 and/or v^0 which are within the very same RC. For instance, the [Rel] Feature has something to do with T^0, i.e. not only nor directly with the concerned (null) subject RP in Spec-TP (cf. Suaieh, 1980; Rouveret, 2008). To make this point more concrete, observe the construction in (88) analyzed in terms of Feature sharing:

88. The man$_i$ who$_i$ ___ $_i$ speaks Turkish
[uRel]……[vRel]…...[uRel]……[uRel]
[vRel]……[vRel]…...[vRel]……[vRel]

[91] The presence of the [Spf] Feature can be assumed to be a by-product of the presence of the [Rel] Feature.

As manifested in the example above, the verb enters the derivation with the unvalued [Rel] Feature, and so do the subject RP (marked by the gap-dash) and the antecedent DP. Getting linked to one another by means of the permanent link mechanism, the value of the valued [Rel] Feature of the RLP *who* gets shared with this link, valuing all the unvalued matching Features.

Adding to the intrinsic nature of the Feature sharing mechanism, when the embedded coindexed DPs are object DPs, the v^0s within RCs enter into *Agree* relations with the higher RLPs, presumably, in order to allow for the absorption and annihilation of the Features of embedded coindexed DPs out of their phases edges, mainly when those embedded coindexed DPs are out of islands.[92] In addition to the phase escape hatches which could permit the penetration of the syntactic operations to the concerned node in a successive cyclic way,[93] the RLP, too, I assume, has the capacity to crack the boundaries of phases through its absorption capacity[94] so that the unvalued Features of the probe RLP can penetrate the phase domain for the sake of matching, agreement and valuation; it is also for the sake of absorption and possibly annihilation of the [overtness] Feature of the embedded coindexed DP when being local and out of islands. What is meant here by 'phases being cracked' is not to let any item, be it lexical or functional, be extracted, but it is only, as I propose, to facilitate the role of the Feature sharing mechanism to get the valued Features shared amongst the concerned unvalued counterparts. It is also to reactivate the [uRel] Feature of the embedded coindexed DPs even those within islands.

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[92] In effect, such potential processes of absorption and/or annihilation could contribute to and account for the complexity of RCs and also for their apparent difficulty in constructing and the delay of their acquisition.

[93] My assumption here regarding the correlation between *Agree* through the Feature sharing mechanism and the absorption capacity, on the one hand, and the successive cyclicity, on the other, strengthens Freidin et al.'s (2008) and Rouveret's (2008) view that successive cyclicity and thus reconstruction are not restricted to *Move*, but it also extends to *Agree*. Reconstruction, according to the study at hand, could be attributed primarily to the interpretive mechanism; it can be a consequence of the reminiscence of the coindexed embedded DP whose [overtness] Feature is annihilated by the RLP.

[94] Attraction for Hirschbuhler (1976), cited in Suaieh's (1980), differs from my postulation of the absorption operation; while the former is concerned with the *'wh*-relative' being attracted to the Case of the antecedent DP by the antecedent DP itself, as it is the case in some languages like Arabic, the latter actually renders around the RLP as being the cavity force which agrees with (and absorbs and sometimes also annihilates) the matching Features of the coindexed DPs when possible.

With respect to the overtness/covertness of the RLP, there is almost nothing to do with the (in)definiteness of the antecedent DP in English. Nevertheless, somehow following Hudson (1973) and Stanton (2011), I argue that such an alternation of the RLP's overtness and covertness has something to do with the overtness and covertness of the finite [T] Feature within the RC *per se*. For appropriate comprehension, consider the following examples:

89. a. I saw the girl who writes different stories.
[DEF] RLP [T]

b. I saw a girl who writes different stories.
[INDEF] RLP [T]

c. *I saw the girl who writing different stories.
[DEF] RLP [-T]

d. *I saw a girl who writing different stories.
[INDEF] RLP [-T]

e. I saw the girl ___ writing different stories.
[DEF] ___ [-T]

f. I saw a girl ___ writing different stories.
[INDEF] ___ [-T]

Regarding the RLP's absorption and annihilation capacity, I argue that the RLP can be considered a Bermuda-Triangle-like constituent which has effectively a bidirectional effect (see Ch. II, § 4). Leftwards, only the annihilation of the antecedent DP's [overtness] Feature in English is, almost always, allowed, and this is presumably in FRCs.[95] The absorption of the antecedent DP's Features, say the [nominal] Feature is also permitted. Observe the following English constructions embodying the annihilation and the absorption of the antecedent DP's Features in (90) and (91 & 92), respectively; the force of both operations would be represented here by the '>>>' sign:

90. a. *The man >>> who teaches cross-linguistic syntax* is my model.

[95] An exception to this point of the RLP's annihilation of the antecedent DP is the expletive-constructions like those given below:

i. It is *you* whom I do really respect.
ii. *It is whom I do really respect.

b. *Who teaches cross-linguistic syntax* is my model.

91. a. *The man >>> who teaches cross-linguistic syntax* is my model.
    b. *He who teaches cross-linguistic syntax* is my model.

92. a. I saw *the man >>> who teaches cross-linguistic syntax.*
    b. I saw *him who teaches cross-linguistic syntax.*

An exception to the RLP's capability to annihilate the antecedent DP's [overtness] Feature given above is the case with the RLPs *which* and *that*. Consider the following examples:

93. a. I read *the book which I bought from Sana'a*.
    b. *I read *which I bought from Sana'a.*
    c. **Which I bought from Sana'a* makes me happy.
    d. *What I bought from Sana'a* makes me happy.

94. a. I saw *the man that I respect*.
    b. *I saw *that I respect*.
    c. I saw *the man who I respect*.
    d. I saw *who I respect*.

Observing the sentences above, I assume that *which* and *that* are weak Bermuda-Triangle-like RLPs since they cannot annihilate the antecedent DPs' lexical [overtness] Features. When annihilating the antecedent DPs in (93 & 94) for example, they necessarily need to be changed by their strong counterparts *what* and *who*, respectively.[96] Those RLPs used in FRCs do meet all the functions and requirements of the antecedent DP annihilated (cf. Riemsdijk, 2006). Otherwise, they would be unacceptable constructions, and then they would be crashed at the LF interface when being transferred.

Rightwards, however, both of the absorption and annihilation of the embedded coindexed DP's Features are generally possible. Once the RLP emerges, the embedded coindexed DP becomes either overt or covert depending on its environment and locality. To concretize this point, observe the following examples:

95. a. The dress that the girl who wrote an amazing paper gave *it* to me was red in color.
    b. The book that I read ___ was on syntax.

[96] For FRCs which begin with the RLP *what* in English, there can be no overt antecedent DPs.

To avoid repetition, details regarding the absorption and annihilation of the embedded coindexed DP's Features are to be discussed later in the following two sections.

3.3. The Nature of Resumptive Pronouns

Through this section, I hope that I could participate in the analysis of the nature of RPs[97] from the perspective of the proposed strategy of base-generation. Actually, the exploration of the very nature of RPs in this study revolves around the assumption that RLPs are intrinsically Bermuda-Triangle-like heads. Primarily, the RLP's absorption and annihilation processes are regarded as the focal forces behind the formation of RPs and gaps, repectively.

Considering RPs to be initially ordinary and full DPs,[98] I follow Boeckx's (2003b: 95) proclamation that "rich RPs [are] full DPs," the declaration of Riemsdijk (2008: 231)—and also McCloskey (2006)—that RPs "have the distribution of normal pronouns," and Doron–McCloskey's generalization, cited in Asudeh (2015), and McCloskey's (2006) declaration that RPs are ordinary pronouns. Given that, I argue that RPs, like ordinary pronouns, are indeed full DPs, no lexical constituent of which is moved, and that no specific insertion process or movement analysis is apt for RPs. Also, I follow both McCloskey's (2006: 110) supposition that pronouns have "complex internal structures" and Szabolcsi's (1992) proclamation that pronouns and also anaphors are basically more inclined to the operational mechanisms of the syntactic computation rather than to the component of the lexicon, and I postulate, accordingly, that RPs are but spelled representations of the embedded coindexed DPs whose [nominal] Feature is absorbed by the RLPs. Putting in mind Aoun et al.'s (2001: 399, fn: 28) proclamation that "gaps due to movement from within islands are problematic but other operations from islands are not," pronominalization rules, here, as Ross (1967, 1986) declares, can cross the boundaries of islands since they, unlike the pruning (viz. deletion) rules and the chopping and unidirectional rules, do not follow chopping constraints nor deletion rules.

[97] As given in the literature, RPs are of three main sorts, namely, strong pronouns, weak pronouns and epithets. Generally, what distinguishes strong pronouns from weak ones is that the former could stand alone by themselves, whereas the latter are dependent that they cliticize onto other verbs, prepositions or nouns (see Aoun et al., 2001).

[98] Hence, in this study, RPs are sometimes referred to as embedded coindexed DPs.

Concerning the (c)overtness of RPs, I assume that the RPs' [overtness] Features are determined to be retained or annihilated generally by their locality and environment. The RPs at the distant bottom of the derivation are phonetically realized since their [overtness] Features could not be annihilated by the RLPs since they are not local. With respect to the necessary overtness of the RPs within islands, I argue that islands prevent the annihilation force of the RLP from penetrating into them; only the RLP's absorption of the embedded coindexed DP's [nominal] Feature is permitted, leading to the pronominalization of the embedded coindexed DP into the RP.[99] Literary speaking, the annihilation force cannot defeat the island constraints. To make such a point clearer, consider the following constructions:

96. a. The linguist has written *an article.*
[nominal]
[overtness]

b. **The article that* the linguist who speaks Spanish has written <<< *an article*
[nominal]
[overtness]

c. *The article that* the linguist who speaks Spanish has written *it*
[-nominl]/[pronominal]
[overtness]

d. **The article that* the linguist who speaks Spanish has written ___
[-overtness]

The object DP *an article* in (96. a) is assumed to base-generate initially as an overt indefinite nominal, but, only later on when the RLP merges, it gets definite via *Match* and *Agree* with and the absorption by the RLP *that*.[100] That is, the RLP having the ability to *pronominalize* the embedded coindexed DP, making it definite and specific, the nominal DP *an article* is changed into the pronominal RP *it* as manifested in (96. c). However, the RLP's annihilation

[99] Following Beltrama (2013a), RPs are argued to be overt when there is a syntactic violation, such as being within islands, or when there is a potential perplexity in the semantic interpretation of the RC if the RLPs are replaced by gaps.

[100] The absorption of the embedded coindexed DP's Features is represented here by the '<<<' sign while the absorption of the antecedent DP's Features is represented by '>>>', depending on their directional position regarding the RLP.

capability is withered due to the environment of the RP; the RP here is separated from its matching coindexed RLP by the intervening embedded RLP *who*, rendering the environment of the concerned RP an island. Thus, the initial embedded coindexed DP's [+nominal] Feature but not the [overtness] Feature gets absorbed once the matching coindexed RLP merges.

The RLP's annihilation capability, it is by and large in a complementary distribution with gaps, as it is the case with subject RPs. The RLP's annihilation force on subject RPs is essentially interrelated with the latter's both position and locality which, in turn, are considered largely in the literature as the primary attributes for the presence of gaps there (cf. McCloskey, 2006; Aoun et al., 2001; Aoun & Li, 2003; Riemsdijk, 2008; Boeckx, 2003a; to mention but a few). The annihilation force also goes in line with McCloskey's (2006: 102) Highest Subject Restriction which states that RPs "cannot occupy subject-position[s] immediately subjacent to [their] binder[s]." Hence, embedded coindexed subjects in English are generally characterized as being phonetically null; so that the example (97.a) below is ungrammatical:

97. a. *The man who <<< *he* speaks English fluently
    b. The man who speaks English fluently

The same case is also found in Irish embedded coindexed subjects, as the following examples modified from McCloskey (2006: 103) show:

98. a. *fear nár fhan sé sa bhaile
        man RLP.NEG.PAST remained he at home

    b. fear nár fhan ___ sa bhaile
        man RLP.NEG.PAST remained at home
        'A man that didn't stay at home'

Regarding the possibility of having either a gap or an RP in the slot of the embedded coindexed direct object DP in English, both choices are grammatical. That is, RPs, as given in Darrow (2003), can alternate with gaps in object positions. However, gaps are generally preferred to RPs, as manifested in the examples below (cf. Beltrama, 2013a):[101]

99. a. The girl I met ___ is so kind.

[101] However, Galal (2005) states that constructions like (99. b) are ungrammatical.

b. ?The girl I met *her* is so kind.

3.4. RelPs and Islands

The discussion of RPs actually necessitates giving a heavy light on the topic of islandhood, attempting to investigate the general intrinsic confidentiality between RPs and islands. In English *per se*, embedded RCs,[102] *wh*-clauses, adjuncts and coordinate nodes and also sentential subjects are all islands (cf. Ross, 1967, 1986; Demirdache, 1991). As exposed in Ch. II, § 3, gaps are generally prohibited within islands, and this is, I argue, due to the general incapability of the RLP's annihilation force to penetrate into the boundaries of islands. Worth mentioning that islands are traditionally categorized into two types: strong and weak (cf. Boeckx, 2003a; Szabolcsi, 2006; Postal, 1998; Panitz, 2014; Cinque, 2015).[103] Generally speaking, if the RLP's annihilation force encroaches the (strong) islands' borders, ungrammatical constructions would ensue.[104]

Regarding embedded RC islands, the RLP of the embedded RC could be argued to be a barrier for the RLP's annihilation force, disqualifying it from the capability of annihilating the [overtness] Feature of the concerned RP; otherwise, ungrammaticality, also due to the unintelligibility of the construction, is the consequence (cf. Radford, 2009). The following examples are to make such a point clearer:

100. a. *The article that the distinguished professor *who* speaks five languages has written ___ is daring.
b. The article that the distinguished professor *who* speaks five languages has written *it* is daring.

Put simply, in each construction in the examples in (100) above, there are two RCs. The antecedent DP of the first is *The article* while the antecedent DP of the second is *the distinguished professor*. Evident that the RP of the first RLP *that* (viz. the RP *it*) is within the domain of the second RLP *who*; therefore, its annihilation is prohibited. In addition, in

[102] Significant noting here that the label 'embedded RCs' used in the study at hand, by and large, stands for the 'complex DPs' given in the literature.

[103] They are also categorized into absolute/locked and selective/unlocked (cf. Szabolcsi, 2006; Postal, 1998).

[104] Gaps—not as a consequence of the movement analysis, as put forward by Panitz (2014)—can be found in weak islands, however.

accordance with my proclamation, following Salzmann (2009), that RPs are to prevent locality violations, I argue that because of locality and island constraints, the gap in (100) above, for instance, is not allowed. Associated with this is also the prohibition of bi-gaps (i.e. real and parasitic gaps) in the very same embedded clause, more clearly in constructions like the following:

101. *The student who the distinguished professor who ___ likes ___ is clever.

In addition to the syntactic account of the violation of the embedded RC island mentioned above, there is a semantic one. The two gaps in the very same embedded clause in (101) lead to ambiguity and consequently to a divergent derivation and parsing. That is, it is not clear who likes whom. So that, only the annihilation force of the closest RLP could be in effect. Here, in (101) above, it is the second embedded RLP *who* that could annihilate its coindexed RP. However, the RP of the first RLP cannot be annihilated.

With respect to *wh*-islands which by and large are argued by Borsley (2003), Truswell (2013) and Szabolcsi (2006), for example, to be of the weak sort, the (un)acceptability of gaps within them is controversial and not that clearcut. However, following Szabolcsi (2006) and also Borsley (2003), I assume that when the *wh*-element, of the *wh*-island, comes along with the finite T^0 projection, the gap is not allowed. However, when it does not, the gap is allowed. For this point, I provide the following constructions as examples:[105]

102. a. *The article which we do not know *who* wrote ___
    b. The article which we do not know *who* wrote *it*
    c. *The student who we wonder *what* ___ did
    d. The student who we wonder *what he* did

103. The student who we wonder *whether* ___ to pass the exam

The ungrammaticality of (102. a & c), on the contrary to (103), can be attributed to the violation of the *wh*-islands which necessitate the overtness of the RPs within them due to their finiteness. So that, the presence of the RPs in (102. b & d) renders the given constructions grammatical. On the contrary, in (103), the clause of the *wh*-element *whether* is not finite, so that the annihilation force could transcend the weak border of *whether* to

[105] For more examples on *wh*-islands in English, see McCloskey (2006), Szabolcsi (2006), Borsley (2003), Galal (2005).

annihilate its very targeted RP. Moreover, as it is the case with the embedded RC islands exposed earlier, the ungrammaticality of (102. a & c) above is presumably not attributed only to syntax but also to semantics. For making this point clearer, observe the following examples:

104. a. *The student who we wonder who ___ hits ___
     b. The student who$_i$ we wonder who$_y$ *he*$_i$ hits ___$_y$
     c. The student who$_i$ we wonder who$_y$ ___$_y$ hits *him*$_i$

In (104. a), the parser may not be able to differentiate between the gap coindexed with the RLP and that coindexed with the interrogative *wh*-element. Put simply again, it is not clear who hits whom. However, such a confusion is eliminated in (104. b & c) in which the RPs coindexed with the main RLPs are clearly the subject in the former and the object in the latter. Thus, like syntax, semantics can contribute to the (un)grammaticality of constructions like the ones above.

Similar to *wh*-islands, gaps within adjuncts which have finite [T] Features lead to the ungrammaticality of the constructions as a whole (cf. Borsley, 2003). Thus, the solution to such ungrammaticality is the retainment of the [overtness] Feature of the RP. However, when adjuncts lack finite [T] Features, covert RPs (viz. gaps) appear. Observe the following examples in which gaps are not allowed in (105) due to being within finite adjuncts while, in (106), the presence of the gap does not lead to the ungrammaticality of the construction:

105. a. *The article that I respect its writer because I like ___
     b. The article that I respect its writer because I like *it*

106. The article that I respect its writer without reading ___

All in all, the presence of gaps within adjunct constructions having finite [T] Features leads to the ungrammaticality of constructions. Thus, the presence of the RP prevents the violation of the concerned islands and also eliminates any potential ambiguity resulting from two adjacent gaps within the very same clause.

Another constraint the violation of which leads to the ungrammaticality of the whole RC is that of coordinate nodes. Consider the following example:

107. *The man who Ali likes ___ and Alia respects *him*

Here, the RLP's annihilation force encroaches the Coordination Phrase (=&P), annihilating the overtness of the coordinated RP *him* from only one conjunct, ensuing the ungrammatical construction in (107). That is, the annihilation force should affect the whole &P and this is primarily by annihilating the RPs from the &P's both conjuncts (cf. Borsley, 2003; Szabolcsi, 2006; Fox & Nissenbaum, 1999). This is proven through the grammaticality of the following construction:

108. The man who Ali likes ___ and Alia respects ___

The annihilation force is not allowed also when meeting sentential subjects (cf. Boeckx, 2003a; Borsley, 2003; Iatridou, 1995; Overfelt, 2015; Demirdache, 1991). What is meant by the 'sentential subject' here is the subject which comes in the form of a sentence or a complex phrase. The annihilation of any constituent from within such a sentential subject transfers the whole construction ungrammatical. See the following examples:

109. a. *The article which a section of ___ is about syntax
    b. The article which a section of *it* is about syntax

110. a. *The article which that Ali comprehends ___ is possible
    b. The article which that Ali comprehends *it* is possible

Actually, the ungrammaticality of the construction (110. a) above could be attributed also to the Complementizer Gap Constraint exposed in Borsley (2003), by which covert RPs cannot appear in the slots of subjects which are introduced by complementizers. Other examples restricted to the Complementizer Gap Constraint are the following (Borsley, 2003: 209):

111. a. The man who/that I think saw Hobbs
    b. * The man who/that I think that saw Hobbs

Regarding PPs, for Galal (2005), prepositions and their complement DPs in English do not constitute amalgam, and, thus, the annihilation of the [overtness] Features of the complement RPs is possible. However, Riemsdijk (1978), cited in Galal (2005), states that English PPs can be considered islands, assuming that they have CP projections through which the complements of P^0s can move. Actually, the embedded coindexed PPs, though having no explicit nature of islandhood, could be assumed to have null realized RPs, too. To illustrate for the null realization within RPs within the embedded coindexed PPs, observe the following example:

112. The boy whom I gave a present to

3.5. Long Distance Relativization

When tackling LDR, we are concerned with cases in which the distant embedded coindexed DP is relativized regardless of the existence of a number of clauses intervening between this distant embedded coindexed DP and the RLP that it is coindexed with. Actually, the difference between this type of LDR and the other simple relativization is that in the former there often exist one or two intervening complementizers or RLPs. Though being not that easy to be accounted for in terms of phases, there are, however, two remarkable views in the literature accounting for LDR from the Phase Theory perspective. These views are actually alluded to in Ch. II, § 2 and stated in (113) below:

113. a. *v*Ps/TPs/CPs, for instance, are prevented from closing and this is mainly due to the ongoing accessibility of the concerned unvalued [Rel] Feature of the RP to the higher RLP (cf. Antonenko, 2012; Rouveret, 2008). This is primarily for the RP to share the same value of the higher valued [Rel] of the RLP. As argued, the unvalued [Rel] Feature of the RP is linked with the identical unvalued ones of the higher v^0s and C^0s so that those phasal heads share the unvalued instance of their domains. That is, they enter a "sharing probe-goal relationship" with that unvalued Feature within their domains (Antonenko, 2012: 224). This, consequently, signifies the possibility of the exposure of the unvalued Features to goals outside the spheres of such phrases which are still not transferred.

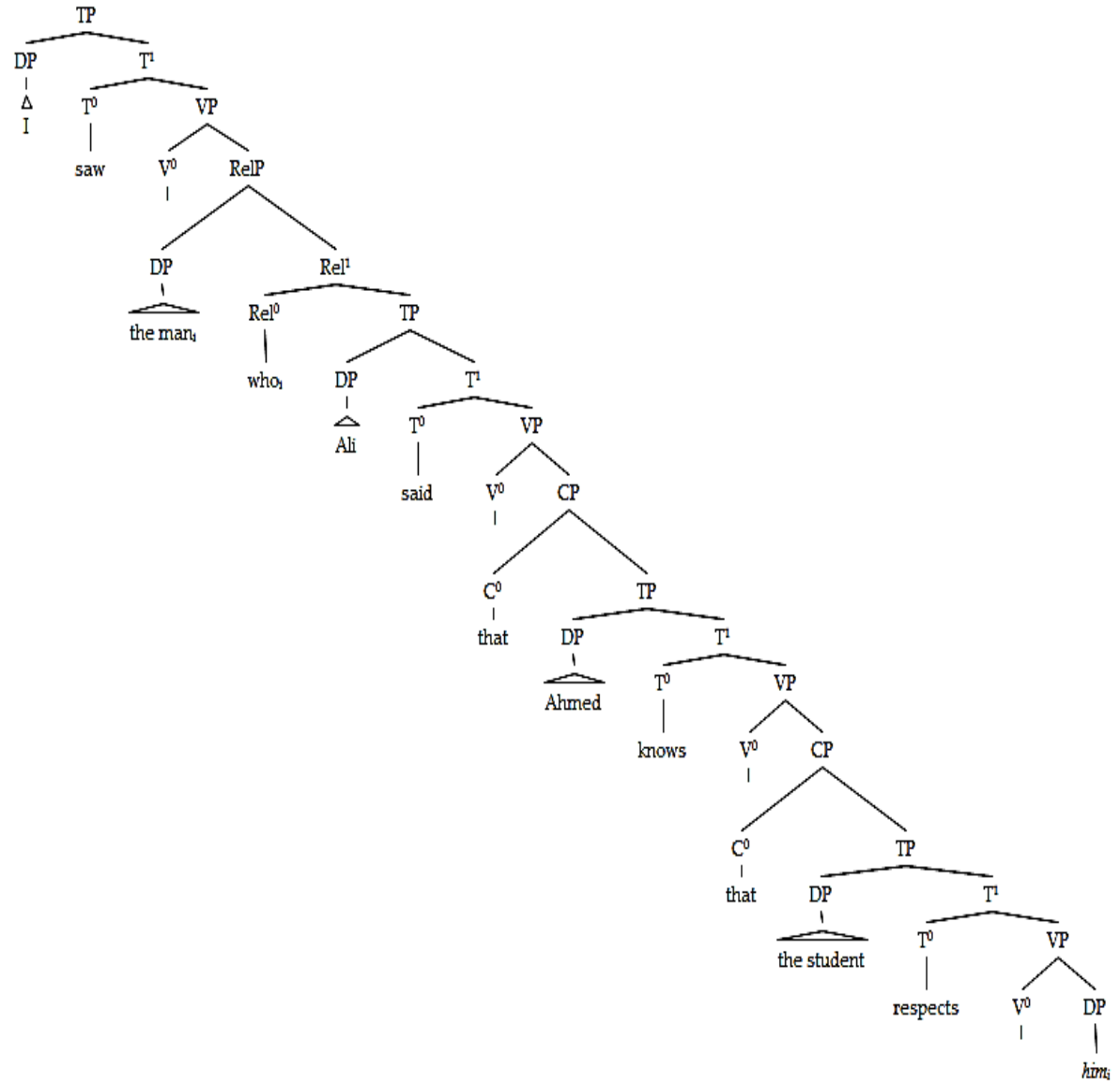
b. *Agree* is not constrained by phases and thus it is, as Shormani (2017b: 167; see also the references therein) states, "not subject to PIC effects, or otherwise, PIC does not hold of long-distance *Agree*." Thus, the phases constraints and the locality condition, presumably, apply to *Move* but not to *Agree* (cf. Bošković, 2007; Shormani, 2017b; Antonenko, 2012).

To expose such views concretely, look at the following examples:

114. a. I saw the man$_i$ who$_i$ Ali said that Ahmed knows that the student respects *him*$_i$.
b. I read the book$_i$ which$_i$ Ali thinks that Ahmed knows the student who respects the teacher who wrote *it*$_i$.

As seen, the distant RPs *him* and *it*, in the examples (114. a & b), are essentially coindexed with and relativized to the RLPs *who* and *which*, respectively. Even through clauses boundaries, there is a transcendent LDA between the RPs, on the one hand, and the RLPs (along with their antecedent DPs) on the other. To expose how such a mechanism of LDA operates, let us apply the accounts provided in (113) above, one by one, to the concretized diagram in (115) below:

115.



Following the first potential account, the long main RC *the man who Ali said that Ahmed knows that the student respects him* in (115) can be derived as follows. The basic embedded coindexed DP *a man* comes from the lexicon with valued ϕ-Features but with the unvalued Feature [Rel]. Then such an embedded coindexed DP merges with the verb *respects* and

values its Acc Case. After that, the DP and the verb amalgamated into VP merge with the v^0 projection (not shown in the diagram, for simplicity) in order to get attached to the subject of the clause, namely, to *the student*. However, though merging with T^0 in order for the verb to value its [T] Feature and also in order for the subject to value its Nom Case, the *v*P, till this point, cannot be considered a phase since it would crash once it is sent to the interfaces due to the [Rel] Features (and also the [Spf] ones) which are still unvalued and which are still open and active, too, for higher goals and probes. Put in other words, the *v*P here is prevented from acquiring its phasal status so that the higher ongoing probing into its domain would not be a violation of the PIC. When proceeding the derivation, the whole TP projection *the student respects a man* merges with the C^0 filled by the complementizer *that*. Here, it is supposed in the literature that the domain would be sent to the two interfaces; nevertheless, the CP, too, in this case, is still bearing unvalued active Features which are in urgent need for matching valued counterparts.

In turn, such a clause merges with the higher verb *knows* to fill the thematic requirement of the latter as being transitive in nature. Thus, the CP we have got will be valued with an abstract Acc Case. However, the [Rel] Feature of the embedded coindexed DP is still up to this moment unvalued, so that the second higher *v*P, too, cannot be considered a phase even when merging with T^0. Then, a recursive algorithm of more higher intervening TPs and CPs are progressively built on. The whole TP *Ahmed knows that the student respects a man*, accordingly, merges recursively with the complementizer *that*, constituting the CP *that Ahmed knows that the student respects a man* which cannot be a phase according to the account of LDA at hand. However, by the merge of such a clause with V^0 (filled by the verb *said*), T^0 and, crucially, Rel^0, the unvalued linked [Rel] Features (and also [Spf] Features) would share the same value of the RLP *who* and the whole construction, thus, could be sent to the two interfaces for interpretation.[106]

Noteworthy stating that phase heads such as v^0s are argued to bear not only unvalued ϕ-Features but also unvalued [Rel] Feature (cf. Rouveret, n.d.; Antonenko, 2012). Then the unvalued [Rel] Feature (and also the [Spf] Feature) of the embedded coindexed DP searching for the valued counterpart gets linked with the matching unvalued Features of the

[106] Based on this, I assume that RelPs *per se* are generally phases. Holding Antonenko's (2012) argumentation that what determines a phrase to be a phase is the complete valuation of its Features, and assuming that the RelP is a split projection of CP which is a phase by itself, the RelP projection, since it also gives a complete proposition, is generally a phase, as I assume.

higher dominating *v*Ps and CPs; all of these linked unvalued Features eventually enter into a local relationship with the valued counterpart Feature once the RLP merges. Thus, valuation takes place and the phases would not crash when they get transferred to the LF and PF interfaces.

Actually, from the analysis given above, I argue that the first potential account is not that adequate because it deviates somehow, in both derivation and transference, from the simplicity called for in minimalism. Hence, let us see the second potential account. According to this account, Shormani (2017b) suggests that *Agree* relations are not restricted to phases nor to phasal transfers. For the construction in (115) above, the LDR of the embedded coindexed DP can be in effect over the constructed and even the transferred phases of *v*Ps and CPs. However, I assume here that the articulation of such phases is postponed till the merge of the RLP for the sake of the RLP's absorption process to take place, rendering the embedded coindexed DP *a man* into the RP *him*. That is, based on this account, I argue that this pronominalization process takes place at the LF interface.

In accordance with this account and the mechanism of Feature sharing, I argue for the cyclic *Agree* whereby *Match* and *Agree* and the RLP's capability of absorption and annihilation could have an access to prior phases transferred. Hence, even if the embedded coindexed DP is transferred to LF, its Features values are presumably 'updated' in correspondence with the matching valued Features of the coindexed RLP. Consequently, the valuation of the coindexed matching constituents can be assumed to be fulfilled at a later stage of the phasal transfer.

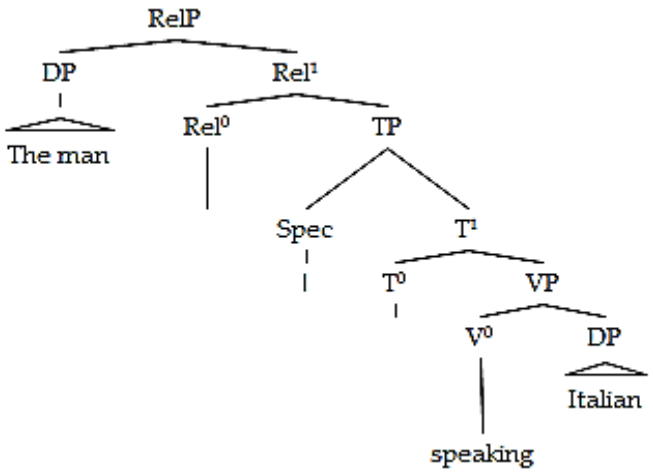
3.6. Reduced Relative Clauses

As cited in Kayne (1994: 100), Cinque (1993b) proposes that there are two sorts of "adnominal adjectives" the first of which are reduced relatives while the second are APs generated and posited in Specs of "functional heads" occurring between the functional heads (viz. D^0s) and the lexical heads (i.e. N^0s). However, Kayne preserves that APs, which are not initial structures within DPs, are essentially of a sentential sort. Paying attention to reduced RCs as a whole and their semantic parallelism with ordinary full RCs, I follow Ross (1972), assuming that reduced RCs are fundamentally ordinary RCs whose RLPs have a null realization.

Attempting to expose the nature of reduced RCs more, the nullness of the RLP has been traditionally accounted for in terms of the 'Whiz Deletion' which has been assumed to be in effect when the RLP and the verb to BE are adjacent to one another (cf. Ross, 1972; Stanton, 2011). However, I argue that when there is a null RLP, it means that this null RLP is 'weak' since, as I assume, the embedded verb, if existing, has no finite [T] Feature (cf. Hudson, 1973; Stanton, 2011). Being weak, the RLP sacrifices itself, if expressed well, paving the way for a total interlacement between the antecedent DP and the RP sharing the same coindexation, the same [Rel] and [Spf] Features and the identical ϕ-Features. This point is illustrated in the example (116. a) whose reduced RC is diagramed in (116. b) below:

116. a. *The man speaking Italian* is over there.

b.



I assume that, due to its nullness, the RLP is not projected, and this goes in line with the principle of economy whereby a phrase is not projected if it has no lexical content (cf. Speas, 2006). Also, the nullness of the functional RLP can be attributed to what Pesetsky (to appear) labels as the *Telegraph;* meaning that, though being present in the derivation, functional constituents presumably like RLPs could be not pronounced especially when their nullness does not render the constructions ungrammatical.

Noteworthy declaring that in reduced RCs the participles of verbs (along with prepositions, adverbs and post-nominal adjectives) could surface. The participle form in (116) is widely known as the present participle form of the verb *speak*. Crucial to bear in mind that this form is used when the embedded coindexed DP is the subject DP. However, when the embedded coindexed DP is the object DP, the verb would necessarily be of the past participle (i.e. passive) form. An example of this is the following construction:

117. *The language spoken by Ali* is Spanish.

To provide examples for the other forms of the reduced RCs in English, look at the following constructions:

118. a. *The girl with the red coat* is beautiful.
     b. *The tree there* is fruitful.
     c. *The girl present* is the most intelligent student in her class.

In each of the examples above, the finite [T] Feature itself along with the RLP are null. What remains in (118. a) is but the PP *with the red coat*; in (118. b), the AdvP *there*; and in (118. c), the AP *present*.

Actually, I assume that the reduced RCs in the examples (116. a), (117) and (118) above essentially have the following reconstructed constructions, respectively:

119. a. *The man who speaks Italian* is over there.
     b. *The language which Ali speaks* is Spanish.
     c. *The girl who is with the red coat* is beautiful.
     d. *The tree which is there* is fruitful.
     e. *The girl who is present* is the most intelligent student in her class.

As mentioned earlier, due to the nullness of the finite [T] Feature in the examples of the reduced RCs above, the RLPs have null realizations, leaving the remaining of their complements (i.e. *speaking, spoken, with the red coat, there* and *present*) apparently adjacent to their antecedent DPs. Such complements along with their antecedent DPs get their [Rel] and [Spf] Features valued by means of sharing the counterpart unmarked values of the null RLPs.

Regarding the intrinsic [T] Feature of reduced RCs which is not realized, I follow Hudson's (1973) and Stanton's (2011) semantic categorization of reduced RCs into deictic and derivative. The label 'deictic' here signifies that the unmarked [T] Feature of the reduced RC differs according to the time of speaking. The label 'derivative' here, however, signifies that the unmarked [T] Feature of the reduced RC is similar to the finite [T] of the matrix clause adjacent to it. Thus, the tense is inclined to be interpreted in accordance with either the tense of the matrix verb or the moment of speaking (cf. Stanton, 2011). To exemplify, look at (120) for deictic reduced RCs and (121) for derivational ones:

120. Muslims living here before the eighteenth century are good examples for us all.

121. Linguistic masterpieces written by Shormani Sir got published.

Worth mentioning that reduced RCs cannot be coordinated with full ordinary RCs:

122. a. *The students playing chess and who speak Italian fluently
b. *The students who play chess and speaking Italian fluently

The ungrammaticality of the examples above is due to the coordination of two clauses one of which has an overt RLP while the other lacks it. However, each type can be coordinated with a clause of its own type, as exemplified in (123) below:

123. a. The students playing chess and speaking Italian fluently
b. The students who play chess and who speak Italian fluently

Also, full RCs can immediately follow reduced RCs, but not vice versa, to form 'stacked' RCs. Observe the following examples:

124. a. The students playing chess who speak Italian fluently
b. *The students who speak Italian fluently playing chess

In contrast with the (124. b), the stacked RC in (124. a) is grammatical presumably because the antecedent DP in reduced RCs cannot be separated from the remnant of the clause by any intervener, but, in full RCs, the antecedent DP can be separated from the remnant by some other interveners. To make this point more clearer, observe the following examples:

125. a. The students that play chess who speak Italian fluently
b. *The students playing chess speaking Italian fluently

In contrast with the stacked full RCs, exemplified in (125. a), reduced RCs, as illustrated in (125. b), cannot be stacked. This is, as stated above, because the antecedent DPs in reduced RCs can never get separated from their complements by any intervener, even if that intervener is the complement of another reduced RC. In (125. b) above, for instance, the ungrammaticality lies on the presence of the clause *playing chess*, intervening between the antecedent DP and the complement of the second reduced RC, i.e. between the antecedent DP *The students* and the complement *speaking Italian fluently*.

Another related aspect to highlight is that reduced RCs "do not appear in extraposed position[s]" (Baltin, 2006: 267). This is similar to the account provided above which states that the antecedent DP cannot get separated from the complement in reduced RCs. Observe the following example whereby the extraposition of the complement of the reduced RC in the example (126. b) is not allowed, leading to the ungrammaticality of the construction:

126. a. *The girl present* is the most intelligent student in her class.
     b. **The girl* is the most intelligent student in her class *present*.

3.7. Extraposition

No debate that the antecedent DPs and the remaining constituents of the full RCs could be separated from one another primarily by means of the process of 'extraposition'. The apparently separated constituents of those RCs are widely well-known as 'extraposed RCs'.[107,108] For better comprehension, observe the following examples:

127. a. *A new student who wrote an amazing article* came into the class.
     b. *A new student* came into the class *who wrote an amazing article.*

128. a. Yesterday, I saw *the great professor whose name is Shormani Sir*.
     b. I saw *the great professor* yesterday *whose name is Shormani Sir*.

In (127. b) and (128. b) above, the RCs *who wrote an amazing article* and *whose name is Shormani Sir* are evidently extraposed from the antecedent DPs *A new student* and *the great professor*, respectively.

As a matter of fact, there are a number of accounts put forward in the literature, attempting to account for such a phenomenon. The first account—proposed by Ross (1986) and also adopted by Baltin (2006)—is the analysis of extraposition in terms of the rightward movement of the extraposed RC from its canonical position to a higher position. The second account, put forward by Culicover & Rochemont (n.d.), is based on the view that the extraposed RC is not derived by the rightward movement but by means of the base-

[107] Significant to state that extraposition seems to be not purely syntactocentric. There seems to be an outstanding interplay between syntax and discourse. Moreover, it can be also attributed to semantics, pragmatics and stylistics (cf. Song, 2009; Zwart, 1998).

[108] As Francis & Michaelis (2016) put it, extraposition is preferred when the RC is longer or more complex in comparison with the VP, or when the antecedent DP is indefinite.

generation propped with an interpretive mechanism which is in effect since, as argued, the extraposed RC is bound to the maximal projection containing the antecedent DP. Actually, Culicover & Rochemont assume that the base-generation account is preferred since the 'ordering' of the extraposed constituents via the movement analysis seems to be difficult. The third account is presented by Kayne (1994) whereby he assumes that the whole RC (namely, the antecedent DP and the extraposed RC) generates in the extraposed position, but then the antecedent DP undergoes a leftward movement that the remnant extraposed RC gets stranded.[109] Put in other words, Kayne (1994: 118) proposes that "the 'extraposed' relative [is] 'stranded' by [the] leftward movement." Accordingly, linearization, as Kayne argues, is a post-syntactic operation.[110] The fourth account proposed by Fox & Nissenbaum (1999) and also held by Overfelt (2015) views extraposition as a hybrid phenomenon. That is, extraposed constructions are assumed to be derived by the covert movement (but not by the overt movement) of the antecedent DPs, mainly by the Quantifier Raising operation subjected to the theory of Binding, followed by the merge of the extraposed RCs.[111] Hence, the rightward moved antecedent DPs are argued to get no phonological realization because their movement is covert.

Actually, all the accounts exhibited so far compete with one another. However, I approve the last account put forward by Fox & Nissenbaum (1999) and Overfelt (2015) primarily for one or two reasons the most prominent of which are concerned with the validity of the semantic

[109] For a refuting account, see Borsley (2013).

[110] Based on Kayne's (1994) account, Rackowski & Richards (2005: 319) cite that "those CPs and DPs that agree with a phase head on independent grounds […] are transparent for [*wh*-]extraction." According to this and since the antecedent DPs, as assumed by Kayne, can be extracted, our assumption that RelPs are phases is confirmed more.

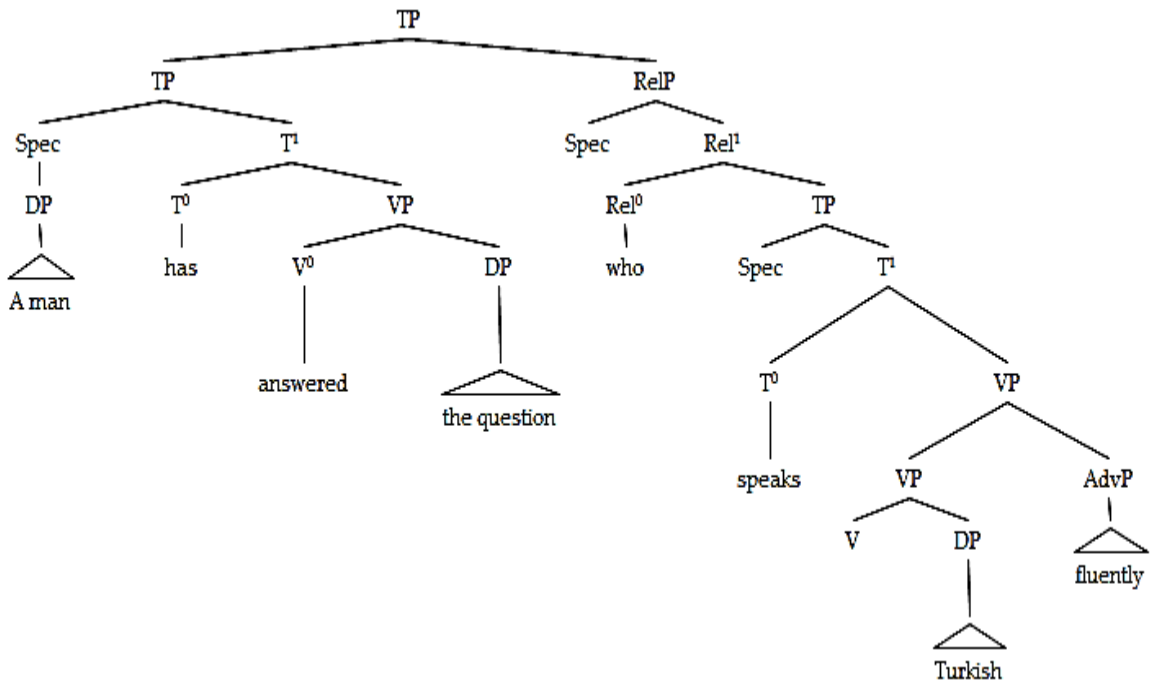
[111] As shown in Culicover & Rochemont (n.d.), Fox & Nissenbaum (1999), Baltin (2006) and Overfelt (2015), to mention but few, when accounting for extraposed RCs, there is a difference between adjuncts and complements. Put plainly, complement extraposed RCs are assumed, mainly by Fox & Nissenbaum (1999) and Overfelt (2015), to be best accounted for in terms of rightward movement of the extraposed RC after its base-generation in adjacency with the antecedent DP. However, adjunct extraposed RCs, as they assume, are not to be inclined to any extraction but to the late-merge operation.

interpretation and with the licensing mechanism.[112] Applying this account to some constructions having extraposed RCs, consider the following example:

129. *A man* has answered the question *who speaks Turkish fluently*.

Putting in mind the in-consensus view of the initial generation of the subject DP in Spec-*v*P and its movement to Spec-TP, the antecedent DP *A man* in the example (129) above can be assumed to undergo a covert movement to a rightward slot within the rightward base-generated projection of the RelP. In this new slot (viz. Spec-RelP), the antecedent DP has a null phonetic realization, however. To represent the construction in question in a diagram, see (130) below:

130.



Concerning the appropriate position for the extraposed RC, it should be, as shown above, a position in which there is no clausal barrier between the basic generating slot of the antecedent DP and the new position hosting it. That is, the extraposed clause should be within the same clause where its antecedent DP gets a phonetic realization. And this concords with Baltin's (2006: 241) generalization which states that the "extraposed phrase is adjoined to the first maximal projection that dominates the phrase in which it originates." Such a generalization actually accounts for the grammatical sequencing of the RCs in (131.

[112] For more elaboration regarding such a point, see Overfelt (2015).

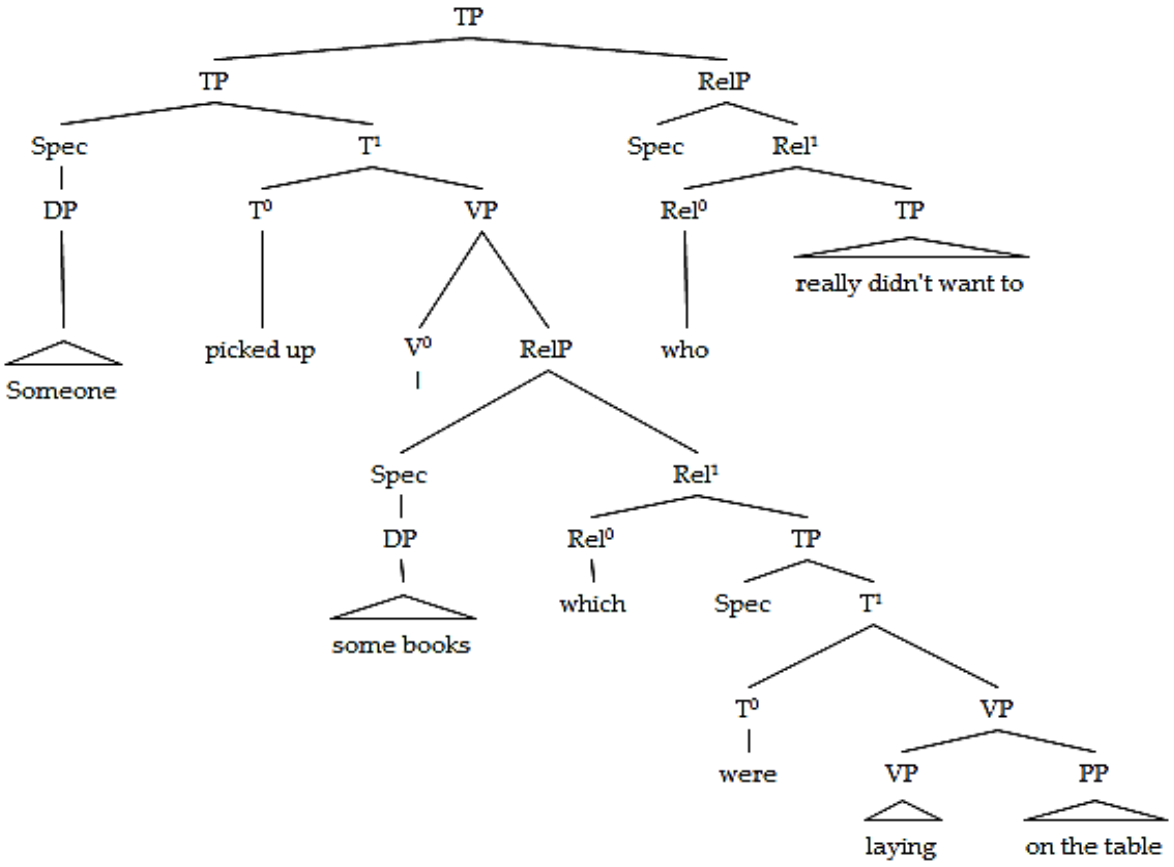
a) and the ungrammatical one in (131. b)—these examples are slightly modified from Baltin (2006: 242):

131. a. Someone picked up some books which were lying on the table who really didn't want to.

b. *Someone picked up some books who really didn't want to which were lying on the table.

In accordance with the account approved above, the grammatically sequenced example in (131. a) above could be diagrammed as follows:

132.



Thus, in accordance with this account, the extraposed RC base-generates outside the closest maximal projection dominating the antecedent DP and, consequently, it generally cannot be found in a thematic Cased position, as evidently proven by the ungrammaticality of (133. b), in contrast with (133. a):

133. a. *A man* has answered the question *who speaks Turkish fluently*.

b. **A man* has answered *who speaks Turkish fluently* the question.

The ungrammaticality of (133. b) can be attributed also to the position of the extraposed RC inside the VP projection, seemingly being a barrier or a blocking category between the Case assigner (i.e. the verb *answered*) and the real assignee (viz. the complement *the question*), defacing, metaphorically speaking, the constituents' sequencing required by the ɵ-role assignment. Otherwise, the extraposed RC positioned in the wrong ɵ-roled slot would gain a role not assigned to it (cf. Kayne, 1994; Vergnaud, 1994; Baltin, 2006; Szabolcsi, 2006; Chomsky & Lasnik, 2015). Also, the extraposed RC here in (133. b) violates the concept of the RM when competing with the real complement *the question* through its intervention between the real complement and the verb.

Significant also to declare here that, regardless of the antecedent DP, extraposition cannot be held only on a partial segment of the RC, but of the RC as a whole. To clarify this point, observe the following examples:

134. a. *The article* is daring *that the distinguished professor who speaks five languages has written it.*
b. **The article that the distinguished professor has written* is daring *who speaks five languages.*

We notice that the extraposition of the whole RC (save its antecedent DP) is permitted as manifested in (134. a). However, the example (134. b) is ungrammatical and this is due to the extraposition of the embedded RC *who speaks five languages* from within the dominating RC *that the distinguished professor has written*.[113]

3.8. Conclusion

This chapter has been devoted for English relativization. It has practically exposed the proposed RelP projection, primarily by applying it to English RCs. It has also exposed the nature of RPs' and gaps' formation and the phenomenon of LDR. Furthermore, it has tackled the nature of reduced RCs and the possible phenomenon of extraposition.

[113] Actually, Ross (1986) accounts for the ungrammaticality of such a construction in terms of the A-over-A violation.

Chapter IV

Relativization in Standard Arabic

4.1. Introduction

Studies on Arabic RCs that apply the most recent advancements of syntax (particularly, Phase Theory) are actually limited. Thus, the phenomenon of relativization in Arabic remains a center for a hot dialectical debate. Similarly with the previous chapter, this chapter employs the most recent approach of MP and Phase Theory to tackle relativization in Standard Arabic. In the second section of this chapter, I discuss the RelP projection and its effectiveness on the derivation of Arabic RCs. Proceeding further, the next sections handle the nature of RPs, islands, LDR, reduced RCs and extraposition, one by one.

4.2. The RelP Projection

In this section, the proposed projection of RelP which incorporates with the base-generation analysis is applied here to Arabic RCs. Recalling from Ch. II, § 2 the latest outcomes of the Feature valuation mechanism which states that lexical items come out of the lexicon inflected, if one follows the promotion and/or matching analyses, the Case of the raised constituent would have the same Case that it has in its base-generating slot, which leads to the ungrammaticality of the construction especially when the slot it raises to is marked with a different Case. For instance, in the following constructions, one can find that the Case of the constituent's base-generating slot (viz. the Acc Case) contradicts with the Case of the assumed-landing slot, as manifested in (135. b), in contrast with the grammatical counterpart in (135. a):

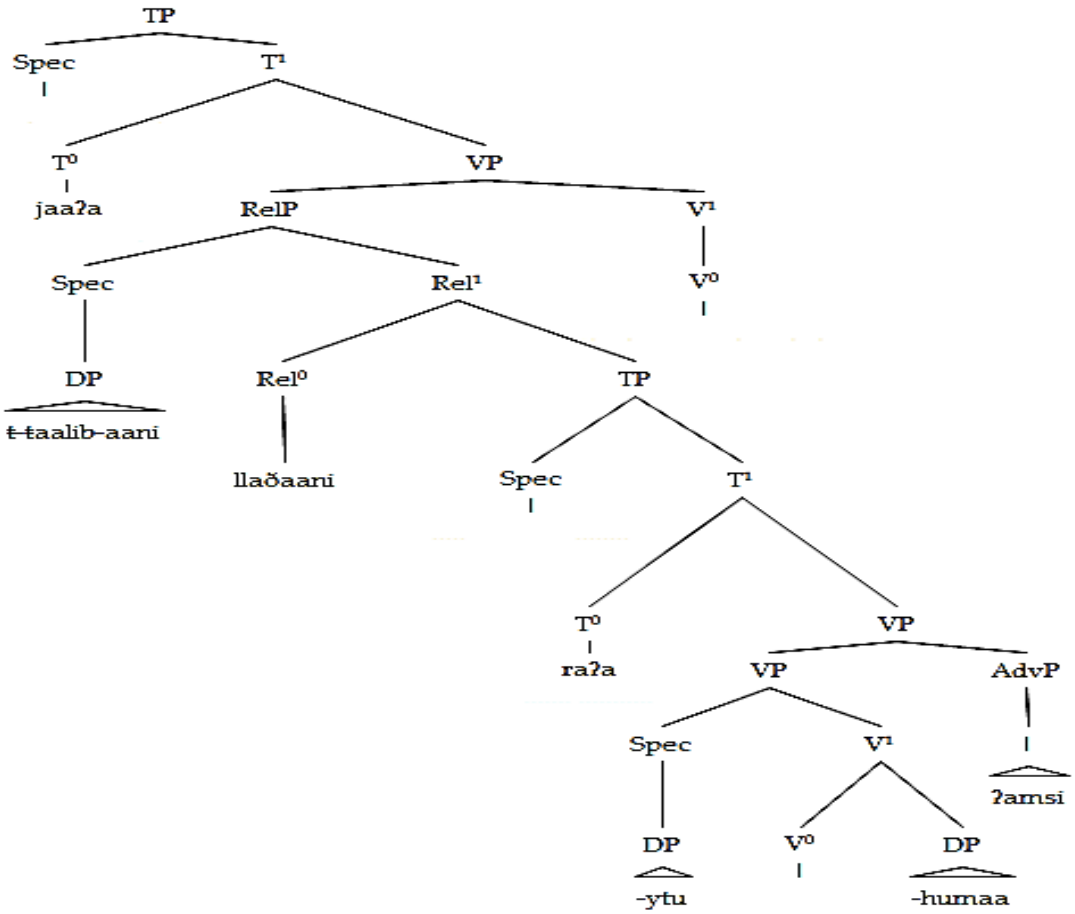
135. a. jaaʔa ṯ-ṯaalib-aani llaðaani raʔaytu-humaa
came the-student-DL.NOM who.DL.NOM saw.I-them.DL
ʔamsi.
yesterday
'The two students whom I saw yesterday came.'

b. *jaaʔa ṯ-ṯaalib-ayni llaðayni raʔaytu-humaa
came the-student-DL.ACC who.DL.ACC saw.I-them.DL
ʔamsi.
yesterday

Thus, with the promotion and matching analyses, the two Cases would be potentially encountered with one another on the raised constituent in the landing slot, the first of which is attained from the original slot of the trace position while the second is from the higher slot that it has moved to. However, the base-generation analysis can best account for the distinction between the two Cases of the antecedent DP and the embedded coindexed DP. This is mainly because each slot (of the antecedent DP and the embedded coindexed DP) is licensed with a (different) specific Case for its own. This actually strengthens the proposed RelP projection along with the accompanying presumption of base-generation. Accordingly, the construction in (135. a) repeated here in (136. a) for convenience is diagrammed as in (136. b):

136. a. jaaʔa ŧ-ŧaalib-aani llaðaani raʔa-ytu-humaa
came the-student-NOM.DL who.NOM.DL saw-I-them.DL
ʔamsi.
yesterday
'The two students who I saw yesterday came.'

b.



With respect to the nature and mechanism of *Agree* in Arabic RCs, recall from Ch. II, § 4 that the RLP, as assumed, intrinsically comes out of the lexicon with interpretable valued [Rel] and [Spf] Features, but with (un)interpretable unvalued ϕ-Features and with unvalued Case. Applying the mechanism of Feature sharing, the unvalued [Rel] and [Spf] Features of both the RP and the antecedent DP get valued by sharing the same value of the head RLP. Interchangeably, each of the unvalued ϕ-Features of the RLP, mainly, the Num and Gender Features, gets valued by sharing the same value of the RP and the antecedent DP. The Case of the RLP, too, is valued by sharing the same value of the antecedent DP.[114] It is worth mentioning that the RLP's Case in Standard Arabic is overt only on the Dual RLP forms (i.e. *llað**aa**ni*/*llað**ay**ni* and *llat**aa**ni*/*llat**ay**ni*). Case is unmarked on *llaði*, for example, and this is attributed to the defective ending sound *i* of this RLP (cf. Suaieh, 1980). To elucidate this point more, observe the following examples in which the marked Cases of the RLPs, in (138), are italicized:

137. a. saafara r-rajul-u llaði kataba r-risaalat-a.
travelled the-man.M.SG-NOM who.M.SG wrote.M.SG the-letter-ACC
'The man who wrote the letter travelled.'

b. raʔaytu r-rajul-a llaði kataba r-risaalat-a.
saw.I the-man.M.SG-ACC who.M.SG wrote.M.SG the-letter-ACC
'I saw the man who wrote the letter.'

c. saafarat l-marʔat-u llati katabat r-risaalat-a.
travelled the-woman.F.SG-NOM who.F.SG wrote.F.SG the-letter-ACC
'The woman who wrote the letter travelled.'

d. raʔaytu l-marʔat-a llati katabat r-risaalat-a.
saw.I the-woman.F.SG-ACC who.F.SG wrote.F.SG the-letter-ACC
'I saw the woman who wrote the letter.'

138. a. saafara r-rajul-aani llað*aa*ni katabaa r-risaalat-a.
travelled the-man.M-DL.NOM who.M.DL.NOM wrote.M.DL the-letter-ACC
'The two men who wrote the letter travelled.'

[114] Like agreement in Arabic RCs, German RLPs agree with their antecedent DPs in Case, Num and Gender (cf. Resi, 2010).

b. raʔaytu r-rajul-ayni llað*ay*ni katabaa
saw.I the-man.M-DL.ACC who.M.DL.ACC wrote.M.DL
r-risaalat-a.
the-letter-ACC
'I saw the two men who wrote the letter.'

c. saafarat l-marʔat-aani llat*aa*ni katabataa r-risaalat-a.
travelled the-woman.F-DL.NOM who.F.DL.NOM wrote.F.DL the-letter-ACC
'The two women who wrote the letter travelled.'

d. raʔaytu l-marʔat-ayni llat*ay*ni katabataa r-risaalat-a.
saw.I the-woman.F-DL.ACC who.F.DL.ACC wrote.F.DL the-letter-ACC
'I saw the two women who wrote the letter.'

139. a. saafara r-rijaal-u llaðiina katabuu r-risaalat-a.
travelled the-men.M.PL-NOM who.M.PL wrote.M.PL the-letter-ACC
'The men who wrote the letter travelled.'

b. raʔaytu r-rijaal-a llaðiina katabuu r-risaalat-a.
saw.I the-men.M.PL-ACC who.M.PL wrote.M.PL the-letter-ACC
'I saw the men who wrote the letter.'

c. saafarat ṯ-ṯaalib-aatu llaati katabna r-risaalat-a.
travelled the-student-F.PL.NOM who.F.PL wrote.F.PL the-letter-ACC
'The girl students who wrote the letter travelled.'

d. raʔaytu ṯ-ṯaalib-aati llaati katabna r-risaalat-a.
saw.I the-student-F.PL.ACC who.F.PL wrote.F.PL the-letter-ACC
'I saw the girl students who wrote the letter.'

In effect, the mechanism of Feature sharing, by which each of the unvalued Features in the Arabic RCs gets individually valued by sharing the same value of the valued ones, can be clearly represented by the following schematized examples whereby each example represents the valuation of one Feature a time:

140. a. saafarat l-marʔat-aani llataani katabataa ____ r-risaalat-a.[115]
[uRel]…….… [vRel]….….[uRel]……...[uRel]
[vRel]……. [vRel]….….[vRel]……...[vRel]

b. saafarat l-marʔat-aani llataani katabataa ____ r-risaalat-a.
[uSpf]……. [vSpf]…….[uSpf]……..[uSpf]
[vSpf]…… [vSpf]……..[vSpf]……..[vSpf]

c. saafarat l-marʔat-aani llataani katabataa ____ r-risaalat-a.
[vNOM]……..[uNOM]]
[vNOM]……..[vNOM]

d. saafarat l-marʔat-aani llataani katabataa ____ r-risaalat-a.
[vDL]….....[uDL]……..….[uDL]……...[vDL]
[vDL]…….……[vDL]….……..[vDL]……..…[vDL]

e. saafarat l-marʔat-aani llataani katab-ataa ____ r-risaalat-a.
[vF]……..……..[uF]…….....[uF]……..……..[vF]
[vF].....[vF]…....[vF]…….……..[vF]

Whether the subject marker on the verbs above is a clitic or just a marker for mere agreement, it is, seemingly, an agreement marker. This is actually in accordance with the assumption, provided in the previous two chapters, that RLPs are Bermuda-Triangle-like constituents, absorbing and annihilating local non-islandic embedded coindexed DPs. With respect to the object markers, Kramer (2014) and Franco (1993) argue for an agree-based clitic analysis particularly for Amharic and Spanish, while Machado-Rocha & Ramos (2016) and Alqurashi (2012) argue for a pure agreement analysis for the dialectal non-standard Brazilian Portuguese and Standard Arabic. However, in the same line of the absorption and annihilation view, I argue that the italicized object marker *-humaa* on the verb in (141) below, for instance, is but the residue of the absorbed embedded coindexed object DP:

141. saafarat l-marʔat-aani llataani qaabaltu–*humaa*.
travelled the-woman.F-DL.NOM who.F-DL.NOM met.I-*them.DL.ACC*
'The two women I met travelled.'

[115] To account for the insensitivity of such a construction to PIC, see Ch. 3, § 5. You can also see Shormani (2017b), Antonenko (2012) and also Chomsky (2001, 2004, 2008, *et seq*) and Rouveret (2008).

As proposed in Ch. II, § 4, I argue that the RLP has an absorption and annihilation capacity towards the embedded coindexed DP and also the antecedent DP of the Arabic RC. A piece of evidence supporting that view, subjects in Arabic (which is rich in inflections) agree with verbs in almost all the ϕ-Features including Num when they (i.e. the subjects) raise higher and are topicalized. However, when the subjects are not topicalized, there is a lack of the Num agreement on the verbs; hence, we get a partial agreement.[116] The following examples manifest the two cases in question, respectively:

142. a. aṯ-ṯullaab-u ðahab-uu.
the-student.M.PL-NOM went.M-PL

b. ðahab-a ṯ-ṯullaab-u.
went.M-SG the-students.M.PL-NOM
'The students went.'

Accordingly, when one observes the RCs whose RPs are basically subjects, they notice that there is a constant agreement in the Num Feature between the embedded verbs on the one hand and the RLPs and the antecedent DPs on the other. Observe the following examples:

143. a. aṯ-ṯaalib-u llaði ðahab-a
the-student.M.SG-NOM who.M.SG went.M-SG
'The student who went'

b. aṯ-ṯullaab-u llaðiina ðahab-uu
the-students.M.PL-NOM who.M.PL went.M-PL
'The students who went'

c. *aṯ-ṯullaab-u llaðiina ðahab-a
the-students.M.PL-NOM who.M.PL went.M-SG

Such a Num Feature agreement signifies that there is an operation passing over the RC's verb, and this operation, as I argue, is but a reflection of the absorption and annihilation processes between the RLP and the embedded coindexed subject DP which is originally

[116] For more details, see Shormani (2015).

generated in a post-verbal position.[117] When the RLP absorbs (and annihilates) the concerned Features of the embedded coindexed subject DP, the embedded coindexed subject DP's absorbed Features would necessarily pass over the RC's T^0 node, checking the Num Feature of the verb on it and entailing thus the full agreement.

Moreover, recall from the previous chapters that the RLP has a bidirectional absorption and annihilation capability and that the alternation between the absorption and the annihilation processes depends on the position and the environment of the very embedded coindexed DP. Leftwards, the annihilation of the [overtness] Feature of the antecedent DPs is allowed, as it is the case in FRCs. Observe the following examples:

144. a. al-marʔat-u >>> llati tarʕaa ʔatfaalaha ħasnaaʔu.
the-woman-NOM who looks.after children.her beautiful
'The woman who looks after her children is beautiful.'

b. llati tarʕaa ʔatfaalaha ħasnaaʔu.
who looks.after children.her beautiful
'Who looks after her children is beautiful.'

145. a. qaraʔtu l-kitaab-a >>> llaði tufaðilu(hu).
read.I the-book-ACC which you.prefer.(it)
'I read the book that you prefer.'

b. qaraʔtu llaði tufaðilu(hu).
read.I what you.prefer.(it)
'I read what you prefer.'

However, the partial absorption of the antecedent DP in Arabic is not acceptable. Consider the following examples:

146. a. al-marʔat-u >>> llati tarʕaa ʔatfaalaha ħasnaaʔu.
the-woman-NOM who looks.after children.her beautiful
'The woman who looks after her children is beautiful.'

[117] Actually, it is not a matter of accident base generation; it is argued that Arabic is primarily a VSO language. For more elaborate discussion, see Shormani (2015) and Demirdache (n.d.).

b. *hiya llati tarʕaa ʔaṯfaalaha ħasnaaʔu.
She who looks.after children.her beautiful

147. a. qaraʔtu l-kitaab-a >>> llaði tufaḍilu(hu).
read.I the-book-ACC which you.prefer.(it)
'I read the book that you prefer.'

b. *qaraʔtu*hu* llaði tufaḍilu(hu).
read.I.it which you.prefer.(it)

In the same line of the RLP's absorption and annihilation processes, I assume here that the Arabic RLPs *man* and *maa* are always strong enough to annihilate the antecedent DPs' [overtness] Features. For the Arabic FRCs which begin with those RLPs, there can be no overt antecedent DPs, and this could be attributed to the 'generic' characteristic of those RLPs in constructions like those following examples:

148. a. man jadda wajada.
who worked.hard found
'Who works hard gets good results.'

b. *ar-rajul-u man jadda wajada.
the-man-NOM who worked.hard found

149. a. maa qaaluuhu kaana ṣaħiħan.
what said.they.it was true
'What they said was true.'

b. *al-kalaam-u maa qaaluuhu kaana ṣaħiħan.
the-speech-NOM what said.they.it was true

Noteworthy stating that, in Arabic, there is a correlation between the presence of the RLP, in general, and the RP/gap alternation on the one hand and a tight interrelation between the nullness of the RLP and the indispensable presence of the RP on the other hand. All of this can be manifested in (150) below. This is actually but an evident piece of evidence that the RLP intrinsically has an annihilation force which is responsible for the nullness of the RP.

150. a. raʔaytu rajul-an muħammad-un yaħtarimu-*hu*.
saw.I man-ACC.INDEF Mohammed-NOM respects-*him*
'I saw a man Mohammed respects.'

b. *raʔaytu rajul-an muħammad-un yaħtarimu ___.
saw.I man-ACC.INDEF Mohammed-NOM respects

Thus, the ungrammaticality of the Arabic RC in (150. b) above is due to the nullness of the RP when the RLP is null (and also due to the indefiniteness of the antecedent DP).

Regarding the overtness/covertness of the RLPs in Arabic RCs, on the contrary to Suaieh's (1980) loose assumption of the RLP insertion when the antecedent DP is definite in Arabic, I argue that, if and only if the RC has no finite [T] Feature and/or the antecedent DP is indefinite, the RLP in the Arabic RC is then necessarily null and phonologically unrealized (cf. Suaieh, 1980; Galal, 2005; Aoun et al., 2010). Thus, not only does the indefiniteness of the antecedent DP necessitate the phonological nonrealization of the RLP, but also, I argue, does the nullness of the very [T] Feature within the very RC. To render this point clearer, consider the following examples, illustrating the interrelation between the definiteness/indefiniteness of the antecedent DP and the overtness/covertness of the RLP in (151) on the one hand and the overtness/covertness of the finite [T] Feature and the overtness/covertness of the RLP in (152) on the other hand:

151. a. raʔayitu l-muʕalim-a llaði yataħdaθu t-turkiyat-a.
saw.I the-teacher-ACC who speaks the-Turkish-ACC
'I saw the teacher who speaks Turkish.'

b. raʔayitu muʕalim-an (*llaði) yataħdaθu t-turkiyat-a.
saw.I teacher-ACC.INDEF (who) speaks the-Turkish-ACC
'I saw a teacher who speaks Turkish.'

152. a. raʔayitu l-muʕalim-a *llaði* *ya*taħdaθ*u* t-turkiyat-a.
saw.I the-teacher-ACC *who* *Prs*.speaks the-Turkish-ACC
'I saw the teacher who speaks Turkish.'

b. *raʔayitu l-muʕalim-a *llaði* *mu*taħdiθ*a* t-turkiyat-a.
saw.I the-teacher-ACC (*who*) speaking the-Turkish-ACC

4.3. The Nature of Resumptive Pronouns

Deviating from the traditional analyses of promotion and matching, Arabic RPs,[118] in this study, are actually tackled from the perspective of the base-generation analysis. Recall from Ch. II, § 4 that the embedded coindexed DP is argued to come out of the lexicon with the [INDEF] Feature and with the [nominal] Feature and that the RLP absorbs such [INDEF] and [nominal] Features, transforming them into [DEF] and [+pronominal]/[-nominal]; however, the [overtness] Feature of the outcoming RP is retained when this RP is encompassed within an island or when it is not local. Focusing on Arabic, consider the following constructions:

153. a. ʕaada *waalid-u* *ṯ-ṯiflat-i*.
returned *father-NOM* *the-child-GEN*
[nominal]
'The child's father has returned.'

b. *ʔibtasamat ṯ-ṯiflat-u llati <<< ʕaada *waalid-u* *ṯ-ṯiflat-i*.
smiled the-child-NOM who returned *father-NOM* *the-child-GEN*
[+nominal]

c. ʔibtasamat ṯ-ṯiflat-u llati ʕaada *waalid-u-haa*.
smiled the-child-NOM who returned *father-NOM-her*
[+pronominal]
'The child whose father has returned smiled.'

d. *ʔibtasamat ṯ-ṯiflat-u llati ʕaada *waalid-u* ___.
smiled the-child-NOM who returned father-NOM
[-overtness]

By the merge of the RLP, the [nominal] Feature of the embedded coindexed DP *ṯ-ṯiflat-i* gets absorbed as in (153. c), but its [overtness] Feature, as manifested in (153. d), could not get annihilated by the RLP's force since *ṯ-ṯiflat-i* is saved within the borders of the CS island. Thus, the embedded coindexed DP *ṯ-ṯiflat-i* necessarily becomes the overt clitic RP *–haa*. If

[118] Actually, the traditional Arab grammarians have labelled RPs as '*l-lʕaaʔid*', viz. 'returning' or 'replacive' pronouns (cf. Suaieh, 1980).

it remains nominal as in (153. b) after the merge of the RLP, the whole construction is rendered ungrammatical.

Recall also from the proposal given in Ch. III, § 4 that the annihilation force is traced when the RP is not conserved within an island and when it is local. An evident example of the effectiveness of such a force in Arabic is the gap in the embedded coindexed subject DP's slot which is local and non-islandic. As a matter of fact, subject gaps in ordinary Arabic constructions in general are widely natural when preceded by antecedents identical to and coreferential with them. They have been accounted for in terms of the Highest Subject Restriction and in terms of the Economy Principle due to the presence of the 'resumptive *pro*s', and also due to the verbs' rich inflections which lead to their identification with their subject DPs (cf. Suaieh, 1980; McCloskey, 2006; Galal, 2005; Aoun et al., 2010). Subject gaps in RCs, however, are inadequately accounted for by Rizzi (1990), as cited in Galal (2005), in terms of the 'Agreement in Comp'. As criticized by Galal, such an account fails even to justify the nullness of subjects in languages whose RLPs lack overt markers of the inflectional agreement, e.g., in English and even in Egyptian Arabic. Actually, according to the proposal of the study at hand, the RLPs have a special role to do regarding the nullness of such embedded coindexed DPs even in Arabic.

Noteworthy mentioning that Suaieh (1980: 51 & 247), however, has provided some constructions like those modified in (154) below. Actually, the presence of *huwa* and *hiya* renders the constructions somehow odd. The embedded coindexed subject DPs in such constructions have been, in the terms of the study at hand, absorbed but not annihilated, which renders those constructions odd:

154. a. al-waziir-u llaði huwa ʃirriir-un
the-minister-NOM who he evil-NOM
'The minister who is evil'

b. al-jaaryyat-u llati hiya fi-l-ħariim-i
the-slave.F-NOM who she in-the-harem-GEN
'The slave girl who is in the harem'

c. ʔaqbalat l-fataat-u llati hiya ʔaðkaa minki.
came the-girl-NOM who she more.intelligent than.you.GEN
'The girl who is more intelligent than you came.'

Actually, following Suaieh's view that *huwa* and *hiya* are overt pronouns, I assume that the presence of *huwa* and *hiya*, as given in the examples above, is but for the semantic emphatic purpose. This is enforced by the example in (155) below (modified from Suaieh, 1980: 242):

155. ʔataxuunu rajul-an huwa ʔakramaka wa ʔaħsana ʔilayka?!
betray.you man-ACC.INDEF he generous.to.you and kind to.you
'You betray a man who was kind and generous to you?!'

Here, following Suaieh (1980), I assume that *huwa* is a subject not annihilated by the null RLP. Similarly, the subject here is assumed to be overt primarily to bear an emphatic or a contrastive role (cf. Suaieh, 1980). Moreover, I assume that the presence of the subject here, in the Arabic indefinite RC, is also due to the somehow withered capability of the null Bermuda-Triangle-like RLP since the antecedent DP is indefinite.

Being in-between, either to have an RP or a gap, and also being far away from island violations and presumably in a mediatory position regarding the Locality Condition, gaps in Arabic direct object DPs could interchangeably alternate with RPs. Following Galal (2005), I assume that the presence of RPs, rather than gaps, is essentially for the sake of the RCs' safety from any potential semantic ambiguity. That is, the existence of RPs in direct object DP slots is mainly a sort of the semantic support to protect the interpretation of the whole construction from ambiguity and from complexity in parsing.[119,120] To illustrate for the alternation between RPs and gaps, observe the two following constructions:

156. a. al-maqaalat-u llati katabta*ha* mudhiʃatun
the-article-NOM which wrote.you.*it* amazing

b. al-maqaalat-u llati katabta — mudhiʃatun
the-article-NOM which wrote.you amazing
'The article which you wrote is amazing.'

[119] Thus, RPs can be regarded as saving constituents when being within islands and as semantic supports when they are out of islands.

[120] However, Clark (1987), as cited in Galal (2005: 88), proclaims "that every two forms that have a difference in structure should have a contrast in meaning."

However, such an optionality could have a backward effect on the RLP, and this is more evident in the optionality between RPs and gaps in Irish RCs, manifested in the following examples (McCloskey, 2006: 97):

157. a. an ghirseach a ghoid na síogaí ___
the girl who stole the fairies

b. an ghirseach ar ghoid na síogaí í
the girl who stole the fairies her
'The girl who the fairies stole'

Depending on whether the embedded coindexed object DP is represented by a gap or by an RP, there are two distinct RLPs (viz. *a* and *ar*). In the former example, the RLP's annihilation force on the embedded coindexed direct object DP, I assume, has been consumed, giving the RLP the *a* form; however, such an annihilation force is retained in the case of the latter RLP *ar*. To put it in other words, the effectiveness of the annihilation force of the RLP has something to do, using McCloskey's (2006: 108) words, with the "featural properties of [the] functional lexical item."

Turning to the relativization of indirect objects in Arabic RCs, there are two main views accounting for the necessary presence of RPs there. The first is this. Since indirect objects could have either overt or covert prepositions depending on their sequential positions with regard to the direct objects, it could be assumed that indirect objects are intrinsically PPs, and, accordingly, they generally should be treated in a similar manner with PPs which are considered islands in Arabic. The second view is this. The obligatory presence of the RPs in those very positions is argued by Salzmann (2009) and Galal (2005), for instance, to be necessary due to the need for checking their oblique Cases. Galal (2005) adopts the Case percolation strategy whereby it is assumed that the verb within the RC assigns an objective Case to the PP and that this Case gets percolated down to P^0 which in turn gets transmitted to the indirect object and thus the indirect object is assumed by him to be restricted to the verb so that no gap is allowed. A piece of evidence that the indirect object RP is Case assigned by the verb could be the possible cliticization of the indirect object RP onto the verb—when there is no intervener between them. Consequently, the RLP's annihilation force is not permitted since the verb does require two objects to check, one of which is the indirect object whose Case cannot be ignored nor vanished. Hence, RPs in this case are necessitated and no gap is permitted.

4.4. RelPs and Islands

Given in the previous two chapters that gaps are permissible but not in islands nor in distant positions and that there is a tight relation between RPs and islands, noteworthy stating that islands in Arabic Language can be embedded RCs, *wh*-clauses, adjuncts, coordinate nodes, CSs or PPs (cf. Hamdallah & Tushyeh, 1998; Galal, 2005; Aoun et al., 2001; Aoun et al., 2010; Asudeh, 2015).[121] To tackle first the islands of embedded RCs, observe the following constructions in which the annihilation of the [overtness] Feature of the RP is obstructed when this RP is within the island:

158. a. jaaʔa l-muʕalim-u_i llaði$_i$ ŧ-ŧullaab-u_y llaðiina$_y$ ___$_y$
came the-teacher-NOM who.NOM the-students-NOM who.NOM
yadrusuuna l-ingliiziat-a yaħtarimuuna-*hu*$_i$.
study the-English-ACC respect-*him*
'The teacher who the students who study English respect him came.'

b. *jaaʔa l-muʕalim-u_i llaði$_i$ ŧ-ŧullaab-u_y llaðiina$_y$ ___$_y$
came the-teacher-NOM who.NOM the-students-NOM who.NOM
yadrusuuna l-ingliiziat-a yaħtarimuuna ___$_i$.
study the-English-ACC respect

In the examples given above, the RC *ŧ-ŧullaab-u llaðiina yadrusuuna l-ingliiziat-a yaħtarimuuna-hu* is embedded within another heading RC whose antecedent is *l-muʕalim-u*. As evident, the RP of the main RC is a must in such a construction, and the gap leads to the utter ungrammaticality of the whole construction as evident in (158. b). This is because the higher RLP's annihilation force is prevented from percolating into the embedded RC. However, the absorption process is allowed. Also, the ungrammaticality of (158. b) is primarily and simply due to the double annihilation of both of the embedded coindexed

[121] With respect to complementizer islands, observe the following examples:

i. qaraʔtu l-kitaab-a llaði in fahima-*hu* ʔaħmad-u najaħa.
read.I the-book-ACC which.ACC if comprehended-*it* Ahmed-NOM succeeded
'I read the book which if Ahmed comprehends it, he succeeds.'

ii. *qaraʔtu l-kitaab-a llaði in fahima ___ ʔaħmad-u najaħa.
read.I the-book-ACC which.ACC if comprehended Ahmed-NOM succeeded

subject DP and object DP from within the domain of the embedded RC that this embedded RC unfairly undergoes the annihilation of the RP by the higher RLP and the annihilation of its subject by the RLP of its own, leading to the weakness of the embedded RC and consequently to the ungrammaticality of the whole construction. Thus, bi-gaps within the domain of one RC is prohibited. In addition, the compulsion of the RP coindexed with the main RLP in such a construction is also attributed to the condition of locality.

Like the Arabic examples provided above, McCloskey (2006) provides Irish RCs in which the embedded coindexed slots within the embedded RCs are filled by RPs but not by gaps. Look at the following modified examples (McCloskey, 2006: 99-100):

159. a. An fánaidhe a n-abradh daoine nár thuig *é* go
the wanderer that would-say people NEG C understood *him* that
rabh *sé* éadtrom sa cheann.
was *he* light in.the head
'The wanderer that people who didn't understand him would say that he was soft in the head.'

b. seanchasóg ar dócha go bhfuil an táilliúir a dhein *í* sa
old.jacket that probable that is the tailor that made *it* in.the
chré fadó.
earth long.ago
'An old jacket that the tailor who made it has probably been in the grave for ages.'

Turning to Arabic *wh*-islands, observe the following constructions (cf. Galal, 2005; Aoun et al., 2010):

160. a. raʔaytu l-muʕalim-a llaði saʔalatni ʔuxti *hal* ʔaħtarimu-*hu*.
saw.I the-teacher-ACC who.ACC asked.me sister.my *whether* respect.I-*him*
'I saw the teacher who my sister asked me whether I respect him.'

b. *raʔaytu l-muʕalim-a llaði saʔalatni ʔuxti *hal* ʔaħtarimu __.
saw.I the-teacher-ACC who.ACC asked.me sister.my *whether* respect.I

The ungrammaticality of the example (160. b) given above is due to the RLP's annihilation force encroaching the *wh*-island. Such a construction enforces that gaps are not allowed in such an environment. Other examples with another *wh*-element are the following:

161. a. al-kitaab-u llaði yufakiru ʕaliyy-un *maaða* yusami-*hi*
the-book-NOM that.NOM thinks Ali-NOM *what* name-*it*
'The book that Ali wonders what to name'

b. *al-kitaab-u llaði yufakiru ʕaliyy-un *maaða* yusami __
the-book-NOM that.NOM thinks Ali-NOM *what* name

A similar phenomenon of such *wh*-islands is also found in Irish. Observe the following examples, modified from McCloskey (2006: 99), which evidently manifest that the annihilation of the RPs from within the domains of the *wh*-islands headed by *cé* and *cá* (i.e. *who* and *where*, respectively) is prohibited:

162. a. na hamhráin sin nach bhfuil fhios cé a
the songs DEMON NEG C is knowledge who C
chum *iad*
composed *them*
'Those songs that we don't know who composed them'

b. teach nach n-aithneochthá cá rabh *sé*
house NEG.C recognize-COND.2nd.SG where was *it*
'A house that you wouldn't recognize where it was'

With respect to adjuncts in Arabic RCs, observe the following constructions which enforce that the annihilation of the [overtness] Feature of the RP from within the domains of adjuncts posited at the bottom of the derivation is not acceptable (cf. Suaieh, 1980; Galal, 2005; Aoun et al., 2010):

163. a. al-kitaab-u llaði najaħa ṯ-ṯaalib-u duuna ʔan yaqraʔu-*hu*
the-book-NOM which.NOM passed the-student-NOM without to read-*it*
'The book that the student passed the exam without reading it'

b. *al-kitaab-u llaði najaħa ṯ-ṯaalib-u duuna ʔan yaqraʔ ___
the-book-NOM which.NOM passed the-student-NOM without to read

Observe also the following constructions which exhibit some other adjuncts examples which have no finite [T]:

164. a. ar-rajul-u llaði ʔibtasamat ɬiflat-u-hu baʕda ruʔyyati-*hi*
the-man-NOM who.NOM smiled child-NOM-his after seeing-*him*
'The man whose child smiled after seeing him'

b. *ar-rajul-u llaði ʔibtasamat ɬiflat-u-hu baʕda ruʔyyati ___
the-man-NOM who.NOM smiled child-NOM-his after seeing ___

From the RCs above, one can notice that gaps are not allowed within adjuncts which do or do not have the finite [T] Feature in Arabic. The overtness of the RPs here is inevitable for the grammaticality of such constructions; otherwise, the ungrammaticality would be the consequence.

Turning to the islands of coordinate nodes, consider the following constructions (cf. Suaieh, 1980; Ross, 1967):

165. a. ʕaada r-rajul-u llaði qaabaltu-*hu* wa ʔaħtaram-tu-*hu.*
returned the-man-NOM who.NOM met.I-*him* and respected-I-*him*
'The man whom I met and respected has returned.'

b. ʕaada r-rajul-u llaði qaabaltu ___ wa ʔaħtaram-tu ___.
returned the-man-NOM who.NOM met.I and respected-I
'The man whom I met and respected has returned.'

166. a. *ʕaada r-rajul-u llaði qaabaltu ___ wa ʔaħtaram-tu-*hu*.
returned the-man-NOM who.NOM met.I and respected.I-*him*

b. *ʕaada r-rajul-u llaði qaabaltu-*hu* wa ʔaħtaram-tu ___.
returned the-man-NOM who.NOM met.I-*him* and respected-I

As clearly shown above, (165. a) is grammatical since the RPs fill the two embedded coindexed conjuncts. Similarly, because gaps fill the two embedded coindexed conjuncts in (165. b), the construction is grammatical (cf. Alqurashi, 2012; Ross, 1967; Szabolcsi, 2006; Fox & Nissenbaum, 1999). However, both of the examples in (166) are ungrammatical for

the RLP's annihilation force in each example encroaches the sacredness of the &P, annihilating the RP from one conjunct but not from the other.[122,123]

Regarding the CSs islands, look at the following example:

167. ʔibtasamat ṯ-ṯiflat-u llati ʕaada waalid-u-*ha*.
smiled the-child-NOM whose.NOM returned father-NOM-*her*
'The child whose father returned smiled.'

Here also, the annihilation of the [overtness] Feature of the RP out of the CS is impossible as the ungrammaticality of the following counterpart proves:

168. *ʔibtasamat ṯ-ṯiflat-u llati ʕaada waalid-u ___.
smiled the-child-NOM whose.NOM returned father-NOM

Similar examples manifesting the unacceptability of the gap presence in the CSs domains are the following:

169. a. qaabaltu r-rajul-a llaði qaraʔtu kitaab-a-*hu*.
met.I the-man-ACC who.ACC read.I book-ACC-*his*
'I met the man whose book I read.'

b. *qaabaltu r-rajul-a llaði qaraʔtu kitaab-a ___.
met.I the-man-ACC who.ACC read.I book-ACC

170. a. daxalat l-fatayyaat-u llaati ʔaħtarimu ʔabaaʔ-a-*hunna*.
came.in the-girls-NOM who.NOM respect.I fathers-ACC-*their*
'The girls whose father I respect came in.'

[122] Thanks are to Dr. Mutiia Ghaanim and Dr. Abdullah A-Sharaai and also to T. Ohood Shahrah and T. Aisha Hasan for their valuable information regarding the (un)grammaticality of such Arabic coordinated constructions.

[123] In contrast, in Hebrew, as Demirdache (1991) argues, the gap can be found in the first conjunct and bound by the 'operator' despite the presence of RP in the second conjunct. However, when the RP is in the first conjunct and the gap is in the second conjunct, the construction in this language is argued to be ungrammatical because the gap in the second conjunct is improperly bound by the RP but not by the operator and this, as Demirdache argues, violates the Condition on Variable Binding.

b. *daxalat l-fatayyaat-u llaati ʔaħtarimu ʔabaaʔ-a ___.
came.in the-girls-NOM who.NOM respect.I fathers-ACC

Clearly, no constituent (namely, the possessee) could be annihilated from within the CSs. Thus, the nullness of the RPs in the examples provided above renders the whole constructions ungrammatical. Actually, within CSs, RPs which represent the definiteness of the CSs as a whole and which also bear the Gen Case are significant and indispensable for the grammaticality of the concerned structures; otherwise, the derivation will crash (Galal, 2005). At a simple level of the CSs derivation, the following examples elucidate the necessity of RPs:

171. a. baiyt-u r-rajul-i l-qadiim-u
house-NOM the-man-GEN the-old-NOM
'The man's old house'

b. * baiyt-u ___ l-qadiim-u
house-NOM the-old-NOM

As evident, *l-qadiim-u* shares *baiyt-u* not only the Case but also the [DEF] Feature. Actually, the Gen noun *r-rajul-i* which is the basic reason behind the definiteness of the noun *baiyt-u* must appear in such an environment. So that, to remedy (171. b) when being in the RC, the RP should be overt, as follows:

172. baiyt-u-*hu* l-qadiim-u
house-NOM-*his.GEN* the-old-NOM
'His old house'

Thus, the significance of the presence of the RP *-hu* as evident from the example above lies on its very underlying function signifying both its Gen Case and the definiteness of the antecedent noun. If the RP is null, the derivation, thus, crashes.

A similar case for the obligatory presence of RPs within CSs is in Hebrew, too, as the following example taken and modified from Galal (2005: 146) shows:

173. ha-ʔiʃ she raʔiti ʔet ʔiʃt-*(o)
the-man that (I).saw ACC wife-(his)
'The man whose wife I saw'

With respect to PPs, Arabic, like Spanish, Italian, Irish, Swiss German and Hebrew, as a matter of fact, does not allow the preposition stranding (cf. Suaieh, 1980; Galal, 2005; Riemsdijk, 1989; Salzmann, 2009; Aoun et al., 2010).[124] Accordingly, the annihilation of the [overtness] Feature of the RP is not allowed. Consider the following examples which contain the prepositions *ʕan* and *ʔila* (viz. *about* and *to*, respectively) within the grammatical domains of which are fundamentally the embedded coindexed DPs in the form of the italicized RPs:

174. a. qaabaltu l-fataat-a llati ħadaθani ʕaliyy-un ʕan-*ha*.
met.I the-girl-ACC who.ACC told.me Ali-NOM about-*her*
'I met the girl whom Ali told me about.'

b. *qaabaltu l-fataat-a llati ħadaθani ʕaliyy-un ʕan ____.
met.I the-girl-ACC who.ACC told.me Ali-NOM about

175. a. jaaʔa r-rajul-u llaði katabtu r-risaalat-a ʔilayy-*hi*.
came the-man-NOM who.NOM wrote.I the-letter-ACC to-*him*
'The man to whom I wrote the letter came.'

b. *jaaʔa r-rajul-u llaði katabtu r-risaalat-a ʔila ____.
came the-man-NOM who.NOM wrote.I the-letter-ACC to

176. a. daxalat l-fatayyaat-u llaati kakabtu r-risaalat-a ʔilay-*hunna*.
came.in the-girls-NOM who.NOM wrote.I the-letter-ACC to-*them*
'The girls to whom I wrote the letter came in.'

b. *daxalat l-fatayyaat-u llaati kakabtu r-risaalat-a ʔila ____.
came.in the-girls-NOM who.NOM wrote.I the-letter-ACC to

Observing the examples above closely, the prepositions *ʕan* and *ʔila* need to check their assigned Gen Cases so that the nullness of the RPs is not permitted and hence gaps render the given constructions ungrammatical (cf. Galal, 2005). That is, the obligatory presence of RPs within PPs, as Galal (2005) puts forward, can be accounted for in terms of Case checking. Rather, if there are no RPs but gaps, such a Gen Case stays unchecked that the derivation diverges and the improper constructed clause crashes at the interfaces.

[124] This account here is similar to a great extent with the earlier discussion of Arabic indirect objects.

To illustrate for PP islands in Hebrew, look at the following examples cited in Galal (2005: 134):

177. a. ha-ʔiʃ ʃe rakadti *ʔim —/ʔit-*o*
the-man that I.danced *with —/with-*him* [taken from Sells (1984:64)]

b. ha-yeled$_i$ ʃe rina xaʃva ʔal-*av*$_i$
the-boy$_i$ that Rina thought about-*him*$_i$
'The boy that Rina thought about' [taken from Borer (1984b: 220)]

Another associated account for the obligatory presence of the RPs within the domains of the PPs is that the Head-Complement relation between the prepositions and their complements in Arabic (as it is also the case in Spanish, Italian, Irish, Swiss German, French and Hebrew, to mention but few) is, presumably, so tight and absolute that the annihilation force of the RLP there could not do its work properly. The incorporated (i.e. contracted) forms of the prepositions with their complement DPs in Arabic and French, for instance, can be considered a piece of evidence. In the following examples, the first ones in (178) are from standard and dialectal Arabic, respectively, while the other ones in (179) are from French:

178. a. ʕala l-ħaaʔitˤi
on the-wall

b. ʕalħaaʔitˤ
on.the.wall
'On the wall'

179. a. a + le *=au*
to/at + the.SG

b. a + les =aux
to/at + the.PL

4.5. Long Distance Relativization

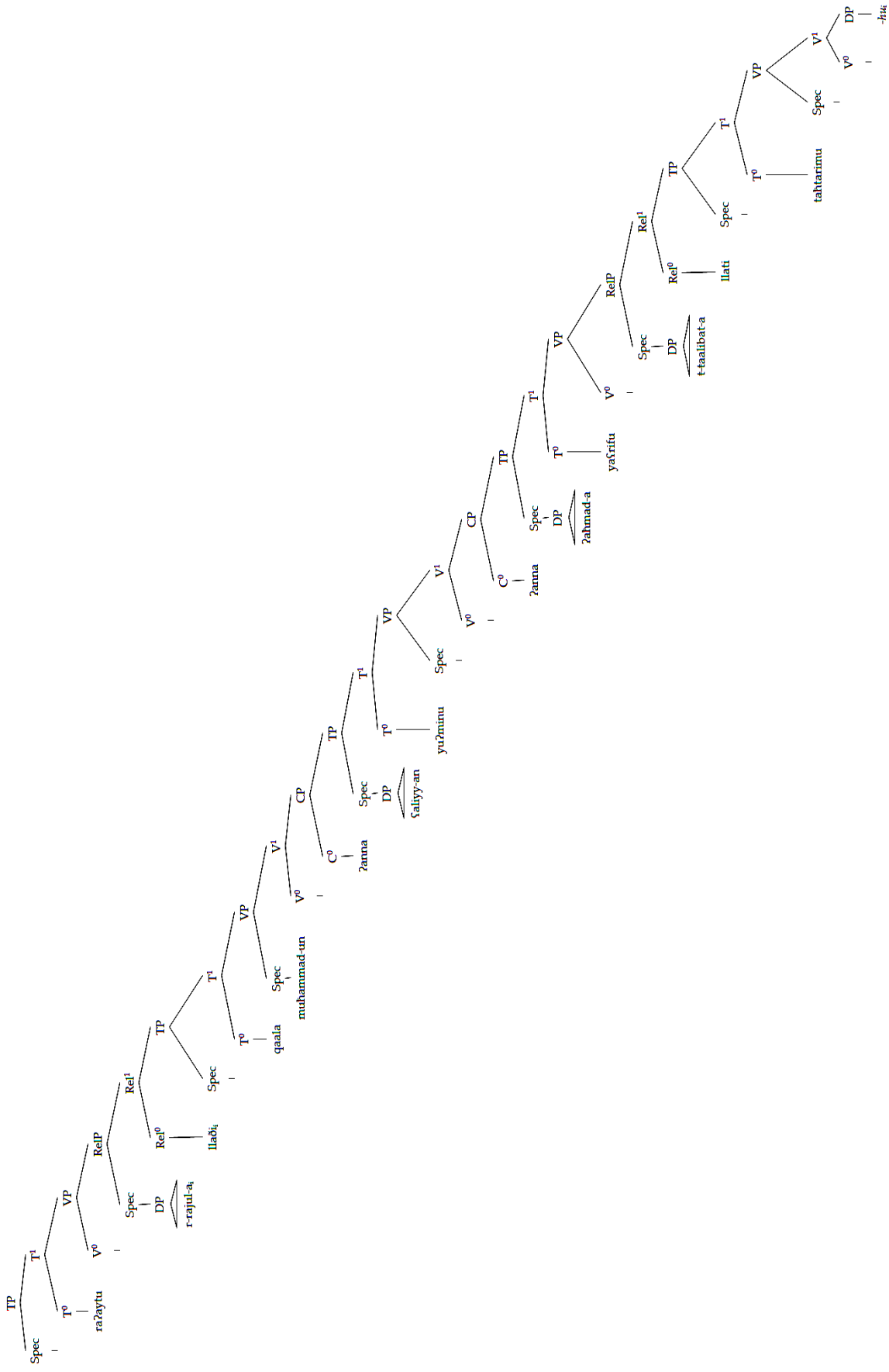
Given the two main potential accounts for analyzing LDR in Ch. III, § 5, let us apply the approved account of Shormani (2017b) fundamentally in terms of the Feature sharing mechanism. First, observe the following constructions whereby the RLP in each example is separated from its embedded coindexed DP by a number of intervening clauses:

180. a. ʔistaqaala l-waziir-u$_i$ llaði$_i$ şaddaqtu zaʕma ʕaliyy-in ʔanna
resigned the-minister-NOM who.NOM believed.I claim Ali-GEN that
1-marʔat-a llati ʔaħabbat-*hu*$_i$ ʔintaħarat.
the-woman-ACC who.ACC loved-*him* committed.suicide.she
'The minister that I believed Ali's claim that the woman who loved him committed suicide resigned.' (slightly modified from Suaieh (1980:184))

b. raʔaytu r-rajul-a$_i$ llaði$_i$ qaala muħammad-un ʔanna ʕaliyy-an
saw.I the-man-ACC who.ACC said Mohammed-NOM that Ali-ACC
yuʔminu ʔanna ʔaħmad-a yaʕrifu ṯ-ṯaalibat-a llati taħtarimu-*hu*$_i$.
believes that Ahmed-ACC knows the-student-ACC who.ACC respects-*him*
'I saw the man who Mohammed said that Ali believes that Ahmed knows the student who respects him.'

Let us tackle the example (180. b) as a representative for the analysis of the Arabic LDR. Let us first diagram the concerned construction, as in (181):

181.


TP
Spec
T⁰
raʔaytu
T¹
VP
Spec
DP
r-rajul-a$_i$
V⁰
RelP
Rel⁰
llaðī$_i$
Rel¹
TP
Spec
T⁰
qaala
T¹
VP
Spec
muhammad-un
V⁰
V¹
CP
C⁰
ʔanna
TP
Spec
DP
ʕaliyy-an
T⁰
yuʔminu
T¹
VP
Spec
V⁰
V¹
CP
C⁰
ʔanna
TP
Spec
DP
ʔaḥmad-a
T⁰
yaʕrifu
T¹
VP
Spec
DP
t-taalibat-a
V⁰
RelP
Rel⁰
llati
Rel¹
TP
Spec
T⁰
taḥtarimu
T¹
VP
Spec
V⁰
V¹
DP
-hu$_i$

Depicting the nature of the LDR of the given construction, by the selection and merge of the embedded coindexed DP, which is basically *rajul-an*, the embedded coindexed DP *per se* comes out of the lexicon with interpretable valued ϕ-Features but with an uninterpretable unvalued [Rel] Feature (and also uninterpretable unvalued [Spf] Feature). The derivation proceeds on, and the verb *taħtarimu* merges with an uninterpretable unvalued [Rel] and interpretable unvalued ϕ-Features. Then, the subject *ṯ-ṯaalibat-u* merges with an uninterpretable unvalued [Rel] Feature but with interpretable valued ϕ-Features. Once the RLP *llati* merges into the Rel^0 slot, the unvalued [Rel] Feature of the embedded coindexed subject DP *ṯ-ṯaalibat-u* gets valued and its Features get absorbed and annihilated, leaving a gap behind. Also, the unvalued ϕ-Features of the RLP *llati* get valued. Then, the antecedent DP *ṯ-ṯaalibat-a* merges into Spec-RelP. Till this stage, however, the unvalued [Rel] Feature of the embedded coindexed DP *rajul-an* is still unvalued. After that, the verb *yaʕrifu*, the subject *ʔaħmada* and the complementizer *ʔanna* merge. The same algorithmic derivation recursively occurs regarding the construction of the clause *ʔanna ʕaliyy-an yuʔminu*. The phases already constructed are transferred normally to the interfaces though the [Rel] Features of the embedded coindexed DP and of the intervening verbs are still unvalued; all of them could be assumed to be linked together forming a permanent link. The subject DP *muħammad-un* and the verb *qaala*, then, merge. Now, the higher dominating RLP *llaði* significantly merges with an interpretable valued [Rel] Feature, sharing its value with all the entities which have the unvalued [Rel] Features in the formed chain of the permanent link. The antecedent DP *r-rajul-a* merges in Spec-RelP. Here, following Shormani (2017b), I argue that the phases are sent to the two interfaces once they are constructed and that *Agree* takes place somehow later on since the phase transfer is not tightly constrained by it.

Actually, the phenomenon of LDR is found also in other languages such as French. Observe the following construction:

182. J'ai vu l'homme$_i$ que$_i$ Ali dit que Ahmed respecte l'etudiante
I.PAST see the.man who Ali says that Ahmed respects the.student
que la professeure sait que Mohammed *l'*a rencontré.
that the professor knows that Mohammed *him*$_i$.PAST meet
'I saw the man who Ali says that Ahmed respects the student that the professor knows that Mohammed met him.'

In effect, the same account given above can be applied to the French LDRed construction in (182).

4.6. Reduced Relative Clauses

As a matter of fact, the strong interaction between the indefiniteness of the antecedent DP and the nullness of the RLP in Arabic has no major role in determining whether the RC is full or reduced. Actually, what determines that is presumably the finite [T] Feature. When this finite [T] Feature is null, the whole RC is necessarily rendered into a reduced RC. This is clearly manifested in the following illustrations:

183. a. qaraʔtu *l-kitaab-a* *llaði* *tufaḍiluhu*.
read.I *the-book-ACC* *which.ACC* *you.prefer.it*
'I read the book that you prefer.'

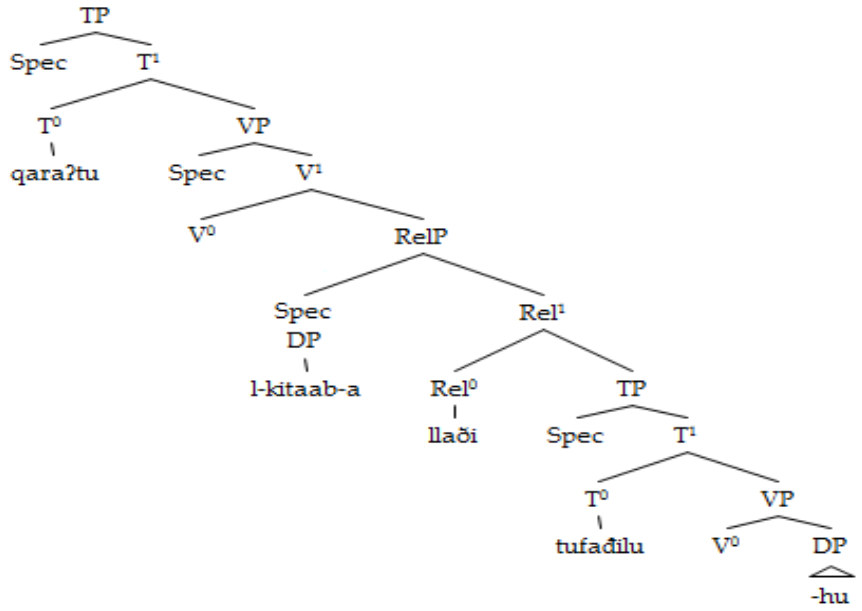
b. qaraʔtu *kitaab-an* *tufaḍiluhu*.
read.I *book-ACC.INDEF* *you.prefer.it*
'I read a book that you prefer.'

184. a. qaraʔtu *l-kitaab-a* *l-mufaḍala.*
read.I *the-book-ACC* *the-preferred*
'I read the preferred book.'

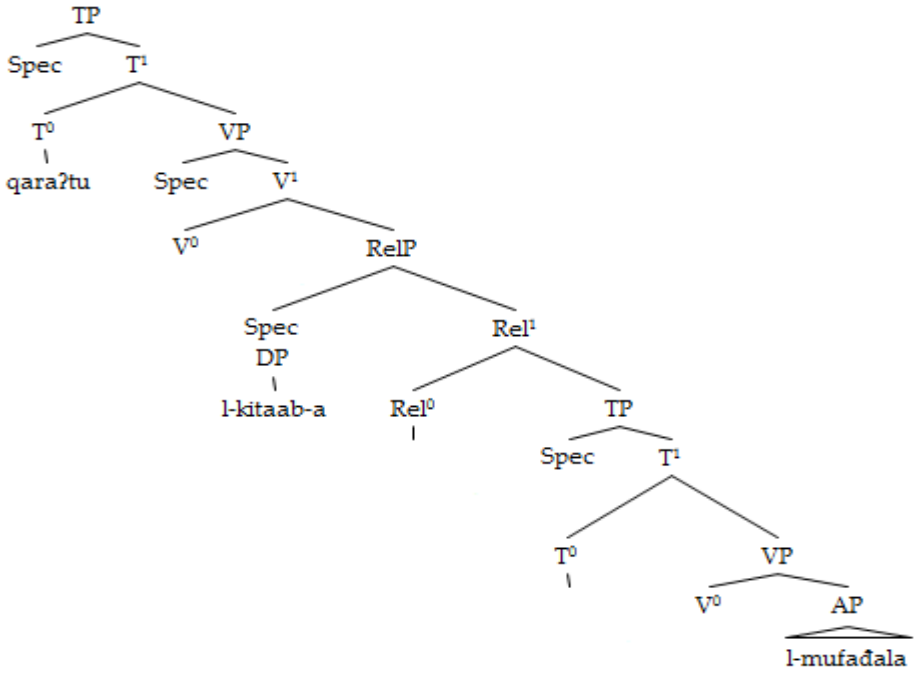
b. qaraʔtu *kitaab-an* *mufaḍalan.*
read.I *book-ACC.INDEF* *preferred.INDEF*
'I read a preferred book.'

The definite and indefinite RCs in (183. a & b) can be argued to be full RCs since the finite [T] Feature in each construction is still overt. However, in (184. a & b), the matter differs due to the nullness of the finite [T] Feature; these constructions are rendered into reduced RCs. As manifested in Ch. III, § 6, the representational formats of both of the reduced RCs and the full ones are presumably similar. Observe, for example, the following diagrams in (185 & 186) representing the examples (183. a) and (184. a), respectively:

185.



186.



Given that reduced RCs have a parallel semantic interpretation with full RCs save that, with the former, the finite [T] Feature and the RLP are null, the (in)definiteness and the Case of the antecedent DP in Arabic are generally spread to the AP remnant within the reduced RC. To clarify that, observe the following constructions:

187. a. daxalat *l-fataat-u* *l-jamiilat-u.* (*definite*)
came.in *the-girl-NOM* *the-beautiful-NOM*
'The beautiful girl came in.'

b. daxalat *fataat-un* *jamiilat-un.* (*indefinite*)
came.in *girl-NOM.INDEF* *beautiful-NOM.INDEF*
'A beautiful girl came in.'

Evidently, the [+/-DEF] Feature is shared between the antecedent DPs and the APs following them. Hence, the given APs get a [+DEF] Feature when the antecedent DPs have a [+DEF] Feature, as in the example (187. a) above, and they get an [INDEF] Feature when the antecedent DPs have an [INDEF] Feature, as illustrated in the example (187. b) above. Actually, the [+/-DEF] Feature is distributed to the adjectives following them which widely include the categories of *ʔisma l-faaʕil* (i.e. present participle) and *ʔism l-mafʕuul* (viz. past participle).[125] However, when the constituents following the antecedent DPs in reduced RCs are not APs but AdvPs or PPs, there is no overt agreement between them and the antecedent DP concerning the [+/-DEF] Feature. Look at the following examples:

188. a. jaaʔa ***ṯ-ṭaalibu*** ***l-mutaħadiθu*** *t-turkiyata.*
came ***the-student*** ***the-speaking*** *the-Turkish*
'The student speaking Turkish came.'

b. jaaʔa *ṭaalibu**n*** *mutaħadiθu**n*** *t-turkiyata.*
came *student.**INDEF*** *speaking.**INDEF*** *the-Turkish*
'A student speaking Turkish came.' (*present participles as APs*)

189. a. jaaʔa ***ṯ-ṭaalibu*** ***l-maltuuma*** l-wajhi.
came ***the-student*** ***the-slapped*** the-face
'The student whose face is slapped came.'

b. jaaʔa *ṭaalibu**n*** *maltuuma* l-wajhi.
came *student.**INDEF*** *slapped.INDEF* the-face
'A student whose face is slapped came.' (*past participles as APs*)

[125] To have a view on the formation rules of *ʔisma l-faaʕil* and *ʔisma l-mafʕuul* in Arabic, see Al-Raajihi (2004) and Al-Hemiary et al. (2009).

190. a. ***aṯ****-ṯaalibu* *hunaa* yataħadaθu ʔarbaʕat-a luγaatin.
the*-student* *here* speaks four-ACC languages
'The student here speaks four languages.'

b. *ṯaalibu****n*** *hunaa* yataħadaθu ʔarbaʕat-a luγaatin.
*student.****INDEF*** *here* speaks four-ACC languages
'A student here speaks four languages.' (AdvP)

191. a. ***aṯ****-ṯaalibu* *mina* *l-hindi* kataba r-risaalata.
the*-student* *from* *the-India.GEN* wrote the.letter.ACC
'The student from India wrote the letter.'

b. *ṯaalibu****n*** *mina* *l-hindi* kataba r-risaalata.
*student.****INDEF*** *from* *the-India.GEN* wrote the.letter.ACC
'A student from India wrote the letter.' (PP)

4.7. Extraposition

To investigate the possibility of the phenomenon of extraposition in Arabic RCs seems complicated. Putting in mind the four accounts given in Ch. III, § 7, let us first consider the following examples:

192. a. jaaʔa ʔamsi r-rajul-u llaði kataba d-dars-a.
came yesterday the-man-NOM who.NOM wrote the-lesson-ACC
'The man who wrote the lesson came yesterday.'

b. *jaaʔa r-rajul-u ʔamsi llaði kataba d-dars-a.
came the-man-NOM yesterday who.NOM wrote the-lesson-ACC

In the examples above, the example (192. a) is grammatical. In contrast, (192. b) in which the RC *llaði kataba d-dars-a* is extraposed is ungrammatical. It is ungrammatical simply since the AdvP *ʔamsi* intervenes between the antecedent DP *r-rajul-u* and the RLP *llaði*. That is, the antecedent DP and the RLP should be adjacent to one another that no extraposition is allowed.[126]

[126] In constructions like the following, the sequencing of the constituents is not appropriate. That is, the position of the AdvP *ʔamsi* at the final position in the given construction leads to ambiguity. It is ambiguous whether this AdvP goes back to the verb *jaaʔa* or to the verb *kataba*:

Similarly, following Alqurashi (2012), I argue that extraposition cannot be also in Arabic FRCs. To make such a point clearer, observe the following example:

193. ʔaħabba ṯ-ṯifl-u *biʃiddatin* llaði kataba l-qiṣat-a.
loved the-child-NOM very.much who wrote the-story-ACC
'The child loved who wrote the story very much.'

In analogy with the impossibility of extraposition in full Arabic RCs, and following Alqurashi (2012), the FRC in (193) above is not a sort of extraposition but a sort of complexity where the FRC along with its unrealized antecedent DP occupies a 'noncanonical position'.

With regard to reduced RCs, however, observe the following examples which represent definite and indefinite reduced RCs, respectively:

194. a. al-fataat-u l-ħasnaaʔ-u tarsumu ṣuurat-an.
the-girl-NOM the-beautiful-NOM draws picture-ACC.INDEF
'The beautiful girl draws a picture.'

b. *al-fataat-u tarsumu ṣuurat-an l-ħasnaaʔ-u.
the-girl-NOM draws picture-ACC.INDEF the-beautiful-NOM

195. a. fataat-un jamiilat-un tarsumu ṣuurat-an.
girl-NOM.INDEF beautiful-NOM.INDEF draws picture-ACC.INDEF
'A beautiful girl draws a picture.'

b. *fataat-un tarsumu ṣuurat-an jamiilat-un.
girl-NOM.INDEF draws picture-ACC.INDEF beautiful-NOM.INDEF

As evident from the examples above, the extraposition of the reduced RCs in (194. b) and (195. b) renders the whole constructions ungrammatical.[127] Thus, all in all, extraposition of full RCs, FRCs and also reduced RCs is evidently not permitted in Arabic.

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i. ? jaaʔa r-rajul-u llaði kataba d-dars-a ʔamsi.
came the-man-NOM who.NOM wrote the-lesson-ACC yesterday

[127] Constructions like the following, which permit extraposition, are not reduced RCs; actually, they are widely known as '*l-ħaal*' and they are always marked with the Acc Case:

3.8. Conclusion

This chapter has been devoted for Arabic relativization. It has practically exposed the proposed RelP projection, primarily by applying it to Arabic RCs. It has also exposed the nature of RPs' and gaps' formation and the phenomenon of LDR. Furthermore, it has tackled the nature of reduced RCs. It has also manifested how the phenomenon of extraposition is not possible in Arabic.

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i. muħammad-un *mubtasim-an* kataba r-risaalat-a fi l-maktabat-i.
Mohammed-NOM *smiling-ACC* wrote the-letter-ACC in the-library-GEN

ii. muħammad-un kataba r-risaalat-a fi l-maktabat-i *mubtasim-an.*
Mohammed-NOM wrote the-letter-ACC in the-library-GEN *smiling-ACC*
'Smiling, Mohammed wrote the letter at the library.'

Chapter V

UG Parameterization and Conclusions

5.1. Introduction

This chapter concludes the study. The following section presents the UG parameterization in English and Arabic RCs. Then, the findings of the study as a whole are presented. After that, the conclusions of the study are exposed. Finally, related questions and suggestions for further researches are presented.

5.2. Universal Grammar Parameterization

Known that UG and I-language determined by the three interacting factors of the genetic endowment, environment experiences and cross-linguistic principles are the main focus of recent researches (cf. Chomsky, 2005, 2008), and based on the study's proposal of the RelP projection and the base-generation analysis to account for RCs in English and Arabic, this section presents the UG parameterization in terms of the phenomenon of relativization in the languages in question. In this section, I adopt a comparative analysis to compare between the RCs in English and Arabic.

In effect, relativization is universal but this universality is parameterized. Actually, to handle the phenomenon of relativization in both English and Arabic languages seems to be more intricate than assumed. However, let us follow Chomsky's (2001: 2; see also Miyagawa, 2005: 230) 'Uniformity Principle' which states that "[i]n the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances." Based on this principle, I first present the similarities between the two languages from the perspective of the relativization phenomenon.

The remarkable similarity between the two languages presumably lies on the CP-split cartography employed to formulate RCs in both languages. With this cartography, the English and Arabic antecedent DPs and the RLPs are argued to be base-generated in Specs-RelPs and in Rel^0s, respectively. Also, the (full) RCs in the two languages are linearly post-nominals. Moreover, with regard to the RLPs in both languages, they always have the [3^{rd} person] Feature, and these RLPs, as argued, have absorption and annihilation forces remarkably on the embedded coindexed DPs, depending on the latters' environment and locality (see Ch. III, § 2 and Ch. IV, § 2). Furthermore, in both languages, there are RCs

which have the finite [T] Feature and RCs which do not have it. The RCs which have such [T] Features are full RCs whereas those which do not have such Features are reduced RCs (see Ch. III, § 6 and Ch. IV, § 6). Further, there are free RLPs whereby there can be no antecedent DP, and these free RLPs are *what* and sometimes *who* in English and *man* and *maa* in Arabic (see Ch. III, § 2 and Ch. IV, § 2).

With regard to the parametric differences of relativization in the concerned languages, when the RC in English has a definite (or even indefinite) antecedent DP and has a finite [T] Feature, the RLP is optionally overt. The nullness of the RLP here does not render the construction ungrammatical any way. On the contrary, in Arabic, the RLP in the RC whose antecedent DP is definite and whose complement has the finite [T] Feature must be overt while the RLP either in the indefinite RC or in the RC which lacks the finite [T] Feature must have a null realization. For clarification, observe the following examples:

196. a. The book that you read is mine.
b. The book you read is mine.

197. a. A book that Ali read is here.
b. A book Ali read is here.

198. a. al-kitaab-u llaði qaraʔtuhu mufiidun.
the-book-NOM which.NOM read.I.it useful
'The book that I read is useful.'

b. *al-kitaab-u qaraʔtuhu mufiidun.
the-book-NOM read.I.it useful

199. a. kitaab-un qaraʔtuhu
book-NOM.INDEF read.I.it
'A book I read'

b. *kitaab-un llaði qaraʔtuhu
book-NOM.INDEF which.NOM read.I.it

Thus, given that the nullness of the finite [T] Feature leads to the nullness of the RLP in both languages, and that no syntactic dependency is there between the presence of the RLP and the (in)definiteness of the antecedent DP in English RCs, there is, however, a tight

dependency between the [INDEF] Feature of the antecedent DP and the nullness of the RLP in Arabic RCs.

Moreover, there is a parametric variation in terms of *Agree* mainly regarding the RLP's Case. That is, *Agree* here is bi-directional depending on the language. In English, it is rightwards; the RLP's Case evidently matches and agrees with the embedded coindexed DP's. In Arabic, however, it is leftwards; the RLP's Case is in apparent agreement with the Case of the antecedent DP. To concretize this point more, consider first the following English and Arabic examples:

200. a. I saw the man who ___ speaks Turkish.
[NOM] [NOM]

b. I saw the man whom I respect ___.
[ACC] [ACC]

201. a. al-fataataani llataani katabataa r-risalaat-a
the-girls.F.DL.NOM who.F.DL.NOM wrote.F.DL the-letter-ACC
'The two girls who wrote the letter'

b. raʔaytu l-fataatayni llatayni katabataa r-risalaat-a.
saw.I the-girls.F.DL.ACC who.F.DL.ACC wrote.F.DL the-letter-ACC
'I saw the two girl who wrote the letter.'

Noteworthy stating that, in English, Case is unmarked except with *whom* and *whose* which represent the Acc and Gen Cases, respectively. However, in Standard Arabic, it is marked with the dual RLPs by secondary markers, but not with the singular RLPs *llaði* and *llati* since their end *i* cannot co-occur with the other Case markers due to what is called by the Arab grammarians as *θ-θiqal*, meaning, there is a restriction difficulty in pronunciation. Case is also unmarked with the Standard Arabic plural RLPs.[128]

In addition, in English, the RLPs generally bear the distinguishing overt Feature [+/-animate] shared with the embedded coindexed DP. Arabic RLPs, in contrast, do not bear such a distinguishing Feature overtly. Nevertheless, they, unlike the English ones, bear overt Num and Gender Features. For deeper comprehension, observe the following table:

[128] However, in old nonstandard Arabic, plural RLPs like *llaðuuna* and *llawaati* represent the Nom counterparts of the Acc RLPs *llaðiina* and *llaaʔi*.

202.

Number / **Gender**	**Masculine**	**Feminine**
Singular	llaði	llati
Dual	llaðaani, llaðayni	llataani, llatayni
Plural	llaðiina	llaati

With regard to reduced RCs, there is also another difference. In contrast with the post-nominal adjectives in English RCs, which are generally and parametrically not accompanied with articles as manifested in (203 & 204) below, the (in)definiteness of the antecedent DPs in the Arabic reduced RCs gets shared with the complement adjectives of the reduced RCs due to the inclination of Arabic adjectives to be definitized via bearing the [+/-DEF] Feature as exemplified in (205) below:

203. a. The man present
b. *The man the present

204. a. A man present
b. *A man a present

205. a. al-fataat-u **l**-jamiilat-u
the-girl-NOM **the**-beautiful-NOM
'The beautiful girl'

b. fataat-un jamiilat-u**n**
girl-NOM.INDEF beautiful-NOM.**INDEF**
'A beautiful girl'

Concerning gaps vs. RPs, the annihilation force in English RCs does not allow the embedded coindexed DPs to be *pro*s but only gaps. However, in Arabic, *pro*s, which are embodied by the agreement markers mainly of Gender and Num, and also gaps are both allowed and this might be attributed to Arabic which is widely considered a rich inflectional language. Observe the following examples:

206. a. The student who respects Shormani Sir
b. The students who respect Shormani Sir

207. a. al-fataat-u llati ***pro*** *taktubu* r-risaalat-a
the-girl.F.SG-NOM who.SG.F writes.F.SG the-letter-ACC
'The girl who writes the letter'

b. at-tullaab-u llaðiina ***pro*** *yaktubuuna* r-risaalat-a
the-students.M.PL-NOM who.M.PL write.M.PL the-letter-ACC
'The students who write the letter'

Moreover, RPs in local embedded coindexed object DP slots are not preferred, but in Arabic, the embedded coindexed object DP slots can be filled by either RPs or gaps (see e.g. 99 in Ch. III, § 3 and e.gs. 141 & 156 in Ch. IV, § 2 and § 3). Furthermore, in contrast to the case in English, RPs in Arabic are obligatorily overt in the slots of embedded coindexed indirect object DPs and also in the slots of embedded coindexed complements of prepositions (see e.g. 112 in Ch. III, § 4 and e.gs. 174, 175 & 176 in Ch. IV, § 3 and § 4). More further, *wh*-islands in English are weak and selective. That is, when the *wh*-clause has the finite [T] Feature, the annihilation force is not allowed and, hence, the gap does not surface, but when the *wh*-clause does not have that [T] Feature, the annihilation of the [overtness] Feature of the embedded coindexed DP is facilitated and, thus, the gap appears (see e.gs. 102 & 103 in Ch. III, § 4). However, Arabic *wh*-clauses being always tensed are absolute so that they necessarily do not accept the percolation of the annihilation force to the embedded coindexed DPs within their domains (see e.gs. 160 & 161 in Ch. IV, § 4); and this is presumably because of the consistent finiteness of the *wh*-clauses (viz. the presence of the finite [T] Features within *wh*-clauses) in Arabic.

5.3. Findings

The study at hand comes up with the findings given below. In effect, the questions posited in Ch. I are repeated here for convenience and, then, they are answered, one by one.

(1) From the viewpoint of Phase Theory, how can valuation take place among the Features of the RLP, the antecedent DP and the RP primarily in English and Arabic?

It is assumed that the RLP comes out of the lexicon with interpretable valued [Rel] and [Spf] Features, but with (un)interpretable unvalued ϕ-Features and unvalued Case, while the antecedent DP and the RP conversely come with interpretable valued ϕ-Features but with uninterpretable unvalued [Rel] and [Spf] Features. Primarily by means of the mechanisms of

the permanent link and the Feature sharing, each of the unvaled ϕ-Features of the RLP along with the matching unvalued Features of the embedded verb gets linked to one another constituting one probe searching for a matching valued goal. Based on that, the value of each of the ϕ-Features of the RP values all the unvalued entities included within the link. Similarly, the RP's and the antecedent DP's unvalued [Rel] and [Spf] Features get valued by the RLP's matching valued ones.

(2) Why should the projection of RCs be distinct from the ForceP projection of interrogative constructions?

In the study at hand, RCs are argued to have a distinct projection, labelled as RelP, different from the ForceP projection and this is primarily due to a number of reasons. First, interrogative *wh*-elements in the ForceP projection are essentially endowed with the [Q] Feature along with the [-Person], [-Num], [-DEF], [+Spf] and [+Overtness] Features while RLPs intrinsically have the [Rel] Feature along with the [+Person], [+Num], [+DEF], [+Spf] and [-/+overtness] Features. Second, in interrogative constructions, the interrogative *wh*-elements *per se* satisfy the requirements of the slots that select them. On the contrary, RCs as a whole—and not only the RLPs—satisfy the requirements of the slots that select them. Third, interrogative constructions can be mono-clausal structures. In contrast, RCs are necessarily embedded within other matrix constructions, forming at minimum bi-clausal structures. Fourth, they both are different in terms of coindexation. In interrogative constructions which have RPs, coindexation is maximally held between two entities—the interrogative *wh*-element and the RP in each. However, coindexation in RCs holds among three entities whereby the RLP relates between the antecedent DP and the RP. Fifth, on the contrary to the interrogative *wh*-elements, RLPs, as I argue, participate in the valuation of the embedded coindexed DP's and antecedent DP's Features. Sixth, in interrogative constructions, there is a subject-auxiliary inversion. However, this is not the case in RCs. Finally, interrogative *wh*-elements and RLPs can be found adjacent to one another in the very same clause. Thus, these reasons enforce the assumption that interrogative constructions and RCs do have different projections.

(3) Why are the RPs and most of the antecedent DPs in the English and Arabic RCs characterized with the [DEF] and [Spf] Features?

This is primarily because of the RLPs' valued [DEF] and [Spf] Features which are shared with the RPs and most of the antecedent DPs. As I have argued, the definiteness of the embedded coindexed DP is also due to the RLP's absorption force. Though the embedded coindexed DP initially comes out of the lexicon with a [nominal] Feature, as I have assumed, the RLP could absorb such a Feature, transforming it into a [-nominal]/[pronominal] Feature. Hence, the embedded coindexed DPs become definite and also specified.

(4) In Arabic and English, how can we account for the obligation of RPs within islands and the general disapproval of those pronouns elsewhere especially in subject positions? Put in other words, following Aoun et al.'s (2001: 373), what is the justification behind the phenomenon that "apparent resumption does block the use of true resumptive elements within nonislands"?

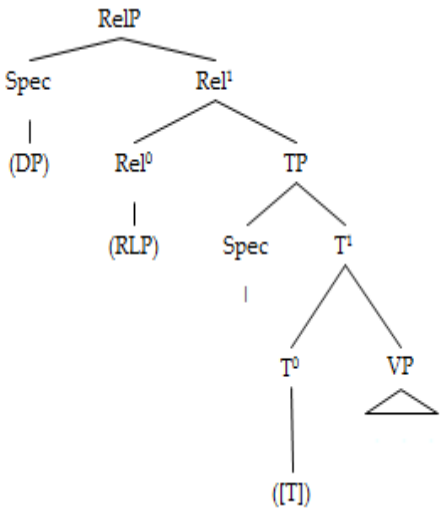
The obligation of RPs within islands is ascribed to the prohibition of the annihilation of the RP's [overtness] Feature. Put in other words, though the RLP's absorption force is accessible to the embedded coindexed DP even if it is within an island, the RLP's annihilation force could not encroach the sacredness of islands. Based on that, the overtness of the embedded coindexed DP is retained and thus true resumption surfaces. However, when the local embedded coindexed DP is out of islands, both of the RLP's absorption and annihilation forces are in effect. The annihilation force renders the embedded coindexed DP into a gap or sometimes into apparent resumption as it is the case with the alternation of the gap/resumption presence in the slots of embedded coindexed direct object DPs.

5.4. Conclusions

In the study at hand, I have proposed a new strategy held in the derivation of RCs in English and Arabic languages, substituting the old strategies of the matching analysis, whereby the *'wh*-relative' is assumed to raise higher to Spec-CP (or even to C^0 *per se*), and the promotion analysis, in which the antecedent DP is argued to be a raised NP/DP out of a Big-DP. The proposed strategy is based on the base-generation analysis which is adherent with the economy and simplicity concepts of minimalism, whereby the RLP and the antecedent DP are assumed to base-generate in Rel^0 and Spec-RelP, respectively.

In effect, the study at hand has highlighted the Features that generally distinguish between RCs and interrogative constructions in English and Arabic. For interrogative constructions, the *wh*-elements within the ForceP projection broadly bear the [+Q], [-Person], [-Num], [-DEF] and [+Overtness] Features. However, for RCs, the RLPs in Rel^0s intrinsically bear the [+Person], [+Num], [DEF], [+Rel] and [+/-overtness] Features. So that, I have postulated that RPs coindexed with RLPs essentially have [Rel] Features while RPs in interrogative constructions have [Q] Features. Actually, due to the distinction between RCs and interrogative constructions, I have assumed that, rather being merely a [Rel] Feature relation, RCs have an exclusive and distinct CP-split projection, different from the ForceP projection of the interrogative constructions. I have labelled this projection as the RelP projection. The RelP projection generally has the format given in (73. b) in Ch. II, § 4, repeated here in (207) for convenience:

207.



In essence, I have assumed that the RLP comes out of the lexicon with interpretable valued [Rel] and [Spf] Features, valuing the matching unvalued counterparts of the node Rel^0 and valuing also the matching unvalued Features of the embedded coindexed DP and the antecedent DP. Bearing (un)interpretable unvalued ϕ-Features, however, the RLP gets those ϕ-Features valued by means of *Agree* with the matching interpretable valued Features of the embedded coindexed DP and the antecedent DP. Thus, by the merge of the RLP, the valuation of the (un)interpretable unvalued [Rel] and [Spf] Features and also ϕ-Features gets fulfilled. Actually, the valuation of the antecedent DP's, the RLP's and the embedded coindexed DP's Features are held primarily by means of the Feature sharing mechanism by which the values of the concerned Features on the goals get shared among the corresponding probes which have the matching unvalued Features. In addition, the definiteness of the

embedded coindexed DPs in English and Arabic RCs, as I argue, is attributed to the [DEF] Feature of the RLPs and to the RLPs' absorption force. However, the specificity of the antecedent DPs and the embedded coindexed DPs is attributed to the RLPs' [Spf] Feature which is assumed to be a by-product Feature of the RLPs' [Rel] Feature. Based on the process of coindexation, I have assumed that the RLP's [Spf] Feature is enabled to attribute to the existence of specified antecedent DPs.

With respect to the nature of the RP, I have argued that the embedded coindexed DP does not generate from the lexicon directly as an RP, but, rather, as a full indefinite DP with [+nominal] and [INDEF] Features. Nevertheless, once the RLP is merged, the embedded coindexed DP's [+nominal] and [INDEF] Features get absorbed by the RLP that they become [+pronominal] and [+DEF], and this is essentially attributed to the RLP's intrinsic [+pronominal] and [+DEF] Features along with its absorption force. In effect, this goes in line with my proposed view of RLPs as Bermuda-Triangle-like entities, embodying the forces of absorption and annihilation whereby the absorption force is primarily to absorb the [+nominal] and [INDEF] Features of the embedded coindexed DP which merges initially as a full indefinite DP and thus to pronominalize it. Such a force is mainly applied to the embedded coindexed DPs either in or out of islands. The annihilation force, on the other hand, is to annihilate the [overtness] Feature of the embedded coindexed DPs when being local and out of islands, rendering them gaps. Hence, pronominalization within RCs, as I assume, is not held directly between the RPs and the antecedent DPs as in usual cases, but by means of the RLPs in between. This is presumably because the RLP, sharing the same referent with the embedded coindexed DP and the antecedent DP, can be considered a coreferential antecedent for the pronominalized RP.

Moreover, I have argued that the (optional) presence of the RLP in English is in complementary distribution with the presence of the finite [T] Feature within the RC's main domain while the presence of the RLP in Arabic has something to do with both of the definiteness of the antecedent DP and more significantly with the overtness of the finite [T] Feature. Thus, the definiteness of the antecedent DP has no major nor exclusive role for the presence of the RLP in English and Arabic. Also, I have assumed that the RLP has a bidirectional capacity to agree with and share the Case of either the antecedent DP (as in Arabic, for instance) or the embedded coindexed DP (as in English, for example) and that the choice of either directions depends on the parametric variation of the language itself.

5.5. Suggestions for Further Research

Since our syntactic interest, following Chomsky's (2001) call, is to investigate the Grammar of Language and not to be restricted to the grammar of just one particular language, I recommend that other researches be done to other languages, applying the proposed RelP projection which has been applied here merely to English and Arabic RCs. Actually, the assumptions proposed in the study at hand (mainly, the base-generation analysis, the RelP projection and the absorption and annihilation forces) are preferred to be exposed for more investigations.

With regard to the derivation of RCs such as the following, what is the appropriate slot for the italicized preposition:

208. She finds a person *with* whom to speak.

Significantly, further researches can also attempt to account for the overtness of the RLP in the construction in (209) below—and also in (208) above—which has a nonfinite [T] Feature:

209. This is the man *whom* to speak to.

In addition, I recommend that the proposed view of pronominalization from the perspective of the absorption force, rather from the transformational copying strategy, is investigated more and not restricted to RPs but also applied to all sorts of pronouns in general. In addition, other researches can be done to investigate whether the antecedent DPs in Specs-RelPs are modifiers existing primarily to restrict the semantic interpretation of the remnant RCs or vice versa. Furthermore, further researches can also investigate deeper the relation between thinking and production mainly when deriving RCs. Put in other words, how does the initial base-generation of RPs as indefinite DPs have something to do with (what we can call) 'the retrieval flashback' strategy?

5.6. Conclusion

This chapter has presented UG parametrization concerning relativization in English and Arabic, whereby the similarities and the differences between the two languages have been manifested. Next, the chapter has exposed the findings of the study. After that, the chapter has exposed the conclusions of the study as a whole. Then the chapter has provided one or two suggestions for further research.

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