

# Restrictive Relative Clauses in Zahrani Spoken Arabic: A Minimalist Approach

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This paper offers a thorough description of restrictive relative clauses in Zahrani Spoken Arabic (henceforth ZSA). It also provides a transformational analysis within Minimalist syntax. Restrictive relatives are classified into two types: definite relatives and indefinite relatives. The former type is initiated by the relativizer *illi*: “that” and modifies a definite antecedent/head noun, and the latter modifies an indefinite antecedent and lacks the relativizer *illi*: Two relativization strategies are available for ZSA restrictive relative clauses. The first strategy is the employment of resumptive clitics or pronouns, and the second one relates to the utilization of gaps. There is an alternation between the resumptive strategy and the gap strategy in subject and direct object positions. The optional use of gaps in direct object position is only possible when the relativized noun is definite. However, only the resumptive clitic is utilized in other positions (indirect object, prepositional object, and possessor position). In non-island contexts, both relative clauses involving gaps or resumptive clitics are accounted for by an empty operator movement. In island contexts, the null operator movement is not assumed.

**Keywords:** restrictive, relativizer, relative complementizer, Zahrani Spoken Arabic, gaps, resumption, operator movement.

## Introduction

Relative clauses in general have long been of interest to syntacticians since Ross (1967). They have attracted the attention of researchers working in English and other languages (see e.g., Jackendoff, 1977; Chomsky, 1977; Fabb, 1990; Kayne, 1994; Borsley, 1992; 1997; Alexiadou, Law, Meinunger, & Wilder, 2000; Arnold, 2004; 2007; Bianchi, 1999; 2000; 2002a; 2002b; de Vries, 2002; 2006; Aoun & Li, 2003). Nevertheless, there are a few studies on relative clauses in Arabic (see e.g., Suaieh, 1980; Alsayed, 1998; Ali, 2004; Galal, 2004; Ouhalla, 2004; Aoun, Benmamoun, & Choueiri, 2010; Alqurashi, 2013). Relative clauses in colloquial Arabic varieties have not received ample attention. To the best of my knowledge, the research on Arabic dialects is extremely minimal. The focus of this paper will be on one of the Saudi dialects spoken in the southern province of Saudi Arabia, namely, Zahrani Spoken Arabic (ZSA). There are no works on relative clauses in this dialect. Therefore, this paper is an attempt to contribute to the Arabic literature in general and to the Arabic relative clauses in particular. Our discussion is limited to restrictive relative clauses. They will be analyzed within the Minimalist syntax adopting Chomsky’s (2000; 2008) agree-based model and the edge feature (EF) along with the null operator movement. Restrictive relative clauses in ZSA are divided into two types: definite and indefinite.

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Definite relative clauses modify definite noun phrases (NPs), and indefinite relative clauses modify indefinite noun phrases. Relative clauses in Arabic follow the nouns they modify. In grammatical terms, the noun phrase modified by the relative clause is known as the “head noun” of the relative clause or the “antecedent”. The targeted position within the relative clause is called the “relativized position”. Using these terms will facilitate the discussion of ZSA restrictive relative clauses.

### The Basic Data

#### The Relativizer *illi:* in ZSA

ZSA has only one invariable relative marker. The marker inflects neither for gender nor for number and has no visible case inflection. This means that it is employed to refer to singular, dual, and plural nouns whether masculine or feminine, as will be noticed throughout all the given examples in this paper. Examine the following examples:

- |     |    |  |   |                     |  |                                    |
|-----|----|--|---|---------------------|--|------------------------------------|
| (1) | a. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV         | <i>al-wirʃ</i><br>DEF-boy.SGM           | <i>illi:</i><br>REL | <i>habad</i><br>hit.3SGM.PFV               | <i>Ali</i><br>Ali                  |
|     |    | “I met the boy that hit Ali.”              |   |                     |  |                                    |
|     | b. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV         | <i>al-wirʃ-e:n</i><br>DEF-boy-DLM       | <i>illi:</i><br>REL | <i>habad-u:</i><br>hit-3PLM.PFV            | <i>Ali</i><br>Ali                  |
|     |    | “I met the (two) boys that hit Ali.”       |   |                     |  |                                    |
|     | c. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV         | <i>al-wirʃ-a:n</i><br>DEF-boy-PLM       | <i>illi:</i><br>REL | <i>habad-u:</i><br>hit-3PLM.PFV            | <i>Ali</i><br>Ali                  |
|     |    | “I met the boys that hit Ali.”             |   |                     |  |                                    |
|     | d. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV         | <i>al-kahlah</i><br>DEF-elderly.SGF     | <i>illi:</i><br>REL | <i>habad-at</i><br>hit-3SGF.PFV            | <i>Ali</i><br>Ali                  |
|     |    | “I met the old woman that hit Ali.”        |   |                     |  |                                    |
|     | e. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV         | <i>al-kahla-te:n</i><br>DEF-elderly.DLF | <i>illi:</i><br>REL | <i>habad-nah</i><br>hit-3PLF.PFV           | <i>Ali</i><br>Ali                  |
|     |    | “I met the (two) old women that hit Ali.”  |   |                     |  |                                    |
|     | f. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV         | <i>al-khe:l</i><br>DEF-elderly.PLF      | <i>illi:</i><br>REL | <i>habad-nah</i><br>hit-3PLF.PFV           | <i>Ali</i><br>Ali                  |
|     |    | “I met the old women who hit Ali.”         |   |                     |  |                                    |
|     | g. | <i>ʔaxað-t</i><br>take-1SGM/F.PFV          | <i>al-biju:t</i><br>DEF-house.PLF       | <i>illi:</i><br>REL | <i>baʕ-u:-ha</i><br>want-3PLM.PFV-3SGF.OBJ | <i>al-khe:l</i><br>DEF-elderly.PLF |
|     |    | “I took the houses that old women wanted.” |   |                     |  |                                    |

The examples in (1) above show that the relativizer *illi:* does not agree in number and gender with the antecedent. It agrees with it in definiteness though. This is indicated by the presence of the relativizer *illi:* with the definite antecedent only, as mentioned above. Sometimes, there is mismatch agreement in ZSA between the verb inside the relative clause and the antecedent which is interpreted as the subject of the relative clause as shown in (1b, 1e, & 1g). It is also illustrated that the relativizer refers to human as in (1a-1f) and nonhuman entities as in (1g). Having discussed the relativizer *illi:* and its behaviour with the antecedent, it is now time to describe restrictive definite and indefinite relatives, the relativized positions, and the relativization strategies in greater detail in the following sections.

### Definite Relative Clauses

A definite relative clause is the one in which the head noun/antecedent (the modified noun) is definite and introduced by the relativizer *illi:*, which is the counterpart of the relativizer *yalli* in Lebanese Arabic (LA) (Aoun & Choueiri, 1997), as shown in the following examples:

- |     |    |  |   |                     |   |
|-----|----|--|---|---------------------|---|
| (2) | a. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV<br>“I met the boys that saw you.” | <i>as-sufa:n</i><br>DEF-boy.PLM                           | <i>illi:</i><br>REL | <i>fa:f-u:-k</i><br>see-3PLM.PFV-2SGM.SBJ |
|     | b. | <i>ga:bal</i><br>meet-3SGM.PFV<br>“He met the girl that saw you.”    | <i>as<sup>c</sup>-s<sup>c</sup>abiyah</i><br>DEF-girl.SGF | <i>illi:</i><br>REL | <i>fa:fa-t-k</i><br>see-3SGF.PFV-2SGM.SBJ |

Definiteness on the head noun is marked by the marker *ʔal* which appears as a prefix on the noun in ZSA (just like Standard Arabic, see e.g., Sibawayh, 1988; Fassi Fehri, 1993; Holes, 1995; Alnadiri, 1997; Hasan, 1999a; 1999b; Ibn Malik, 2000; Alnuqrat, 2003; Alsamorrai, 2003a, 2003b; Aljawjari, 2004; Kremers, 2003; Schulz, 2004; Ryding, 2005; Zaborski, 2006; Abu-Chacra, 2007; Bardeas, 2009; Alhawary, 2011; AlQurashi 2013 among others). It is shown in the above examples that the definite NP *al-wirʕ* shows full agreement (person, gender, and number) with the verb *fa:f-ak*. However, mismatch agreement sometimes exists as indicated above in Section 2.1. The definite antecedent can appear as a head noun without the definite prefix in a genitive NP as demonstrated in the following example in (3):

- |     |  |  |                     |   |                            |
|-----|--|--|---------------------|---|----------------------------|
| (3) | <i>baʕ</i><br>sell.3SGM.PFV<br>“He sold my house that he saw for you.” | <i>da:r-i</i><br>house.SGF-1SGM/F.POSS | <i>illi:</i><br>REL | <i>fa:f-ha</i><br>see-1SGM.PFV-3SGF.OBJ | <i>l-ak</i><br>to-2SGM.OBJ |
|-----|--|--|---------------------|---|----------------------------|

### Indefinite Relative Clauses

An indefinite relative clause is the one in which the antecedent is indefinite and lacks the relativizer *illi:* as illustrated in (4b) below:

- |     |    |   |                                |                          |   |
|-----|----|---|--------------------------------|--------------------------|---|
| (4) | a. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV<br>“I met boys that saw you.”  | <i>sufa:n</i><br>boy.PLM.INDEF | ( <i>*illi:</i> )<br>REL | <i>fa:f-u:-k</i><br>see-3PLM.PFV-2SGM.SBJ |
|     | b. | <i>ga:bal</i><br>meet-1SGM/F.PFV<br>“He met a girl that saw you.” | <i>bint</i><br>girl.SGF.INDEF  | ( <i>*illi:</i> )<br>REL | <i>fa:fa-t-k</i><br>see-3SGF.PFV-2SGM.SBJ |

The above examples illustrate that the relative clause of the indefinite relative constructions does not have an overt relative marker. If they include the relative marker *illi:*, ungrammaticality arises. Sometimes, the antecedent is introduced by a numeral as the following example in (5) demonstrates.

- |     |   |                   |                                  |                          |   |                            |
|-----|---|-------------------|----------------------------------|--------------------------|---|----------------------------|
| (5) | <i>ʔaxaʕ</i><br>take.3SGM.PFV<br>“He took six houses I wanted for you.” | <i>sit</i><br>six | <i>biju:t</i><br>house.PLF.INDEF | ( <i>*illi:</i> )<br>REL | <i>base:-t-ha</i><br>want-1SGM/F.PFV-3SGF.OBJ | <i>l-ak</i><br>to-2SGM.OBJ |
|-----|---|-------------------|----------------------------------|--------------------------|---|----------------------------|

Again, even if the antecedent is introduced by a numeral, the relative marker *illi:* cannot be employed.

### Relativisation Positions

There are different relativized argument positions in definite and indefinite relative clauses. We are going to look at the differences and similarities these positions have in ZSA. First, we have subject relativization in which the head noun is understood to be the subject of the verb inside the relative clause. Consider the following examples:

- (6) a. *ga:bal-t*                      *al-wirʕ*                      *illi:*                      *baʕ*                      *ad-da:r*  
meet-1SGM/F.PFV      DEF-boy.SGM.OBJ      REL                      sell.3SGM.PFV                      DEF-house.SGF  
“I met the boy that sold the house.”
- b. *ga:bal-t*                      *al-wirʕ*                      *illi:*                      *hu:*                      *baʕ*                      *ad-da:r*  
meet-1SGM/F.PFV      DEF-boy.SGM.OBJ      REL                      3SGM.SBJ                      sell.3SGM.PFV                      DEF-house.SGF  
“I met the boy that sold the house.”
- c. *ga:bal-t*                      *wirʕ*                      *baʕ*                      *ad-da:r*  
meet-1SGM/F.PFV      boy.SGM.OBJ.INDEF      sell.3SGM.PFV                      DEF-house.SGF  
“I met a boy that sold the house.”
- d. *ga:bal-t*                      *wirʕ*                      *hu:*                      *baʕ*                      *ad-da:r*  
meet-1SGM/F.PFV      boy.SGM.OBJ.INDEF      3SGM.SBJ                      sell.3SGM.PFV                      DEF-house.SGF  
“I met a boy that sold the house.”

Furthermore, we have relativization of direct object in which the head noun is understood to be the direct object of the verb inside the relative clause as shown in (7):

- (7) a. *ʔifira*                      *al-ko:t*                      *illi:*                      *ʔabʁa\_*  
buy.3SGM.PFV                      DEF-coat.SGM                      REL                      want.1SGM.PFV  
“He bought the coat which I want.”
- b. *ʔifira*                      *al-ko:t*                      *illi:*                      *ʔabʁ-ah*  
buy.3SGM.PFV                      DEF-coat.SGM                      REL                      want.1SGM.PFV-3SGM.OBJ  
“He bought the coat which I want it.”
- c. *\*ʔifira*                      *ko:t*                      *ʔabʁa\_*  
buy.3SGM.PFV                      coat.SGM.INDEF                      want.1SGM.PFV  
“He bought the coat which I want.”
- d. *ʔifira*                      *ko:t*                      *ʔabʁ-ah*  
buy.3SGM.PFV                      coat.SGM.INDEF                      want.1SGM.PFV-3SGM.OBJ  
“He bought the coat which I want it.”

Here, the antecedent has to agree with the resumptive clitic in number and gender (gap and resumptive clitics will be discussed in Section 2.5 below).

Also, indirect object relativization exists in ZSA where the inner object in a double object construction of the form [V NP NP] is relativized. The antecedent is interpreted as the indirect object of the verb inside the relative clause as in (8).

- (8) a. *ga:bal-t*                      *al-gaham*                      *illi:*                      *ʔaʕtʕe:-t-ah*                      *ad-da:r*  
meet-1SGM/F.PFV      DEF-old man.SGM.OBJ      REL                      give-1SGM/F.PFV-3SGM.OBJ                      DEF-house.SGF  
“I met the old man that I gave house.”
- b. *\*ga:bal-t*                      *al-gaham*                      *illi:*                      *ʔaʕtʕe:-t\_*                      *ad-da:r*  
meet-1SGM/F.PFV      DEF-old man.SGM.OBJ      REL                      give-1SGM/F.PFV                      DEF-house.SGF  
“I met the old man that I gave house.”

- |   |                                     |                                       |   |                                 |
|---|-------------------------------------|---------------------------------------|---|---------------------------------|
| c.                                      | <i>ga:bal-t</i><br>meet-1SGM/F.PFV  | <i>gaḥam</i><br>old man.SGM.OBJ.INDEF | <i>ʔaʕtʕe:-t-ah</i><br>give-1SGM/F.PFV-3SGM.OBJ | <i>ad-da:r</i><br>DEF-house.SGF |
| “I met an old man that I gave a house.” |                                     |                                       |   |                                 |
| d.                                      | <i>*ga:bal-t</i><br>meet-1SGM/F.PFV | <i>gaḥam</i><br>old man.SGM.OBJ.INDEF | <i>ʔaʕtʕe:-t_</i><br>give-1SGM/F.PFV-3SGM.OBJ   | <i>ad-da:r</i><br>DEF-house.SGF |
| “I met an old man that I gave a house.” |                                     |                                       |   |                                 |

The prepositional object position is another possible relativization position in ZSA in which the relativized argument is understood to be the object of a preposition as illustrated below.

- |  |    |                                     |                                     |                     |                                     |                                |
|--|----|-------------------------------------|-------------------------------------|---------------------|-------------------------------------|--------------------------------|
| (9)  | a. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV  | <i>al-wirʕ</i><br>DEF-boy.SGM       | <i>illi:</i><br>REL | <i>sa:far</i><br>travel.3SGM.PFV    | <i>maʕ-ak</i><br>with-2SGM.OBJ |
| “I met the boy that travelled with you.”     |    |                                     |                                     |                     |                                     |                                |
|  | b. | <i>*ga:bal-t</i><br>meet-1SGM/F.PFV | <i>al-wirʕ</i><br>DEF-boy.SGM       | <i>illi:</i><br>REL | <i>sa:far</i><br>travel.3SGM.PFV    | <i>maʕ_</i><br>with-2SGM.OBJ   |
| “I met the boy that travelled with you.”     |    |                                     |                                     |                     |                                     |                                |
|  | c. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV  | <i>asʕ-sʕabiyah</i><br>DEF-girl.SGF | <i>illi:</i><br>REL | <i>sa:far-at</i><br>travel-3SGF.PFV | <i>maʕ-ak</i><br>with-2SGF.OBJ |
| “I met the girl that travelled with you.”    |    |                                     |                                     |                     |                                     |                                |
|  | d. | <i>*ga:bal-t</i><br>meet-1SGM/F.PFV | <i>asʕ-sʕabiyah</i><br>DEF-girl.SGF | <i>illi:</i><br>REL | <i>sa:far-at</i><br>travel-3SGF.PFV | <i>maʕ_</i><br>with-2SGF.OBJ   |
| “I met the girl that travelled with you.”    |    |                                     |                                     |                     |                                     |                                |
|  | e. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV  | <i>al-wirʕ</i><br>DEF-boy.SGM       | <i>illi:</i><br>REL | <i>sa:far-t</i><br>travel-2SGM.PFV  | <i>maʕ-ah</i><br>with-3SGM.OBJ |
| “I met a boy that they said he is with you.” |    |                                     |                                     |                     |                                     |                                |

Finally, it is possible to have relatives derived from the construct state possessives where the possessor is relativized as demonstrated in the (10) below:

- |                                       |    |                                    |                                    |                                 |                                       |  |
|---------------------------------------|----|------------------------------------|------------------------------------|---------------------------------|---------------------------------------|--|
| (10)                                  | a. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV | <i>al-wirʕ</i><br>DEF-boy.SGM      | <i>illi:</i><br>REL             | <i>ðʕaʕ-at</i><br>lose.3SGM.PFV       | <i>flu:s-ah</i><br>money.SGF-3SGM.POSS |
| “I met the boy whose money was lost.” |    |                                    |                                    |                                 |                                       |  |
|                                       | b. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV | <i>sʕ-sʕabiyah</i><br>DEF-girl.SGF | <i>illi:</i><br>REL             | <i>ðʕaʕ</i><br>lose.3SGF.PFV          | <i>ʔahab-ha</i><br>gold.SGF-3SGF.POSS  |
| “I met the girl whose gold was lost.” |    |                                    |                                    |                                 |                                       |  |
|                                       | c. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV | <i>wirʕ</i><br>boy.SGM.INDEF       | <i>ðʕaʕ-at</i><br>lose.3SGF.PFV | <i>flu:s-ah</i><br>gold.SGF-3SGF.POSS |  |
| “I met a boy whose money was lost.”   |    |                                    |                                    |                                 |                                       |  |
|                                       | d. | <i>ga:bal-t</i><br>meet-1SGM/F.PFV | <i>sʕabiyah</i><br>girl.SGF.INDEF  | <i>ðʕaʕ</i><br>lose.3SGF.PFV    | <i>ʔahab-ha</i><br>gold.SGF-3SGF.POSS |  |
| “I met a girl whose gold was lost.”   |    |                                    |                                    |                                 |                                       |  |

## Relativization Strategies

### Gaps and resumptive clitics

Resumptive clitics and gaps can be employed in ZSA relative clauses. As can be noticed from the examples in (6-10) above, resumptive clitics appear inside the relative clause and they are referential with the head noun.

They occur in a subject position, a direct position, an indirect position, an object position of preposition, and a possessor position. In the subject position, resumptive clitics can optionally appear in matrix clauses<sup>1</sup>, but they obligatorily occur in embedded clauses in ZSA. Consider the following examples:

- (11) a. *ga:bal-t*      *al-wirʕ*      *illi:*      (*hu*)      *baʕ*      *ad-da:r*  
meet-1SGM/F.PFV   DEF-boy.SGM   REL      he.3SGM      sell.3SGM.PFV   DEF-house.SGF  
“I met the boy that (he) sold his house.”
- b. *ga:bal-t*      *asʕ-sʕabiyah*      *illi:*      (*hi:*)      *baʕ-at*      *ad-da:r*  
meet-1SGM/F.PFV   DEF-girl.SGF   REL      she.3SGF      sell.3SGF.PFV   DEF-house.SGF  
“I met the girl that (she) sold her house.”
- c. \**ga:bal-t*      *al-wirʕ*      *illi:*      *baʕ*      *hu:*      *ad-da:r*  
meet-1SGM/F.PFV   DEF-boy.SGM   REL      sell.3SGM.PFV   he.3SGM   DEF-house.SGF  
“I met the boy that (he) sold his house.”
- d. \**ga:bal-t*      *asʕ-sʕabiyah*      *illi:*      *baʕ-at*      *hi:*      *ad-da:r*  
meet-1SGM/F.PFV   DEF-girl.SGF   REL      sell.3SGF.PFV   she.3SGF   DEF-house.SGF  
“I met the girl that (she) sold her house.”

In direct object position, the use of either a gap or a resumptive clitic is possible in ZSA, as shown below:

- (12) a. *ga:bal-t*      *al-wirʕ*      *illi:*      *ʔahb\_*  
meet-1SGM/F.PFV   DEF-boy.SGM.OBJ   REL      love-3SGM.PFV  
“I met the boy that I love.”
- b. *ga:bal-t*      *al-wirʕ*      *illi:*      *ʔahb-h*  
meet-1SGM/F.PFV   DEF-boy.SGM.OBJ   REL      want.1SGM.PFV-3SGM.OBJ  
“I met the boy that I love him.”
- c. \**ga:bal-t*      *wirʕ*      *illi:*      *ʔahb\_*  
meet-1SGM/F.PFV   boy.SGM.OBJ.INDEF   REL      love-3SGM.PFV  
“I met the boy who I love.”
- d. *ga:bal-t*      *wirʕ*      *illi:*      *ʔahb-h*  
meet-1SGM/F.PFV   boy.SGM.OBJ.INDEF   REL      want.1SGM.PFV-3SGM.OBJ  
“I met the boy that I love him.”
- e. *ʔifira*      *al-ko:t*      *illi:*      *ʔabʔa\_*  
buy.3SGM.PFV   DEF-coat.SGM   REL      want.1SGM.PFV  
“He bought the coat that I want.”
- f. *ʔifira*      *al-ko:t*      *illi:*      *ʔabʔ-ah*  
buy.3SGM.PFV   DEF-coat.SGM   REL      want.1SGM.PFV-3SGM.OBJ  
“He bought the coat that I want it.”
- g. \**ʔifira*      *ko:t*      *ʔabʔa\_*  
buy.3SGM.PFV   coat.SGM.INDEF   want.1SGM.PFV  
“He bought the coat that I want.”
- h. *ʔifira*      *ko:t*      *ʔabʔ-ah*  
buy.3SGM.PFV   coat.SGM.INDEF   want.1SGM.PFV-3SGM.OBJ  
“He bought the coat that I want it.”

<sup>1</sup> Unlike Standard Arabic and other Arabic dialects where resumptive clitics or pronouns cannot appear in a relativized subject position in matrix clauses (see e.g., Alsayed, 1998; Ali, 2004; Galal, 2004; Ouhalla, 2004; Aoun et al., 2010; Alqurashi, 2013).

This means that gaps are optional in direct object positions when the antecedent is definite. However, this optional use of gaps is not available when the antecedent is indefinite.

The utilization of gaps in indirect object position, prepositional object position, and possessor position is not permitted as this results in illformedness as demonstrated by the examples in (13-15) below, respectively. Therefore, resumptive clitics are obligatorily employed. According to Keenan and Comrie's (1977) accessibility hierarchy<sup>2</sup>, these positions are less accessible.

- (13) a. *al-wirʃ* *illi:* *ʔaʃtʕe:-t-ah* *ad-da:r*  
 DEF-boy.SGM REL give-1SGM/F.PFV-3SGM.OBJ DEF-house.SGF  
 "The boy that I gave the house."
- b. *\*al-wirʃ* *illi:* *ʔaʃtʕe:-t\_* *ad-da:r*  
 DEF-boy.SGM REL give-1SGM/F.PFV-3SGM.OBJ DEF-house.SGF  
 "The boy that I gave the house."
- c. *ga:bal-t* *wirʃ* *ʔaʃtʕe:-t-ah* *da:r*  
 meet-1SGM/F.PFV boy.SGM.INDEF give-1SGM/F.PFV-3SGM.OBJ house.SGF  
 "I met a boy that I gave a house."
- d. *\*ga:bal-t* *wirʃ* *ʔaʃtʕe:-t\_* *da:r*  
 meet-1SGM/F.PFV boy.SGM.INDEF give-1SGM/F.PFV-3SGM.OBJ house.SGF  
 "I met a boy that I gave a house."
- (14) a. *\*ga:bal-t* *al-wirʃ* *illi:* *sa:far* *maʃ\_*  
 meet-1SGM/F.PFV DEF-boy.SGM REL travel.3SGM.PFV with  
 "I met the boy that travelled with you."
- b. *\*ga:bal-t* *asʕ-sʕabiyah* *illi:* *sa:far-at* *maʃ\_*  
 meet-1SGM/F.PFV DEF-boy.SGM REL travel-3SGF.PFV with  
 "I met the girl that travelled with you."
- c. *ga:bal-t* *al-wirʃ* *illi:* *sa:far-t* *maʃ-ah*  
 meet-1SGM/F.PFV DEF-boy.SGM REL.SGM travel-2SGM.PFV with-  
 "I met a boy that they said he is with you."
- d. *\*ga:bal-t* *al-wirʃ* *illi:* *sa:far-t* *maʃ\_*  
 meet-1SGM/F.PFV DEF-boy.SGM REL travel-2SGM.PFV with  
 "I met a boy that they said he is with you."
- e. *\*ga:bal-t* *wirʃ* *illi:* *sa:far-t* *maʃ\_*  
 meet-1SGM/F.PFV boy.SGM.INDEF REL travel-2SGM.PFV with-  
 "I met a boy that they said he is with you."
- (15) a. *ga:bal-t* *al-wirʃ* *illi:* *ðʕaʃ-at* *flu:s-ah*  
 meet-1SGM/F.PFV DEF-boy.SGM REL lose.3SGM.PFV money.SGF-3SGM.POSS  
 "I met the boy whose money was lost."
- b. *ga:bal-t* *sʕ-sʕabiyah* *illi:* *ðʕaʃ* *ʔahab-ha*  
 meet-1SGM/F.PFV DEF-girl.SGF REL lose.3SGF.PFV gold.SGF-3SGF.POSS  
 "I met the girl whose gold was lost."

<sup>2</sup> Keenan and Comrie (1977) suggest the Noun Phrase Accessibility Hierarchy (NPAH) which stipulates that there is a universal set of grammatical roles out of which relativization can take place. They propose that these grammatical roles take the following cross-linguistic ranking: (1) Subject > Direct object > Indirect object > Oblique or object of a preposition > Genitive > Object of comparison (≥ more accessible than).

- c. *ga:bal-t*                      *wirʕ*                      *ðʕaʕ-at*                      *flu:s-ah*  
 meet-1SGM/F.PFV              boy.SGM.INDEF              lose.3SGF.PFV              gold.SGF-3SGF.POSS  
 “I met a boy whose money was lost.”
- d. *ga:bal-t*                      *sʕabiyah*                      *ðʕaʕ*                      *ðahab-ha*  
 meet-1SGM/F.PFV              girl.SGF.INDEF              lose.3SGF.PFV              gold.SGF-3SGF.POSS  
 “I met a girl whose gold was lost.”

It is worth mentioning that gapped relatives are sensitive to island constraints formulated by Ross (1967)<sup>3</sup>. This will be discussed in the following section.

### Island Constraints

When the relativized direct object occurs within an adjunct clause, a relative clause, or a wh-island, the use of gap is not possible as shown below.

#### Adjunct island

Adjunct island in ZSA does not allow gapping. Thus, resumptive clitics are obligatory. Consider the following examples:

- (16) b. *\*ʔiftre:t*              *al-ko:t*              *illi:*                      *ʔaxað-t-ah*              *yo:m*                      *ʃuf-t\_*  
 buy.1SGM/F.PFV      DEF-coat.SGM      REL                      take-2SGM.PFV-3SGM.OBJ      when                      see-2SGM.PFV  
 “He bought the coat that you took when you saw.”
- b. *ʔiftre:t*              *al-ko:t*              *illi:*                      *ʔaxað-t-ah*              *yo:m*                      *ʃuf-t-ah*  
 buy.1SGM/F.PFV      DEF-coat.SGM      REL                      take-2SGM.PFV-3SGM.OBJ      when                      see-2SGM.PFV-3SGM.OBJ  
 “He bought the coat that you took when you saw it.”
- c. *\*ʔiftre:t*              *ko:t*                      *ʔaxað-t-ah*              *yo:m*                      *ʃuf-t\_*  
 buy.1SGM/F.PFV      coat.SGM.INDEF      take-2SGM.PFV-3SGM.OBJ      when                      see-2SGM.PFV  
 “He bought a coat that you took when you saw.”
- d. *ʔiftre:t*              *ko:t*                      *ʔaxað-t-ah*              *yo:m*                      *ʃuf-t-ah*  
 buy.1SGM/F.PFV      coat.SGM.INDEF      take-2SGM.PFV-3SGM.OBJ      when                      see-2SGM.PFV-3SGM.OBJ  
 “He bought a coat that you took when you saw it.”

The following examples show the same thing in the above ones but with the slight change in the gender of the NPs.

- (17) a. *\*ʔiftre:t*              *al-maɣddah*              *illi:*                      *ʔaxað-ta-ha*              *yo:m*                      *ʃuf-t\_*  
 buy.1SGM/F.PFV      DEF-pillow.SGF      REL                      take-2SGM.PFV-3SGF.OBJ      when                      see-2SGM/F.PFV  
 “He bought the pillow that you took when you saw.”
- b. *ʔiftre:t*              *al-maɣddah*              *illi:*                      *ʔaxað-ta-ha*              *yo:m*                      *ʃuf-ta-ha*  
 buy.1SGM/F.PFV      DEF-pillow.SGF      REL                      take-2SGM.PFV-3SGF.OBJ      when                      see-2SGM/F.PFV-3SGM.OBJ  
 “He bought the pillow that you took when you saw it.”
- c. *\*ʔiftre:t*              *maɣddah*                      *ʔaxað-ta-ha*              *yo:m*                      *ʃuf-t\_*  
 buy.1SGM/F.PFV      pillow.SGF.INDEF      take-2SGM.PFV-3SGF.OBJ      when                      see-2SGM/F.PFV  
 “He bought a pillow that you took when you saw.”

<sup>3</sup> Aoun et al. (2010) pointed out that gapped relatives in Standard Arabic are sensitive to island constraints.



- |    |   |                  |                            |             |                             |
|----|---|------------------|----------------------------|-------------|-----------------------------|
| d. | <i>ʔiʔire:t</i>                                     | <i>maχddah</i>   | <i>ʔaχaɖ-ta-ha</i>         | <i>yo:m</i> | <i>ʃuf-ta-ha</i>            |
|    | buy.1SGM/F.PFV                                      | pillow.SGF.INDEF | take-2SGM.PFV-<br>3SGF.OBJ | when        | see-2SGM/F.PFV-<br>3SGM.OBJ |
|    | “He bought a pillow that you took when you saw it.” |                  |                            |             |                             |

### Complex-NP island

It is important to state that complex-NP island is very rare in ZSA although the collected data show to have them. As mentioned in adjunct island, complex-NP island does not allow gapping but resumptive clitics are obligatory, as shown in the following examples:

- |      |    |   |                |              |                |            |              |                       |
|------|----|---|----------------|--------------|----------------|------------|--------------|-----------------------|
| (18) | a. | <i>*ga:bal-t</i>                                    | <i>al-wirɿ</i> | <i>illi:</i> | <i>ga:l-u:</i> | <i>Ali</i> | <i>illi:</i> | <i>ʕaladɿ_</i>        |
|      |    | meet-   | DEF-boy.SGM    | REL          | say-3PLM.PFV   | Ali        | rel          | treat-                |
|      |    | 1SGM/F.PFV  |                |              |                |            |              | 3SGM.PFV              |
|      |    | “I met the boy that they said Ali who treated.”     |                |              |                |            |              |                       |
|      | b. | <i>ga:bal-t</i>                                     | <i>al-wirɿ</i> | <i>illi:</i> | <i>ga:l-u:</i> | <i>Ali</i> | <i>illi:</i> | <i>ʕaladɿ-ah</i>      |
|      |    | meet-   | DEF-boy.SGM    | REL          | say-3PLM.PFV   | Ali        | REL          | treat-                |
|      |    | 1SGM/F.PFV  |                |              |                |            |              | 3SGM.PFV-<br>3SGM.OBJ |
|      |    | “I met the boy that they said Ali who treated him.” |                |              |                |            |              |                       |

## Wh-island

Wh-island shows a similar structure in which resumptive clitics are obligatorily used. This explains the ungrammaticality of the presence of gapping in the following examples:

- |      |    |   |                |              |                |             |                              |
|------|----|---|----------------|--------------|----------------|-------------|------------------------------|
| (19) | a. | <i>*ga:bal-t</i>                                | <i>al-wirʃ</i> | <i>illi:</i> | <i>ga:l-u:</i> | <i>me:n</i> | <i>ʃazam_</i>                |
|      |    | meet-1SGM/F.PFV                                 | DEF-boy.SGM    | REL          | say-3PLM.PFV   | who         | invite.3SGM.PFV-             |
|      |    | “I met the boy that they said who invited.”     |                |              |                |             |                              |
|      | b. | <i>ga:bal-t</i>                                 | <i>al-wirʃ</i> | <i>illi:</i> | <i>ga:l-u:</i> | <i>me:n</i> | <i>ʃazam-ah</i>              |
|      |    | meet-1SGM/F.PFV                                 | DEF-boy.SGM    | REL          | say-3PLM.PFV   | who         | invite.3SGM.PFV<br>-3SGM.OBJ |
|      |    | “I met the boy that they said who invited him.” |                |              |                |             |                              |

## The Categorical Status of the Relativizer “*illi:*” in ZSA

Before going into any detailed analysis, it is crucial to mention that some linguists investigate and discuss the different options in which they argue that the relative marker can be a complementizer (Suaiehi, 1980; Alsayed, 1998; Galal, 2004; Aoun & Choueiri, 1997) or a determiner (Ouhalla, 2004; Van Gelderen, 2009).

Radford (1988) put forward some arguments regarding the syntactic behaviour of relative pronouns and complementizers. He provides a number of differences between both of them in English. His arguments will be utilized in proposing that the relative marker in ZSA is a complementizer rather than a relative pronoun.

Radford (1988) argued that the *wh*-element in English interrogative structures functions as a complement of prepositional phrases. Arabic including ZSA acts the same way. Consider the following example:

- (20) *maʕ me:n* *sa:far-t*  
with who travel-3SGM.PFV  
‘With whom you travelled?’

The above example proves that the *wh*-element in interrogative structures can be part of the larger prepositional phrase.

However, the relativizer *illi:* cannot serve as a complement of a prepositional phrase in ZSA as illustrated in the following example:

- (21) a. *Salih* *illi:* *maʕa-h* *sa:far-t*  
 Salih REL with-3SGM.OBJ travel-3SGM.PFV  
 “Salih that you travelled with?”
- b. \**Salih* *maʕ illi:* *sa:far-t*  
 Salih with REL travel-3SGM.PFV  
 \*“(Salih with that you travelled with?)”

The example in (21c) shows that the relativizer *illi:* cannot be part of a larger (fronted) phrase such as a prepositional phrase. (21b) shows the grammatical counterpart of (21c).

Furthermore, ZSA allows wh-interrogatives to appear as a complement of the head noun in a construct state construction. In other words, they never occur as possessors in a larger clause-initial Determiner Phrase (DP). Nonetheless, the relative marker *illi:* cannot be used in such structures, as seen in the following examples:

- (22) a. *da:r* *me:n* *tiyah*  
 house.SGF who this.SGF  
 “Whose house is this?”
- b. \**ad-da:r* *me:n* *tiyah*  
 DEF-house.SGF who this.SGF  
 “Whose house is this?”
- c. *al-ba:b* *illi:* *lo:n-h* *taʕkyir*  
 DEF-door.SGM REL color.SGM-3SGM.OBJ change.3SGM.PFV  
 “The door whose color changed?”
- d. *al-ba:b* *illi:* *taʕkyir* *lo:n-h*  
 DEF-door.SGM REL change.3SGM.PFV color.SGM-3SGM.OBJ  
 “The door whose color changed?”
- e. \**al-ba:b* *lo:n* *illi:* *taʕkyir*  
 DEF-door.SGM color.SGM REL change.3SGM.PFV  
 “The door whose color changed?”

Another argument put forward by Radford (1988) is that the complementizer “that” in English, unlike “who” for example, is neutral in the sense that it does not carry any semantic properties. That is, it is not marked for gender or animacy, unlike relative pronouns. This is also applicable to the relativizer *illi:* in ZSA in that it does not have any gender or number agreement with the antecedent, and it can be used with animate and inanimate entities alike as in (23) below:

- (23) a. *al-wirʕ* *illi:* *ga:bal-t/ah*  
 DEF-boy.SGM REL meet-1SGM/F.PFV./3SGM.OBJ  
 “The boy who I met.”
- b. *asʕ-sʕabiyah* *illi:* *ga:bal-t/ah*  
 DEF-girl.SGF REL meet-1SGM/F.PFV./3SGM.OBJ  
 “The girl who I met.”
- c. *al-kita:b* *illi:* *gare:-t/ah*  
 DEF-book.SGM REL read-1SGM/F.PFV./3SGM.OBJ  
 “The book which I read.”

Finally, the co-occurrence of the relativizer *illi:* with the *wh*-pronoun is attested in ZSA as illustrated in (24) below. This suggests that the relativizer *illi:* is not a sort of *wh*-element.

- (24) a. *me:n* *illi:* *sa:far?*  
 Who REL travel.3SGM.PFV  
 “Who travelled?”
- b. *ʔaf* *illi:* *fuf-t\_* *ʔams?*  
 What REL see-2SGM/F.PFV yesterday  
 “What did you see yesterday?”

On the basis of the above examples and arguments, it can be concluded that *illi:* cannot be analyzed as a relative pronoun, but rather it is best viewed as a relative complementizer introducing a relative clause.

### The Behavior of Gaps and Resumptive Clitics

Based on Rose’ (1967) Coordinate Structure Constraint, coordinated structures do not allow unbounded dependencies to have an impact on only one conjunct. Thus, it must affect all conjuncts. ZSA shows that gaps and clitics share some similarity relying on the coordinate structures and the parasitic gaps. Consider the following examples:

- (25) a. *\*al-gubo:ʕ* *illi:* *ʔabʕa\_* *wa* *ʔiftre:-t\_* *Nike*  
 DEF-cap.SGM REL want.1SGM.PFV and buy-1SGM/F.PFV Nike  
 “The cap that I wanted and bought, Nike.”
- b. *al-gubo:ʕ* *illi:* *ʔabʕa\_* *wa* *ʔiftre:-t\_*  
 DEF-cap.SGM REL want.1SGM.PFV and buy-1SGM/F.PFV  
 “The cap that I wanted and bought.”

However, it is important to state that coordinated structures sometimes allow the occurrence of gaps and resumptive clitics together on the conjuncts regardless of its position<sup>4</sup>. Note the following examples:

- (26) a. *al-gubo:ʕ* *illi:* *ʔabʕa\_* *wa* *ʔiftre:-t-h*  
 DEF-cap.SGM REL want.1SGM.PFV and buy-1SGM/F.PFV-  
 3SGM.OBJ  
 “The cap that I wanted and bought it.”
- b. *al-gubo:ʕ* *illi:* *ʔabʕa-h* *wa* *ʔiftre:-t\_*  
 DEF-cap.SGM REL want.1SGM.PFV-  
 3SGM.OBJ and buy-1SGM/F.PFV  
 “The cap that I wanted and bought.”
- c. *al-gababe:ʕ* *illi:* *ʔiftre:-t\_* *wa* *ħriS-t* *ʕale-ha*  
 DEF-cap.PLM REL buy-1SGM/F.PFV and care-1SGM/F.PFV on-3PLM.OBJ  
 “The caps that I bought and cared about.”
- d. *al-gababe:ʕ* *illi:* *ħriS-t* *ʕale-ha* *wa* *ʔiftre:-t\_*  
 DEF-cap.PLM REL care-1SGM/F.PFV on-3PLM.OBJ and buy-1SGM/F.PFV  
 “The caps that I cared about and bought.”

<sup>4</sup> This applies to MSA Alsayed (1998) and other languages. For more details, see Borsley (2010), Engdahl (1985), and Taghvaipour (2004).

In addition, ZSA shows to have parasitic gaps<sup>5</sup> where the second gap in the structure cannot occur without the presence of the first gap. Nevertheless, the second example below shows that the occurrence of the parasitic gap is licensed by the presence of the resumptive clitic replacing the first gap<sup>6</sup>. Consider the following example:

- (27) a. *al-gubo:ʕ illi: ʔiftre:-t\_ bido:n ma ʔige:s\_*  
 DEF-cap.SGM REL buy-1SGM/F.PFV with no try-1SGM/F.PFV  
 “The cap that I bought without trying on.”
- b. *al-gubo:ʕ illi: ʔiftre:-t-ah bido:n ma ʔige:s\_*  
 DEF-cap.SGM REL buy-1SGM/F.PFV-3SGM.OBJ with no try-1SGM/F.PFV  
 “The cap that I bought without trying on.”

Due to the big similarity between resumptive clitics and gaps in the structure of coordinate structure in ZSA, this leads to the conclusion that both resumptive clitics and gaps occurring in relative clauses in non-island contexts are motivated and derived by movement. Therefore, they should be analyzed similarly.

## Literature Review

### Some Previous Accounts of Relative Clauses

Some syntactic analyses have been proposed for the derivation of the relative clause construction within transformational grammar. There are two notable analyses, namely, the matching analysis and the raising/promotion analysis. The early version of the matching analysis was proposed by Lee (1960; 1961) and Chomsky (1965). It has been known as the wh-movement analysis since Chomsky (1977) in which a wh-element is moved and deleted. In the matching analysis, the movement of the head noun does not move, but rather it is base generated outside the relative clause (in the matrix clause). It is coreferential to a noun phrase inside the relative clause, thus making them identical. A suitable relative pronoun is substituted for the noun phrase and then moved to the beginning of the relative clause. It gets deleted in the case of that-relative clauses. However, the derivation of the relative clauses is assumed to involve wh-movement since Chomsky (1977) as we indicated earlier. Therefore, relative clauses are viewed as complementizer phrases (CPs) which are adjoined to a base generated head noun. On this view, a relative pronoun, or an empty operator (in the case of that-relatives) moves to spec CP, which is an A-bar position. Then, the relative pronoun or the null operator is coindexed with the head noun through predication and agreement relation (Chomsky, 1977; Safir, 1986; Browning, 1987). The movement of the relative operator to spec CP has been accounted for by: e.g., Chomsky (1982), Rizzi (1997), Safir (1986), and Browning (1987). Chomsky (2007; 2008) proposed that C has an edge feature (EF) which is responsible for the movement to spec CP.

The raising analysis (promotion analysis) was first suggested by Schachter (1973) and Vergnaud (1974). In this version of this analysis, the head noun is not base generated outside the relative clause, which is contrary to the matching analysis. In a revived version of the raising analysis, Kayne (1994) developed an analysis for relative clauses within his antisymmetry approach to phrase structures. Kayne (1994) suggested that the antecedent /head noun in that-relatives raises from within the relative clause to spec CP as an NP rather than a DP whereas in wh-

<sup>5</sup> See Chomsky (1982) and Engdahl (1983; 1985), for more details about parasitic gaps.

<sup>6</sup> This applies to MSA (1998) and other languages Engdahl (1985) and Taghvaipour (2004).

relatives it moves to spec CP as a DP. It first originates as a complement of a D (a wh-element), and the DP (wh-element + NP) moves to spec CP.

### **Previous Studies in Arabic**

There are several studies conducted for the restrictive relative clauses in Modern Standard Arabic (MSA), such as Suaieh (1980), Alsayed (1998), Ali (2004), Galal (2004), Ouhalla (2004), Aoun et al. (2010), and Alqurashi (2013). As for dialects of Arabic, Aoun and Choueiri (1997), Aoun, Choueiri, and Hornstein's (2001), Choueiri (2002); and Aoun and Li (2003) provided analyses for the relative clauses in Lebanese Arabic (LA). Alqurashi (2013) analyzed the Hejazi Arabic (HA) relative clauses. For space constraints, we review these studies very briefly. Suaieh (1980) conducted his analysis within a non-transformational approach where movement is not assumed. The analyses of Alsayed (1998) and Gala (2004) share some similarities. However, Alsayed (1998) did his analysis within the Government and Binding Theory (1981; 1982), and Galal (2004) developed his analysis within Minimalism (1995). They suggested that the antecedent is base generated outside the relative clause in both relative clauses involving a gap or a resumptive clitic. The antecedent is coindexed with an empty operator and a trace (a copy of the moved operator). For them, relative clauses with resumptive clitics involve a base generated empty operator and a resumptive clitic whereas relatives with gaps involve movement of the empty operator from inside the relative clause to spec CP. Concerning the indefinite relative clauses, Alsayed (1998) and Galal (2004) presumed that both the operator and the complementizer are covert. As for Ali (2004), he proposed an analysis within Kayne's (1994) antisymmetric approach. Ali (2004) suggested that relative clauses are assigned the structure [D CP]. Contrary to Kayne, he proposed that D originates inside the relative clause and then moves with its NP complement to spec CP. Ouhalla's (2004) analysis shares with Kayne's (1994) analysis an antisymmetric view of phrase structure. Ouhalla proposed that Arabic relative clauses are DPs where the relative marker is a definite article. The DPs originate as specifiers and then the head noun moves to the upper N via head movement which results in preceding the relative clause.

As for Lebanese Arabic, Aoun and Choueiri (1997) argued against head raising analysis and suggested a pro-movement analysis for definite relatives in which a pro moves to the complementizer position in non-island contexts. This movement is motivated to check the [ $\phi$ - features] and [+ definite] features on the complementizer. Choueiri (2002) and Aoun and Li (2003) argued for a head raising analysis in deriving definite relatives. In indefinite relatives and definite relatives in island contexts, the antecedent is base generated. The reason for proposing head raising analysis for indefinite is that the external D is occupied by a number expression or take an empty form. Consequently, it is in complementary distribution with an empty-determiner DP. Alqurashi (2013) analyzed the relative clauses in MSA and HA along the lines of Alsayed (1998), Galal (2004), Choueiri (1997), and Aoun, Choueiri, and Hornstein's (2001). He adopted the operator-movement (wh-movement) analysis for both gapped relatives and those with resumption.

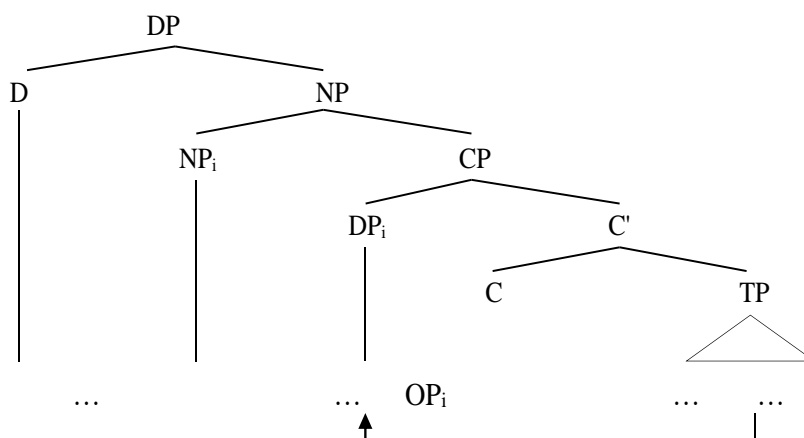
### **Analysis**

We will provide a minimalist analysis (Chomsky, 2000; 2007; 2008) for the relative clauses in ZSA. The analysis is based on some previous analyses proposed for relative clauses in Arabic. The focus of the analysis will be on the peripheral structure rather than the internal structure of relative clauses. Therefore, what concerns us here most is relatives with gaps and resumptive clitics. A unified approach for gapped relatives and those

involving resumption will be adopted (see e.g., Alqurashi, 2013). Building on the similarity between gaps and resumptive clitics with regard to coordinate structures and parasitic gaps in ZSA discussed in Section 4, a null operator movement is suggested in both types of relative clauses. Movement in constructions with resumption has been proposed by Aoun, Choueiri, and Hornstein (2001) and Aoun and Choueiri (1997) in LA. Furthermore, we will assume along the lines of Alsayed (1998) and Galal (2004) that definite and indefinite relative clauses in ZSA are CPs which are adjoined to a base-generated antecedent. Thus, gapped and resumptive relative clauses in ZSA will have the following preliminary structure in (28) above:

One might raise the question of what motivates the operator movement. The answer to this question is that Chomsky's (2007; 2008) EF on C is the main drive for this movement. This movement is assumed to be preceded by the operation Agree as the relative complementizer in ZSA agrees with the antecedent in definiteness as shown in Section 2.2 and will be shortly illustrated again for convenience. In the subsequent sections, the derivation of definite and indefinite relative clauses will be discussed. Let us begin with the definite ones.

(28)



## Definite Relative Clauses

### Gapped relatives

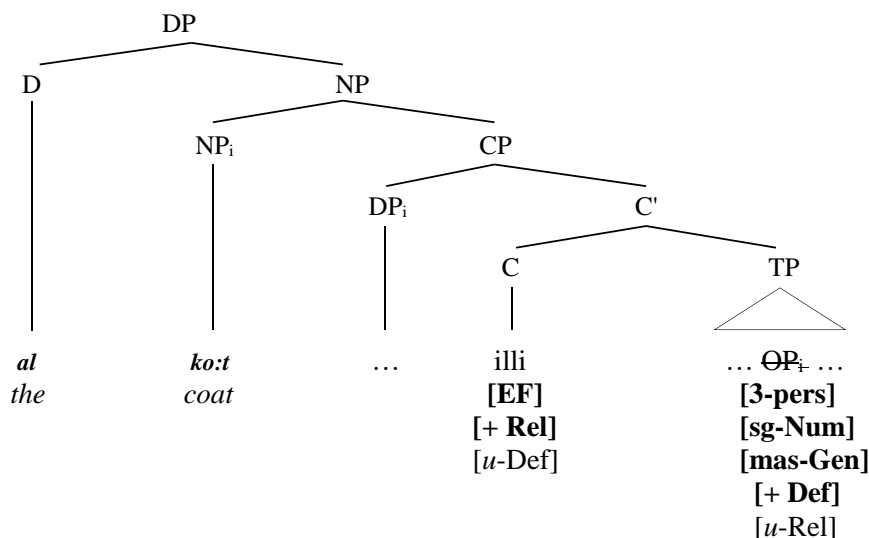
In this section, we will account for the appearance of gaps inside the relative clause which is a result of the null operator movement. It will also be suggested that the definite antecedent is base generated, the complementizer “*illi:*” “that” is overt and occupies the C head of CP, and the empty operator originates within the relative clause. With respect to definiteness, as have been demonstrated in Section 2.2, a definite relative clause in ZSA modifies a definite noun, hence the obligatory presence of the relative complementizer. The appearance of the complementizer is a manifestation of the definiteness agreement, which is the only agreement holding between the complementizer and the antecedent. Look at the following example repeated in (29) below, for convenience.

- |      |    |                                      |                |              |                        |
|------|----|--------------------------------------|----------------|--------------|------------------------|
| (29) | a. | <i>ʔiftra</i>                        | <i>al-ko:t</i> | <i>illi:</i> | <i>ʔabʁa_</i>          |
|      |    | buy.3SGM.PFV                         | DEF-coat.SGM   | REL          | want.1SGM.PFV          |
|      |    | “He bought the coat that I want.”    |                |              |                        |
|      | b. | <i>ʔiftra</i>                        | <i>al-ko:t</i> | <i>illi:</i> | <i>ʔabʁ-ah</i>         |
|      |    | buy.3SGM.PFV                         | DEF-coat.SGM   | REL          | want.1SGM.PFV-3SGM.OBJ |
|      |    | “He bought the coat that I want it.” |                |              |                        |

To account for the definiteness agreement, Chomsky's (2000; 2001) probe-goal account of agreement will be adopted. The complementizer “*illi:*” “that” (probe) has uninterpretable features which need to be valued by a c-commanding goal. However, if we look at the structure in (29) above, it is noticed that the complementizer in C which functions as a probe does not c-command the antecedent which serves as a goal. Thus, the uninterpretable features on the relative complementizer cannot be valued. The solution to this problem is to assume something along the lines of Galal (2004) in that the null operator can serve as a potential goal as it is c-commanded by the complementizer. Galal (2004) assumed that the null operator enters the derivation fully specified for interpretable  $\phi$ -features (i.e., person, number, and gender features). It also carries an interpretable definiteness feature [+ DEF] and an uninterpretable case feature which is assigned by the verb.

Until now, we cannot see any uninterpretable feature on the null operator which makes it active to enter a probe-goal relation with the complementizer (probe). Following Alqurashi (2013), we assume that the null operator has another uninterpretable feature dubbed a REL (ACTIVE) feature. We also assume that the complementizer “*illi:*” “that” carries an EF, interpretable [+ REL] feature in addition to the uninterpretable definiteness feature. The following structure in (30), a representation for the example in (29) above, shows the relevant features with the complementizer and the null operator.

(30)

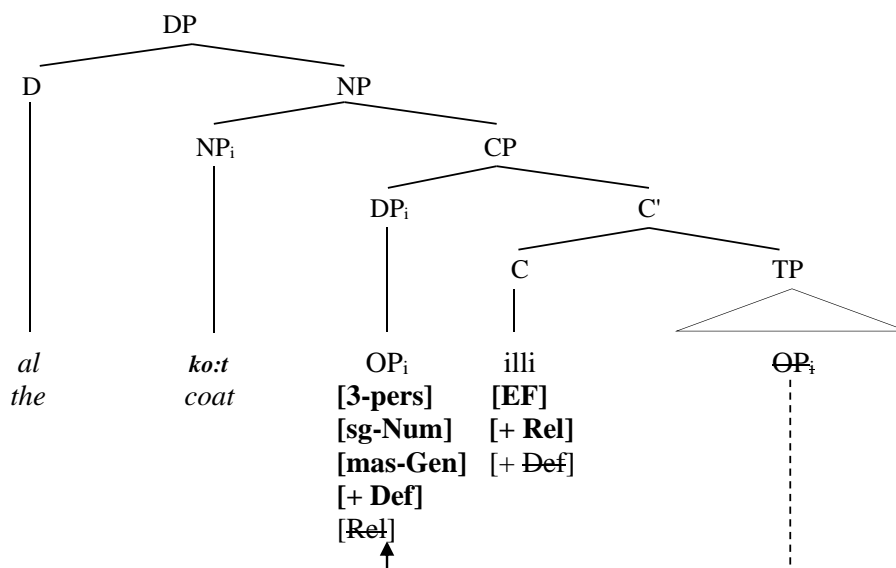


The complementizer “*illi:*” “that” serves as an active probe due to the uninterpretable [u-DEF] feature. Hence, it searches for a c-commanded goal and locates the null operator. It is active owing to the uninterpretable [u-REL] feature. The agreement is established between the probe and goal, and as a result, the unvalued [u-DEF] feature on the probe is valued by the goal and then gets deleted. Likewise, the unvalued [u-REL] feature on the null operator (goal) is valued by the complementizer (probe). This agreement and feature valuation is followed by an A-bar movement of the null operator. The movement, as indicated above, is triggered by the EF on C which attracts the null operator to move to spec CP as illustrated in (31) below:

It is worth noting that the noun “*ko:t*” is adjoined to D via head movement. This is widely assumed in Arabic noun phrases (see e.g., Ouhalla, 1988; 2004; Mohammad, 1989; AlQurashi, 2013). What we are left with here is the agreement between the antecedent and the null operator. As demonstrated in the structure in (31) above, the

null operator and the antecedent are coreferential as a result of agreement via a matching relation. The empty operator matches the antecedent regarding person, number, gender, and definiteness features. In the following section, a definite relative with resumption is discussed.

(31)



### Relative clauses with resumption

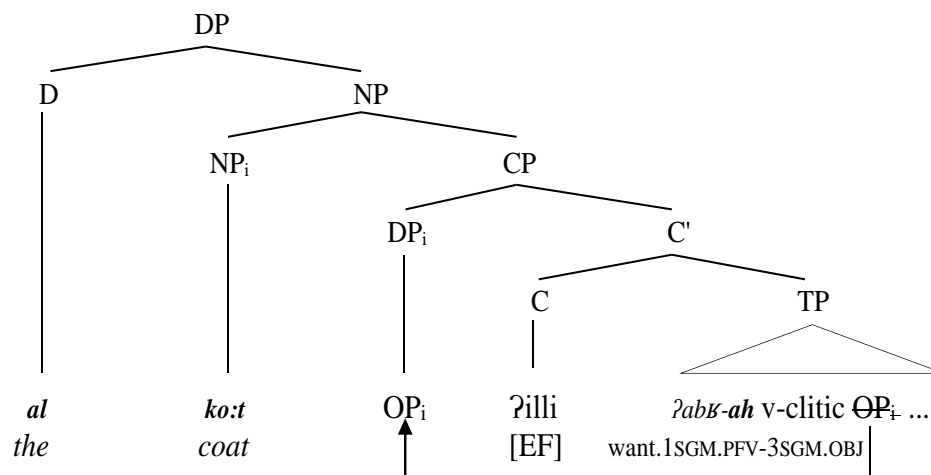
In this type of ZSA relatives, resumption takes the form of clitics. We assume something along the lines of Alsayed (1998) and Alqurashi (2013) that the resumptive clitics within the relative clause are viewed as base-generated bound morphemes attached to their hosts and related to a null argument. This null argument is occupied by an empty operator. As indicated above, the null operator, by virtue of having complete valued  $\phi$ -features, valued definiteness [+DEF] feature and an unvalued [REL] feature, enters into an agreement relation with the resumptive clitic. It serves as a probe and agrees with the null operator in person, number, and gender resulting in valuing the unvalued feature of the clitic and then gets deleted. The null operator functions as an active goal (by virtue of the interpretable [REL] feature) for the complementizer, and the [REL] feature gets valued and deleted. The remainder of the derivation is the same as the one sketched in (30) and (31). The structure of definite relative clause with resumption is shown in the following representation in (33) below for the example in (32):

- |      |                                      |                                |                     |  |
|------|--------------------------------------|--------------------------------|---------------------|--|
| (32) | <i>ʔifira</i><br>buy.3SGM.PFV        | <i>al-ko:t</i><br>DEF-coat.SGM | <i>illi:</i><br>REL | <i>ʔabʁ-ah</i><br>want.1SGM.PFV-3SGM.OBJ |
|      | “He bought the coat that I want it.” |                                |                     |  |

Our discussion above focuses on definite relatives in non-island contexts. For definite relatives occurring in island contexts, we assume, following Aoun and Choueiri’s (1997) account of LA relative clauses with resumptive clitics in island contexts, no movement of the null operator. Rather, it is base generated in spec CP and coindexed with a null pro within the relative clause.



(33)



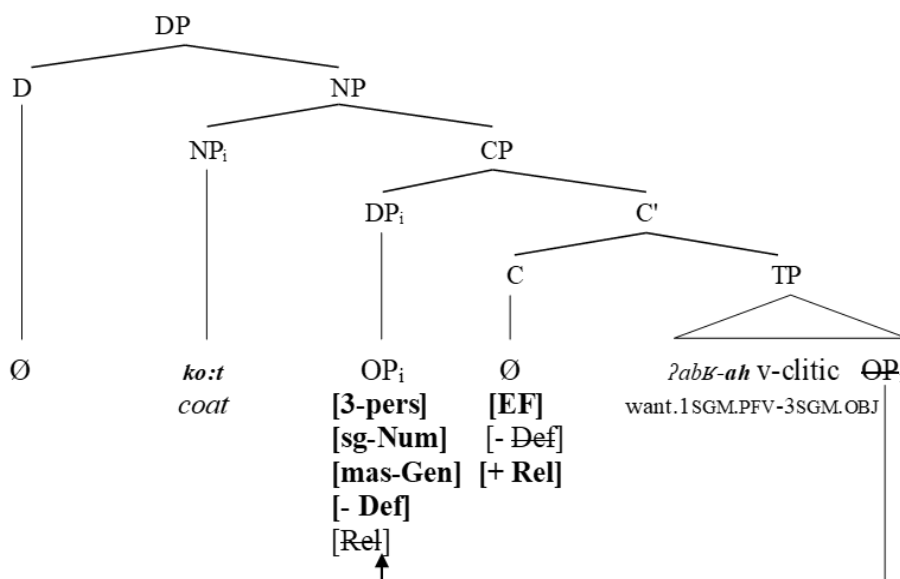
### Indefinite Relative Clauses

There are two differences between indefinite and definite relative clauses. First, the former has an indefinite modified noun/antecedent. Second, it also lacks an overt relative complementizer as shown in Section 2.3 above and repeated here in (34) below for convenience.

- (34) a. \*ʔiʔira                      ko:t                      illi:                      ʔabʔa-ah  
          buy.3SGM.PFV                      coat.SGM.INDEF                      REL                      want.1SGM.PFV  
          “He bought the coat which I want.”
- b. ʔiʔira                      ko:t                      ʔabʔ-ah  
          buy.3SGM.PFV                      coat.SGM.INDEF                      want.1SGM.PFV-3SGM.OBJ  
          “He bought the coat which I want it.”

Despite the differences, the analysis of the definite relative clauses sketched above can be extended to the indefinite relatives with subtle modifications. We can say that the indefinite antecedent is base generated and posit a null relative complementizer occupying the C head of CP and a null operator within the relative clause. The null operator is fully specified for the  $\phi$ -features (i.e., person, number, and gender features); moreover, it carries a valued definiteness feature [-DEF] and an unvalued [REL] feature. On the other hand, the null complementizer gets an unvalued definiteness feature, a valued [REL] feature, and an EF. In indefinite relatives with resumption, the empty operator functions as a goal for both the null complementizer in C and the resumptive clitic within the relative clause, hence valuing each other's unvalued features indicated earlier. However, in gapped indefinite relatives, the prob-goal relation is established between the null complementizer and the null operator. After valuing the definiteness feature on C as [-DEF], the relative complementizer gets a null spell out, and this accounts for the lack of the relative complementizer in indefinite relative clause in ZSA. Furthermore, the null operator moves to spec CP due to the EF on C which drives this A-bar movement. After the derivation of the indefinite relative clause is complete, it is then right adjoined to the indefinite NP (antecedent) that is base generated inside the DP. There is no N to D movement as ZSA does not have an indefinite marker. So, the indefinite D is null. What remains here is the matching relation between the null operator and the antecedent with regard to person, number, gender, and definiteness features and this relation is indicated by their coreferentiality, thereby deriving the structure shown below, for the example in (35) above:

(35)



### Conclusion

This paper provided a description of restrictive relative clauses in ZSA and had attempted to develop an analysis within the Minimalist syntax. The paper shows that there are two main types of finite relative clauses in ZSA dubbed definite and indefinite relatives. Definite relatives modify a definite antecedent/head noun and are initiated by the relativizer *illi*: whereas indefinite relatives have no visible relativizer and modify an indefinite antecedent. The relativizer *illi*: in ZSA does not inflect for number, gender, and case. The ZSA relative clauses exhibit a wide range of relativization positions (subject, direct object, indirect object, prepositional object, and possessor relativization). The paper has also considered the relativization strategies and has shown that both gap and resumptive clitics strategies are available in ZSA. Both gap and resumptive clitics are possible in subject and direct object positions. However, only the resumptive clitic is employed in indirect object, prepositional object, and possessor positions. Moreover, we have argued, along the lines of (e.g., Alsayed, 1998; Galal, 2004) and on the basis of arguments put forward by Radford (1988), that the relativizer *illi*: is best viewed as a relative complementizer rather than a relative pronoun. As for the analysis of relatives, we have proposed that the antecedent originates outside the relative clause. For both gapped relatives and relatives with resumption, we have suggested a null operator movement to spec CP in light of evidence from coordinate structures and parasitic gaps. However, movement is not assumed when resumptive clitics appear within an island. In this case, the empty operator is base generated in spec CP and is coindexed with a null “pro” within the island.

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