Dirasat: Human and Social Sciences, Volume **50**, No. 5, 2023

Deanship of Scientific Research

Complementizer Agreement and the Position of the Subject in Jordanian Arabic

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Received: 14/5/2022
Revised: 30/6/2022
Accepted: 8/8/2022
Published: 30/9/2023

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Citation: Alsarayreh, A. . (2023). Complementizer Agreement and the Position of the Subject in Jordanian Arabic. *Dirasat: Human and Social Sciences*, *50*(5), 359–373. https://doi.org/10.35516/hum.v50i5.1203

Abstract

Objectives: The study aims to investigate the distribution of complementizer agreement in relation to the position of the subject in Jordanian Arabic.

Methods: To achieve the objectives of the study, several sentences that manifest complementizer agreement were constructed and presented to 20 native speakers of Jordanian Arabic in written and spoken form. We then asked the informants to read each sentence aloud and judge whether it is acceptable or unacceptable.

Results: The interaction of complementizer agreement with the position of the subject in Jordanian Arabic shows that complementizer agreement is sensitive to the active Case requirement for goals (Chomsky 2000, 2001). The distribution of complementizer agreement with coordinated subjects in JA shows that complementizer agreement with a lexical DP is subject to a syntactic locality condition, whereas complementizer agreement with a subject that includes a pronominal element is subject to an adjacency condition, suggesting that a unified analysis of complementizer agreement cannot be maintained.

Conclusion: The paper concludes that complementizer agreement in Jordanian Arabic is the result of the operation Agree (Chomsky 2000, 2001), whereby the complementizer functions as a probe with uninterpretable Φ-features that Agrees with a goal with matching interpretable Φ-features.

Keywords: Complementizer agreement, subject position, Jordanian Arabic, agree, prosodic checking.

الأدوات المكمّلة وموقع الفاعل في اللهجة العربية الأردنية

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ملخّص

الأهداف: يهدف البحث إلى دراسة تفاعل شكل الأدوات المكمّلة مع الفاعل في اللهجة العربية الأردنية.

المنهجية: لتحقيق أهداف الدراسة، جرى بناء عدد من الجمل عرضت على نحو مكتوب ومنطوق على أشخاص يتحدثون اللهجة العربية الأردنية كلغة أم وعددهم (20). كما جرى الطلب من هؤلاء الأشخاص الحكم على هذه الجمل فيما إذا كانت مقبولة أو غير مقبولة في لهجتهم.

النتائج: يُظهر تفاعل شكل الأدوات المكمّلة مع موقع الفاعل في اللهجة العربية الأردنية أنّ توافق شكل هذه الأدوات مع الفاعل حساس لمتطلب الحالة النشطة للهدف. كما يُظهر هذا التفاعل أنّ معايير توافق شكل الأدوات المكمّلة مع الفاعل يختلف باختلاف نوع الفاعل، الشيء الذي يحول دون وجود تفسير موحّد لهذه الظاهرة.

الخُلاصة: خلُصت الدراسة إلى أنّ توافق شكل الأدوات المكمّلة مع الفاعل في اللهجة العربية الأردنية هو نتاج العملية النحويّة Agree ؛ حيث تعمل الأداة المكمّلة كمسبار له خصائص قواعدية لا تحمل أي دلالة ويعمل الفاعل كهدف له خصائص قواعدية ذات دلالة ومطابقة لخصائص المسبار.

الكلمات الدالة: توافق شكل الأدوات المكمّلة مع الفاعل، موقع الفاعل، اللهجة العربية الأردنية، التّوافق النحويّ، التّوافق العروضي.

1. Introduction

Complementizer agreement (CA) is a phenomenon whereby the complementizer inflects for the Φ-features of the local subject. Consider the example from West Flemish in (1) below (The gloss of the examples from other sources is slightly modified to be consistent with the convention used in this paper).

(1) a. *Kpeinzen dan-k (ik) morgen goan*
I-think COMP-1SG (I) tomorrow go.1SG
'I think that I'll go tomorrow.'
(Carsten 2003: 393, cited from Haegeman 1992b)

b. *Kpeinzen da-j (gie) morgen goat*
I-think COMP-2 (you) tomorrow go.2
'I think that you'll go tomorrow.'
(Carsten 2003: 393, cited from Haegeman 1992b)

c. *Kvinden dan die boeken te diere zyn*
I-find COMP-PL DEF books too expensive are.PL
'I find those books too expensive.'
(Carsten 2003: 393, cited from Haegeman 1992b)

The following abbreviations are used in the glosses of the data in the paper: 1, 2, 3 for first, second, and third person, respectively; SG = singular; PL = plural; M = masculine; F = feminine; NOM = nominative, ACC = accusative NEG = negation marker; DEF = definite marker; COMP = complementizer. The data in (1) show that the complementizer in West Flemish hosts a bound form that agrees with the Φ-features (or a subset of them) of the subject of the embedded clause. Note also that the finite verb in the embedded clause inflects for the the Φ-features of the local subject, displaying what is known as subject agreement (Carstens 2003).

Most of the previous literature on CA focuses on West Germanic languages such as West Flemish, Frisian, Bavarian, and several other Dutch and German dialects (see, e.g., Bayer 1984; Law 1991; Haegeman 1992a, 1992b, 2000; Zwart 1993, 1997; Carstens 2003; Haegeman and van Koppen 2012; van Koppen 2017, 2020). The goal of this paper is to investigate the distribution of CA in Jordanian Arabic (JA), a semitic language of the afro-Asiatic family. We show, following the proposals by van Craenenbroeck and van Koppen (2002), Carstens (2003), van Koppen (2005) and Haegeman and Van Koppen (2012), that CA in JA is constrained by the syntactic operation Agree (Chomsky 2000, 2001). In particular, we demonstrate that C^0 in JA, serving as a probe, is specified for unvalued uninterpretable Φ-features that need to be valued by a goal with matching valued interpretable features. The valuation of the features of C^0 takes place in the narrow-syntax under the condition that C^0 c-commands the goal and that the goal is active. A standard version of the Agree operation is given in (2) (Carstens 2000: 350):

(2) The Agree operation
Agree operates between a probe α and a goal β iff;
a. α has uninterpretable Φ-features;
b. β has identical, interpretable Φ-features;
c. β has an unchecked feature of structural Case;
d. α c-commands β;
e. There is no potential alternative goal ϒ such that α c-commands ϒ and ϒ c-commands β; and
f. The structural relation between (α, β) was not created by Merge (α, β).

The study demonstrates that CA in JA complies with the conditions on Standard Agree. This being said, the study departs from previous non-standard Agree assumptions about CA. In particular, data from JA show that the complementizer may Agree only with an active goal that has its Case feature still unvalued, contra Pesetsky and Torrego (2001) and Carstens (2003) who argue that an inactive goal can survive until the next phase. The study also shows that CA with a lexical DP is subject to a locality condition, whereas CA with a subject that includes a pronominal element is subject to an adjacency condition, suggesting that a unified analysis of CA cannot be maintained.

The paper is structured as follows. In Section 2, we present descriptive facts about CA in JA and supporting evidence that the bound form on the complementizer in JA is the spell-out of an agreement inflectional affix rather than the realization of a pronominal clitic. In Section 3, we discuss the interaction of CA with preverbal and postverbal subjects, showing that the complementizer in JA may agree only with active preverbal subjects as opposed to inactive postverbal subjects. In Section 4, we discuss the interaction of CA with definite and indefinite preverbal subjects, showing that the complementizer may agree only with active definite preverbal subjects, but not with inactive indefinite preverbal subjects. In Section 5, we discuss the interaction of CA with coordinated subjects, demonstrating that the distribution of CA with lexical DPs is different from the distribution of CA with pronominal subjects. Section 6 concludes the study.

2. CA in JA

The complementizer in JA may either inflect for the Φ-features of the local subject or carry default agreement morphology. We illustrate in (3) below. All of the data from JA reflect the native intuition of the authors and were also verified against the intuition of 20 other native speakers who mainly come from the Governorate of Al-Karak in the south of Jordan. The data were presented to the informants of the study in written and spoken form. We then asked the informants to read each sentence aloud and judge whether it is acceptable or unacceptable.

(3) a. *kariim gaal ʔinn-uh/ha l-bint ʃarb-it l-ħaliib*
Kareem said.3SG.M COMP-3SG.M/3SG.F DEF-girl drank-3SG.F DEF-milk
'Kareem said that the girl drank the milk.'
b. ... *ʔinn-uh/hin l-banaat ʃarb-an l-ħaliib*
COMP-3SG.M/3PL.F DEF-girls drank-3PL.F DEF-milk
'(Kareem said that) … the girls drank the milk.'
c.... *ʔinn-uh/hum l-wlaad ʃarb-u l-ħaliib*
COMP-3SG.M/3PL.M DEF-boys drank-3PL.M DEF-milk
'(Kareem said that) … the boys drank the milk.'

In all of the examples in (3), the complementizer *ʔinn* may appear with the affix *-uh*, which spells out the third person, singular and masculine default agreement morphology in Arabic. That the third person, singular, and masculine features are the default agreement features in Arabic has been proposed by several researchers (see, e.g., Benmamoun 2000; Soltan 2007; Aoun et al. 2010). The complementizer may also carry agreement morphology that matches the Φ-features of the local subject. We take this to indicate that CA is obligatory in JA in the sense that the complementizer has to carry either default agreement or full agreement. Nonetheless, structural CA whereby the complementizer agrees with the Φ-features of the local subject is optional in JA.

Van Koppen (2020) states that while CA is obligatory in the West Flemish dialect reported in Haegeman (1992a, 2000), it is optional in other varieties of West Flemish such as the dialect of De Panne reported in Ackema and Neeleman (2004) and for some speakers of Bavarian as reported in Mayr (2010). He further suggests that the source of the optionality of CA may be sociolinguistic:

CA does not have an effect on the meaning of a sentence. It is reported that there is a register effect, though: Some speakers experience CA as belonging to another (more archaic) register (cf. Hoekstra & Smits 1997: 12); there is no

thorough sociolinguistic research about this aspect of CA, however. CA is also a phenomenon that is typically found in nonstandard languages, i.e., in dialects or regiolects, i.e., it is not a property of the standard varieties of Dutch or German, although it is a property of Frisian, which is recognized as an official language in the Netherlands. (Van Koppen 2020: 314)

Data from Arabic conform to the register source of the optionality of CA. While CA is obligatory in vernacular JA, it is unacceptable in Standard Arabic as shown in (4) below, where the complementizer *ʔinna* cannot carry either default agreement or full agreement.

(4) *ʕali-un* *qaala* *ʔinn-a-(*hu/*hum)* *ʔasˁhaab-a-hu* *naam-u*
Ali-NOM said.3SG.M COMP-ACC-(*3SG.M/*3PL.M) friends-ACC-his slept.3PL.M
baakir-an
early-ACC
'Ali said that his friends have slept early.'

We argue that the optionality of CA in JA between default agreement and full agreement suggests that the morphology on the complementizer in the language is the spell-out of an inflectional agreement affix rather than a pronominal clitic. This is supported by Preminger's (2009: 623) diagnostic of distinguishing agreement and clitic doubling reproduced in (5).

(5) Preminger's Diagnostic
Given a scenario where the relation R between a morpheme M and the corresponding full noun phrase X is broken -- but the result is still a grammatical utterance -- the proposed diagnostic supplies a conclusion about R as follows:
a. M shows up with default Φ-features (rather than the features of X) → R is Agree
b. M disappears entirely → R is clitic doubling

The diagnostic predicts that when agreement and clitic doubling fail, only agreement can be realized with default Φ-features. Agreement involves feature valuation whereas clitic doubling involves the merger of a pronominal morpheme. When agreement is broken by, for example, an intervening inactive goal, default Φ-features have to be used for what otherwise would be unvalued Φ-features. When clitic doubling is broken by, for example, lack of locality (i.e., clause-mate relation), a pronominal clitic simply does not appear and no default form is used since no feature valuation is involved and no Φ-features are left unvalued. Although the use of default Φ-features on the complementizer in JA does not necessarily require that CA is structurally broken, it can still be an argument in support of the status of the bound form on the complementizer as an inflectional agreement affix according to Preminger's Diagnostic. The diagnostic predicts default Φ-features to be acceptable in agreement constructions but not in clitic doubling constructions regardless of what may break those constructions, including optionality for the case of JA.

Jarrah (2020) provides supporting evidence form the Binding Theory (Chomsky 1980, 1981) on the inflectional status of the bound affix on the complementizer in JA. Consider the following example:

(6) *ʔabuu-i* *fakkar* *ʔinn-ha* *ʔis-sijjaarah* *ʔiz-zulum* *sarag-u-ha*
father-my believed.3SG.M COMP-3SG.F DEF-car DEF-men stole-3PL.M-it
'My father believed that the car, the men stole it.'
(Jarrah 2020: 158)

Jarrah argues that if the bound affix *-ha* on the complementizer *ʔinn* in the embedded OSV clause in (6), which is co-referential with the immediately following R-expression *ʔis-sijjaarah* 'the car', is a pronominal clitic, the R-expression would then be bound by the pronominal clitic in violation of Principle C of the binding theory, incorrectly predicting

sentences like (6) above to be ungrammatical.

We conclude then that JA exhibits CA. However, the complementizer in JA may either display default agreement or full agreement. In the remainder of this paper, we will examine the distribution of CA in JA. Following the proposals by van Craenenbroeck and van Koppen (2002); Carstens (2003); van Koppen (2005) and Haegeman and Van Koppen (2012), we show that CA in JA is syntactic agreement in the sense of Chomsky (2000, 2001). To this end, we discuss the interaction of CA with subject position in embedded clauses in JA in Section 3 below.

3. CA and the position of the subject

JA allows for two subject positions in embedded clauses. The subject may either precede or follow the verb in embedded clauses in JA as shown in the embedded SVO and VSO clauses in (7) and (8), respectively. SVO and VSO clauses are also attested in root clauses in JA (see Alsarayreh 2012; Al-Shawashreh 2016).

(7) *kariim gaal ʔinn-uh salma kasara-t ʃ-ʃubbaak*
Kareem said.3SG.M COMP-3SG.M Salma broke-3SG.F DEF-window
'Kareem said that Salma broke the window.'

(8) *kariim gaal ʔinn-uh kasara-t salma ʃ-ʃubbaak*
Kareem said.3SG.M COMP-3SG.M broke-3SG.F Salma DEF-window
'Kareem said that Salma broke the window.'

One question that has occupied generative research on the derivation of SVO and VSO clauses in Arabic concerns the structural status of the subject in the two word-order patterns. There is general consensus on the status of the so-called postverbal subject in VSO clauses in Arabic as a genuine subject. However, it is debatable whether the postverbal subject stays in the thematic subject position in Spec,v*P and the verb moves to T^0 as represented in (9a) or whether the postverbal subject moves to the grammatical subject position in Spec,TP and the verb moves to C^0 as represented in (9b) (see Aoun et al., 2010 for a discussion).

(9) VS(O)
a. $[_{TP}$ T+[*v**+V] $[_{v*P}$ DP t_{v*} $[_{VP}$ t_V YP]]]
b. $[_{CP}$ C+[*v**+V] $[_{TP}$ DP T+$t_{[v*+V]}$ $[_{v*P}$ t_{DP} t_{v*} $[_{VP}$ t_V YP]]]

The status of the so-called preverbal subject in SVO clauses, on the other hand, is controversial. Under one analysis, the preverbal subject is considered as a genuine subject in Spec,v*P that later undergoes A-movement to Spec,TP as represented in (10b) (Mohammed 1990, 2000; Bolotin 1995; Benmamoun 2000; Bahloul and Harbert 2002). Under another analysis, the preverbal subject is considered as a topic or a clitic-left dislocated (CLLDed) element that is base-generated in an Ā-position which could be the specifier position of TP or a functional projection above TP and that binds a null pronominal element in the thematic subject position inside the clause as represented in (10b) (Bakir 1980; Fassi Fehri 1988, 1989; Ouhalla 1988, 1991, 1994; Demirdache 1991; Plunkett 1993, 1996; Aoun et al. 2010). Still, a third analysis of SVO clauses in Arabic proposes that preverbal subjects are ambiguous between subjects and topics (or CLLDed elements) (Fassi Fehri 1993; Jarrah 2019a). The data from the interaction of CA with preverbal subjects presented in Section 3 supports an ambiguity analysis of preverbal subjects in Arabic.

(10) SV(O)
a. $[_{TP}$ DP T+[*v**+V] $[_{v*P}$ t_{DP} t_{v*} $[_{VP}$ t_V YP]]]
b. $[_{TP}$ DP_i T+[*v**+V] $[_{v*P}$ pro_i t_{v*} $[_{VP}$ t_V YP]]]

Case assignment has featured as one important test for the structural status of postverbal and preverbal subjects in Arabic. In the remainder of Section 3, we will review previous ideas on the interaction of Case assignment and subject position in Arabic. Then, we will discuss data from JA that shows that CA interacts with Case assignment and subject position in an intriguing manner. We contend that the facts from CA in JA support the subject analysis of the so-called postverbal subject and the ambiguity analysis of the so-called preverbal subject.

Jarrah (2019) motivates the subject analysis of preverbal DPs in JA through Case assignment. He argues that a preverbal DP is assigned nominative Case by T^0, showing that this can be implemented via the operation Agree in Minimalist syntax (Chomsky 2000, 2001). Following the standard generative assumptions about thematic subjects, Jarrah proposes that the preverbal subject is assumed to originate in Spec,v*P (serving as a goal) with interpretable Φ-features that match the uninterpretable Φ-features of T^0 (serving as a probe). When the derivation reaches the T' cycle, T^0 establishes an Agree relation with the DP in spec,v*P. As a result of this agreement relation, the unvalued uninterpretable Φ-features of T^0 are valued by the matching interpretable Φ-features of DP, and the unvalued uninterpretable Case feature of DP is valued as nominative by T^0. The agreement relation between T^0 and DP also results in the movement of DP to Spec,TP to check the EPP feature on T^0.

Soltan (2007), on the other hand, argues that Case properties of preverbal subjects and postverbal subjects in Standard Arabic support the status of the former as topics and the latter as subjects. In particular, he demonstrates that while postverbal subjects in Standard Arabic always carry nominative Case, preverbal subjects appear in the nominative Case only in the absence of a Case assigner. Consider the following data:

(11) a. *qaraʔa* *ʔal-ʔawlaad-u* *ʔal-dars-a*
read.3SG.M DEF-boys-NOM DEF-lesson-ACC
'The boys read the lesson.'
Soltan (2007: 53)
b. *ʔal-ʔawlaad-u* *qaraʔ-uu* *ʔal-dars-a*
DEF-boys-NOM read-3PL.M DEF-lesson-ACC
'The boys read the lesson.'
Soltan (2007: 54)

(12) a. *ʔinna* *l-ʔawlaad-a* *qaraʔ-uu* *ʔal-dars-a*
COMP DEF-boys-ACC read.3PL.M DEF-lesson-ACC
'I affirm that the boys read the lesson.'
Soltan (2007: 54)
b. *ǧann-a* *Zayd-un* *ʔal-ʔawlaad-a* *raħal-uu*
believed-3SG.M Zayd-NOM DEF-boys-ACC left-3PL.M
'Zayd believed the boys to have left.'
Soltan (2007: 54)

The data in (11) show that both the postverbal as well as the preverbal DP carry nominative Case. The data in (12), in contrast, show that the preverbal DP appears with the accusative Case when it is preceded by the complementizer *ʔinna* 'that' (12a), or when it occurs in the domain of the matrix verb *ǧanna-a* 'believed' in a raising-to-object construction (12b). These data led Soltan to conclude that nominative Case on postverbal subjects is structural, whereas nominative Case on preverbal subjects is the default Case that is typically assigned to topics in the language when no proper Case assigner is present. The status of nominative Case as the default Case in Arabic that is assigned to elements not structurally Case-marked is widely accepted (see, e.g., Mohamed 1990, 2000; Ouhalla 1994a; Aoun et al. 2010).

Unlike Standard Arabic, the spoken dialects have lost their overt Case marking. Therefore, we cannot test whether a

preverbal subject in an embedded SVO clause in JA carries nominative Case or is assigned accusative Case by the complementizer. Nonetheless, we can test whether the complementizer can agree with preverbal subjects and postverebal subjects alike. Data from JA show that the complementizer might agree in Φ-features with preverbal DPs in embedded SVO clauses, but never with postverbal DPs in embedded VSO clauses. Consider the following examples:

(13) a. *d-daktoor* *fakkar* *ʔinn-uh/hum* *tˁ-tˁullaab* *ħall-u*
DEF-professor thought.3SG.M COMP-3SG.M/3PL.M DEF-students answered-3PL.M
kul *l-ʔassilih*
all DEF-questions
'The professor thought that the students answered all questions.'
b. ... *ʔinn-uh/*hum* *ħall-u* *tˁ-tˁullaab* *kul* *l-ʔassilih*
COMP-3SG.M/*3PL.M answered-3PL.M DEF-students all DEF-questions
'(The professor thought) … that the students answered all questions.'

The data in (13) show that while the complementizer might host the default third-person singular masculine agreement morpheme in both SVO and VSO clauses, it can host full agreement morphology with the subject only in SVO clauses. The contrast in (13) can readily be accounted for if we assume that postverbal DPs in VSO clauses are subjects, whereas preverbal DPs in SVO clauses are topics. On the one hand, the complementizer may agree with the preverbal DP in the embedded SVO clause in (13a) because when the derivation reaches the C'-cycle, C^0 (serving as a probe with unvalued uninterpretable Φ-features) locates the preverbal DP as an active goal with matching valued interpretable Φ-features. The preverbal DP will be available as an active goal for the agreeing complementizer because it is a topic (or a CLLDed element) base-generated in Spec,TP with its uninterpretable Case feature still unvalued, see (14a). On the other hand, the complementizer may not agree with the postverbal DP in the embedded VSO clause in (13b) because the postverbal DP is a subject that has already been assigned nominative Case by T^0 through Agree in its initial position in Spec,v*P; hence it will not be available for any further agreement operations in accordance with the active Case requirement for goals (Chomsky 2000, 2001), see (14b).

(14) a. [CP C *ʔinn* [TP DP$_i$ T+[*v**+V] [*v**P *pro*$_i$ *t*$_{v*}$ [VP *t*$_V$ YP]]]

b. [CP C *ʔinn* [TP T+[*v**+V] [*v**P DP *t*$_{v*}$ [VP *t*$_V$ YP]]]
X

Note here that we adopt the assumption that preverbal subjects in SVO clauses are base-generated in Spec,TP and not Spec, CP and the assumption that postverbal subjects in VSO clauses remain in Spec,v*P and do not move to Spec,TP. Nothing, however, hinges on these assumptions. What is essential to our analysis is that a preverbal subject has its Case unvalued because it is a topic base-generated in its surface position whether it is Spec,TP or Spec,CP, and that a postverbal subject is a real subject that has its Case already valued against T^0 whether it remains in Spec,v*P or moves to Spec,TP.

An anonymous reviewer raised a point about the acceptability of CA with embedded pronominal subjects. Data from JA show that the complementizer must inflect for the Φ-features of both overt and null embedded pronominal subjects as exemplified in (15a) and (15b), respectively.

(15) a. *d-daktoor* *fakkar* *ʔinn-*uh/hum* *humma* *ħall-u*
DEF-professor thought.3SG.M COMP-3SG.M/3PL.M they answered-3PL.M

kul *l-ʔassilih*
all DEF-questions
'The professor thought that they answered all questions.'

b. *d-daktoor* *fakkar* *ʔinn-*uh/hum* *ħall-u* *kul* *l-ʔassilih*
DEF-professor thought.3SG.M COMP-3SG.M/3PL.M answered-3PL.M all DEF-questions
'The professor thought that (they) answered all questions.'

CA with a pronominal subject is obligatory even when a pronominal subject appears post-verbally as shown in (16).

(16) a. *d-daktoor* *fakkar* *ʔinn-*uh/hum* *ħall-u* *humma*
DEF-professor thought.3SG.M COMP-3SG.M/3PL.M answered-3PL.M they
kul *l-ʔassilih*
all DEF-questions
'The professor thought that they answered all questions.'

The interaction of CA with pronominal subjects as opposed to lexical subjects shows that CA with the former is not sensitive to the active Case requirement for goals (Chomsky 2000, 2001). This suggests that Agree might not be involved in CA with pronominal subjects in JA. Rather, CA with pronominal subjects in JA seems to be subject to a prosodic checking operation that takes place at PF as we are going to see in Section 5.

The interaction of the complementizer with embedded lexical preverbal and postverbal subjects in JA argues against Pesetsky and Torrego's (2001) and Carstens's (2003) assumption that deletion-marked Case, like other uninterpretable features, remains syntactically active until the next strong phase, that is, until the next CP or transitive v*P. Carstens (2003) argues that this assumption allows CA and subject agreement to cooccur in West Germanic languages such as West Flemish (see the examples in (1) above). First, when T^0 is merged, it acts as a probe with uninterpretable Φ-features, locating the in-situ subject as an active goal, see (17a). As a result, the uninterpretable Φ-features of T^0 and the uninterpretable Case feature of the subject are valued and marked for deletion, and the EPP feature on T^0 raises the subject to Spec,TP, see (17b). Second, when C^0 is merged, it also acts as a probe with uninterpretable Φ-features, locating the raised subject in Spec,TP as its goal, see (17c). Following Pesetsky and Torrego's (2001), Carstens (2003) proposes that C^0 can still establish an Agree relation with the subject in (17c) even though it has already checked its Case against T^0 in its base position in Spec,v*P because deletion-marked Case remains syntactically active until the next strong phase.

a. $[_{TP}\ T_{\Phi,\ EPP}\ [_{vP}\ Subj_{u Case}\ \ldots]]$	Agree (T, Subj) = "subject agreement"
b. $[_{TP}\ Subj_{u Case}\ T_{\Phi,\ EPP}\ [_{vP}\ t_{Subj}\ \ldots]]$	T's uninterpretable features marked for deletion: Subj raises to satisfy T's EPP feature
c. $[_{CP}\ C_{\Phi}\ [_{TP}\ Subj_{u Case}\ T_{\Phi,\ EPP}\ [_{vP}\ t_{Subj}\ \ldots]]]$	Agree (C, Subj) = "complementizer agreement": C's uninterpretable features marked for deletion

(Adapted from Carstens 2003: 396-397)

Carstens (2003) argues that this analysis is supported by the interaction of CA with fronted

objects. He shows that the complementizer cannot establish an Agree reaction with either the fronted object or the subject in (18) below where the fronted object intervenes between the complementizer and the subject.

(18) *Ik* *deenke* *dat/*datte* *oons* *zölfs* *Jan* *nie* *mag.*
I think that/*that-1PL us even Jan not likes
'I don't think even Jan likes us (lit. I think that us, even Jan doesn't like).'
(Carstens 2003: 400)

When v* is merged, it acts as a probe with uninterpretable Φ-features, locating the in-situ object as an active goal, see (19a). The uninterpretable features of C^0 cannot initiate a subsequent Agree relation with the fronted object because the uninterpretable Case feature of the object has already been valued and marked for deletion by v* in the strong v*P phase, see (19b). C^0 cannot also Agree with the subject due to Chomsky's (2000) Defective Intervention Constraint, whereby an Agree relation between a probe and a potential goal can be blocked by a defective intervener, another goal that intervenes between the probe and its potential goal and that is inactive by virtue of having its features already valued in the derivation, see (19c).

(19) a. [$_{vP}$ v_{Φ}* [$_{VP}$ V Obj$_{u\text{Case}}$]]

b. [$_{CP}$ C$_{\Phi}$ [$_{TP}$ ObJ$_{u\text{Case}}$ [$_{TP}$ Subj ...]]]

c. [$_{CP}$ C$_{\Phi}$ [$_{TP}$ ObJ$_{u\text{Case}}$ [$_{TP}$ Subj ...]]]

(Adapted from Carstens 2003: 401)

While the assumption that deletion-marked Case can survive until the next strong phase can account for the interaction of CA with the subject and with fronted objects in West Germanic languages, it fails to extend to the interaction of CA with the subject position in JA. This assumption predicts that a postverbal subject in JA that is deletion-marked by T^0 in its base position in Spec,v*P can still survive as an active goal for the agreeing complementizer in its surface position whether it is Spec,v*P or Spec,TP, contrary to fact.

4. The interaction of CA with definite and indefinite preverbal subjects

The sensitivity of CA in JA to structural Case is further supported by the interaction of CA with definite and indefinite preverbal subjects. Interestingly, the complementizer may agree only with definite preverbal subjects in JA, but not with indefinite preverbal subjects as shown in the following examples:

(20) a. *maha btiħki ʔinn-uh/ha l-bissih ʕaðʕðʕ-at l-walad*
Maha say.3SG.F COMP-3SG.M/3SG.F DEF-cat.F bit-3SG.F DEF-boy.
'Maha says that the cat bit the boy.'

b. ... *ʔinn-uh/*ha bissih ʕaðʕðʕ-at l-walad*
COMP-3SG.M/*3SG.F DEF-cat.F bit-3SG.F DEF-boy.
'(Maha says) … that a cat bit the boy.'

In (20a), the preverbal subject (of the embedded clause) is definite in which case the complementizer may either host default agreement morphology or morphology that Φ-agrees with the preverbal subject. In (20b), on the other hand, the preverbal subject (of the embedded clause) is indefinite and the complementizer may host only default agreement morphology. We propose that the contrast of CA with definite preverbal subjects and indefinite preverbal subjects follows from the status of the former as topics and the latter as subjects. A definite preverbal subject is a topic base-generated in Spec,TP with its uninterpretable Case marking still unvalued; thus it can serve as an active goal for the agreeing complementizer. An indefinite preverbal subject, on the other hand, is a real subject that has already checked its structural Case against T^0 in its base position in Spec,v*P. For this reason, an indefinite preverbal subject cannot function as an active goal for any further agreeing head such as C^0. An anonymous reviewer raises the point that the complementizer might Φ-agree with the indefinite subject in (20b) if the sentence is uttered in a way that combines the complementizer and the indefinite subject *bissih* 'a cat' in one prosodic phrase to show that it is contrastively focused. We argue that this might follow from the status of the indefinite subject in such a case as a cleft phrase that is derived by base-generation as we are going to see shortly.

Two tests support the status of definite preverbal subjects as topics and the status of indefinite preverbal subjects as real subjects in embedded clauses in JA. One test concerns the referential properties of the two types of subjects, as was first

suggested for root clauses in Standard Arabic by Fassi Fehri (1993). Definite or 'strongly referential' DPs can serve as CLLDed elements and function as topics in JA, whereas indefinite or 'weakly referential' DPs cannot do so as shown in the examples in (21a) and (21b), respectively.

(21) a. *l-baab* *fataħ-uh* *raaʃid*
DEF-door opened.3SG.M-it Rashid
'The door, Rashid opened it.'
b.**baab* *fataħ-uh* *raaʃid*
door opened.3SG.M-it Rashid

Fassi Fehri (1993) suggests that the ban on the use of indefinite DPs as CLLDed elements follows from a uniformity condition on chains that include a resumptive pronoun. He argues that, being inherently definite, a resumptive pronoun can be bound only by a definite antecedent. It follows then that a definite or 'strongly referential' preverbal subject may bind a resumptive pronoun and serve as a topic. An indefinite preverbal subject, on the other hand, is 'weakly referential' and it therefore cannot bind a resumptive pronoun and have a topical interpretation.

Another test that supports the assumption that definite preverbal subjects in JA may function as topics whereas indefinite preverbal subjects may not pertains to the distribution of the two types of subjects in wh-interrogatives. Definite preverbal subjects may either follow or precede a question word in an embedded wh-interrogative as shown in the examples in (22).

(22) a. *l-ʔustaað* *bitsaaʔal* *ʔinn-uh* *leeʃ* *tˁ-tˁullaab* *ma-ħall-u*
DEF-teacher wonder.3SG.M COMP-3SG.M why DEF-student.P NEG-answer-3PL.M
wala *suʔaal*
any question
'The teacher wonders why the students have not answered any question.'
b.… *ʔinn-uh* *tˁ-tˁullaab* *leeʃ* *ma-ħall-u* *wala* *suʔaal*
COMP-3SG.M DEF-student.P why NEG-answer-3PL.M any question
'(The teacher wonders) … why the students have not answered any question.'

An indefinite preverbal subject, on the other hand, may only follow a question word in an embedded wh-interrogative as shown in the examples in (23).

(23) a. *salma* *btitsaaʔal* *ʔinn-uh* *leeʃ* *walad* *ðˁarab* *l-bint*
Salma wonder.3SG.F COMP-3SG.M why boy hit.3SG.M DEF-girl
'Salma wonders why a boy hit the girl.'

b. *… *ʔinn-uh* *walad* *leeʃ* *ðˁarab* *l-bint*
COMP-3SG.M boy why hit.3SG.M DEF-girl
'(Salma wonders) … why a boy hit the girl.'

Assuming that question words like *leeʃ* 'why' sit at the edge of the left-periphery of the clause, we propose that a definite preverbal subject can either follow a question word where it functions as a subject or precede the question word where it functions as a left-peripheral topic. An indefinite preverbal subject, on the other hand, can only follow a question word because it is unambiguously a subject.

This analysis predicts that the complementizer may agree with a definite preverbal subject only when the latter precedes a question word and can function as a topic. This prediction in borne out as exemplified in (24) below.

(24) a. *jaara istaɣrab-at ʔinn-uh/hin l-banaat leeʃ ma-ʔidʒ-an*
Yara wondered-3SG.F COMP-3SG.M/3PL.F DEF-girls why NEG-came-3PL.F
ʕa-l-ħaflih
to-DEF-party
'Yara wondered why the girls did not come to the party.'
b. ... *ʔinn-uh/*hin leeʃ l-banaat ma-ʔidʒ-an ʕa-l-ħaflih*
COMP-3SG.M/*3PL.F why DEF-girls NEG-came-3PL.F to-DEF-party
'(Yara wondered) … why the girls did not come to the party.'

In (24a), the embedded subject *l-bannat* 'the girls' precedes the question word *leeʃ* 'why', in which case the complementizer *ʔinn* may either host default agreement morphology or inflects for the Φ-features of the embedded subject. In (24b), on the other hand, the embedded subject *l-bannat* follows the question word *leeʃ*, in which case the complementizer *ʔinn* may host only default agreement morphology.

Surprisingly, the complementizer may agree with an indefinite DP in preverbal position in constructions like (25) in which the preverbal indefinite is a cleft-phrase followed be a free relative clause.

(25) *ʔamiir qaal ʔinn-uh/ha bint illi dˁarab-t l-walad*
Ameer said.3SG.M COMP-3SG.M/3SG.F girl COMP hit-3SG.F DEF-boy
'Ameer said that it is a girl who hit the boy.'

In (25), the complementizer may either carry default agreement or agreement morphology that inflects for the Φ-features of the embedded preverbal indefinite *bint* 'a girl'. The structure of clefts in JA is beyond the scope of this paper. But, it suffices to say that cleft-phrases in Arabic are generally assumed to be base-generated in their surface position (see Cheng 1991; Shlonsky 2002; Abdel-Razaq 2015). It follows then that a clefted indefinite is base-generated in its surface position with its Case not yet marked for deletion and therefore it may serve as an active goal for the agreeing complementizer.

To sum up, data from the interaction of CA with postverbal and preverbal subjects in JA show that CA in the language is the result of the operation Agree with C^0 serving as a probe and the local subject serving is its potential goal. The data presented in Section 3 also show that CA in JA is sensitive to the the active Case requirement for goals (Chomsky 2000, 2001): Only definite preverbal subjects that have not had their Case already deletion-marked can serve as active goals for the agreeing complementizer. In Section 5, we discuss additional evidence from clauses with coordinated subjects on the sensitivity of CA in JA to structural Case.

5. CA with Coordinated Subjects

Coordinated subjects in embedded clauses in JA may appear pre-verbally and post-verbally. In the first case, the complementizer may carry either default agreement or agreement with the Φ-content of the coordinate structure as shown in (26a). When the coordinated subject appears post-verbally, the complementizer may host only default agreement as shown in (26b).

(26) a. *Adam ʔiʕtaraf ʔinn-uh/hum ʔuχt-uh w-ʔaχ-uuh*
Adam confessed.3SG.M COMP-3SG.M/3PL.M sister-his and-brother-his
kasar-u l-vaaza
broke.3PL.M DEF-vase
'Adam confessed that his sister and his brother broke the vase.'
b. ... *ʔinn-uh/*hum kasar-u ʔuχt-uh w-ʔaχ-uuh l-vaaza*
COMP-3SG.M/*3PL.M broke.3PL.M sister-his and-brother-his DEF-vase
'(Adam confessed) … that his sister and his brother broke the vase.'

The contrast in (26) follows from our assumption that a preverbal subject in JA may serve as an active goal for the agreeing complementizer whereas a post-verbal subject may not. The preverbal coordinated subject (of the embedded clause) in (26a) is a topic base-generated in its surface position in Spec,TP with its Case feature still not marked for deletion. The post-verbal coordinated subject (of the embedded clause) in (26b), on the other hand, is a real subject that has already valued its uninterpretable Case against T^0 in its initial position in Spec,v*P and is therefore no more accessible as an active goal for the agreeing complementizer.

Interestingly, when an embedded preverbal coordinated subject is present, the complementizer may agree with the entire conjunction, but not with the first conjunct as shown in (27).

(27) a. *Adam ʔiʕtaraf ʔinn-*ha/hum ʔuχt-uh w-ʔaχ-uuh*
Adam confessed.3SG.M COMP-*3SG.F/3PL.M sister-his and-brother-his
kasar-u l-vaaza
broke.3PL.M DEF-vase
'Adam confessed that his sister and his brother broke the vase.'

The embedded subject is (27) includes a third person singular feminine noun (first conjunct) coordinated with a third person singular masculine noun (second conjunct). The complementizer may appear only in the plural, agreeing with the complete coordination.

The example in (27) provides supporting evidence that CA in JA is Agree-based. Following Radford (2009), we assume an analysis for coordination structures whereby the coordinating conjunction serves as the head of the structure, the first conjunct serves as a specifier, and the second conjunction serves as a complement as represented in the tree diagram in Figure (1).

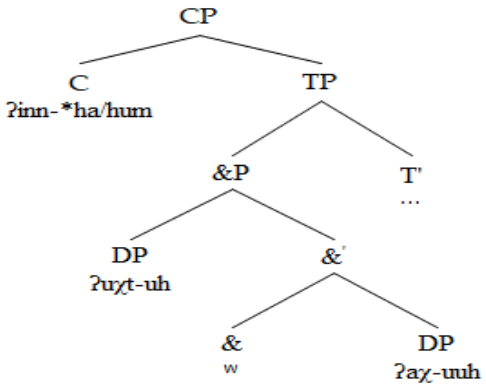

Figure 1: CA with coordinated subjects in JA

Figure (1) shows that its structural locality rather than linear adjacency that is the important factor in CA in JA. The complementizer c-commands both the complete coordination structure and the first conjunct in (27). However, the complementizer may agree only with the most local potential goal (i.e., the complete &P), but not the most adjacent potential goal (i.e., the first conjunct).

Ackema and Neeleman (2004) argue that adjacency is a necessary condition of CA in the West-Flemish dialect of De Panne, see (28).

(28) a.…*da/da-n zunder op den warmste dag van t jaar tegen under wil*
that/that-3.PL they on the hottest day of the year against their will
gewerkt en
worked have
b. …*da/*da-n op den warmste dag van t jaar zunder tegen under wil*

that/*that-3.PL on the hottest day of the year they against their will *gewerkt en*
worked have
' …that they have worked against their will at the hottest day of the year.'
Ackema and Neeleman (2004: 240)

These examples show that CA is optional in De Panne. However, CA is unacceptable when an adverb intervenes between the complementizer and the local subject. Ackema and Neeleman (2004) propose that CA in De Panne is a typical example of prosodic checking. Prosodic checking takes place when two sets of features are in the same prosodic domain at PF as schematized in (29), where A and B are sets of features and curly brackets mark prosodic domains.

(29) {[A (F1) (F2) (F3) …] [B (F1) (F2) (F3) …]} →
{[A ($F1_i$) ($F2_j$) (F3k) …] [B ($F1_i$) ($F2_j$) ($F3_k$) …]}

The complementizer and the local subject are in the same prosodic domain in (28a) and the subject checks the uninterpretable features of the complementizer. In (28b), on the other hand, the adverb intervenes between the complementizer and the subject, blocking prosodic checking of the uninterpretable features of the complementizer by the subject.

Data from JA shows that prosodic checking might be involved in CA when the subject includes a pronominal element. Witness (30).

(30) a. *Sarah ankara-t ʔinn-ha/*hin hii w-Layla rasab-an fi-l-ʔimtiħaan*
Sarah denied-3SG.F COMP-3SG.F/*3PL.F she and-Layla.F failed-3PL.F in-DEF-exam
'Sarah denied that she and Layla have failed the exam.'

The subject (of the embedded clause) in (30) includes the third person singular feminine pronoun *hii* 'she' (first conjunct) coordinated with the third person singular feminine proper noun *Layla* (second conjunct). However, the complementizer may appear only in the singular, agreeing with the most adjacent first conjunct rather than the most local complete &P (cf. (27) above). This suggests that CA with lexical DPs and CA with pronominal elements call for different analyses. While CA with lexical DPs happens at syntax and is regulated by the operation Agree, CA with pronominal subjects happens at PF and is subject to a prosodic checking condition.

6. Conclusion

This study shows that the complementizer *ʔinn* in JA has to either carry default agreement morphology or inflect for the Φ-features of the local subject. We propose an Agree-based analysis of CA in JA that subsumes the active Case requirement for goals (Chomsky 2000, 2001). We demonstrate that the complementizer *ʔinn* in JA (serving as a probe) may Agree only with an active goal that has its Case feature still unvalued, contra Pesetsky and Torrego (2001) and Carstens (2003) who argue that an inactive goal can survive until the next phase. A preverbal subject in JA may serve as an active goal for the agreeing complementizer because it is a topic base-generated in its surface position with its Case feature still unvalued. Only definite preverbal subjects can function as topics and serve as active goals for *ʔinn*, as desired. A postverbal subject, on the other hand, does not qualify as an active goal for the agreeing complementizer because it has already been assigned nominative Case by T^0 through Agree in its initial position in Spec,v*P; hence it will not be available for any further agreement operations. The interaction of CA with coordinated subjects in JA shows that *ʔinn* may agree with the two elements of the coordination when the first conjunct is a lexical DP, but only with the first element of the coordination when the first conjunct is pronominal, suggesting a syntactic account in terms of Agree (Chomsky 2000, 2001) for the former case, but a PF account in terms of prosodic checking (Ackema and Neeleman 2004) for the latter case.

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