SIMPLE SUBJECT-VERB AGREEMENT

A MORPHOSYNTACTIC PATH TO ARABIC VARIATIONS

by

Turki M. Alwahibee

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ABSTRACT

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The analytic object of this dissertation is to formally model the Arabic subject-verb agreement aspects, more particularly, the verbal agreement with simple subject DPs. It aims to define how φ-agreement is formally manifested across the Arabic varieties, more specifically, Standard Arabic and the current dialects, and hopes to draw the latter varieties' interrelation. In other words, this thesis hopes to advance the overall understanding of subject-verb agreement in Arabic and contribute to a clearer and simpler view of a number of specific syntactic phenomena. Most important of all, the subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in Standard Arabic (SA), whereby a subject-verb (SV) order shows full agreement in all φ-features, but a verb-subject (VS) order shows only partial agreement, typically, in Gender and Person. Nonetheless, full subject-verb agreement in VS order is robustly found in different dialects of the Arab world, in which the Number feature is obligatory.

Remarkably, not only is the partial agreement attested in SA absent in the modern dialects, but also Gender and Number morphology distinctions may often be minimized. On the one hand, a masculine agreement is syncretic whenever the agreement relation is established between a verbal predicate and dual or plural subject DPs, whether they are masculine or feminine. On the other hand, plural and dual nouns trigger plural agreement on the agreeing verbal predicate; the plural

number is syncretic whenever the subject DP is plural or dual. What's more, the Arabic (traditional) texts have an abundance of examples that do not conform to the SA norm of agreement and whose well-formedness is unquestionable, suggesting that the agreement asymmetry may not be absolute. These observations urge an in-depth investigation, assuming that they may present profound paradoxes when analyzed via the standard Agree-based mechanism.

Despite the dissimilarity between SA and the modern dialects in terms of subject-verb agreement, these varieties are mostly alike in other matters. For these reasons, I believe that any account to the subject-verb agreement must take these points into consideration. To my knowledge, there has been no detailed analysis devoted to the interrelation between the standard variety and the modern dialects in terms of subject-verb agreement. So, believing that any syntactic account to the subject-verb agreement in Arabic ought to be flexible to cover the various agreement phenomena, I argue that the various (often outwardly non-canonical) agreement patterns in Arabic are manifestations of the core syntactic Agree mechanism. Their agreement behavior is often attributed to a fundamental mismatch between the syntactic and morphological components, subject to variety/dialect-specific requirements.

In simple terms, taking the core properties of the Agree-based system to feature valuation (Chomsky, 2000 et seq.), the assumptions in Distributed Morphology (Halle & Marantz, 1993; 1994; Halle, 1994, among others), and the feature geometry advocated by Harley & Ritter (2002), among others, I posit that these agreement patterns attest very general conditions on the agreement and φ-feature manifestations in Arabic, defined in terms of restrictions on T's φ-Probe that agrees with the subject DP. Overall, given the formulation of the conditions advanced, the agreement facts across the Arabic varieties, I believe, arise naturally and predictably from the interaction of Agree, conditions on T's φ-Probe, and postsyntactic requirements.

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This thesis is dedicated to
my parents, Mohammad and Sarah,
my wife, Asma,
and my little kids, Sarah, Talal, and Lara
for all their love, support and sacrifices

بكل الحب والعرفان أهدي هذه الرسالة إلى
والديّ محمد وساره
وزوجتي أسماء
وأحبابي الصغار ساره وطلال ولارا
على كل ما قدموه من محبة ودعم وتضحية

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LIST OF ABBREVIATIONS & TRANSCRIPTIONS

ABBREVIATIONS

ABBR	Gloss	ABBR	Gloss
??	Marginal	GEN	Genitive Case
*	Unacceptable/Ungrammatical	GenP	Gender Phrase
#	Less Common	GR	Group (= PL)
✓	Acceptable/Grammatical	H	Human
φ	phi-	I-P-R	Impoverishment-Plus-Redundancy
1	1st Person	I(NFL)(P)	Inflectional (Phrase)
2	2nd Person	IMP	Imperfective Aspect
3	3rd Person	IND	Indicative Mood
ACC	Accusative Case	Ind	Individuation
Adv(P)	Adverbial (Phrase)	INDF	Indefinite
Agr(P)	Agreement (Phrase)	LF	Logical Form
AgrO(P)	Object Agreement (Phrase)	M	Masculine Gender
AgrS(P)	Subject Agreement (Phrase)	MI	Minimal (= SG)
Asp(P)	Aspect (Phrase)	MP	Minimalist Program
BP	Broken Plural	N(P)	Noun (Phrase)
C(P)	Complementizer (Phrase)	n(P)	Light Noun (Phrase)
CA	Classical Arabic	NA	Najdi Arabic
C_{HL}	FL Computational System	NH	Non-Human
CL(ASS)	Noun Class/Gender	NOM	Nominative Case
CTM	Conversion-to-Masculine	Num(P)	Number (Phrase)
CTP	Conversion-to-Plural	P-&-P	Principles and Parameters
D(P)	Determiner (Phrase)	Part	Participant
Div(P)	Division Phrase	PER	Perfective Aspect
DM	Distributed Morphology	PF	Phonetic Form
DS	Deep Structure	PL	Plural Number
DU	Dual Number (= GR-MI)	*pro*/PRO	Pronominal Element
EC	Empty Category	RT-Object	Raising-to-Object
ECM	Exceptional Case Marking	RT-Subject	Raising-to-Subject
EF	Edge Feature	SA	Standard Arabic
EPP	Extended Projection Principle	SG	Singular Number
F	Feminine Gender	SP	Sound Plural
FCA	First-Conjunct Agreement	Spec	Specifier
FI	Full Interpretation	SS	Surface Structure
FL	Language Faculty	SUB	Subjunctive Mood
GB	Government & Binding Theory	Sub	Subject

ABBR	Gloss	ABBR	Gloss
SV(O)	Subject-Verb(-Object)	VI	Vocabulary Item
t	Trace	*v*(P)	Light Verb (Phrase)
T(P)	Tense (Phrase)	V(P)	Verb (Phrase)
uF	Unvalued Feature (e.g. [uInd])	VS(O)	Verb-Subject(-Object)
UG	Universal Grammar	vSG	Valued Singular Number
VD	Vernacular Dialect		

CONSONANT TRANSCRIPTIONS

Alph.	Tran.	Phonetic Label	Alph.	Tran.	Phonetic Label
أ	ʔ	− Glottal Stop	ض	dˤ	+ Alveolar Emphatic Stop
ب	b	+ Bilabial Stop	ط	tˤ	− Alveolar Emphatic Stop
ت	t	− Alveolar Stop	ظ	ðˤ	+ Dental Emphatic Fricative
ث	θ	− Dental Fricative	ع	ʕ	+ Pharyngeal Fricative
ج	dʒ	+ Palato-alveolar Affricate	غ	ɣ	+ Velar Fricative
ح	ħ	− Pharyngeal Fricative	ف	f	− Labiodental Fricative
خ	x	− Velar Fricative	ق	q	− Uvular Stop
د	d	+ Alveolar Stop	ك	k	− Velar Stop
ذ	ð	+ Dental Fricative	ل	l	+ Alveolar Lateral
ر	r	+ Alveolar Trill	م	m	+ Bilabial Nasal Stop
ز	z	+ Alveolar Fricative	ن	n	+ Alveolar Nasal Stop
س	s	− Alveolar Fricative	ه	h	− Glottal Fricative
ش	ʃ	− Palato-alveolar Fricative	و	w	+ Labial-Velar Glide
ص	sˤ	− Alveolar Emphatic Fricative	ي	j	+ Palatal Glide

(+) = Voiced, (−) = Voiceless

VOWEL TRANSCRIPTIONS

Vowel	Phonetic Label	Vowel	Phonetic Label
i	Short High Front Vowel	u	Short High Back Vowel
i:	Long High Front Vowel	u:	Long High Back Vowel
a	Short Low Central Vowel	ai/au	Diphthongs
a:	Long Low Central Vowel		

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I learned that "[i]n the absence of compelling evidence to the contrary" (Chomsky 2001:2), one can argue for what s/he believes despite being arguably controversial; needless to say, however, I am solely responsible for any mistake, shortcoming, or error herein.

Turki M. Alwahibee
December 2020
UWM

إذا ما أتاكَ الدهرُ يوماً بنكبةٍ فأفْرغْ لها صبراً ووسّعْ لها صَدرْاً

فإن تصاريف الزمانِ عجيبةٌ فيوماً ترى يُسراً ويوماً ترى عُسراً

شهاب الدين الأبشيهي

If the time has ever come to you with a calamity, devote yourself to it with patience, for the upheaval of time is miraculous; for a day, you see ease and for another hardship.

Shihaab-Aldeen Al-Absheehi

CHAPTER (1)
The Syntactic Relations Behind Formal Feature Valuation

1.1 Introduction

The forms of a given construction may often reveal whether an agreement has taken place, considering that a particular feature value tends to be morphologically represented on more than one lexical item, albeit this feature semantic interpretation may be lacking on some of them. Thus, agreement, linguistically speaking, defines the interaction between features of lexical items that influence the shape of syntactic structures and (frequently) the process of semantic interpretations. Significantly, the mechanism nature by which agreement takes place, as well as the output of this mechanism, are less obvious (Pesetsky & Torrego, 2007, p. 262). Given the central role of such a process to the syntactic and semantic computations, a fundamental question, which has occupied the generative (syntactic) theories over the past decades, concerns how formal feature valuation, e.g., φ-features (i.e., Person, Number, and Gender) and case, among others, takes place between two or more linguistic elements in a given clause. Several empirical investigations have been devoted to delineating well-defined means by which feature valuation relations are established[1].

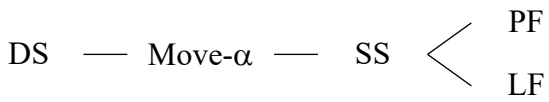
Remarkably, formal feature valuations have played a more prominent role in syntactic phenomena with the rise of the Principles and Parameters (P-&-P) approach for linguistic theory in the 1980s. Spanning over more than 30 years or so, the answer to the above question, without doubt, took different shapes and forms according to when the question asked. Importantly, it has been assumed that a particular structural configurational relationship needs to obtain between, e.g.,

[1] Feature valuation in this chapter is a cover term for feature assignment (GB), checking (Early MP), or valuation (current MP). In simple terms, feature assignment revolves around the idea that lexical items enter the derivation without specific values and that these values, e.g., nominative for subject DPs and φ-agreement for verbs, are assigned in the course of the derivation, while feature checking assumes that the lexical items enter the derivation with the presumed values, though they are checked against their identical counterparts on other (functional) elements for convergent purposes, per the feature valuation configurations assumed in the GB and early MP, respectively. In accordance with the current MP assumption, feature valuation in the rest of the work defines an Agree relation whereby a given (interpretable) value (e.g., φ-features on nouns) is transferred to an element with matching (uninterpretable) unvalued counterparts (e.g., unvalued φ-features on T/Asp) during the course of the derivation.

case assignor and assignee, as well as between agreeing elements (Poole, 2011, p. 100). All in all, the common hypothesis that has been widely assumed within the generative literature is that the syntactic component establishes the configuration for feature valuation to occur before the agreement features are spelled out on the agreeing elements. Nonetheless, the mechanisms by which these structural configurations are obtained underwent three major developmental phases within the P-&-P approach: Government, Spec-Head, and Agree. In the following sections, I briefly highlight these three historical phases, respectively.

1.1.1 The Government & Binding (GB) Approach: Valuation as Government

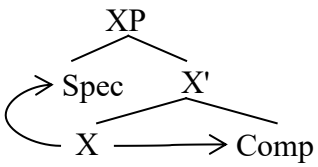
The Government and Binding (GB) framework, advocated first in Chomsky (1981), is a modular system positing that the language faculty (FL) consists of multiple derivational interrelated syntactic levels, known as the T/Y-modal (1): i) a Deep Structure (DS), ii) a Surface Structure (SS), iii) Computational operations (subsumed as Move-a), iv) a Phonetic Form (PF), and v) a Logical Form (LF) (Chomsky, 1981; Van Valin, 2001; Hornstein et al., 2005) (see section (2.2.1) for a brief elaboration on these levels).

1. 

Along with these levels and transformational rules, GB incorporates principles, encoded as sub-modules that interact with each other, as well as with the rule system. These sub-modules relates to, e.g., X'-theory, Theta-Theory, Case-Theory, Government-Theory, among other sub-modules (a detailed discussion of these sub-modules is beyond the scope of this section, but see Chomsky, 1981; Ouhalla, 1999; Hornstein et al., 2005; among others). Above all, within the GB approach, the notion of "Government" was very pervasive. Although the kinds of mechanisms or procedures that the GB modules are concerned with are very diverse, the Government's notion

provided uniformity to various aspects of GB sub-modules (Bouchard, 1982). This uniformity is ascribed to the idea that fixed phrase structure configurations, defined in terms of X'-Theory, took the internal structure of phrases to be revolving around two primitive structural relations: i) Head-Complement (X-Comp), and ii) Spec-Head (Spec-X), as shown in (2) below.

2.



Therefore, given the Government notion's pervasiveness, the canonical configuration was assumed to be established accordingly. Feature valuation was assumed to be established upon Head-Complement, defined in terms of Constituent-command (c-command) (later maximal-command (m-command) for a Spec-Head configuration[2]) (3). φ-feature valuation with and case-assignment to a given DP, for instance, was assumed to be via a c-commanding or m-commanding assigning/agreeing functional head or maximal projection, respectively (Chomsky, 1995, pp. 79 - 80; Hornstein et al., 2005, pp. 113 - 114).

3. **Government:**

α governs β iff:

i) α c-commands (or m-command) β, and

ii) there is no category γ dominating β that is a barrier, i.e., not a complement, which intervenes between α and β.

As seen, the canonical configuration of Government was initially motived upon sisterhood. However, because other relations, e.g., a relation between a finite I and a DP in its specifier, do not conform to such Government in terms of c-command, the Government's notion had to be modified

[2] The relations in terms of c-command require the two elements to be at least sisters in the sense that i) neither element dominates the other, ii) the first branching node dominating one element must also dominate the other, and iii) the two elements are not equal. In contrast, the relations in terms of m-command are more restricted and differ from those defined in terms of c-command only in the positions occupied by the constituents relative to each other. All things being equal, the former require that every maximal projection dominating one element to dominate the other.

to refer to maximal projections and the presence of barriers. In other words, the definition in terms of m-command was a necessary modification to the Government definition to unify the two configurations, the Spec-Head and Head-Complement, and to account for the different feature valuations within a given language, as well as cross-linguistically (Ouhalla, 1999, p. 193).

Even though the feature valuation via Government gave a rationale for various cross-linguistic phenomena, it was argued that such a notion, minimalistically speaking, is conceptually unappealing. It was no longer considered a primitive relation upon the Minimalist Program (MP)'s rise due to the degenerate character it had in the pre-minimalist era. Accordingly, the linguistic phenomena accommodated by appealing to Government-based accounts were recast in a different locality relation, as discussed in the following section.

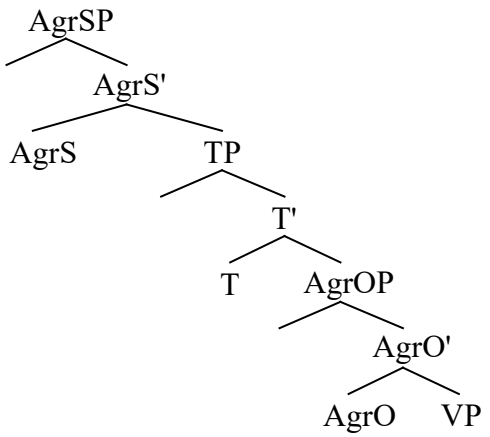
1.1.2 Early Minimalism (MP): A Spec-Head Valuation

With the advent of the Minimalist Program (MP) to linguistic theory, starting with Chomsky (1993; 1995; and references therein), and its deriving force for more elegant and economical representations and derivations, formal feature valuation underwent further radical refinement (see section (2.2) for more on MP). Simply, the MP sought to eliminate the duality of feature valuation. It removed the Government notion from the theory in favor of a uniform and symmetric Spec-Head configuration to such a process, considering that the presence of two configurations, minimalistically speaking, is an imperfection in the system. Thus, at the backdrop of Pollock's (1989) Split-INFL hypothesis[3], Chomsky (1991; 1993) proposed further refinement to the clause structure, splitting Pollock's AgrP into an AgrSP (for Agr-Subject) and an AgrOP (for Agr-

[3] Pollock's (1989) seminal work argued for splitting the traditional I^0 node into a Tense (T^0) and an Agreement (Agr^0) nodes, so-called the Split-INFL-Hypothesis. It was motived to account for the verb movement, word order, and verbal inflection differences between English and French. His publication inspired a great interest in natural language parameterization, among others.

Object), relevant for case assignment, as well as subject-verb and verb-object agreement, respectively, as shown below in (4).

4.



In essence, Chomsky (1993, pp. 7 - 8) proposed that T and V raise to the AgrS and AgrO heads, respectively, forming the complex heads [T+AgrS] and [V+AgrO]. While the first element of each complex head checks the relevant case, the second element determines the agreement type, given that the Agr heads are, in essence, a mere set of uninterpretable φ-features (Chomsky, 1995). Thus, subject-verb and verb-object agreements, as well as nominative and accusative case checking, take place under a Spec-Head relation between [T+AgrS] and [V+AgrO], respectively, with the DPs in the specifier positions of those AGR projections.

Albeit the success of such an approach to feature valuation, both Agr heads' nature was conceptually questionable. Specifically, it has been contended, more prominently by Chomsky (1995), that Agr projections were minimalistically suspicious, assuming that they live and die in the syntax proper. In particular, the agreement morphology often ends up vacating the Agr head, and gets pronounced on some other head, e.g., T, and so does the argument in its specifier. Thus, such Agr heads have no import whatsoever at the interfaces, specifically the LF, given that such heads are semantically vacuous (Chomsky, 1995, pp. 349ff; van Gelderen, 2013).

The functional category Agr, Chomsky (1995, p. 349) contends, is motivated on theory-internal grounds in the sense that, unlike T, C, and D that have interpretable features at LF by virtue of specifying finiteness, mood, and referentiality, respectively, Agr does not have any interpretable features that satisfy the LF interface condition. Instead, it has interpretable formal features relevant to PF only, and, once it does its appropriate role, it must be deleted. For that reason, it was postulated that feature valuation takes place directly in Spec-TP and Spec-VP, taking into account that both Agr heads have no role in case checking, as that those features are checked on DPs by the relevant functional heads T and V.

It is crucial to indicate that a common assumption in the early MP is the hypothesis that the formal feature bundles on merged items come into two forms, interpretable and uninterpretable valued (i.e., inflected) ones, of which only the former plays a role at LF and the semantic system. Significantly, in order to resolve the conflict between establishing a Spec-Head relation and the surface word order in a language, Chomsky (1995) postulated an abstract feature strength notion: Strong vs. Weak uninterpretable features, operating in overt and covert syntactic cycles, respectively. While the overt cycle feeds PF, the covert feeds LF. Unlike weak features, strong features must be licensed overtly before the spell-out of the structure to the two interfaces, per the bare-output conditions and the principle of Full Interpretation (FI)[4]; otherwise, the derivation crashes at PF. As for weak features, given the assumption that lexical items enter the derivation fully specified, they can survive to LF where they are licensed covertly after spell-out. Simply put, the

[4] The bare output conditions and the principle of Full Interpretation (FI), in essence, relate to the interaction between the (PF & LF) interfaces and the performance systems (i.e., the A-P and C-I, respectively). In a word, all grammatical objects generated by the computational system must be interpreted/readable by the performance systems. Hence, per the performance systems' requirements, the interfaces are said to impose bare output conditions that must be respected by all derivations and representations. For example, the principle of FI requires that all features in a given (PF, LF) pair/representation be legible at the relevant interfaces for it to be convergent; otherwise, If either the PF or LF representation does not satisfy the FI principle, the derivation is said to crash at the relevant interface. In simple terms, the FI principle mandates that there can be no superfluous symbols in the syntactic representations (unless properly licensed) nor superfluous steps in the syntactic derivations (Chomsky, 1995; Hornstein et al., 2005).

operation Move takes place, as a last resort, either overtly (for strong features) or covertly (for weak ones) in order to legitimize a syntactic object at the (PF) interface, per the requirement of a given language (Chomsky, 1995, p. 198).

The Spec-Head approach to feature valuation, like its predecessor, nonetheless, faced major conceptual drawbacks. According to Chomsky (2000), feature interpretability is a semantic notion handled by LF. Thus, for the syntactic system to determine which features are (un)interpretable at LF, it must have a kind of "look-ahead" operation, enabling it to peek at the conceptional-intentional (C-I) interface to determine whether to erase a specific feature or not. But ideally, the syntactic and the semantic systems are two different modules that are mediated via LF. For that reason, a further refinement to feature valuation was a must, as discussed in the following section.

1.1.3 Recent Minimalism (MP): An Agree-Based Valuation

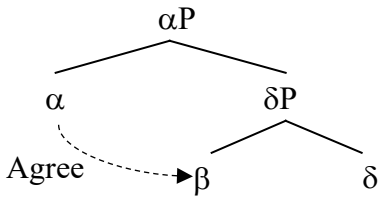
In view of the hypothesis that feature interpretability is an LF property imposed by the external C-I system, LF-driven movement, i.e., weak feature licensing and its deriving (Procrastinate) principle were eliminated from the MP. Additionally, from a minimalist point of view, the range of syntactic relations employed in the linguistic descriptions should be defined in terms of c-command. A Spec-Head agreement relation would fail to account for long-distance agreement between, e.g., an auxiliary and a DP in its complement domain (Radford, 2009), as shown below in (5).

5. a. There **was** one **prize**.
   b. There **were** several **prizes**.
   c. There **were** awarded **several prizes**.

Long-distance agreement or case-assignment, as argued, should involve a simpler notion of Government, defined in terms of c-command, under which a syntactic relation is established

between two elements in the hierarchal phrase structure, subject to some locality constraints. Accordingly, the Spec-Head approach to feature valuation, which relies on movement, was dispensed with in favor of an in-situ long-distance feature valuation approach, defined as a built-in grammatical operation termed Agree. The latter establishes an Agree relation between a higher Probe (α) and a c-commanded Goal (β) in the former's domain, as illustrated in (6) below (Chomsky, 2000). Such a transition, which took shape first in Chomsky (2000 et seq.), marks the recent and current MP views toward feature valuation.

6.



Chomsky (2001, p. 5; 2004, p. 116) proposes that, under such a theory, a feature F is uninterpretable iff it is unvalued, i.e., it is stated as a biconditional relation. Therefore, the syntax no longer cares about whether a certain feature is (un)interpretable at the semantic system; rather, it only cares about valuating and deleting these unvalued features via Agree. The core assumption under the Agree-based theory is that unlike the earlier assumption where lexical items enter the derivation already valued for both [+/- interpretable] features, only [+interpretable] features enter the derivation fully specified or valued, whereas [-interpretable] features acquire their values during the derivation.

So, Agree assigns values to unvalued features, e.g., agreement and case features on predicates and nouns, respectively, for morphological reasons, or, more particular, for PF convergence, and simultaneously deletes them for LF convergence, per the principle of Full interpretation (defined in f. 4) (Chomsky, 2000 et seq.; Hornstein et al., 2005). Although I leave the details of the underlying Agree mechanism to section (2.2.3), where I discuss the adopted framework(s), it

suffices to indicate that i) the agreeing elements must have a matching feature(s), ii) the Goal is the closest active c-commanded element, and iii) there must not be an already-checked Goal with the required valued features intervening between the Probe and the Goal.

Above all, the Agree-based system to feature valuation is argued to be advantageous over its predecessors. For one thing, long-distance feature valuation relationships as in, e.g., English Expletive constructions or subject-verb agreement in VSO languages, can now be captured immediately. Additionally, the parametric feature valuation attested within the same language and cross-linguistically can follow naturally without resorting to the controversial notion of feature strength (for other advantages of Agree, see Radford, 2009; among others).

1.2 Scope & Organization

This thesis's primary goal is to formally model the syntactic aspects of Arabic in terms of simple subject-verb agreement, and define how φ-agreement is formally manifested across the Arabic varieties. In other words, the object is to define a formal approach to accommodate such varying manifestations across the Arabic varieties, including the Standard (SA) and the Vernacular dialects (VD) in order to come closer at drawing the interrelation between the two varieties.

To illustrate, the subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in SA. Whereas a SV order shows full agreement in all φ-features (7a), a VS order, in contrast, shows only partial agreement (typically, in Gender and Person) (c). The agreement associated with each word order apparently cannot overlap with the other. Put simply, the SV order cannot have a partial agreement, nor the VS order shows full agreement.

7. a. ʔal-bana:t-u ʃa:had-na ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.PL.PER the-TV.M.SG-ACC
b. *ʔal-bana:t-u ʃa:had-at ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.SG.PER the-TV.M.SG-ACC
c. ʃa:had-at ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.SG.PER the-girl.PL-NOM the-TV.M.SG-ACC
d. *ʃa:had-na ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.PL.PER the-girl.PL-NOM the-TV.M.SG-ACC
"The girls watched the TV."

Interestingly, full subject-verb agreement in VS order is robustly found in different dialects of the Arab world, irrespective of their geographical area. To be precise, in each Arabic-speaking country, there exists a type of VD, often with sub-dialects, spoken along with the SA variety. A significant distinctive property shared by all Arabic dialects is their loss of the agreement asymmetry found in SA, whereby the Number feature is obligatory. Consider the examples in (8 - 9) below from Najdi Arabic (NA).

8. a. ʔil-ʕia:l ʃa:f-u: ʔil-film.
the-boy-PL watch-3M.PL.PER the-movie.M.SG
b. ʃa:f-u: ʔil-ʕia:l ʔil-film.
watch-3M.PL.PER the-boy-PL the-movie.M.SG
"The boys watched the movie."
9. a. ʔil-bana:t ʃa:f-u: ʔil-film.
the-girl.PL watch-3M.PL.PER the-movie.M.SG
b. ʃa:f-u: ʔil-bana:t ʔil-film.
watch-3M.PL.PER the-girl.PL the-movie.M.SG
"The girls watched the movie."

As shown, not only is the partial agreement attested in SA lacking in the VDs, but also Gender morphology distinction may often be minimized, as shown by the Gender agreement manifested on the verbal predicate in both examples above.

Significantly, the Arabic (traditional) texts have an abundance of examples that do not conform to the typical agreement asymmetry attested in SA and whose well-formedness is unquestionable. To take some cases in points, consider the following examples for VS and SV orders, respectively.

10. a. ja-taʕa:qab-u:na fi:-kum mala:ʔikat-un … .
3M-alternate-PL.IMP.IND in-you angel.M.PL-NOM
"Angels alternate on you."

b. ʔal-tˁula:b-u ta-ndʒaħ-u bi-ʔal-ʔidʒtiha:d-i.
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND by-the-hard.work-M.SG.GEN
"Students succeed through hard work."

As shown, not only can the verbal predicate in a VS order take full agreement, but under certain circumstances, a verbal predicate in SV order can also take a so-called defective agreement. In the VS(O) sentence (10a), the verb inflects for full φ-features with the subject it co-occurs with, while the verb in the SV(O) sentence (ex. b) assumes a defective (F.SG) agreement, albeit the fact that the preverbal DP is masculine plural. The agreement manifestation attested in the VDs, and the examples in (10) and the like may suggest that the correlation between the word order and the agreement asymmetry may not be absolute.

1.2.1 Research Questions

In retrospect, the subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in SA. A SV order triggers full agreement in all φ-features, in contrast to the VS order, which shows only partial agreement. Nevertheless, despite the presumed generalization, some examples exist within the standard variety that do not conform to the asymmetrical agreement norm. What's more, not only is the partial agreement attested in SA lacking in the VDs, but also the Gender and Number morphology seems to be minimized. Despite the dissimilarity between the standard variety and the modern dialects in terms of

subject-verb agreement, SA and the contemporary dialects are mostly alike in, e.g., the flexibility of word order, adjective concord, and pronouns and their associated agreement, etc. For these reasons, I believe that any account to the subject-verb agreement must take these points into consideration.

Therefore, this thesis's empirical focus is on such interesting but intriguing agreement cases that may present profound paradoxes when analyzed via the standard Agree-based mechanism. The central inquiry can be subsumed under the following questions:

1) Is the notable agreement asymmetry generalization absolute?
2) Is the so-called Arabic subject-verb agreement dialect/variety-specific?
3) If the agreement is variety-specific, is there any interrelation between the different varieties, specifically, the Standard and the VDs? and
4) What is the default valuation role in the agreement manifestations attested across the Arabic varieties?

In a nutshell, the inquiry revolves around i) whether the agreement asymmetry generalization in SA is absolute, ii) whether such an agreement is dialect/variety-specific, iii) whether there is any interrelation between SA and the dialects, and iv) whether default valuation has any role in the agreement attested across the Arabic varieties. Keeping these inquiries in mind, I argue for the absoluteness of the asymmetry generalization in SA. Specifically, the thesis's primary assumption is that despite the presence of contradicting examples to the SA view, these are not conflicting with such a generalization; the subject-verb agreement is generally dialect-specific, albeit there is some interrelation between SA and its descendent dialects.

Believing that any syntactic account to the subject-verb agreement in Arabic ought to be flexible to cover the various agreement phenomena, it is argued that the Arabic subject-verb

agreement variations reflect how each dialect relativizes its φ-feature atomic bundle on a functional head along a rich fine-grained φ-feature geometry. Such a relativization interplays with how Agree takes place syntactically and impacts the postsyntactic manipulations, if any. Given such a formulation of the conditions advanced in this thesis, the baseline counterargument advanced in the literature, I believe, dissolves. The cross-dialectal agreement variations arise systematically and predictably from the interaction of Agree, conditions on the φ-Probe, and postsyntactic requirements. The various (often outwardly non-canonical) agreement patterns in Arabic are manifestations of the core syntactic Agree mechanism. Their ostensibility is often attributed to a fundamental mismatch between the syntactic and morphological components, subject to variety/dialect-specific requirements.

1.2.2 Thesis Outline

To my knowledge, there has been no detailed analysis devoted to the interrelation between SA and the VDs in terms of subject-verb agreement. Despite the rich research on the subject-verb φ-agreement in SA and/or the VDs, as well as on the impact of clause word order on the surface agreement in the former over the past decades, there has not been much work on the subject-verb agreement with the purpose intended in this thesis. Most works that have addressed the phenomenon tend to concentrate on a non-syncretic agreement observed in either SA or in a VD, without direct emphasis on the interrelation between the two varieties and their agreement facts, nor on the interesting syncretic agreement cases. Although the account builds on these works' valuable findings, it departs from them in several ways. It hopes to advance the overall understanding of the subject-verb agreement in Arabic and contribute to a clearer and simpler view of a number of specific syntactic phenomena. As such, the chapters that follow cover up parts of the argument,

building it in a piecemeal fashion and showing that the subject-verb agreement distribution is much more diverse than is often claimed.

Chapter (2) is descriptive, discussing some preliminaries about the language and the adopted framework relevant to the main discussion. It first briefly presents some general information about the language, its history, and its morphology and clause structure. It also discusses the differences between SA and the present-day dialects in terms of their (agreement) morphology, as well as to what extent the Arabic speakers are native in the former variety. It finally goes over the adopted MP framework and its most important and current tenets and operations.

Chapter (3) explores the thesis's scope further, presenting the paradoxical nature of subject-verb agreement across the Arabic varieties. It also surveys briefly five major (GB and MP) agreement accounts advocated to account for the subject-verb agreement asymmetry in SA, arguing that they may not suffice to account for the agreement facts across the Arabic dialects. Subsequently, taking the Agree-based system to feature valuation, the Distributed Morphology (DM) core assumptions, and the feature geometry advocated by Harley & Ritter (2002), the chapter thrashes out the thesis's main proposal and arguments to accommodate the cross-dialectal subject-verb agreement variations. It finally examines how feature syncretism is handled within the DM framework.

Chapter (4) turns to some controversial aspects of the Arabic clause structure. It investigates the preverbal subject DPs status, position, and the type(s) of their merging trigger, as well as the relevance of subject (null) pronouns. Moreover, it inspects T's EPP feature and its relevance to full φ-feature agreement and word order.

Chapter (5) considers the main (non-)paradoxical agreement facts in SA and the VD against the backdrop of the earlier chapters' main assumptions. It presents the mechanisms behind the non-syncretic and syncretic agreements in the Arabic varieties, whether the preverbal subject is movement-triggered or externally merged. The syncretic agreement morphology is argued to be subsumed under two categories that I label i) Morphological One-feature Switch and ii) Number-Gender Switch. It additionally discusses how the proposed account would suffice to handle the (null) subject pronouns in both cases, i.e., whether syncretism arises or not, which often conflicts with the presumed *pro*-identification requirement.

Chapter (6) concludes the thesis and explores the implications of the proposed account in handling the various surface subject-verb agreement across the Arabic varieties, considering that this work's primary data is restricted to Najdi Arabic (NA). Furthermore, it speculates what constitutes a crashing derivation from this work's account's point of view. Finally, it comments on some research routes that I would like to explore in future research against the backdrop of the proposal made in this thesis.

CHAPTER (2)
Preliminaries: Language & Framework

2.1 Language Preliminaries

2.1.1 Introduction

Arabic, a Semitic language akin to Ethiopian, Aramaic, Hebrew, among other languages, is spoken in most of the Middle East, encompassing the Arabian Peninsula and parts of North Africa. It extends over a wide geographical area ranging from the Persian Gulf in Western Asia to the Atlantic Ocean in northwest Africa (Kaye, 2009; Aoun et al., 2010). Linguistically speaking, the term "Arabic" subsumes three varieties in the literature: i) Classical Arabic (CA), (Modern) Standard Arabic ((M)SA), and the vernacular dialects (VD). CA denotes the oldest form of the language that dates back to the pre-Islamic and early Islamic eras and extends to the end of the eighteenth century (Ryding, 2005). This form of the language is preserved in the modern era in the Holy Quran and related Islamic traditions, e.g., the prophet's sayings and early Quran commentaries, as well as in classical literary works.

SA, a descendant of CA, is the modern standard variety used throughout the Arab world and is the official language of the Arab league[5]. One of the Arabic countries' distinctive features is their diglossic status, whereby some form of an everyday-life vernacular dialect is spoken along with SA. Although SA is not an everyday language, it holds a prestigious status due to its religious, national, and political considerations. It is the form of the language by which the Holy Quran and the prophet's sayings are learned and recited, and it is the language taught at school and often used as a medium of instruction. Furthermore, it is the language of journalism, education, literature, publications, media, and formal speeches. Linguistically, SA and CA are noticeably different with

[5] The term "standard variety" and "SA" will be used interchangeably in this work. When discussing a particular dialect, it will be indicated accordingly. When the discussion is about all varieties, including SA, the term "Arabic" will be used instead.

respect to their style and vocabulary, less at their syntactic level, as the former has undergone some lexical and stylistic modifications. In other words, although the two varieties are asserted to exhibit some differences concerning their lexical and stylistic aspects, their morphology and syntax have (almost) remained constant[6].

The VDs are the daily Arabic forms used in informal contexts, which, to my knowledge, are only spoken forms rather than being written. Each dialect constitutes a first (acquired) language, although it commonly shares many cognates with SA. The VDs may differ from each other, with the mutual intelligibility decreasing along with the increasing geographical distance between two given dialects. The standard variety often becomes the only means of communication.

Overall, this section is descriptive, purposely aiming to present the main properties of SA's (and VDs') clause structure relevant to the discussion to come in the following chapters; the following subsections are devoted to presenting these aspects. Section (2.1.2) reflects briefly upon the morphology of the language. Section (2.1.3) presents the language's clause structure properties and word order's impact on the agreement. Finally, section (2.1.4) represents some differences between the standard variety and the VDs as far as the morphology and agreement aspects are concerned. The section also discusses the language acquisition status of SA and its effect on native intuitions.

2.1.2 Language Morphology

Arabic is a *pro*-drop language, whose subject's identification is reflected by the φ-inflection (Person, Gender, and Number) on the verbal and non-verbal predicates. Like its akin languages, it displays a rich derivational and inflectional morphology, facilitating its clause liberal behavior to

[6] Due to non-Arabic languages' influence during the colonization of some Arabic-speaking countries and the influence of local vernacular dialects, CA's lexicon has been expanding. Besides, the frequency of some CA structures became less in SA (Ouhalla, 1994). For this reason, I believe that the syntactic analysis posted in this work may extend to CA, as well.

some extent. Derivational morphology refers to the relationship between the lexemes of a word family. In contrast, inflectional morphology refers to the variation a word displays to express grammatical relationships as it is being used in context. These morphological relationships are, for the most part, highly systematic in Arabic.

In the first place, Arabic word formation consists primarily of "a system of consonant roots which interlock with patterns of vowels." Meaning or variations in a form to reflect grammatical function is often achieved via utilizing word-internal vowel changes. For example, a discontinuous consonant root such as k-t-b "write" may have different meanings that have to do with "writing" by the only means of changing the vowel patterns. Thereupon, "roots and patterns are interacting components of word meaning and are both bound morphemes" (Ryding, 2005, pp. 45, 47). As far as the inflectional morphology is concerned, lexical items, e.g., nouns, adjectives, verbs, quantifiers, demonstratives, among other categories, have complex various inflectional paradigms. Typically, there are eight major inflectional categories in Arabic: Tense/Aspect, Voice, Mood, Person, Gender, Number, Case, Definiteness. As shown in table (1) below, six of these apply to verbs (Tense/Aspect, Person, Voice, Mood, Gender, Number), four apply to nouns and adjectives (Gender, Number, Case, Definiteness), and four apply to pronouns (Person, Gender, Number, Case).

Table (1): Arabic Inflectional Morphology

Inflection	Verbs	Noun & Adjectives	Pronoun
Tense/Aspect	✓		
Voice	✓		
Mood	✓		
Person	✓		✓
Gender	✓	✓	✓
Number	✓	✓	✓
Case		✓	✓
Definiteness		✓	

It is crucial to indicate that the discussion in the following two sections will keep silent about verb Voice and Person inflections and nominals' Definiteness. It is only confined to nominals and verbs' Gender and Number inflections, nominals' Case inflection, and verbs' temporal and mood inflections.

2.1.2.1 Noun Morphology

Significantly, Arabic nouns inflect for only two Genders: masculine (M) and feminine (F). Apart from nouns that are inherently Gender specified, the masculine noun is the base form from which its feminine counterpart is derived via (-h/-t) suffixation (11a), whose choice depends on the presence of Case-marking. Furthermore, Arabic nouns display three Number distinctions: singular (SG), dual (DU), and plural (PL), the two latter of which, generally speaking, are derived from the singular form by also a form of suffixation (b-c). Finally, depending on their grammatical functions in a sentence, nouns take three grammatical (short vowel) suffixes for case: nominative (-u), accusative (-a), or genitive (-i), subject to the Number specification. In particular, the case on nouns can be either triptotic or diptotic, distinguishing between three-Case vs. two-Case endings, respectively. These noun declination facts are summarized in table (2) below.

11. a. kalb "dog.M.SG" ➞ kalb-ah/-at "dog-F.SG"
    b. musa:fir "traveler.M.SG" ➞ musa:fir-a:n/-u:n "traveler.M-DU/M-PL"
    c. musa:fir-ah "traveler-F.SG" ➞ musa:fir-at-a:n/-a:t-un "traveler-F-DU/-F.PL"

Table (2): Arabic Noun Declination

Case	Singular		Dual		Plural	
	M	**F**	**M**	**F**	**M**	**F**
NOM.	-u		-a:n		-u:n	-u
ACC.	-a		-ain		-i:n	-i
GEN.	-i					

Besides, Arabic encompasses two types of pronouns, independent pronouns and corresponding pronominal suffixes. The latter can attach to most parts of speech with different meanings resulting in each case, e.g., a possession in the case of nouns, and a direct object in verbs, as summarized in table (3) below. In a word, all non-subject pronouns in SA are clitics, whereas subject pronouns are often lexical free morphemes.

Table (3): Standard Arabic (SA) Pronouns

Person	Number	Separate Pronouns	Pronominal Suffixes
1st	**SG**	ʔana:	-i:
	PL/DU	naħnu:	-na:
2nd	**SG-M**	ʔanta	-ka
	SG-F	ʔanti:	-ki
	DU	ʔantuma:	-kuma:
	PL-M	ʔantum	-kum
	PL-F	ʔantunna	-kunna
3rd	**SG-M**	huwa	-hu:
	SG-F	hiya	-ha:
	DU	huma:	-huma:
	PL-M	hum	-hum
	PL-F	hunna	-hunna

2.1.2.2 Verb Morphology

First and foremost, verbs, like other predicates, e.g., adjectives, agree with the subject DPs they co-occur with in φ-features. However, I defer this matter until the next section, given that these facts will be part of that discussion. Second, as was mentioned above, verbs display other inflections in addition to their φ-agreement. As far as the temporality is concerned, the Tense vs. Aspect distinction and the Tense's existence in Semitic languages, in general, and in Arabic, in particular, are controversial (Fassi Fehri, 2012).

Arabic verbal forms are typically ambiguous in the sense that Tense and Aspect are incorporated together to express temporality. Arabic has two verb forms: past/perfective (PER) vs. present/imperfective (IMP). They are morphologically distinguished according to Person feature placement and the presence vs. absence of Mood marking. In contrast to the imperfective verbal form, the perfective is characterized by i) a suffixal φ-agreement, and ii) the absence of Mood markings. A perfective form typically indicates a completed event or action. Nonetheless, an imperfective one, one the other hand, commonly denotes an action or event that has not yet been completed, as well as denotes a habitual event. The future tense is established by prefixing the particle *sawfa* or its short proclitic form *sa-* "will" to the imperfective.

As far as the Mood morphology is concerned, SA imperfective forms can have three morphological Mood distinctions: indicative (-u), subjunctive (-a), and jussive (-Ø, i.e., it is suffixless). The indicative mood is considered the underlying, basic mood from which the other moods are derived via mood-shifting particles. It is used in affirmative factual or declarative statements, or in factual reports and beliefs. The presence of certain particles typically determines the subjunctive or jussive mood. Whereas the former expresses an (irrealis) attitude toward an event, e.g., doubt, wishing, or necessity, the latter is used in various contexts, including conditional sentences, imperatives, and past negation, among others. In brief, in Arabic, there are three morphological mood inflections, representing five semantic moods, and are distinguished by the structure where the verb is used.

2.1.3 Clause Structure & Word Order Implications

As far as the word order is concerned, although the unmarked word order in Arabic is VSO (Bakir, 1979; Fassi Fehri, 1993; Soltan, 2007), the language allows flexible variation in the word order, the most common of which is SVO (12)[7]. This flexible variation in the word order is attributed to the rich morphology of the language.

12. a. dˤarab-a Fahd-un Majid-an. (VSO)
    beat-3M.SG.PER Fahad-M.NOM Majid-M.ACC
    b. Fahd-un dˤarab-a Majid-an. (SVO)
    c. dˤarab-a Majid-an Fahd-un. (VOS)
    d. Fahd-un Majid-an dˤarab. (SOV)
    e. Majid-an dˤarab-a Fahd-un. (OVS)
    "Fahad beat Majid."

It is crucial to indicate that the two-word orders, i.e., SVO vs. VSO, are structurally different concerning their semantic, syntactic, and case properties in the sense that any disturbance to the VSO word order is associated with interpretive and pragmatic impact (Soltan, 2007; Albuhayri, 2019). All things being considered, traditionally, VSO and SVO are associated with verbal and nominal sentences, respectively, according to the nature of the first phrase in the sentence. Specifically, Arabic sentences are divided into two categories depending on the first word or phrase's nature in the sentence. Whereas nominal sentences are initiated with a noun or noun phrase, verbal sentences are initiated with a verb. The distinction between noun-initial versus verb-initial sentences plays an essential role in the well-formedness of complement and embedded clauses, as well be discussed later in the paper.

[7] Missing from these examples is a clause whereby the direct object is topicalized. In such a case, a resumptive pronoun, rather than a trace, is obligatory in the direct object position.

Significantly, the relative order of the subject DP to the verb, hence a SV or VS, impacts the subject-verb agreement, deriving an asymmetry in SA. Notably, the SV order shows full subject-verb agreement in all φ-features (13a & b). The VS order, in contrast, shows only partial agreement, typically, in Gender and Person in case of single DP (13c), or a first conjunct Gender in case of conjoined DPs (13d)[8] (Fassi Fehri, 1993; Mohammad, 2000; Soltan, 2007; Aoun et al., 2010). The agreement associated with each word order cannot overlap with the other word order. Put simply, SV cannot have a partial agreement, nor the VS shows full agreement.

13. a. ʔal-bana:t-u ʃa:had-na ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.PL.PER the-TV.M.SG-ACC
"The girls watched the TV."

b. Hind-un wa Fahd-un ʃa:had-a: ʔal-tilfa:z-a.
Hind-F.NOM and Fahad-M.NOM watch-3M.DU.PER the-TV.M.SG-ACC
"Hind and Fahad watched the TV."

c. ʃa:had-at ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.SG.PER the-girl.PL-NOM the-TV.M.SG-ACC
"The girls watched the TV."

d. ʃa:had-at Hind-un wa Fahd-un ʔal-tilfa:z-a.
watch-3F.SG.PER Hind-F.NOM and Fahad-M.NOM the-TV.M.SG-ACC
"Hind and Fahad watched the TV."

2.1.4 Notes for Considerations: Dialects, Nativeness, Intuition & Data

As indicated above, in each Arabic-speaking country, there is a type of VD, often with sub-dialects, spoken along with the SA variety. Each of these dialects constitutes a first acquired language. The geographical, linguistic grouping of these dialects are Maghreb (only North Africa), Egypt, Levant, and the Gulf (Aoun et al., 2010); Thereupon, there is, e.g., a Moroccan, Egyptian, Gulf, and Najdi Arabic. The latter, for instance, exhibits this diglossic situation in that, along with

[8] (Unpronounced or null) pronouns also trigger full agreement on the verb, irrespective of the word order.

SA, different varieties are employed, e.g., Southern, Middle, or Eastern Najdi, among other sub-dialects.

It essential to indicate that there are two major distinctive properties shared by all Arabic dialects that set them apart from SA. For one thing, the VDs are known for their Case morphology loss that was attested in the standard variety. This Case absence, in turn, restricted the flexible word order attested in the standard variety, unless the ambiguity in recognizing the arguments of a clause can be deciphered without reliance on the Case morphology. In other words, even though these VD may display the possible flexible word order of SA, they are much restricted (Musabhien, 2008; Aoun et al., 2010; Sahawneh, 2017; Albuhayri, 2019).

For another thing, most of these VDs are distinguished from the standard variety by their loss of the agreement asymmetry found in the latter. In particular, the Number feature is obligatory irrespective of the subject and the verb relative order. Consider the examples in (14 - 16) for two of the Najdi variety I am native or familiar with. As can be seen, the partial agreement attested in SA is lacking in the VDs, or even the Gender distinction, in some contexts, is minimized, as shown in (15 vs. 16) below. Similarly, the agreement with conjoined DPs follows the same trait in the sense that a resolved agreement is often employed in VS order in addition to the First-Conjunct agreement (FCA) (17).

- **Qassim (NA)**

14. a. ʔil-bana:t ʃa:fa-nn ʔil-film.
the-girl.PL watch-3F.PL.PER the-movie.M.SG

b. ʃa:fa-nn ʔil-bana:t ʔil-film.
watch-3F.PL.PER the-girl.PL the-movie.M.SG

"The girls watched the movie."

- **Riyadh (NA):**

15. a. ʔil-bana:t ʃa:f-u: ʔil-film.
the-girl.PL watch-3M.PL.PER the-movie.M.SG

b. ʃa:f-u: ʔil-bana:t ʔil-film.
watch-3M.PL.PER the-girl.PL the-movie.M.SG

"The girls watched the movie."

- **NA:**

16. a. ʔil-ʕia:l ʃa:f-u: ʔil-film.
the-boy-PL watch-3M.PL.PER the-movie.M.SG

b. ʃa:f-u: ʔil-ʕia:l ʔil-film.
watch-3M.PL.PER the-boy-PL the-movie.M.SG

"The boys watched the movie."

17. a. Hind wa Fahad ra:ħ-u:.
Hind-F and Fahad-M go-3M.PL.PER

b. (ra:ħ-u:) / (ra:ħ-at) Hind wa Fahad.
go-3M.PL.PER go-3F.SG.PER Hind-F and Fahad-F

"Hind and Fahad left."

All in all, taking the distinctive features between the SA and the VDs into consideration, one pressing concern has been revolving around using SA as a subject of linguistic investigation. This stems from i) the hypothesis that the VDs, as I indicated above, form the first acquired languages to Arabic speakers, and ii) the belief that the standard variety has no native speakers in the modern era. Consequently, obtaining a native judgment is not warranted or attainable. I strongly agree that no one can be a native acquirer of SA in the modern era. Nonetheless, I would like to emphasize that there are various SA input venues to which children are exposed before entering the schooling system, where formal SA education occurs, e.g., children-oriented media programs and SA children stories. The two SA sources, i.e., the pre-school exposure and formal educational system, promote educated Arabs' reliable and grammatical judgments on SA data similar to other languages. This fact gains support from language acquisition studies, which indicate that the

language aspects, e.g., syntax and semantics, have longer critical periods (Alresaini, 2012; Albirini, 2014). It is, additionally, supported by the fact that obtaining a fair SA command is, to some extent, a prerequisite for being able to i) understand the Islamic texts, particularly the Holy Quran, and ii) participate in formal global communication throughout the Arab World.

Significantly, despite being a (second) language that is learned mostly through formal instruction[9], rather than being acquired, Arabs have native intuitions about its use, assuming that their dialects share a large number of cognates with SA, on both clausal and morphological perspectives. At least, educated people, i.e., those who attended school, can read and write it fluently, listen to it with ease, and use it, though occasionally, in speaking. Although a linguistic analysis is believed to be hard, it is not impossible to obtain native speaker judgments and corpus-based data given that many speakers are highly competent in the language.

With this being said, the primary investigated varieties in this thesis are SA and NA. Thus, as far as the SA data used in this work are concerned, there were three sources of judgments by which the data are verified. On some occasions, the sentences are comparable ones whose well-formedness is uncontroversial, mainly because they can be found in academic and formal writings such as daily news. On others, the sentences are drawn or adopted from previous works on SA, and whose acceptability has never been an issue. Finally, the judgments on constructed sentences are elicited from Arabic-speaking persons, e.g., Arabic experts and other fellow linguists, and by my intuition, being a speaker of the language. What's more, it is easy to construct data on the SA, assuming that the CA's grammar and rules, which syntactically resemble SA, are well documented by traditional medieval grammarians and whose well-formedness can be judged by any (educated) VD speaker.

[9] The idea that it is learned does not entail that it is, in fact, a second language by all means. Instead, it is almost another native, but less dominant language of most Arabs since formal instructions take place at a very early age.

2.2 Theoretical Framework

2.2.1 Minimalist Program (MP): Aim, Economy, & Notions

Since the birth of Generative Grammar in the 1950s, syntactic theories were striving to provide (reasonable) well-defined explanations for the remarkable properties found across all languages to come closer to revealing properties of human Language Faculty (FL) (and its Universal Grammar (UG))[10]. As more and more languages were investigated since then, clusters of differentiating properties of two or more natural languages were found to fall out of (a) unifying principle(s) of UG, which get(s) parametrized in those superficially different languages (van Gelderen, 2013). These observations led to the rise of the Principles and Parameters (P-&-P) approach to UG as a possible cognitive module. It attempts to characterize that part of human FL responsible for our native-language knowledge (descriptive adequacy), as well as its means (UG) that allows those speakers to acquire these languages (explanatory adequacy) (Hornstein, 2019). Notably, the P-&-P approach forms the underlying mechanism upon which grammatical theories emerging in the 1980s is based. Among these approaches falling within the P-&-P family of theories are the Government and Binding (GB) and the Minimalist Program (MP). The latter is the primary framework on which this thesis is based.

GB posits that the UG consists of multiple derivational interrelated syntactic levels: Deep Structure (DS), Surface Structure (SS), Computational system (Move-α), Logical Form (LF), and Phonetic Form (PF), encoded as a Y-modal (18). These syntactic levels "are formal objects with specific functional and substantive characteristics" (Hornstein et al., 2005, p. 20).

18. DS — Move-α — SS < PF / LF

[10] FL represents the subconscious "cognitive" aspect of language that makes the acquisition process of (complex) linguistic objects easy and rapid, facilitated via a rich system of innate rules known as UG.

Overall, the DS is the phrase marker, i.e., the initial structure, where grammatical functions, e.g., subject-of or object-of, correspond one-to-one with thematic roles, per the Projection Principle (19) and θ-criterion (20). Therefore, it is the output of the Phrase Structure rules and the lexical insertion rules, and the input to (the overt part of) the transformational rules. The latter maps the DS to the SS level via Move-α, which generates traces coindexed with their antecedent. As clear from the model, the SS is the only level that is related to the other levels. It feeds into the two-dissociated PF and LF components for sound and meaning pairing, respectively. Put differently, the SS level represents the intermediate level, where virtually all other aspects of meaning occur. It is the overt output of various transformational rules.

19. **Projection Principle:**
    Representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items.
20. **θ-Criterion:**
    Each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument.

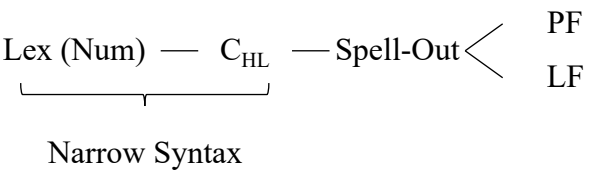
(Chomsky, 1981, pp. 29, 36)

The MP, on the other hand, aims at evaluating the ontology of the FL itself and its optimal interaction with the external performance systems: the sound and speech system (termed Articulatory-Perceptual (A-P)) and the meaning and thought system (termed Conceptual-Intentional (C-I)) (as speculated in GB theory) (Gallego, 2010; Hornstein, 2019). In other words, it revolves around the evaluative aspects, e.g., simplicity, elegance, parsimony, economy, and naturalness, of the theory, redefining the real nature of several operations and representations (Chomsky & Lasnik, 1993; Chomsky, 1995). Accordingly, operations were evaluated against some economy principles, and architectural representations against conceptual necessity. Significantly, the MP is a reductionist program whose main concern revolves around the possibility of limiting the

architectural side of FL, e.g., its levels of representations as well as its computations, to those that are conceptually necessary or least minimal. Notably, FL is "nothing other than a formal object that satisfies the interface conditions in the optimal way" (Chomsky, 1995, p. 171)[11].

By and Large, the FL, from a MP point of view, "provides no machinery beyond what is needed to satisfy minimal requirements of legibility and that it functions in as simple a way as possible" (Chomsky, 2000, pp. 112 - 113). It is, thus, restricted to conceptually necessary levels, i.e., those whose output is the input to the performance systems: the A-P and the C-I systems, in particular, PF and LF, respectively, since they are conceptually necessary interfaces of any adequate grammar, in contrast to DS and SS[12]. Thus, the general architecture of the FL consist of i) a narrow syntax encompassing a Lexicon and a Computational System (C_{HL}), ii) a PF, and iii) an LF, as shown below.

21.



The Lexicon is assumed to consist of lexical and functional items and lexical features that do not fall from the general principles of UG and the natural language; it is "a list of exceptions" (Chomsky, 1995, p. 235). For instance, stipulations that nouns have case and φ-features or that verbs have selectional features determined either by UG or by language-specific principle are excluded. In a sense, it passes items along with their idiosyncratic properties to the C_{HL}. The latter generates the language's expressions, so-called Structural Descriptions (SDs), each with complex

[11] As its name suggests, the MP is not a full-fledged theory of FL, but rather a program seeking to develop such a theory. So, for being a program, the MP has been under scrutiny for the past two decades or so. It is important to indicate that the MP is not so much concerned with how few principles the theory incorporates compared to how much the theory is consistent with the language design that satisfies certain minimal conditions (Martin & Uriagereka, 2000).

[12] A review of the empirical arguments against the postulation of DS and SS is beyond the present section, but for a full discussion on this aspect, see Chomsky (1995, ch. 3); Ouhalla (1999, ch. 17); Hornstein (2001, ch. 1); and Hornstein et al. (2005, ch. 2).

properties including phonetic and semantic properties. It performs a series of syntactic operations, forming an SD that functions as the input for the two interfaces, PF and LF. The MP's derivational aspect is viewed as comprising a small set of basic operations: Merge, Agree, and Move. These basic operations and other cyclic notions will be the topic of the following sections.

2.2.2 (External) Merge

As a minimalist starting point, the system needs to provide a simple, recursive tool to join lexical atoms and larger structures together to create ever-larger structures. It must be potentially unbounded in the sense that it can generate a "discrete infinity of structured expressions" (Chomsky, 2007, p. 5). The system advocated in Chomsky (1993 et seq.) assumes that syntactic structures are built iteratively, via Merge, from atomic (i.e., lexical and functional) items drawn from a multi-set of elements, called the Numeration, as well as being built from more complex structures.

Merge is a necessary and costless component of any natural language theory because it is not constrained by economy or convergence principles. It is conceptually required as it is impossible to deny the fact that sentences are composed of words. It is a fundamental component of any language theory since any insufficient application of Merge would result in a crashing derivation (Chomsky, 1995, p. 226). Without a doubt, Merge constitutes the recursive system of FL in which two syntactic objects (SO) α and β are combined, at the root, to form a new syntactic object γ, per the Extension Condition (22). When two objects are merged, creating a new object, the new object is labeled after the daughter node projecting its features, basically the head, per the Inclusiveness Condition (23); thus, it is either α or β that projects the label.

22. **Extension Condition:**
    Applications of Merge can only target root syntactic objects.

23. **Inclusiveness Condition:**

The LF object λ must be built only from the features of the lexical items of N(umeration).

(Hornstein et al., pp. 315, 74)

It is essential to indicate, before concluding this section, that per the Inclusiveness condition, vacuous projections and terminal vs. nonterminal distinctions that were the essential tools of the GB X'-theory framework were no longer assumed. For that reason, phrase-building is assumed to revolve around feature(s) of lexical items drawn from the lexicon, following the so-called Bare Phrase Structure, a theory in which there are no category labels or projection levels associated with constituents (Radford, 2009, p. 274). Minimality or maximality of a given element is, in essence, relational.

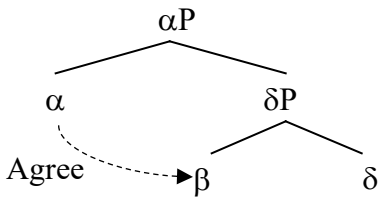
2.2.3 Long-Distance Agree

As is assumed, lexical items are endowed with a set of phonological, semantic, and formal features, the last of which are the fuel for syntactic computational operations, e.g., Move and Agree. The most common formal features are (the abstract) case feature, the Extended Projection Principle (EPP)/Edge Feature (EF), φ-features, among others. As indicated earlier in chapter (1), the mechanism for feature valuation underwent three different phases within the P-&-P approach: Government (in GB), Spec-Head configuration (in early MP), and Agree (the current assumed mechanism).

Chomsky (2000 et seq.) proposed a feature-valuing system, known as the Agree-based theory. Chomsky (2001, p. 5; 2004, p. 116) proposed that, under such a theory, a feature (F) is uninterpretable iff it is unvalued. The core assumption under the Agree-based mechanism is that only interpretable features enter the derivation fully specified. In contrast, uninterpretable features acquire their values, via Agree, in the course of the derivation (for PF), and simultaneously get deleted (for LF), per the Full interpretation condition (defined in f. 4). Under such a system, feature

licensing is a long-distance valuation defined in terms of c-command. A syntactic relation is established between two elements in the hierarchal phrase structure (24), subject to some locality constraints.

24.



More importantly, Agree, an asymmetric operation, establishes a feature-matching relation between (an) unvalued feature(s) on a higher (functional) category (a Probe α) and (a) valued feature(s) on a Goal β, given that:

i) both have a matching feature(s) (F) in terms of identity (the Matching Condition),

ii) β is the closest active unvalued c-commanded Goal in the domain of the Probe (the c-command and Activation conditions), and

iii) there is no γ such that γ is a valued Goal, i.e., inactive, intervening between α and β, and γ has identical features with the Probe (the Defective Intervention Constraint).

Accordingly, active functional categories, i.e., C, T, and *v*, by having unvalued feature(s) (uF), enter into an Agree relation by probing for an active DP Goal with a valued feature(s) (F) in their domain. Given that an active head can only establish an Agree relation with an active Goal, the Agree relation is subject to a mutual "activity" condition, dictating that the Probe and Goal have to be active by having unvalued feature(s). It is important to clarify one essential point before closing the discussion on Agree. Under the Agree-based theory, case-assignment comes for free upon the φ-Agree between a Probe and a Goal. It is parasitic on the pair-wise Agree relationship between the Probe's unvalued φ-features and the DP Goal's valued set of φ-features, in contrast

to early GB assumptions. Therefore, the type of case assigned to a DP is relevant to the kind of agreement established, e.g., subject or object agreement.

2.2.4 Move/Internal Merge

A leading economical idea in MP rests on the notion of the Last Resort nature of movement. It must be triggered for a syntactically formal reason. It occurs if it must, triggered by the need to license the formal feature(s) of an item to legitimize the linguistic expression at the PF or LF interface (Hornstein, 2001; Boeckx, 2003; Bošković, 2013). Nevertheless, due to the advent of Agree as a valuing mechanism, Move is assumed to take place to satisfy a functional head's EPP/EF (cf. Chomsky, 2000 et seq.). Under such a system, only EPP/EF triggers movement, but Agree acts as a precursor to Move in the sense that it is only once a Probe having EPP/EF locates an active Goal in its c-command domain, Move applies to re-merge the Goal to the probing head or its projection.

More importantly, the movement operation is said to leave behind a (phonetically unrealized) coindexed constituent. The MP postulates that the element left behind is, in essence, a copy with identical properties to its antecedent, in contrast to being a trace as assumed in GB. This copy gets deleted at PF but remains available at LF because it plays a crucial role in interpretation (Nunes, 1995; Ouhalla, 1999), a theory that came to be known as the Copy Theory of Movement. The most compelling evidence for the postulation of copies rather than traces is that the latter is at odds with the Inclusiveness Condition since traces are not part of the Numeration. In essence, the movement operation, subsumed under such a hypothesis, is a composite operation internally consisting of sub-operations: Copy, Merge[13], and Chain formation.

[13] The proposal that Move is a combination of Copy and Merge has the empirical consequence of reducing all feature checking upon Merge (Hornstein, 2001). Chomsky (2000) maintains that Move is a subtype of Merge, dubbed I(nternal)-Merge, which contrasts with E(xternal)-Merge. However, I will keep the historical terms for ease of exposition.

Move is assumed to be subject to some derivational conditions. Specifically, Move must meet four fundamental requirements. First, it must conform to the c-command condition in that a moved element must c-command its copy. Second, it must conform to the Chain Uniformity Condition that bans Move from altering the phrase structure status of the moved item, i.e., its property of being maximal, minimal, or neither. Third, it must conform to the Extension Condition mentioned earlier in (22). Finally, the movement must operate in a successive-cyclic fashion, moving locally from the most embedded clause to the matrix one.

2.2.5 Phasehood & Feature Inheritance

This section will diverge from the general mechanisms in MP to the cyclic architecture of the model. As evidenced by the representational model above in (21), after all required syntactic operations occur, the structure is sent to the two PF and LF interfaces to assign it phonetic and semantic representations, respectively. Generally speaking, elements' interpretability behaves differently at the two interfaces; what is interpretable at PF is not interpretable at LF, and vice versa. Hence, at some point in the derivation, the computational system must then split via Spell-out, forming PF and LF objects that are no longer interacting. At Spell-Out, phonological and semantic features relevant to the PF or LF are mapped to the corresponding interface. Chomsky (1995) argued that Spell-out, which occurs only once at the end of a derivation, strips away elements relevant to PF per the uniformity condition on the mapping from the Numeration to LF.

Most importantly, recent minimalist proposals explored the possibility that Spell-out may apply multiple times where the interfaces access syntactic computation in the derivation course. A current idea in MP is that syntactic derivations operate in a cyclic fashion relevant either to PF only (Uriagereka, 1999) or to both interfaces (Chomsky, 2000 et seq.). Focusing on the latter, Chomsky proposes an approach to syntactic derivation that relies on multiple Spell-Outs. Under

such an approach, the computational system is assumed to operate upon separate structural chunks (termed phases), each based on a sub-Numeration or sub-array whose lexical items (LI) are pulled from the whole Numeration dedicated for the entire structure. After each subarray is exhausted and the phase is entirely built, the complement of its head is spelled-out, i.e., sent cyclically to the interfaces.

In essence, as argued in Chomsky (2000 et seq.), derivations proceed phase by phase, checking the convergence of each phase, more specifically the complement of the phase head, along the way to the final stage of the derivation. Once a phase is spelled-out, it is stripped of its syntactic information. Under such a view, a phase acts as a piece of a syntactic structure operating as a whole once it is spelled-out, resulting in it being inaccessible to further syntactic operations from that point on.

As can be seen, the phase-based approach is a way of modeling how the computational system of human language operates, encoded in the relation between the syntactic derivation and the two interface levels PF and LF. It is a way to reduce the computational burden and minimize the derivation complexity (Grohmann, 2009; van Gelderen, 2013). For instance, feature valuation via Agree must be local in the sense that the operation reaches no further than the specifier of an embedded phase. Unvalued features in the complement of the phase head must be valued and deleted in the course of the phase building before it is spelled-out and becomes inaccessible to an external higher Probe, following the Phase Impenetrability Condition (PIC) (25). The Underlying intuition of the PIC is that once a phase is judged convergent, it will never participate in further syntactic computations, but only the head and its specifier must be visible for selection and head movement.

25. **Phase Impenetrability Condition (PIC):**

In a phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

(Chomsky, 2000, p. 108)

Chomsky maintains that phases are propositional, designating CP and transitive *v*P as the undebatable phases. The former is a phase since it represents a complete clausal complex, i.e., it represents sentence tensehood and its illocutionary force. In contrast, the latter represents a complete thematic argument structure. Once the maximal projections of these phases are assembled, Spell-out applies to their heads' complements, i.e., TP and VP, respectively.

Lastly, the phase-based approach discussed above has a radical refinement to the feature valuation domain and the C-T and *v*-V relations. Recently, Chomsky (2008) reinterpreted the relationship between the functional heads C and T (as well as *v* and V). Early MP proposals assume that a non-phasal head such as finite T enters the derivation with an interpretable Tense and uninterpretable φ-features. However, given the essential role of phase heads, he contends that such non-phasal heads instead enter the derivation lacking such features and acquire them from phasal heads in the derivation, a mechanism dubbed Feature Inheritance. Simply put, those phasal heads are the driving force behind each derivation, assuming that they are the locus of the uninterpretable features acquired by non-phase heads in the course of the derivation.

According to this proposal, the φ-features, as well as Tense features, are C's properties that get inherited by T. Hence, traditional subject agreement and EPP effects arise as a mechanism of feature inheritance, whereby the associated uninterpretable features are passed down from C to T. The latter, under such approach, is no longer a Probe in its own right, given that it lacks uninterpretable features unless it is selected by C. Given this hypothesis, when T probes down for a Goal,

it is, in fact, valuing C's uninterpretable features. In a parallel manner, the head *v* of the phase *v*P is assumed to transmit its features to V, as well.

CHAPTER (3)
Getting Subject-Verb Agreement In Order

3.1 Introduction: Word Order & Agreement In Arabic

One of the core properties of Arabic, as previously mentioned in section (2.1.2), is its rich (inflectional) morphology, e.g., morphological agreement inflection. For instance, the latter involves subject-verb agreement (with both single and complex (coordinated) subject DPs), subject-participle/adjective agreement in clauses, noun-modification agreement, noun-relative complementizer agreement, etc., each is complex in its own right. The crucial aim of this chapter is to explore the formal mechanisms by which Arabic subject-verb agreement relations, or, more specifically, verbal agreement with simple subject DPs, are derived, as well as attempt to draw the interrelation between Standard Arabic (SA) and the vernacular dialects (VD). After all, this route will limit the discussion scope and draw the account in a more focused way, albeit that some observations may revolve around other (non-)verbal agreement cases. The empirical focus is on some interesting but intriguing agreement cases that may present profound paradoxes when analyzed via the standard Agree-based mechanism. Some of these agreement data, typically, form the baseline argument advanced by some linguists to argue against the notable agreement asymmetry generalization in the standard variety, i.e., they are taken to be a thorn in the side of such a generalization.

In general, although these agreement data may seem, from a syntactic Agree & SA perspectives, extraordinary and unnatural, these outwardly non-canonical agreement patterns, I argue, are manifestations of the core syntactic Agree mechanism. Their ostensibility, however, is often attributed to a fundamental mismatch between the syntactic and morphological components, subject to variety/dialect-specific requirements. I argue that these agreement patterns attest very general conditions on the agreement and φ-feature manifestations in Arabic, defined in terms of restrictions on T's φ-Probe that agrees with a subject DP. Given the formulation of the conditions

advanced here, the baseline counterargument advanced in the literature, I believe, dissolves. The agreement facts across the Arabic varieties arise naturally and predictably from the interaction of Agree, conditions on T's φ-Probe, and postsyntactic requirements.

With this being said, as was pointed out in chapters (1 & 2), the subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in SA. Whereas a SV order shows full agreement in all φ-features (26a), a VS order, in contrast, shows only partial agreement (typically, in Gender and Person) (c). The agreement associated with each word order apparently cannot overlap with the other. Put simply, the SV order cannot have a partial agreement, nor the VS order shows full agreement[14].

26. a. ʔal-bana:t-u ʃa:had-na ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.PL.PER the-TV.M.SG-ACC
b. *ʔal-bana:t-u ʃa:had-at ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.SG.PER the-TV.M.SG-ACC
c. ʃa:had-at ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.SG.PER the-girl.PL-NOM the-TV.M.SG-ACC
d. *ʃa:had-na ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.PL.PER the-girl.PL-NOM the-TV.M.SG-ACC
"The girls watched the TV."

It is essential to indicate that this agreement asymmetry is considered the typical, most frequent, standardized agreement in the language. Specifically, it was asserted in the relevant section (2.1) that SA is the decedent of Classical Arabic (CA). The crux of the matter is that the latter variety, i.e., CA, is often said to be the elevated, distinctive, supra-tribal language unifying the formal written language of an empire era, despite the cross-linguistic variations, e.g., in terms of subject-verb agreement (Hasan, 1975, v. II, p. 74; Belnap & Gee, 1994; Abdultawaab, 1999;

[14] Throughout, the Arabic definite article will be represented in its phonemic "ʔal-/ʔil-", rather than in its assimilated phonetic form for SA and NA, respectively.

Ryding, 2005; Owens, 2006; Al-kawari:, 2008, p. 266; Aoun et al., 2010; Versteegh, 2014; among many traditional grammarians and linguists). Thus, based on the frequent attested examples of the asymmetric interaction between the agreement patterns and each type of word order, a debatable generalization has been formulated, whereby it is assumed that the full and partial agreements are associated with SV vs. VS orders, respectively. Specifically, It is highly acknowledged in the generative literature on SA subject-verb agreement that full agreement can be found in SVO sentences but never in VSO.

Most important of all, although SA i) is the modern descendent of this standardized version of CA, ii) follows the latter in its agreement standardization, and iii) that the above generalization is true of SA, such a generalization has been challenged recently (cf. Hasan, 1975; Abdultawaab, 1999; Al-kawari:, 2008; Al-Samuraa'i:, 2013; AlQahtani, 2016; references therein, among other traditional grammarians and linguists). In particular, it is argued that the Arabic (traditional) texts have an abundance of examples that do not conform to the typical agreement asymmetry and whose well-formedness is unquestionable. To take some cases in points, consider the following examples (example (27a) is a Prophet's saying, examples (b & c) reflect Qur'anic verses, and examples (d & e) reflect a form of an agreement associated with a spoken dialect of a CA tribe, so-called *ʔakalu:-ni: ʔal-bara:ɣi:θ* "*lit:* the fleas ate me"[15]).

27. a. ja-taʕa:qab-u:na fi:-kum mala:ʔikat-un … .
3M-alternate-PL.IMP.IND *in-you* *angel.M.PL-NOM*
"Angels alternate on you."

[15] The label for this tribe reflects one famous utterance by one of its speakers, describing his encounter with a type of fleas. His utterance shows full subject-verb agreement atypical of the standardized form in a VSO word order, as shown below. As will be shown later, this example also contradicts one generalization regarding a typical agreement with non-human nouns.

i) ʔakal-u:-ni: ʔal-bara:ɣi:θ.
eat-3M.PL.PER-me *the-flea-M.PL.NOM*
"The fleas bite me."

b. ʔasarr-u: ʔal-nadʒwa: [ʔallaði:na ðˤalamu:].
conceal-3M.PL.PER the-talk.F.SG.ACC who-M.PL do.unjust-3M.PL.PER
"Those who did unjust counsel together in secret."

21:3

c. qa:l-a niswat-un fi: ʔal-madinat-i … .
say-3M.SG-PER woman.PL-NOM in the-city.F.SG-GEN
"Some women in the city said ... ."

12:30

d. ʔaqbal-u: ʔal-muhaniʔ-u:n.
come-3M.PL.PER the-well.wisher.M-PL.NOM
"The well-wishers came."

(Hasan, 1975, v. II, p. 75)

e. qa:m-a: ʔax-wa:-ka.
stand-3M.DU.PER brother-DU.NOM-your
"Both of your brothers stood."

(Al-kawari:, 2008, p. 266)

f. ʔal-tˤula:b-u ta-ndʒaħ-u bi-ʔal-ʔidʒtiha:d-i.
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND by-the-hard.work-M.SG.GEN
"Students succeed through hard work."

As shown, not only can the verbal predicate in a VS order take full agreement, but under certain circumstances, a verbal predicate in SV order can take a so-called defective agreement[16]. In the VS(O) sentences (a-b & d-e), the verbs inflect for full φ-features with the subject they co-occur with. Besides, although the preverbal DP is masculine plural in example (f), the verb takes a singular feminine agreement. A similar observation can be said about the example in (c) where the postverbal plural feminine noun triggers masculine singular agreement on the verbal predicate. Albeit I believe that some of the above examples are not wrong but rather degraded with respect to the standardized form, the attested subject-verb agreement asymmetry, as evidenced, is absent

[16] There are types of nouns, so-called broken plural and non-human nouns that trigger atypical agreement. Whereas the former nouns trigger the atypical agreement optionally, the latter is obligatory (for a full discussion, see chapter (5)). In anticipation of the discussion to come, these are taken to be morphological inert.

in the well-formed, unquestionable sentences above, despite that they are contentious based on the common generalization. The above discussion and examples often form a baseline in the generative literature for arguing against the notion claiming that full agreement is only found in SVO, while partial agreement in VSO order.

Without furthering the discussion on the presence of full agreement in VSO in the classical/standard language, and its acceptability in some form or another, interestingly, full subject-verb agreement in VS order is robustly found in different dialects of the Arab world, irrespective of their geographical area. To be precise, as was indicated above in section (2.1.4), in each Arabic-speaking country, there exists a type of VD, often with sub-dialects, spoken along with the SA variety. One of the two significant distinctive properties shared by all Arabic dialects is their loss of the agreement asymmetry found in the latter, whereby the Number agreement is obligatory. Consider the Najdi Arabic (NA) examples (28 - 30) repeated below[17].

- **Qassim (NA)**

28. a. ʔil-bana:t ʃa:fa-nn ʔil-film.
the-girl.PL watch-3F.PL.PER the-movie.M.SG

b. ʃa:fa-nn ʔil-bana:t ʔil-film.
watch-3F.PL.PER the-girl.PL the-movie.M.SG

"The girls watched the movie."

- **Riyadh:**

29. a. ʔil-bana:t ʃa:f-u: ʔil-film.
the-girl.PL watch-3M.PL.PER the-movie.M.SG

b. ʃa:f-u: ʔil-bana:t ʔil-film.
watch-3M.PL.PER the-girl.PL the-movie.M.SG

"The girls watched the movie."

[17] Najdi refers to a wide area covering the central-to-northern region of the Arabian Peninsula. Hence, Najdi Arabic encompasses varieties spoken in central regions of Saudi Arabia (e.g., Riyadh and Qassim), Bedouin dialects in the Southern and Southeastern of Saudi Arabia in the south, and some Bedouin tribes of Iraq, Jordan, and Syria (Ingham, 1994). Significantly, the coming discussion in this section will focus on some representative dialects of Najdi. For agreement discussion on other Arabic varieties and the obligatory presence of [Num] feature in a VS order, see Benmamoun (2000) & Aoun et al. (2010) for Lebanese & Moroccan Arabic, Mohammad (2000) for Palestinian Arabic, Mahfoudhi (2002) for Tunisian Arabic, Sahawneh (2017) for Rural Jordanian Arabic, among other varieties.

- **NA:**

30. a. ʔil-ʕia:l ʃa:f-u: ʔil-film.
the-boy-PL watch-3M.PL.PER the-movie.M.SG

b. ʃa:f-u: ʔil-ʕia:l ʔil-film.
watch-3M.PL.PER the-boy-PL the-movie.M.SG
"The boys watched the movie."

As shown, not only is the partial agreement attested in SA lacking in the VDs but also Gender morphology distinction may often be minimized, as shown in (29 & 30) above. So, the mere fact that most, if not all, of the VDs display full agreement regardless of the subject DP relative order with the verb may suggest that the subject-verb agreement in Arabic is dialect/variety-specific.

With this in mind, I believe that any syntactic account to the subject-verb agreement in Arabic, in general, must be flexible to cover the various agreement phenomena. As evidenced by the brief discussion above, the agreement in SA and the VDs may often be symmetrical, as shown in (27f & 28 - 30), respectively. In other words, it is not impossible to argue against the notion that always associates full agreement with only a SVO structure, while partial agreement with a VSO structure, taking into considerations that full and partial agreements are attested in both structures, VSO and SVO. For this reason, although it is indicated that the SA is almost the modern equivalent of CA in terms of its syntactic structures and standardized agreement, I believe that it comes as no surprise that a full subject-verb agreement in a VSO order in SA is argued to be acceptable by Arabic speakers, to a large extent, due to the influence of those speakers' first acquired dialects.

Thus, this thesis will be devoted to proposing an account with these facts in mind. I will present an account to the extent that it can accommodate both sides of the subject-verb agreement phenomena, whether the latter is taken to be asymmetrical or not (by Arabic speakers). Nevertheless, before diving into the main proposed account, it is crucial to briefly go over some of the

analyses that have been advanced to accommodate the agreement asymmetry found in SA in the following section and present them against the backdrop of the discussion above.

3.2 SA Agreement Asymmetry Accounts: A Theoretical Overview

The subject-verb agreement phenomenon, in general, and the agreement asymmetry in SA, in particular, as well as their correlation with word order, have been at the central research of many works within the P-&-P approach (cf. Mohammad, 1990; 2000; Fassi Fehri, 1993; Aoun et al., 1994; 2010; Benmamoun, 2000; Soltan, 2007; Sahawneh, 2017; among many others). The purpose of this section is to briefly present five major (GB (3.2.1) and MP (3.2.2)) attempts in the literature that had been advanced to account for the typical subject-verb agreement asymmetry manifested in the standard variety and is organized as follows. Section (3.2.1.1) summarizes and discusses Mohammad's (1990; 2000) Null Expletive analysis. Section (3.2.1.2) reviews Aoun et al.'s (1994) Agreement Loss analysis. Section (3.2.1.3) presents Fassi Fehri's (1993) Incorporation analysis. Finally, sections (3.2.2.1) and (3.2.2.2) explore Benmamoun's (2000) PF Merger analysis and Soltan's (2007) Null *pro* analysis, respectively.

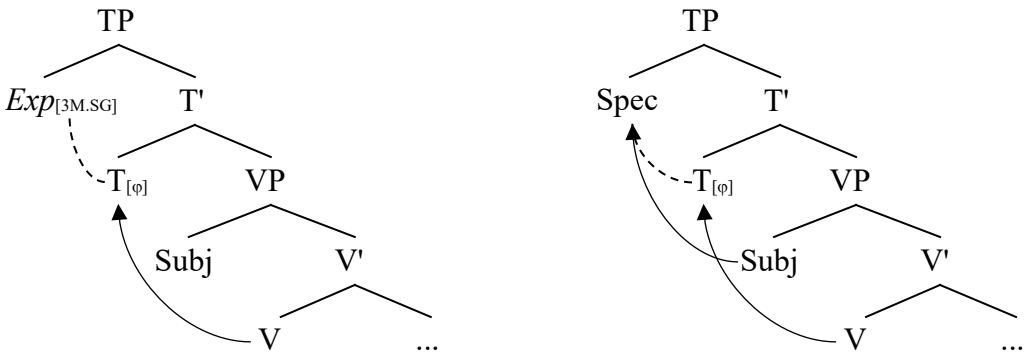
3.2.1 GB Spec-Head Analyses

3.2.1.1 The Null Expletive Analysis

The Null Expletive analysis, advocated by Mohammad (1990; 2000), attributes the agreement asymmetry in SA to his postulation that the partial agreement in a VS order is dictated by a null expletive pronominal in Spec-TP. To be exact, Mohammad argued that the agreement morphology on the verb reflects a Spec-Head agreement relation between T's φ-feature bundle and a subject DP in its Spec. Consequently, whereas full agreement in a SV order, as Mohammad argued, is a relation between a genuine lexical DP and T, it is a relation with a null 3M.SG expletive element in T's Spec in a VS order, yielding partial agreement on the verb instead. Accordingly,

one of the underlying assumptions in this proposal is the presence of two subjects in VS order, the lexical subject DP in Spec-VP and the expletive in Spec-TP, as shown in (31) below (bolded arrows indicate movement, and dotted lines indicate agreement).

31. **a.VS Order:** **b. SV Order:**



As can be seen, in a VS order, the verb raises to T, where it establishes a Spec-Head agreement relation with a null expletive subject in Spec-TP. The canonical subject remains lower in the VP domain. In the SV order, in contrast, it is the canonical subject that raises to Spec-TP and establishes a Spec-Head relation with T, forcing full agreement. According to Mohammad, the core motivation for the presence of this presumed preverbal null (3M.SG) expletive pronominal is the hypothesis that it may sometimes be overt for some reason, such as being assigned an accusative case by a complementizer. Specifically, after complementizers such as *ʔanna*/*ʔinna* in (embedded) VS clauses, a pronoun, so-called backgrounding pronoun, is inserted because a VS clause after these complementizers is ill-formed as shown below in (32).

32. a. ʔiʕtaqad-tu ʔanna-hu: ja-sˁʕub-u ʕala-jja ʔal-ðaha:b.
believe-1.SG.PER that-him 3M-be.difficult-SG.IMP.IND on-me the-going

b. *ʔiʕtaqad-tu ʔanna ja-sˁʕub-u ʕala-jja ʔal-ðaha:b.
believe-1.SG.PER that 3M-be.diffiecult-SG.IMP.IND on-me the-going

"I thought it was difficult for me to go."

Remarkably, Mohammad (2000, pp. 92 - 93) argued and took this pronoun to be an overt counterpart of the null expletive, evidently located in Spec-TP for it to be assigned an accusative case by the complementizer. He attributes the obligatory overtness of the backgrounding pronoun to a constraint barring empty pronominals in Arabic from occurring in non-nominative positions. Nonetheless, one issue for the logic of Mohammad's analysis regarding the correlation between the presence of this backgrounding pronoun and its presumed covert counterpart, according to Soltan (2007, p. 40), is that it entails that for every overt expletive element in the language, there must be a one-to-one covert counterpart, which is not borne out in SA. For instance, although there is an existential expletive such as *huna:ka* "there" in Arabic, there exists no covert counterpart.

Additionally, one of the literature's core assumptions is that true expletives are meaningless pronouns inserted for formal reasons and are not coindexed with anything in the clause. For that reason, another theoretical pitfall of Mohammad's correlation between the backgrounding pronoun and the expletive pronoun is the fact that the former can be coindexed with a DP in the following VS clause, e.g., a feminine DP (Sahawneh, 2017), as shown below in (33).

33. ʔiʕtaqad-tu ʔanna-ha:$_i$ sa-ta-ndʒaħ-u ʔal-bint-u$_i$.
believe-1.SG.PER that-her will-3F-succeed-SG.IMP.IND the-girl.SG-NOM
"I thought that the girl would pass."

The above example in (33), in contrast to the example in (32), clearly shows that the backgrounding pronoun can inflect for agreement with a DP in the following VS clause. Hence, if it is assumed that the expletive pronoun is a covert part of this backgrounding pronoun, then it follows that the expletive pronominal must be variant, contrary to Mohammad's claim that it is invariantly 3M.SG. Put differently, Mohammad's assumption that the element in VS order that dictates the partial agreement is an expletive is not tenable, considering that true expletives do not inflect to agree with the features of some other item. After all, if it is not an expletive, then it follows, I believe,

that it is a regular pronoun that would cause a C-condition violation, assuming that it c-command the canonical subject in Spec-*v*P/VP.

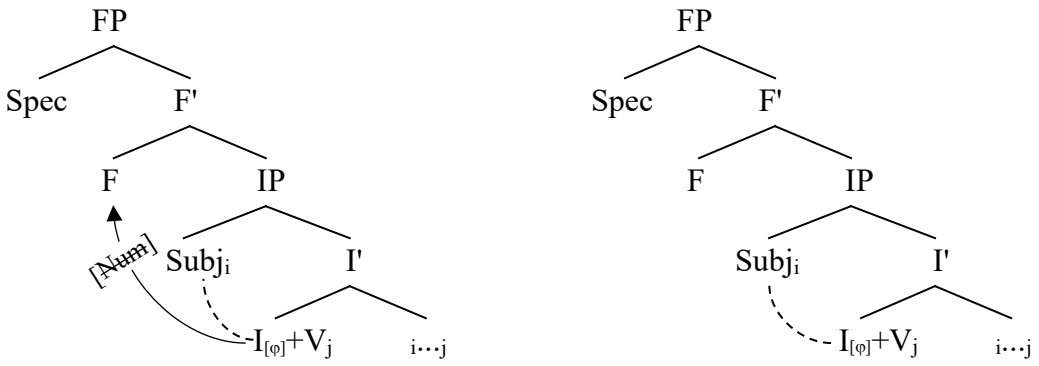
The latter problem, I maintain, leads to another issue in Mohammad's assumption regarding this null expletive. Notably, it is well-known that in a VS order, the verb agrees in Gender with the postverbal DP subject (cf. 26c above). Nonetheless, it is not clear how a verb can agree in Gender, specifically a feminine DP, if the null expletive, as argued by Mohammad, is invariantly a masculine one. It may be argued that the verb agrees in Number with this expletive, but in Gender and Person with the lexical DP, which would lead to additional complexity to the feature valuation mechanism (Soltan 2007; Aoun et al., 2010; Alotaibi 2014; Sahawneh 2017).

Without a doubt, such a proposal seems to rely on the presence of independently unmotivated assumptions to account for the agreement asymmetry. It can be concluded, as Soltan (2007) asserts, that the account is controversial, given that the expletive is conceptually "hard to motivate in the grammar, [assuming that it] is LF-inert and PF-empty, hence it has no interface value; it simply lives and dies in the syntax" (p. 37).

3.2.1.2 The Agreement Loss Analysis

In contrast to the Null Expletive analysis, the Agreement Loss analysis, advanced by Aoun et al. (1994), attributes the agreement asymmetry to a [Num(ber)] feature loss, triggered by verb raising past the subject in Spec-IP. Precisely, it proposes that the absence of the Number feature on the verb in VS order is caused by a further movement of the verb past the subject in Spec-IP to a higher functional projection (labeled FP), causing a loss of the [Num] feature on the verb, as shown below in (34).

34. **a. VS Order:** **b. SV Order:**



As can be seen, Aoun et al. (ibid) assume that subsequent to the subject raising to Spec-IP in response to I's EPP property and forming the SV order, the verb, which has already moved to I, moves further past the preverbal subject to FP. The verb movement to this higher projection yields a VS order and results in Number feature loss. Considering that the agreement, as generally assumed then, is established under Spec-Head relation, a full agreement is always obtained between the subject and I. In Simple terms, full agreement obtains in both word orders before the presumed verb movement, whereby the DP and I enter into a Spec-Head relation, yielding full agreement. However, only if the verb moves past the subject, forming a VS order, does the agreement feature loss occur, and a default [SG] valuation is triggered; otherwise, a full agreement is retained. In short, they assume that the agreement information on heads is disturbed whenever they undergo further movement past the agreeing element, expelling them from the Spec-Head agreement relationship.

Although, in my opinion, the Agreement Loss analysis fairs better than the Null Expletive analysis in accounting for i) the correlation between word order and the agreement asymmetry observed in SA, and ii) the retention of only the Gender feature on the verb, one of the drawbacks of this hypothesis from a minimalist perspective, Soltan (2007) argues, is its reliance on a

stipulated agreement mechanism and agreement loss that are not independently motivated[18]. Furthermore, I believe that it is hardly ever to assume that the loss only affects the Number feature independently of Gender. Put differently, a flaw in the analysis, I argue, can be seen in the fact that the difference between SV and VS - or more accurately, preverbal and postverbal subjects' interaction with the verb - is not a difference between full agreement and no agreement. Rather, it is a distinction between a fully inflected verb contrasting with a partially inflected one. Consequently, it can be concluded that the Agreement Loss is minimalistically inadequate for the simple reason that it is not attested in the language. Apart from the VDs agreement manifestations, agreement in Number whereby the verb (or adjective) precedes the subject is well established in SA. Consider the following two examples.

35. a. ħadˁar-na: (naħnu:) kulu-na: ʔilla: ʔax-i:.
attend-1.PL.PER we all-us except brother.SG-my
"We all attended, except my brother."

b. mudʒtahid-a:t-un ʔal-bana:t-u ʔal-jawma.
hard.working-F.PL-NOM the-girl.PL-NOM the-day
"The girls are hard-working today."

As shown, although the clause in (35a) is VS, the verb shows full agreement due to the presence of a pronoun. The pronoun in the example above tends to be covert, but it is forced to be overt for focus purposes. Similarly, although the predicative adjective in example (b) precedes the noun, it displays full agreement with the latter, i.e., it inflects for Number and Gender morphology. Without question, such examples in the language suggest that the Agreement Loss analysis, like the case with the Null Expletive analysis, is suspect from a minimalist perspective and untenable.

[18] It is important to indicate that the Spec-Head configuration is not problematic per se in the current minimalist assumptions. There are a couple of proposals that place the Goal in a higher position (typically the probing head's Spec) than the Probe (cf. the Upward Agree mechanisms proposed by, e.g., Bošković, 2007; Zeijlstra, 2012; Wurmbrand, 2012; 2014; Kang, 2017; Wurmbrand & Haddad, 2016; Bjorkman & Zeijlstra, 2019; among many others).

3.2.1.3 The Incorporation Analysis

From a different perspective than the analyses put forth by Mohammad (1990; 2000) and Aoun et al. (1994), the Incorporation analysis, as argued by Fassi Fehri (1993), proposes that there exists no agreement asymmetry in the language, on a par with the Arabic medieval traditional grammarians. Rather, the apparent asymmetry, Fassi Fehri argues, is a contrast between full lexical DP incorporation, in contrast to being an encliticized pronominal element. In particular, he argues that the agreement results from two different processes, depending on the type of element incorporating with the verb in each word order. Whereas full agreement in SV order is an instance of an incorporated overt pronoun clitic, it is an incorporation of a lexical DP in VS order, as shown below.

36. a. ħadˤar-na:. → V-Pronoun
    attend-1.PL.PER
    "We attended."
    b. ħadˤar-a Fahd-un. → V-DP
    attend-3M.SG.PER *Fahad-M.NOM*
    "Fahad attended."
    c. *ħadˤar-u: ʔal-ʔawla:d-u. → V-Pronoun-DP
    attend-3M.PL.PER *the-boy.PL-NOM*
    "The boys attended."

One of the bases for this hypothesis, according to Fassi Fehri, is the observation that full agreement is obtained with null pronominals (36a), in contrast to being partial with postverbal lexical subjects (b). Another basis for this assumption is the impossibility to have both postverbal lexical and pronominal subject DPs; mainly, they i) are in complementary distribution, and ii) compete for the same syntactic position and its associated thematic role (c). Contrary to the VS order, a preverbal lexical DP can co-occur with a full agreement in SV order, i.e., an incorporated

pronoun; such a possibility, according to Fassi Fehri, follows if preverbal subject DPs are topical elements in the left periphery of the clause.

Like the preceding accounts to the agreement asymmetry in SA, the Incorporation analysis is not without issues. For one thing, it is well-known, as indicated in section (2.1.2.2), that inflectional agreement paradigms distinguish between perfective and imperfective verbs. While the former takes suffixal agreement, the latter takes both a prefix for Person and Gender and a suffix for Number. In contrast, Arabic pronouns are continuous forms, i.e., their features are spelled-out by one continuous phonological item (Aoun et al., 2010). For this reason, I believe that for this analysis to be tenable, something must be postulated about the discontinuous spell-out of the agreement inflections. Nonetheless, it remains whether such a complex analysis is warranted.

In a similar fashion, it is well-known that the verb in SA displays Gender inflection regardless of the relative order between the subject and the verb (37a vs. b).

37. a. (Hind-un) ɣa:dar-at (Hind-un).
Hind-F.NOM *leave-3F.SG.PER* *Hind-F.NOM*
b. (Fahd-un) ɣa:dar-a (Fahd-un).
Fahad-M.NOM *leave-3M.SG.PER* *Fahad-M.NOM*
"Hind / Fahad / he / she left."

Although singular masculine inflection in Arabic has no morphological exponent on the verb, any other forms, be it dual, plural, or feminine, must have a gender exponent on the verb. Aoun et al. (2010, p. 80) argued that the singular (masculine) agreement paradigm presents a critical problem to such an analysis. Given that the agreement (singular) morphemes on perfective and imperfective verbal predicates, whether in VS or SV order, are the same, it follows that the similarity must be accidental in light of the core assumption in the Incorporation analysis. Soltan (2007) and Aoun et al. (2010) assert that this fact, i.e., the presence of Gender inflection, presents a technical problem

to such an analysis to the extent that it requires one to stipulate that Gender agreement is not at all incorporated pronominal.

Finally, Benmamoun (2000) argued that in complex tense constructions, as shown in (38), both the verb and the auxiliary must agree in φ-features with the subject.

38. a. kun-na ja-ʃrab-na ʔal-qahwat-a.
be-3F.PL.PER 3F-drink-PL.IMP.IND the-coffee.F.SG-ACC

b. ka:n-u: ja-ʃrab-u:na ʔal-qahwat-a.
be-3M.PL.PER 3M-drink-PL.IMP.IND the-coffee.F.SG-ACC
"They$_{F/M}$ were drinking the coffee."

c. ka:n-a ʔal-ʔawla:d-u ja-ʃrab-u:na ʔal-qahwat-a.
be-3M.SG.PER the-boy.PL-NOM 3M-drink-PL.IMP.IND the-coffee.F.SG-ACC
"The boys were drinking the coffee."

As seen, not only does the verb inflect for full agreement with the covert pronominal subject, but also the auxiliary does. Significantly, suppose full agreement is an incorporated null pronominal in Fassi Fehri's term. In that case, it follows that this pronoun incorporates twice in the same clause, though it is impossible according to such an analysis. Interestingly, an overt DP can intervene between the auxiliary and the main verb, as in example (c) above, triggering partial agreement on the former and full agreement on the latter, as argued by Aoun et al. (2010, p. 78). In such a case, the clause will encompass a preverbal non-dislocated DP and a postverbal pronoun clitic; hence, there will be two subjects per Fassi Fehri's terms. I conclude, based on these arguments, that this analysis is also unsatisfactory[19].

[19] One other problem with the Incorporation analysis, I believe, lies in cases where the structural adjacency between the verb and the postverbal DP it co-occurs with is absent due to the presence of intervening elements such as a shifted object, as will be argued against the PF Merger analysis.

3.2.2 Toward A Minimalist Analysis

In the preceding sections, three GB agreement accounts were briefly discussed. The first significant point of criticism that stands out in these accounts' face is theoretical; they involve a bygone motivated mechanism such as the Spec-Head (and Government) relation(s). In simple terms, with the advent of the in-situ Agree-based mechanism to formal feature valuation, it has been established that such a mechanism is entirely sufficient to get the job done without the need for subject DP raising to the specifier of an agreeing head. To this end, the (early MP) Spec-Head or the prevalent GB Government notions have no import whatsoever at the narrow syntax in terms of agreement relations; the two notions are no longer considered primitive relations. A second but minor point of criticism is that these surveyed analyses, though are partially successful in capturing the agreement facts manifested in SA, they seem to motivate conjectures that are controversial and may not be supported in SA surface agreement facts. In the following sections, I survey two other MP agreement accounts.

3.2.2.1 The PF Merger Analysis

In the same vein as the Incorporation analysis, but with a different perspective, the PF Merger analysis, proposed by Benmamoun (2000), assumes that SA's agreement asymmetry is, in fact, morphological rather than being syntactic. To be specific, Benmamoun argues, per Aoun et al.'s (1994) assumption regarding the correlation between the word order and agreement in (34) above, that it is the VS order that undergoes morphological incorporation or merger, rather than being the SV order per the Incorporation analysis discussed earlier. That is, it is argued that the partial agreement in the VS order is attributed to a PF morphological merger between the post-verbal subject and the verb, taking into account that the two are being a prosodic unit in morphology, rendering the spelling-out of the verb's [Num] inflection redundant.

In simple terms, the postverbal lexical subject contributes the [Num] feature on the verb. Conversely, the presence of a preverbal subject, which amounts to the lack of such a postsyntactic merger, renders the spell-out of this feature obligatory and explains the obligatory full agreement attested in the SV order. Accordingly, the agreement asymmetry reflects a presence vs. absence of a postsyntactic (morphological) merger between the verb and the DP in Spec-VP. The full agreement is obtained in both word orders via a Spec-Head configuration, i.e., throughout the syntactic derivation, although the [Num] feature is spelled out differently in the morphological component, either as a morpheme or as a morphologically merged lexical subject (Benmamoun, 2000, pp. 128 -129), as shown below in (39).

39. a. ʔal-bana:t-u ħadˁar-na. → ✓ Num-Spell-out
the-girl.PL-NOM *attend-3F.PL.PER*

b. ħadˁar-at ʔal-bana:t-u. → X Num-Spell-out
attend-3F.SG.PER *the-girl.PL-NOM*

"The girls attended."

The account assumes that the Number feature on the verb can be spelled-out as an affix or periphrastic. Whereas in VS order, the verb and the postverbal subject merge periphrastically, rendering spelling out the Number affix redundant, it is impossible to merge the verb and the preverbal subject in SV order, rendering the Number affix obligatory. One support for this analysis, according to Benmamoun, comes from how the agreement features are spelled out whenever the subject is located between a higher auxiliary and a lower verb. As argued above against the Incorporation analysis (see 38c above), in such a case, only the lower verb shows full agreement, while the auxiliary, due to being in a prosodic unit with the subject, does not show Number inflection.

Although the PF Merger analysis avoids, to a large extent, the problems of the previous syntactic analyses mentioned above, one critical pitfall of such an analysis, according to Soltan (2007), is its presumed adjacency requirement between the two merging elements. Such adjacency

requirement is unmotivated on surface representations since many elements, e.g., shifted objects or temporal adverbial phrases (40a - b), can intervene between the postverbal subject and the verb.

40. a. ʔakal-a ʔal-tˤaʕa:m-a ʔal-ʔawla:d-u.
eat-3M.SG.PER the-food.M.SG-ACC the-boy.PL-NOM
"The boys ate the food."

b. sa:far-a bi-ʔal-ʔams-i Fahd-un.
travel-3M.SG.PER in-the-yesterday-GEN Fahad-M.NOM
"Fahad traveled yesterday."

The verbs "ate" and "travel" and their correlated subjects, as shown above, are intervened by a shifted object and an adverbial phrase, respectively. According to Soltan (ibid), the existence of such cases requires a loose definition of adjacency to remedy such an analysis. Additionally, one further problem with this type of analysis is that overt pronominals, whether in VS or SV order, trigger full agreement. Finally, one theoretically drawback of such an account, as indicated earlier, revolves around the no-longer motivated Spec-Head agreement mechanism, which loses its stand against the well-motivated in-situ Agree-based mechanism to formal feature valuation.

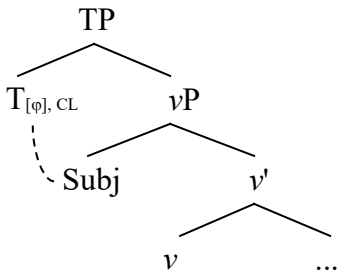
Taking into account that i) in a VS order, a partial agreement can be obtained despite that the verb and the subject are intervened, ii) the fact that an overt pronominal in a VS order can trigger full agreement, contrary to the core assumption of the Merger analysis, and iii) that the account relies on no longer assumed mechanism, it can be concluded that the Merger analysis may not be plausible.

3.2.2.2 The Null *pro* Analysis

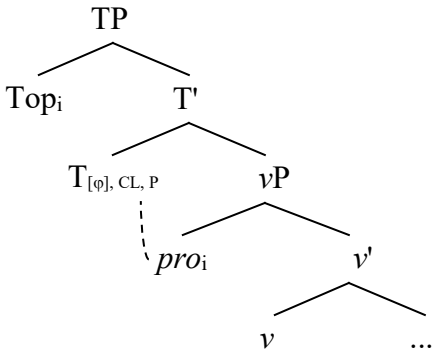
In a similar vein to Fassi Fehri (1993), and under the Agree-based system of Chomsky (2000; 2001), Soltan (2007) assumes that the agreement asymmetry in SA is not the product of (A-)movement. Instead, the asymmetry is ascribed to two distinct word orders that underlyingly have different syntactic structures, i.e., they are derivationally independent, contrary to the

common assumption. Whereas a SV(O) order has a base-generated null subject *pro* in Spec-*v*P coindexed with a base-generated left-dislocated A-bar topic in Spec-TP, a VS(O) has only a main DP in Spec-*v*P, as shown below in (41). The former, but not the latter, triggers full agreement, assuming that T's φ-bundle probes the null *pro* in Spec-*v*P. Thus, the partial agreement in VS(O) order arises as an Agree relation between T's φ-Probe and the lexical subject in Spec-*v*P; only the latter position, according to Soltan, constitutes the canonical subject position available in SA clause structure.

41. **a. VS Order:**



b. SV Order:



As can be seen, contrary to the Spec-Head agreement proposals of, e.g., Aoun et al., 1994; Mohammad, 2000; and Benmamoun, 2000, it is argued that the agreement asymmetry is attributed to the hypothesis that the agreement in the VS order is a long-distance Agree relation between T's φ-Probe and a lexical subject in Spec-*v*P, in contrast to being with a null *pro* in the SV order. Put differently, whereas the subject in VS order is the lexical DP, it is a base-generated phonetically null *pro* coindexed with a preverbal base-generated topic element in Spec-TP (an A-bar position) in SV order. With this in mind, Soltan assumes that the two word orders are associated with distinct features on T (or say two versions of T, each with certain featural combinations). In particular, T may carry one or a combination of the following types of uninterpretable features: i) φ-features

excluding Gender, ii) CLASS feature representing Gender feature in many languages, and iii) a peripheral EPP feature (so-called P-feature) (Soltan, 2007, pp. 69 - 70).

It is important to note that the φ-features, i.e., the Number and Person, in Soltan's terms, may happen to have default valuation and that the CLASS feature may probe on its own independently of the Person and Number features. Therefore, whereas a SV order has a T with three unvalued features: φ, CLASS and EPP, the one associated with a VS order carries only a default-valued φ and unvalued CLASS features, the latter of which probes the subject in Spec-*v*P. In simple terms, in the VS order, T does not have φ-features, i.e., it does not have Person and Number. Rather it has lexically determined default valuation, which is an option available in SA, according to Soltan (p. 71, 109), although CLASS is obligatory in such a variety.

Hence, taking into consideration the interplay between the T version and the type of element in Spec-*v*P in each word order, a full agreement is obtained in SV order due to the Agree relation being between T's unvalued φ-features and CLASS on the one hand, and the null *pro* on the other. A partial agreement, in contrast, is achieved in VS order since the only probing feature, i.e., CLASS, agrees with the lexical subject in Spec-*v*P. Soltan assumes that the obligatory full agreement with the null *pro* accord with the *pro*-identification requirement (Rizzi, 1982; McCloskey, 1986), which he reinterprets as a PF Interface Condition (42). As the reader may observe, contrary to Fassi Fehri's (1993) Incorporation analysis and traditional medieval grammarians, Soltan assumes that the full agreement in SV order is an Agree-based reflex, rather than being an incorporated pronoun.

42. **PF Interface Condition:**
A null element *pro* has to be identified at the interface, where identification is established by association with a complete φ-complex.

(Soltan, 2007, p. 64)

In brief, Soltan's analysis is brilliant in its own right and is advantageous over the proposals laid out above. For one thing, it succeeds in accommodating the agreement asymmetry in SA via theory-based and language-based assumptions, i.e., without superfluous stipulations, as was argued against, e.g., the Agreement Loss analysis. To be precise, the long-distance Agree forms a conceptually motivated operation of any feature licensing mechanism, in contrast to the bygone and problematic Spec-Head configuration to agreement relations. Besides, it is well-known that Arabic is a null subject language; consequently, the correlation between the presence of full agreement and the presence of a(n) (overt) pronoun is undeniable.

Additionally, one further advantage of Soltan's account over the previous analyses, in particular, the Incorporation and Null Expletive analyses, is the fact that it avoids the problem raised by the overt Gender agreement morphology in both word orders, as Soltan's stresses (p. 46), due to the underlying assumption that it is derivationally and featurally achieved. Furthermore, assuming that φ-feature agreement, as currently assumed, is a long-distance Agree relation, the proposal circumvent the presumed adjacency requirement associated with Benmamoun's (2000) PF Merger analysis.

Finally, one desirability of this account, albeit not discussed by Soltan, is that it is featurally-based whereby morphological exponence of φ-features are, I believe, is not present in the syntax. Hence, unlike Fassi Fehri's Incorporation analysis, it evades the issues of morphological agreement exponence asymmetry between perfective and imperfective verbal forms, i.e., the discontinuous agreement affixes present on imperfective verbal forms.

3.2.2.2.1 Further Thoughts Beyond The Null *pro* Analysis

Above all, without discussing further other advantages of the Agree-based mechanism, in general, and Soltan's, in particular, the above points in the preceding section present some of the advantages of such an approach over other (Spec-Head) accounts. Despite these advantages of such an analysis and its potentials, I believe that there are a couple of (theoretical and language-specific) points that need re-considerations; thus, a new perspective towards the subject-verb agreement (asymmetry) is needed. Put differently, although such an approach would serve as a starting point from which I propose a new agreement account, Soltan's analysis is bound with some issues that I (re-)consider when accounting for the agreement asymmetry in SA and its lack off in other varieties such as the VDs.

First of all, one of the underlying assumptions in such an account, which is taken for granted, is the correlation between SV vs. VS order in the standard variety on the one hand, and the full vs. partial agreement, respectively, on the other (Soltan, 2007, p. 34). Nevertheless, based on the examples above in (27a-f), it can be noted in passing that there is good empirical evidence against such correlation, albeit some are not non-standard. Put simply, these uses and the examples above, though less frequent than the standardized manner, are not ungrammatical. There is a common belief among traditional grammarians that such use forms a surface agreement mechanism that cannot be rejected due to the presence of abundant examples presented in the literature for such a use (Hasan, 1975). As I indicated in section (2.1), SA's clause formation follows well-documented literature on CA's grammar, from which SA descends; by hypothesis, these examples' presence may not be unexpected in the modern standard variety.

For that reason, I believe that as long as the VS (and the SV) structure(s) in Arabic is/are limited to a partial (and a full) agreement, Soltan's account is not endangered. However, such an account becomes problematic in the face of these examples, where full agreement in VS is attested.

Even if one were to reject such a non-standard use on the basis that it may not be compatible with the standardized version, it is important to indicate that such a manifestation is the standardized use in most, if not all, of the current present-day dialects. Hence, one may argue that the latter is an extension of the way agreement is manifested in this (archaic) use. With this in mind, it is clear that Soltan's (2007) account, were it to be adopted, has to make a fundamental distinction between the way agreement morphology is manifested within and without the Arabic varieties in general. To my knowledge, there has been no discussion of these (non-standardized) patterns in the existing literature. There is no discussion on the existence of a full agreement in VS order, nor a defective/partial agreement in SV order, in Soltan (ibid) and other linguists who follow his lead, whereby they denied the existence of a full agreement in the former structure, and defective/partial agreement in the latter, proposing the presence of null *pro* in the canonical subject position of the clause.

Nevertheless, recognizing the existence of a full agreement in the current dialects, Soltan assumes that in these varieties, T carries unvalued φ-features and unvalued CLASS without an EPP in VS order. Accordingly, the difference between these dialects and SA is a parametric property, assuming that SA does not allow a φ-complete T without EPP (p. 71 – 72). Put differently, the φ-complete T head in these dialects, unlike in SA, may, but not necessarily have to, carry an EPP (for discussion on whether T's EPP is parametric in these varieties, see section (4.4)). One issue, I believe, is at stake in such a hypothesis. In most of these current dialects, there is masculine-feminine syncretism when it comes to plural and often dual agreement. To illustrate, consider the following examples[20]:

[20] It is important to remember that these two examples represent the common syncretism in Najdi (e.g., Riyadh, Balqarn, Bishah, & Bedouin) according to my investigation, and also as me being a native of such a dialect. They are also representative examples of Moroccan, Lebanese, Jordanian, & Palestinian Arabic (cf. Mohammad 2000; Aoun et al., 2010; Sahawneh, 2017, among many others).

- **NA:**

43. a. (ʔil-bana:t) ʃa:f-u: (ʔil-bana:t) ʔil-film.
the-girl.PL watch-3M.PL.PER the-girl.PL the-movie.M.SG

b. (ʔil-ʔawla:d) ʃa:f-u: (ʔil-ʔawla:d) ʔil-film.
the-boy.PL watch-3M.PL.PER the-boy.PL the-movie.M.SG

44. a. (ʔil-bint-ain) ʃa:f-u: (ʔil-bint-ain) ʔil-film.
the-girl-DU watch-3M.PL.PER the-girl-DU the-movie.M.SG

b. (ʔil-walad-ain) ʃa:f-u: (ʔil-walad-ain) ʔil-film.
the-boy-DU watch-3.M.PL.PER the-boy-DU the-movie.M.SG
"The (two) girls / boys watched the movie."

As seen, the agreement with either plural/dual masculine or feminine nouns triggers a masculine agreement on the verb. Interestingly, the plural agreement is not only associated with plural nouns but is also manifested in an Agree relation with dual nouns, as shown in (44) above. With this in mind, whether it is assumed that the masculine agreement results from a default valuation, Soltan's assumption that the T head in the current dialects carries unvalued φ-features and unvalued CLASS seems to be problematic. Specifically, these unvalued features would lead to both agreement in Gender and Number, which is not borne out on the surface representations; masculine and feminine nouns entering into an Agree relation with a given verbal predicate will result in masculine and feminine valuations, respectively. In the same vein, dual nouns would lead to dual valuation, though the surface morphology is plural. In anticipation of the proposal to be laid out in the following sections, although these examples may seem problematic to Soltan's account, I will argue that such an account, along with some underlying ramifications, would, to a large extent, get these facts right.

In close connection to this discussion, as indicated above, Soltan assumes a strong correlation between the existence of a full agreement and the presence of a null *pro* in Spec-*v*P. Empirically, while this observation may be motivated by the fact that SA is a null subject language, it is

not clear what other than that would count as empirical proof for the correlation. Leaving the well-documented, uncontroversial examples from CA, as well as SA, aside, it is a well-known fact that the dialects, like its ancestors, continue to be null-subject varieties, i.e., they are *pro*-drop dialects. Despite this property, these dialects, as shown by the examples above, display full agreement in VS order, the canonical subject position where Soltan argues that it is associated with a null *pro*. Hence, the only two ways out of such a dilemma, I would think of, would be i) to parametrize the existence of such null *pro* in Spec-*v*P in these dialects in contrast to SA, or ii) to assume that it exists in these dialects but is inactive in the grammar for whatsoever reason(s).

Recognizing the problem, Soltan assumes that whereas the *pro*-identification requirement via full agreement is obligatory for a null *pro* in SA, it is not so, though by no means prohibited, for lexical subjects, as it is the case in the dialects (p. 64). Such a stipulation, I assume, is problematic for the following reason. Although the unmarked behavior of subject pronouns in Arabic is for them to be null, it is by no means the only option, given that they can be overt for, e.g., focus purposes. By hypothesis, this would indicate that these overt pronouns would be sufficient for their identification; hence no full agreement is needed, contrary to facts. Based on this discussion, I conclude that the presence of full agreement and the null *pro*'s presence in Spec-*v*P must be kept apart. Somewhat, pronouns, whether overt or covert, interplays with the type of T head to trigger full agreement, in a similar fashion to an Agree relation with an overt lexical DP, subject to dialect/variety-specific requirement(s) (for a discussion see (4.4.1)).

One other issue with Soltan's assumption is that in VS order, it is assumed that the T head, though carries a full set of φ-features and CLASS, it is only the latter that can probe the postverbal DP in Spec-*v*P, given that the Person and Number feature bundle are lexically valued. Based on his underlying assumption, both T and the postverbal DP have to be active to enter into a pair-wise

Agree valuation (Chomsky 2000; 2001). Hornstein et al. (2005, p. 321) contend that for a T head to be able to value the case feature of a subject DP, the former has to carry a [uPerson] feature (see also Chomsky, 2000, p. 124). Given this logic, one issue arises under Soltan's mechanism because he assumes that in such VS order, T can value the case feature on the postverbal DP, despite having only one unvalued (CLASS) feature. In simple terms, the crucial feature relevant to Case valuation is not in an Agree relation with the postverbal DP. By hypothesis, it is either the case that the activation condition is irrelevant to Agree, or it is the case that these presumed φ-feature bundle enters the derivation unvalued, although they receive default valuation during the derivation for whatever reason.

What's more, although the separation of Gender from the other two φ-features may not theoretically be problematic, I believe that such a move remains a stipulation unless something is said about the grouping of Person and Number together, excluding the CLASS feature from the φ-feature set. The emerging picture from the large volumes on φ-feature valuation is that T's φ-feature bundle either probes as a set or that each feature probes independently of the other two. In effect, if it is commonly assumed that the φ-feature set consists of Person, Gender, and Number, and that they either probe as a set or that each probe independently, any disjunction of this [CLASS] from the φ-feature set independently of the other two must be grounded.

Finally, although one of the issues considered in Soltan's account in SA concerns agreement in raising constructions, both raising-to-subject (RT-subject) and raising-to-object (RT-object), I believe that any agreement proposal must be able to account for the agreement phenomena in control constructions, as well. As I will show later in this work, SA control interpretation may often involve forward and backward control interpretations. The controller is either positioned in

the matrix or the embedded clause, respectively. Interestingly, these configurations interplay with the agreement asymmetry in SA.

45. a. ʔal-ʔawla:d-u$_i$ ʔara:d-u: [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
the-boy.PL-NOM want-3M.PL.PER to 3M-travel-PL.IMP.SUB EC the-yesterday

b. ʔara:d-a ʔal-ʔawla:d-u$_i$ [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
want-3M.SG.PER the-boy.PL-NOM to 3M-travel-PL.IMP.SUB EC the-yesterday
"The boys wanted to travel yesterday."

c. ʔara:d-a $\Delta_{i/j}$ [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
want-3M.SG.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"The boys wanted to travel yesterday."
"He wanted the boys to travel yesterday."

d. ʔara:d-u: $\Delta_{*i/j}$ [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
want-3M.PL.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"They wanted the boys to travel yesterday."

As observed above, control constructions in SA may often allow either control configurations (45a & b vs. c), i.e., SA allows backward control in addition to its canonical forward configuration. The understood subject of the matrix clause in example (c) is expressed overtly in the embedded clause, establishing co-reference with an unexpressed subject in the matrix clause. Surprisingly, despite the possibility of backward control in the language at hand, the type of agreement achieved dictates whether the control interpretation is available or not (45c vs. d); it is only when the matrix predicate displays partial agreement can the two matrix and embedded subjects co-refer (backward control).

Although Soltan's proposal regarding the presence of full agreement interplaying with the presence of a null *pro* in (embedded) Spec-*v*P may derive the right morphological agreement in (45a & b), it is problematic for (45c) for the following reason. Soltan correlates the presence of partial agreement in SA with an Agree relation between a postverbal lexical DP and a T head lacking an EPP. Nonetheless, as evidenced by example (c), the embedded DP also forms a thematic argument of the matrix clause, which may signals that the DP, for some reason, has been to the

matrix clause, but the lower copy is pronounced downstairs in the embedded clause. Although it may be argued that the matrix clause is a null 3M.SG *pro* variable in Spec-*v*P, it is important to indicate that the fact that it may be coindexed with the lexical DP in the embedded clause suggests that it must trigger a C-condition violation, which is not borne out.

Above all, for a backward control reading to be attainable in a given control construction, a specific φ-feature agreement (and word order) has/have to be obtained between the matrix predicate and its subject; otherwise, it is no-control reading. For that reason, I assume that the EPP's status and its correlation with SV order only must be reconsidered.

3.2.3 Interim Summary

The subject-verb agreement asymmetry in SA and its relationship with the word order have been at the heart of an intense debate. In this section, I briefly presented five major attempts in the literature that had been proposed to account for such an asymmetry, as well as their advantage(s) and drawback(s): the Null Expletive analysis, the Agreement Loss analysis, the Incorporation analysis, the PF Merger analysis, and the Null *pro* analysis. I argued that these analyses are often variety-specific or are oftentimes bound with theoretical issues.

First, the Null Expletive is controversial for the fact that i) the correlation between overt and null pronoun cannot be attained, ii) the presumed null expletive cannot be a true expletive, taking into consideration that its overt counterpart can be coindexed with another element in the clause, and iii) that the Gender feature associated with this null expletive is invariant, contrary to the agreement morphology on the verbal predicate. It relies on independently unmotivated assumptions to account for the agreement asymmetry. On the other hand, one of the pitfalls of the Agreement Loss analysis, from a minimalist perspective, is its reliance on a stipulated agreement mechanism and agreement loss that are not independently motivated, assuming that the loss only affects

the Number feature independent of the Gender and Person features. Put differently, the flaw lies in the fact that the difference between SV and VS is not a difference between full agreement and no agreement. Rather, it is a distinction between a fully inflected verb contrasting with a partially inflected one. Two of the technical issues of the Incorporation analysis, on the other hand, are attributed to i) the asymmetry between perfective and imperfective verbal forms in terms of the morphological agreement exponence, and ii) the fact that Gender agreement surfaces on both word orders. Overall, it seems that there are various problems in any GB analysis to the agreement asymmetry in SA in terms of Spec-Head configuration[21].

Next, the PF Merger analysis, as was shown above, seems to be paradoxical taking into consideration i) its presumed adjacency requirement between the two merging elements, which is unmotivated on surface representations, and ii) the fact that overt pronominals, whether in VS or SV order, trigger full agreement. Although such an analysis is cast within a MP framework, it remains language-specific, after all, similar to the above three proposals, assuming that the Number agreement is manifested in both word orders in the contemporary dialects. Finally, the Null *pro* analysis advanced by Soltan (2007) seems to be the least problematic among them all. As I indicated above, these problems are not entirely theoretical; rather, they are language-specific that, as I will argue, can be accounted for with some underlying modifications to such an approach. For that reason, the following sections will be devoted to presenting the main hypotheses and the underlying assumptions for this new perspective to the agreement in Arabic.

[21] Other issues arise when considering the so-called FCA in Arabic, but I restrict the discussion only to simple DPs (for such issues, see Soltan, 2007; Sahawneh, 2017; references therein; among others).

3.3 Paving The Way Toward A Morphosyntactic Agreement Analysis

In section (3.1), it has been shown that despite the frequency of subject-verb agreement asymmetry in SA, there exist some representative examples where full and partial agreement is attested in VS and SV orders, respectively, and whose well-formedness is uncontroversial. Put differently, although in the SV and VS orders, the full and partial subject-verb agreements, respectively, represent the standardized form of agreement, the correlation may not be absolute, assuming the existence of examples for the reverse correlation. For illustration, consider the repeated examples below.

46. a. ʔal-bana:t-u ʃa:had-na ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.PL.PER the-TV.M.SG-ACC
"The girls watched the TV."

b. ʔal-tˁula:b-u ta-ndʒaħ-u bi-ʔal-ʔidʒtiha:d-i.
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND by-the-hard.work-M.SG.GEN
"Students succeed through hard work."

c. ʃahad-at ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.SG.PER the-girl.PL-NOM the-TV.M.SG-ACC
"The girls watched the TV."

d. ja-taʕa:qab-u:na fi:-kum mala:ʔikat-un … .
3M-alternate-PL.IMP.IND in-you angel.M.PL-NOM
"Angels alternate on you."

Whereas in (46a), the SV order shows full agreement, the same word order as in (b) shows partial/defective agreement. In a similar vein, the VS order can show partial or full agreement, as indicated in (c & d), respectively.

These (non-standardized) examples in terms of the agreement, though they are often considered less common by traditional medieval grammarians, suggest that the presumed word order correlation with a specific subject-verb agreement is not absolute. Additionally, even if one rejects these facts about the correlation, it is essential to recognize, as repeatedly indicated throughout the

discussion in the previous sections, that the agreement asymmetry associated with the standard variety is lost in most, if not all, of the current dialects. This subject-verb agreement loss in these dialects again points toward the same conclusion. Put differently, the examples from both the (non-)standard examples and the ones in the current dialects demonstrate that the correlation between the SV and VS orders, on the one hand, and full and partial agreement, respectively, on the other, is unattainable. The non-standard examples, though may raise a sense of deviance, are legible to Arabic speakers.

I believe that any account to the subject-verb agreement must take these points into consideration for the above reasons. Aside from the non-standard use, to my knowledge, most of the accounts to the subject-verb agreement treat the agreement phenomenon in SA and dialects independently, proposing a variety-specific analysis to the language/dialect at hand. Moreover, the analyses and their observations tend to be based on non-syncretic agreement manifestations. Hence, apart from Soltan (2007), none of the existing analyses would capture the variation between SA and the modern dialects.

Despite the dissimilarity between SA and the modern dialects in terms of subject-verb agreement, it is important to remember that, aside from such a variation, these varieties are mostly alike, e.g., in terms of flexibility of word order, adjective concord, pronouns and their associated agreement, etc. To take a case in point, consider the following examples for how adjective concord and pronoun-verb agreement takes place, respectively, in SA and NA:

47. a. ʔal-fataj-a:t-u ʔal-sˁaɣi:r-a:t-u mudʒtahid-a:t-un. SA
the-girl-PL.NOM *the-young-F.PL-NOM* *hard.working-F.PL-NOM*

b. ʔil-banaj-a:t ʔil-sˁiɣajr-a:t madʒtahd-a:t. NA
the-girl-PL *the-young-F.PL* *hard.working-F.PL*
"The young girls are working hard."

c. (naħnu:) sa-nu-ɣa:dir-u ɣadan. SA
we *will-1PL-leave-IMP.IND* *tomorrow*

d. (ħina: / ʔinna:) bi-n-ru:ħ bukrah. NA
we *will-1PL-leave-IMP.IND* *tomorrow*

"We will leave tomorrow."

As evidenced above, both adjective concord and the obligatory full agreement with (null) pronouns in the two varieties point toward the fact that there is an interrelation between the standard variety and the modern dialects. These shared phenomena call for the necessity of an account investigating why the subject-verb agreement is distinctive and/or exceptional.

With this in mind, this section's analytical objective is to propose a subject-verb agreement account with two aims. First, it hopes to draw the interrelation between the standard variety and the modern dialects, similarly to, e.g., what has been argued for the interrelation between CA and SA in terms of syntactic structure and agreement; i.e., the fact that their syntactic structure is to some extent similar. Put differently, it hopes to capture this cross-dialectal subject-verb agreement variation. Second, it hopes to pave the way for an analysis to cover these non-standard uses, which often form a baseline in linguistics for arguing against the notion that claims that full agreement is only found in SVO order. In simple terms, the analysis will argue that despite the presence of contradicting examples to the standard view (cf. AlQahtani, 2016; among others), these non-standard uses are not, in fact, conflicting with the belief that claims that the subject-verb agreement is asymmetrical. Rather, it stems from how the Agree operation interacts with the φ-features on the head T. I will argue that the subject-verb agreement attested in Arabic reflects an interplay between syntactic and morphological processes.

In brief, taking the Agree-system of Chomsky (2000 et seq.) and the assumptions in Distributed Morphology (Halle, 1992; 1994; 2000; Halle & Marantz, 1993; 1994), the account argues that the cross-dialectal variation under investigation is argued to be related to how the Agree

operation interacts with the nature and internal structure of the Probe, i.e., the different sets of φ-features borne by the functional head such as T/Asp. After feature valuation takes its normal course in the overt syntactic cycle, certain postsyntactic morphological operations may alter certain φ-feature combinations before Vocabulary Insertion occurs at PF, relativized in the Arabic varieties. I show that such an account can systematically and straightforwardly capture the different agreement facts attested in the different Arabic varieties and simultaneously avoids the drawbacks of the previous analyses.

The following sections, which lay out the underlying assumptions and the proposal, are organized as follows. Section (3.4) will be devoted to laying the account out, providing the underlying assumptions regarding the syntax of the subject-verb agreement, and discussing some conceptual issues with the proposed account (section (3.4.2)). Section (3.5) will briefly review the DM framework, its underlying assumptions, and how it handles syncretism (3.5.1), respectively.

3.4 The Morphosyntactic Relations Behind Agreement

An essential illuminating observation that emanates from the generative research spanning over the last five decades is that "abstract laws of significant generality underlie much of the superficial complexity of human language" (Pesetsky & Torrego, 2001, p. 355). Pesetsky & Torrego (ibid) contend that:

> Evidence in favor of this conjecture comes from two different types of facts. First, there are cross-linguistic facts. Investigation of unfamiliar and typologically diverse languages is regularly illuminated by what we already know about other languages. … In addition, there are facts about individual languages that closely mirror what we discover through cross-linguistic investigation. Just as investigation of unfamiliar and diverse languages is regularly illuminated by what we already know about other languages, so the investigation of unfamiliar

> and diverse structures within a single language is regularly illuminated by what we already know about other structures within that language. … By now, many investigations of this sort have been reported, providing us with strong reasons to suspect that language is indeed governed by abstract laws. Once one suspects the existence of laws governing a variety of phenomena, the next step should be a search for the laws themselves. (p. 335)

More importantly, being one of the phenomena susceptible to the FL's abstract laws, agreement, in general, and φ-features, in particular, have been under major scrutiny over the past two decades or so, contributing to an essential understanding of their nature and properties. Significantly, the emerging picture out of the considerable research is that agreement and φ-features are relevant to many different domains of the grammar: syntax, morphology, semantics, and pragmatics, which play a part in its real manifestation (Nevins, 2008; Baker, 2011). Put differently, albeit agreement, as commonly argued, is purely syntactic, a case can still be made that the latter's role "in explaining some of the interesting asymmetries of agreement is underappreciated" (Baker, 2011, p. 876).

Additionally, although the status of formal features, more specifically, features without semantic input, is to some extent far from obvious or unresolved, they are, generatively speaking, diacritics signifying that a given syntactic object has the property to either trigger or enter into a syntactic relation for (semantic) interpretive purposes (Chomsky, 1995, pp. 277 – 278; Pesetsky & Torrego, 2001, p. 364; Béjar, 2003, p. 27). To put it another way, the bundle of features on a given head, as commonly assumed, is the driving force for syntactic computation. Therefore, the properties of formal φ-features, given such a hypothesis, must be to signal that a given syntactic head is able to enter into a syntactic agreement relation with another syntactic object with matching feature(s), and to define a consequence of postsyntactic (PF) computations. Put differently, φ-

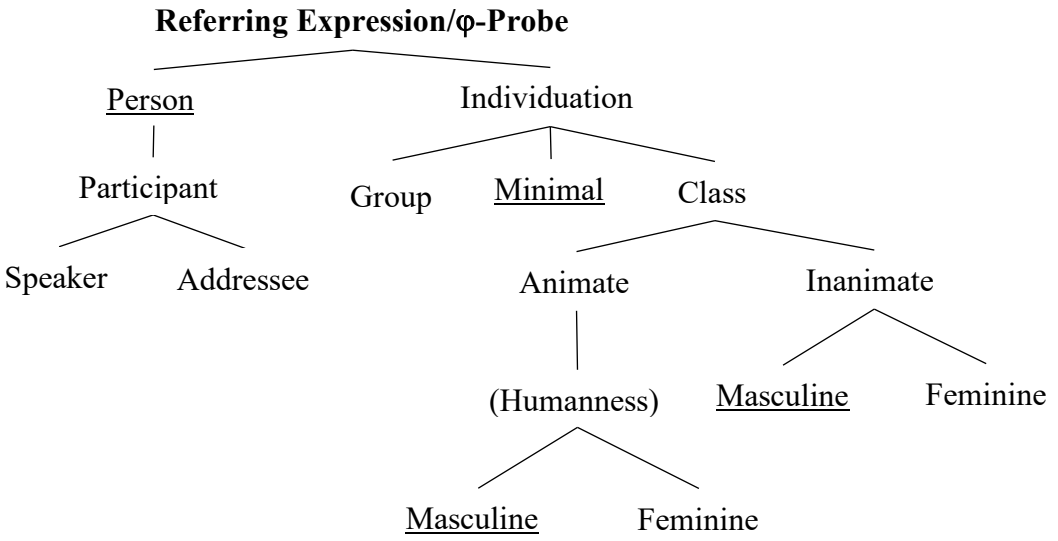
features within the MP have syntactic reality reflected by a (PF) interface surface spell-out (Preminger, 2014, p. 100).

Evidently, pronoun and agreement paradigms cross-linguistically evince that the FL makes available a highly constrained morphosyntactic feature set that is systematically organized. Without a doubt, the presence of natural classes of morphological features and their interaction, according to Harley & Ritter (2002), is linguistically-speaking accepted, which is reflected in the universal classificatory use of Person, Number, and Gender features, among others. Emphatically, albeit the status of φ-features (relevant to agreement), i.e., [Person], [Gender] and [Number], has been noted in the literature, only a few works have defined the hierarchical ontology of these features. These far-reaching typological works on pronouns and agreement φ-features have led to a number of significant discoveries about the representation of morphosyntactic features. For instance, Harley and Ritter (ibid) advanced a universal φ-feature geometry of pronouns' Person, Number, and Gender features, capturing a wide array of cross-linguistic pronominal systems.

In essence, they argue against the more traditional use of unstructured binary features to represent the φ-feature set of pronominal paradigms, contending that such approaches can, at most, stipulate certain implicational universals noted by Greenberg (1963). They argue, therefore, that the pronoun paradigms (and agreement paradigms, as argued by others) of the world's languages are underlyingly represented by a universal morphosyntactic feature geometry, which is systematically "constrained and motivated by conceptual considerations" (p. 482). For concreteness, I will adopt the φ-feature geometry in figure (1) below, a modified version of the geometry proposed by

Harley and Ritter (ibid), and which will be assumed in this discussion for Arabic φ-feature hierarchy; these features, as shown, are privative, i.e., monovalent, ones[22].

Figure (1): Arabic φ-feature geometry[23]



(Harley & Ritter, 2002, p. 487)

The external factors that determine the hierarchical groupings of morphosyntactic features are conceptual and include cognitive notions such as reference, plurality, and taxonomy, which are grammaticalized by the geometry subtrees (Harley & Ritter, 2002; Béjar, 2003). The structural organization, as shown above, reflects a principled explanation for the restrictions on the paradigms, including the implicational dependencies and co-occurrence restrictions (cf. Greenberg's

[22] The core morphosyntactic features of a given language φ-feature geometry are subject to Minimal Contrastive Underspecification in the sense that only contrastive features or nodes must appear in the underlying representation (Harley & Ritter, 2002, p. 498).

[23] It is essential to indicate that the modification applied to Harley & Ritter's (2002) original feature geometry to capture certain Arabic phenomena are as follows. First, although Harley & Ritter's feature geometry distinguishes between features and organizing nodes, I ignore this distinction, in line with the prevalent assumption in the literature (cf. Béjar, 2003, Campbell, 2012, Preminger 2014, among others). Instead, I treat all geometry points as independent features, but with certain structural dependencies among themselves. Second, a Person node, representing [3] person, is added. Accordingly, I assume that in Arabic Person node has a dependent [Participant] node and that the discourse participant features are more specified than 3rd person features (Nevins, 2007). Second, some nodes that are irrelevant to the discussion in Arabic were not included in the representation. In contrast, others that are relevant, such as the node Humanness, are added due to its essential relevance to the discussion. Third, given that they did not discuss the Class node's content in-depth, I elaborate on such a node to reflect how it is defined in Arabic. Finally, taking into account that [3], [Masculine] and [Minimal] are the default φ-features in Arabic, they are underlined in the feature geometry, per their denotation of defaultness.

(1963) Universals (32, 34, 36), Shlonsky, 1989; Noyer, 1992; Corbett, 2000)[24]. The feature geometry groups together natural classes of morphosyntactic features, defining the hierarchies amongst these classes. Given that a referring expression, for example, must be specified for Number in order to be specified for Gender, the feature geometry encodes the implicational dominance of Number over Gender directly by including Class as a sub-node of the Individuation node, used to represent Number features (Campbell, 2012). Such a feature geometry has been widely embraced, taking into account its linguistic implicational relations. Sub-part interpretation of this geometry, as argued, maybe constrainedly relativized by how language-specific properties govern contrasts.

Significantly, it is commonly assumed, within generative syntax, that agreement features constitute a logical atomic set in syntax which have syntactic reality, be it in the form of an Agr-node (Chomsky, 1991; 1993), an uninterpretable, unvalued pronoun-like set of φ-features (Chomsky, 1995), or a set of unvalued uninterpretable features on a given head, e.g., T (Chomsky, 2000 et seq.). Such a move is stimulated by the fact that, like lexical items that can, in theory, be fully described by their component morpho-semantic features, agreement signals can be fully described by their component φ-features (Béjar, 2003; Harbour, 2008; Campbell, 2012). Nevertheless, despite such an assumption, a large number of works have argued for the separation of this agreement φ-Probe into distinct Probes, a Person, Number, and (sometimes) Gender, which are distributed in several ways, presuming that the distinct φ-features (often) undergo different licensing mechanisms (cf. Noyer, 1992; Béjar, 2003; Béjar & Rezac, 2003; Sigurðsson & Holmberg, 2008; Baker, 2011; Nevins, 2011; Preminger, 2014; among others). Person feature, for example,

[24] According to Greenberg's (1963) Universals (32) & (36), there is an implicational relation between Gender and Number in the sense that the existence of one entails the existence of the other, and that no Gender agreement can be achieved independent of Number agreement. In contrast, Universal (34) indicates that a given language cannot have a dual number unless it has a plural number (p. 94).

in contrast to Number, is assumed to require a special licensing mechanism; if a φ-feature licensing fails, it tends to be the Person feature, taking into account that it is the most fragile of them all.

The fact that each φ-feature, as often argued, undergo special licensing requirement has led some linguists to propose a fine-grained geometric structure of formal φ-features (with an implicational entailment among them) (cf. Béjar, 2003; Harbour 2008; Campbell 2012; Preminger 2014; among many others). In other words, taking into consideration the existence of asymmetries in how different φ-combinations operate syntactically, it is argued that such asymmetries are attributed to how ontological each φ-feature is employed in a given language, whereby a given label entails some sub-property. Emphatically, the idea that the individual make-up of the φ-feature set act independently in the syntax has been developed in the analyses of complex agreement phenomena, e.g., the so-called Context-Sensitive (CSA) (Béjar, 2003) and Two-and-a-Half (Baker, 2011) agreement cases, among many others. In the following, I briefly present the analysis of the agreement and φ-feature valuation put forth by Béjar (ibid) for the CSA in which a φ-Probe appears to have two Goals rather than just one.

Long story short, in these languages, the agreement morphology on finite verbs appears to reflect the feature specification of more than one argument. It is sometimes with a subject, sometimes with an object (or indirect object), and sometimes with multiple arguments; nevertheless, only a Goal with the most specific-feature specification agrees with the Probe. Consider, for instance, the example below in (48)[25].

[25] The example is maintained as appeared in Béjar (2003). Throughout this thesis, I follow such a process whenever non-Arabic examples are adopted from other resources.

48. g-xedav-t Georgian
2-see-PL
"I see you all."

(p. 68)

As seen, the φ-Probe has two potential Goals in its c-command domain, i.e., the subject and the direct object. However, when the subject is a 1st person singular and the direct object a 2nd person plural, the finite verb's agreement reflects the direct object's feature specification. According to Béjar (ibid), such agreement facts are attributed to the hypothesis that, in these CSA languages, the 2nd person is more specific than the 1st person, and the plural is more specific than the singular. It follows, then, that if the subject is 1st person plural, while the object is a 2nd person singular, the agreement on the finite verb signals the Person feature of the object, but the more specific Number feature of the subject. Put differently, the Person agreement arises from one argument, while the Number agreement comes from another, as shown in (49) below (TH stands for theme).

49. g-waabm-i-m Nishnaabemwin
2-see-TH-PL
'you.all see me'

(p. 111)

Consequently, Béjar (ibid) argues that such a specificity effect is driven due to the assumption that the unvalued φ-features do not probe as a set. Rather, the unvalued Person and Number features probe separately, i.e., she persuasively argued from a cross-linguistic argument that not all φ-Probes are equal. Due to the specificity requirement imposed in CSA languages, i.e., a certain Goal has to have a certain set of features needed by the φ-Probe, the agreement on the verb is not determined by syntactic position or grammatical function, but rather by the φ-featural richness of the Goal; the Probe may need to skip a more local argument to a more potential, but less local one.

She argues that the φ-Probes are not uniform across languages; there are languages in which the φ-Probes have more strict requirements for the Goal than in other languages.

3.4.1 Cross-Dialectal Agreement Variations: The φ-Probe Internal Structure

Without question, any analysis of a given phenomenon, e.g., subject-verb agreement, in a language is measured and characterized based on its capability to account for and cover its associated properties. In contrast to the agreement in the VDs, the agreement asymmetry in SA has been the subject of much work in generative linguistics, especially with respect to their syntactic properties and, less often, their morphological properties. Thereupon, this sub-section aims to investigate the formal mechanism by which the subject-verb agreement relations are derived in syntax and the internal nature of the φ-Probe; I present a derivational account of the agreement facts observed in SA and modern dialects. I explore, in particular, the properties of formal φ-features and consequences these have in the syntactic computation.

Additionally, I assume that the subject-verb agreement phenomenon and its variation are a consequence of the interplay between the overt syntactic and the covert morphological components. Simply put, I propose that the syntactic φ-feature bundle is valued via Agree in syntax, though, in some contexts, it may often undergo postsyntactic alternations via some morphological operations (see chapter (5) for comprehensive illustrations). Prior to diving into the main discussion, nonetheless, it should be taken into account that, although there is a dialectal variation among Arabic dialects in terms of their overt agreement morphology, this section deals with a fairly limited set of data from SA and NA, which is meant to illustrate the analysis.

Building on the insight of all of the above assumptions, as well as Chomsky's (2000 et seq.) Agree-based mechanism, summarized in section (2.2.3), I advance an account that can account for the Arabic subject-agreement data patterns and draw the interrelation between SA and

the VDs. Although I believe that the φ-feature bundle constitutes a logical atomic set, each internal feature of this φ-feature bundle is feature-relativized along the feature geometry in figure (1) above, subject to dialect-specific properties, to look for a matching feature on a given subject. In particular, the analysis tries to shed light on the Probe's internal structure, arguing that the features of the φ-Probe set are all associated with the same functional head T (or Asp). However, they are feature-relativized along the feature geometry above, subject to language/dialect-specific properties.

In simple terms, contrary to Soltan's (2007) assumption, I propose that the features of the φ-Probe, in particular, the Person and Number, are relativized to look only for their marked members along the above presented φ-feature geometry in figure (1). Hence, I assume that the formal φ-feature licensing, in general, and subject-verb agreement, in particular, take place syntactically through the application of (downward) long-distance Agree[26] within a local search domain, typically defined in terms of phases and intervention effects.

As observed in the preceding sections, in all varieties, whereas the SV order typically shows full agreement, the VS order, in contrast, tends to be partial, though not necessarily. For that reason, I assume that in SA, the T/Asp head, which is subject to lexical parametrization, may have a combination of each φ-feature: i) a [uParticipant] feature denoting the discourse participant, ii) a [uClass] feature representing how gender is represented in the language, and iii) a [uIndividuation] feature denoting Number[27]. It is crucial to indicate that I assume, following Soltan, that the latter feature, as attested in SA, may enter the derivation lexically valued, i.e., it has lexically

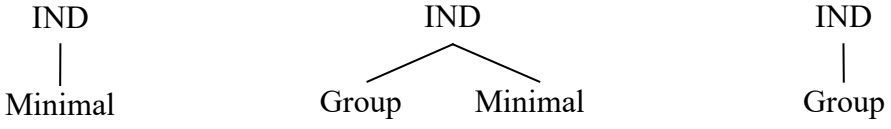
[26] Other labels include Upward Valuation, contrasting with proposals that assume an Upward Agree or Downward Valuations.
[27] Harley & Ritter's (2002) feature geometry dispenses with the traditional labels: Person, Number, & Gender, as well as subfeatures such as Plural and Singular. It is essential to indicate that, in the following discussion, these labels will be used interchangeably. For example, a [PL/GR], [DU/GR-MI], and [SG/MI], [1/Speaker] or [2/Addressee], and [3/Non-Participant], as well as [CL/GEN] will be used to refer to these φ-features, respectively.

determined default (singular) valuation, which I identify as [vSG]. Nonetheless, contrary to Soltan, I assume that all of these φ-features constitute the probing atomic φ-feature, rather than singling the [uCLASS] feature out.

Consequently, A [uPart] is only valued if matched with a 1st (speaker) or 2nd (addressee) person nouns; otherwise, it receives a default valuation. As indicated above, the [Individuation] feature represents the number system in a given language. By hypothesis, the presence of [uInd] on a given functional head excludes [vSG], and vice versa. Taking into consideration that the nodes in the feature geometry are privative (monovalent) features, it follows, for instance, that a 1st and 2nd pronoun phrases would carry either [Part: Speaker] or [Part: addressee], respectively, and whose Number is denoted by the [Ind] feature.

Consequently, SA may incorporate one of the following T types: i) $T_{[uPart, uInd, uClass, EPP]}$, or ii) $T_{[uPart, vSG, uClass]}$, for SV and VS orders, respectively. As observed, the EPP feature occurs in a SV order only, as Soltan argued, but contrary to Soltan's assumption, I assume that the preverbal DP in Spec-TP is movement-triggered rather than being base-generated (see chapter (4) for more discussion). Besides, taking into account how the Number feature on nouns is represented, as shown below in (50), it follows that the [uInd] feature on T/Asp can be valued as [Minimal], [Group-Minimal], or [Group] feature denoting singular, dual and plural, respectively.

50. **a. SG** **b. DU**[28] **c. PL**

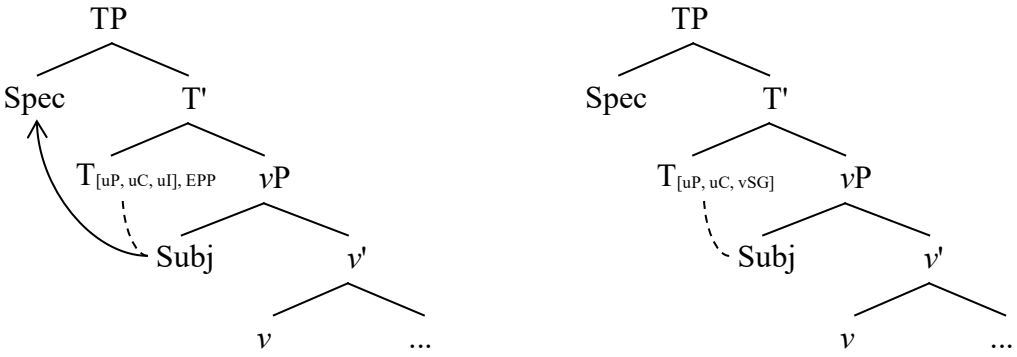


(Harley & Ritter, 2002; Béjar, 2003)

[28] According to Harley & Ritter (2002, p. 492), a dual reference is ascribed to "the simultaneous activation of Minimal and Group, [whereby such a combination] captures the intuition that the smallest possible nonsingleton set contains two entities." Additionally, it captures Greenberg's (1963, p. 94) general assumption that no language will have a dual number unless it also has a plural number. This suggests that "dual never occurs unless the language also has singular and plural numbers … and separately [their] nodes are used to express singular and plural, respectively" (Harley & Ritter, ibid, p. 509).

Assuming all of the above theoretical discussion, we are now in a position to lay out the derivation for each word order. Consider the following representations in (51a & b) for SV and VS orders, respectively (henceforth, T in a given representation is taken as a placeholder for the functional head bearing the φ-probe)[29]:

51. **a. SV Order:** **b. VS Order:**



In (a), when Agree takes place between T's φ-Probe and the postverbal subject in Spec-*v*P, the atomic φ-Probe targets the φ-features of the subject DP, yielding full agreement. In other words, contrary to any *v*P-internal null *pro* subject analyses, I assume that the Agree relation in SV order may take place with a lexical subject, as well as take place with a null *pro*. Of these features, only [uPart] feature enters a special valuation mechanism because it targets a discourse 1st or 2nd person features; otherwise, it receives a default [3rd] person valuation. The Goal, being the target of T's EPP feature, subsequently moves to Spec-TP. In contrast, in (b), only T's [uPart] and [uCL] features enter into an Agree relation with the *v*P-internal subject, whereby the latter element values

[29] In this thesis, I do not dwell on how the (un)interpretable morphosyntactic (probing) features are layered on a given head. For possible manifestations, see Harbour (2008) and van Koppen (2012). However, for ease of discussion, it suffices to incorporate them, in line with Harbour (ibid), in an atomic φ-Probe, but with internal structure, layered vertically, as shown below.

ii) φ
|
Part
|
Ind
|
CL

Here, φ is just a category label for the whole atomic features representing where they are, and the real probes are the φ-features themselves. By hypothesis, it is not impossible to assume that the φ-features of the Goal DP are (hierarchically) structured based on the feature geometry, allowing a feature-geometric valuation (cf. Preminger, 2014, p. 47, for a similar notion).

the former features. Two matters can be observed in such a word order. First, the Number feature is lexically determined as [vSG], resulting in a partial agreement on the verbal predicate. Second, since T lacks an EPP feature, the subject remains in-situ.

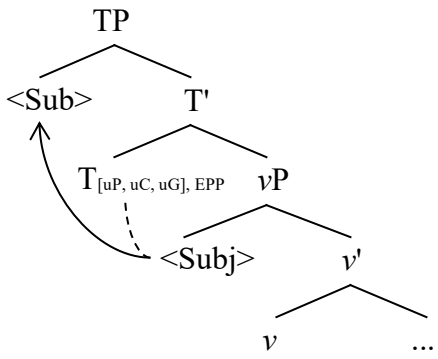
As far as the VDs are concerned, to my knowledge, no modern dialect displays the agreement asymmetry attested in SA. All Arabic dialects observed and surveyed seem to minimize the agreement phenomenon in an Agree relation with either dual or plural (whether masculine or feminine) nouns. To put it another way, dual and plural nouns alike trigger plural morphology, and both dual and plural feminine nouns trigger masculine morphology. In feature geometry terms, the [Group] feature for plural vs. the [Group-Minimal] for dual distinction that is attested in SA agreement has been lost in favor of just [Group] in the contemporary dialects.

In these VDs, dual DPs seem to only value the uninterpretable [uInd] feature as [Group], despite that these DP's [Ind] feature cannot be underspecified, as will be argued later. Therefore, the fact that the verbal predicates are morphologically inflected for [Group], rather than the default [SG], reveals that the specification for the [uInd] must be more specified than it is in SA; I assume that, although it is possible that some of the Arabic descendent dialects may still make use of the φ-feature set inventory that of SA, the [uInd] feature part of the φ-Probe is more specified to excludes dual valuation. In a nutshell, I argue that the [uInd] in the VDs, in contrast to the standard variety, is [uGroup] (short for [uInd-uGroup][30]) (cf. Béjar, 2003; Harbour, 2003; McGinnis, 2005; Gebhardt, 2009; Bjorkman, 2011; among others for similar approaches to account for various syntactic computations cross-linguistically). The T head in these VDs incorporates only the following φ-Probe composite: [uPart], [uClass], [uGroup], along with an (obligatory) EPP feature, as shown

[30] This rests on the proposal that features are organized into hierarchies or geometries. It was indicated earlier that a core property of the feature geometry is its entailment relation. Given how features/nodes are hierarchically arranged in such geometry and that some features are dependent upon the presence of others, it follows, accordingly, that the presence of the feature [(u)group] is dependent on and entails the presence of its mother [(u)ind] feature.

below in (52) ("< >" indicates copy choice). This follows from the fact that the VDs, in contrast to SA, shows Gender and Number agreement in VS order, and the fact that the agreement asymmetry is lacking in the latter. I assume that the two varieties display asymmetry in their feature-relativized Probe's richness, i.e., their T's φ-Probe composition.

52.



As can be seen, when Agree takes place between T and the postverbal subject in Spec-*v*P, the atomic φ-Probe targets the φ-features of the subject DP, yielding full agreement. The Goal, being the target of T's EPP feature, subsequently moves to Spec-TP. In anticipation of a later discussion, I assume that, though the EPP satisfaction is syntactic, the copy choice is subject to a PF filter. It is crucial, also, to mention that, as shown above in (52), when a [uGroup] feature targets a dual noun, it is valued as [Group], given that the [Group] and [Minimal] features denoting dual number on nouns constitute independent nodes in the feature geometry; otherwise, it receives a default [SG] valuation if not matched with an appropriate feature (see the next section for motivations).

Remarkably, the SA-dialects interrelation, which this account tries to draw, is assumed to follow from how a descendent dialect relativizes its φ-feature bundle along the rich fine-grained feature geometry of its mother language, i.e., SA. The effect of feature-relativization of [uInd] in SA is broader than in the modern dialect in the sense that the former variety extends beyond the plural-singular distinction to include dual agreement inflection. In other words, the modern dialects' feature relativization narrows down the agreement possibilities attested in the standard

variety. Such a cross-dialectal (in)variability urges an account in terms of a feature geometry, as shown in figure (1) above, which defines i) the possible feature values, as well as ii) their implicational relations. Consequently, I strongly believe that such a feature geometry is very well suited to account for such interrelation. This is evidenced not only from the subject-verb agreement but also from adjective concord and referential pronouns, as shown below.

53. a. ʔal-tˤa:lib-a:ni ʔidʒtahad-a:. SA
the-student.M-DU.NOM strive-3M.DU.PER
b. ʔil-tˤa:lb-ain ʔidʒtahad-u:. NA
the-student.M-DU strive-3M.PL.PER
"The two students made an effort."

54. a. ʔal-tˤa:lib-a:ni (huma:) ʔal-mudʒtahid-a:ni. SA
the-student.M-DU.NOM they.DU hard.working.M-DU.NOM
b. ʔil-tˤa:lb-ain (hum) ʔil-midʒtahd-i:n. NA
the-student.M-DU they-PL hard.working.M-PL
"The two students are (the) hard-working (ones)."

To capture this fact, I assumed above that whereas SA's [uInd] feature may target an equivalent Goal that subsumes a [Group-Minimal] on a given noun, the dialects' [uGroup] cannot target a given pair, taking into consideration that neither [Group] nor [Minimal] subsumes the other.

Above all, the analysis in terms of feature-relativization captures morphological Underspecification within a given feature category, which is employed in Arabic via default valuation. For instance, whenever a [uPart] feature fails to match with an equivalent feature on a given noun, default valuation resorts to 3rd person, assuming that 1st person agreement, geometrically speaking, is more specific than 3rd person agreement (see Béjar, 2003; Campbell, 2012; and Preminger, 2014, for similar proposals). Specifically, In line with Nevins (2011) and Trommer (2016), I believe that the absence of a feature (valuation) does not preclude the insertion of its equivalent postsyntactically. With this being said, in the following section, I visit some of the conceptual bases of this account.

3.4.2 Conceptual Considerations Re-Considered: A Defense

3.4.2.1 Syntactic Agree Failure

At first glance, the feature-relativization system proposed here for the agreement facts in Arabic whereby Agree may not culminate successfully - due to being parametrized in a way to be sensitive to a specific feature value(s) - may seem to be syntactically unnatural. Linguistically speaking, the general presupposition in the generative literature is that UG makes available a finite inventory of formal features, a subset of which is selected by individual languages to assemble lexical items that enter into syntactic computations. By hypothesis, the language-specific choices of these formal features define the basis of variation in the output of the (uniform) computation (cf. Chomsky 1995 et seq.). Simply put, variation in the choices of formal features from one language to another has a very distinct consequence on syntactic computation and the set of operations. It is well-known that, under the MP, unvalued features must delete in the course of a derivation, via Agree, and disappear by the end of the syntactic derivation; otherwise, the derivation crashes (cf. Chomsky, 2000; 2001, Pesetsky & Torrego, 2001).

It is essential to indicate that failure to culminate in a successful Agree relation per se may not be severely problematic or cause a crash (Béjar, 2003; Soltan, 2007; Nevins, 2011; Preminger, 2014; Preminger & Polinsky, 2015; among many others). In light of this observation, Preminger (ibid), in an account for Number agreement in Kichean Agent-Focus constructions, contends that "an empirically adequate theory of φ-agreement requires recourse to an operation whose obligatory triggering is a grammatical primitive ... [and] whose successful culmination is not enforced by the grammar", assuming that a given operation has certain structural conditions to meet (p. 1, 11). Put differently, although Agree is computationally a prerequisite, its failure to Match a given probing feature with an appropriate target feature is not enforced by the grammar. Any ungrammaticality in a given derivation is attributed to failure to trigger an Agree operation, rather than the lack of

valuation (p. 10, 96) (For other non-crashing Agree failure analyses see Halpert's (2012; 2016) conjoint/disjoint alternation constructions in Zulu, and Preminger's (2012) Basque unergative constructions, Baker's (2011) Two-and-a-Half agreement in a couple of languages, among others).

Therefore, I believe that Arabic, in contrast to other languages, promote stating the conditions relevant to φ-agreement on the individual φ-attributes so that matching becomes sensitive to the presence or absence of this probing feature, given its rich morphological φ-inflection. Interestingly, the latter property facilitates the default valuation that is well attested in the language not only for each φ-feature valuation but also for case assignment. In essence, I strongly assume that failure to establish an Agree relation in the manner presented above for SA and VDs may not be a cause for crashing, considering that a Last Resort default valuation is attested in well-formed sentences.

Thus, I assume two types of default valuation: syntactic default valuation vs. lexical default valuation. Whereas the former, which is made available by the computational system, defines a feature that failed to Match ([uPart] feature, for instance), the latter defines a feature that is lexically deactivated as a syntactic Probe ([vSG] instead) (Béjar, 2003; Preminger, 2014). To take a case in point, consider the following passive (PASS) SA constructions below.

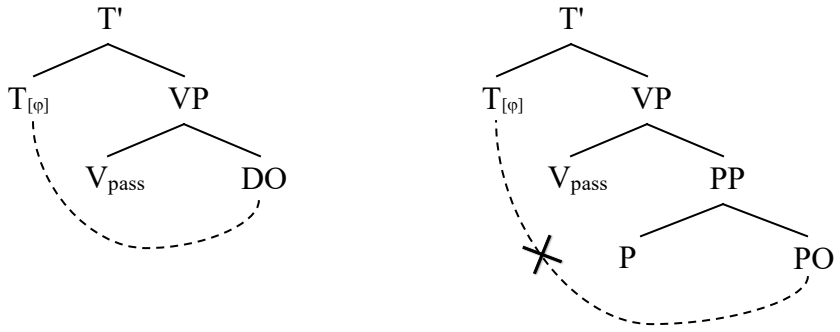
55. a. kutib-at ʔal-risa:l-at-u.
write-3F.SG-PER.PASS *the-letter-F.SG-NOM*
"The letter was written."

b. kutib-a ʕala: ʔal-rasa:ʔil-i.
write-3M.SG-PER.PASS *on* *the-letter-F.PL-GEN*
"It was written on the letters."

As can be seen in (a), in the absence of the external argument due to passivization taking away *v*'s ability to assign an external theta-role to the external DP and an accusative case to the internal DP, T establishes an Agree relation with the internal DP, resulting in a two-way valuation between T

and the DP. Whereas the former, i.e., the passive verb takes a feminine Gender agreement, the internal DP appears with a nominative case. Interestingly, when Agree is halted due to the presence of an opaque domain such as a prepositional phrase (PP), i.e., it fails to establishes a Match & Valuation relation with the prepositional object (example b), default valuation is resorted to, as shown below.

56. **a. Direct Object (DO):** **b. Prepositional Object (PO):**



It remains, however, to establish at what stage in the derivation the syntactic default valuation of (3rd), (M), and/or (SG), in contrast to lexically determined one, takes place. Up to now, all that was specified is that it takes place whenever a given Probe fails to find an appropriate valued feature (Soltan, 2007; Preminger, 2009; 2014; Nevins, 2011). For the sake of argument, I assume that this last-resort repair mechanism takes place at Transfer before the spell-out of the derivation to the two interfaces[31]. To put it another way, these unvalued probing features remain active in a given syntactic cycle and are assigned default valuation before they have a chance to give rise to ungrammaticality at the (PF) interface. It is essential to remember that at the backdrop of such an account is a system where agreement is established upon a Match-failure or Match-proof that can

[31] It has been recently assumed that there is a stage called Transfer, before Spell-out where certain operations occur (cf. Chomsky, 2013, for Labeling algorithm; and Wurmbrand, 2014, p. 160, f. 16, for feature splitting). It is important to indicate that Transfer and Spell-out, however, are distinguished in that they operate on different clause sizes; whereas Transfer operates on the phase as a whole upon Spell-out, the latter is restricted to the phase head domain.

be salvaged by a last-resort valuation, which constitutes a property of Arabic in general, driven by the need to ship to the interfaces a representation that is free of unvalued features.

3.4.2.2 Feature Relativization

Related to the above discussion on default valuation is this proposal's appealing to uncommon φ-Probe's features, e.g. [Participant] in all varieties, or [Group] in the dialects instead of [Person] and [Number/Individuation], respectively. In other words, the account assumes that each φ-feature is geometrically relativized to target its marked member. It is important to indicate that such a mechanism is not unfamiliar, as it is often argued for discontinuous agreement constructions, e.g., Person-Case constraint in languages whereby a feature hierarchy determines the relative order of agreement affixes (Bonet, 1991; 1995; Béjar, 2003; Béjar & Rezac, 2003; Nevins, 2011; Preminger, 2014). The presence of such constructions often urges the separation and relativization of each φ-Probe.

The Person Case Constraint (PCC) is a family of restrictions constraining the interaction of different person agreement (typically discourse participants vs. 3rd person) features on a given predicate. For instance, Béjar (2003) and Béjar & Rezac (2003) argue that Basque has a three-way agreement for Person and Number with ergative, absolutive, and dative arguments. Nonetheless, in non-present tense constructions, Basque agreement exhibits such an effect whereby the agreement that normally tracks the absolutive argument targets the ergative argument, instead, whenever the absolutive argument is 3rd person. Nevins (2008) argues that "this leads to the claim that Agree is parameterized to be sensitive to all feature values, or to marked ones, or to contrastive ones" (330).

On the whole, it might seem that this thesis' proposed account, on the surface, to φ-agreement in SA and VDs is unusual, assuming the rich literature on the topic which assumes an atomic φ-Probe encompassing the three general features: Person, Gender, and Number. All proposals, including the one laid out here, take the relevant Probe in subject-verb agreement to simply be feature-relativized to a higher point in the geometry of φ-features, particularly "φ". Nevertheless, in contrast to the one here, previous proposals assume that the internal features at play in the syntactic component are the broader features, Person, Number, and Gender, rather than being often a sub-node in the feature geometry. In essence, these features, linguistically speaking, may be sufficient to naturally handle the agreement phenomena in any Arabic variety, without the need to resort to a probing system that distinguishes each language aside. Put differently, a featurally-relativized probing system may not be superior to previous analysis in terms of a syntactic account.

Although this may be true, I believe that this cross-dialectal (in)variability between the feature-relativized probing effects in SA and the VDs defines the internal structure of the space of possible feature values, i) encoding implicational relations between the occurrences of different values, ii) the range of variations between dialects, and iii) the interrelation between the dialects and the standard variety (see chapter (5) for comprehensive elaboration). To take a case in point, consider the consequence of [Number] feature relativization in both SA and the dialects. A feature geometry of this sort is very well suited to account, e.g., for the absence of dual agreement morphology in the dialects, in contrast to SA. All in all, despite that all proposals assume that the T head probes a φ-feature set on a given DP, I believe that the implication of this proposal advanced here is the reason behind its advantage over others. Typically, the probing φ-set internal features in the dialects may be more specified than those found in SA. The latter variety's relativized-

probing system may dominate (feature geometrically speaking) the nodes to which the former varieties are relativized.

3.4.2.3 Valued & Unvalued Features

One further aspect of the above account that may seem to be controversial is the rationale behind treating [Group] as both a (valued) feature on DPs on the one hand, and a(n) (unvalued) formal feature on functional heads, on the other. I argued above that the fact that the verbal predicates entering into an Agree relation with dual nouns in the VD are morphologically inflected for plural, rather than singular or dual, reveals that the specification for the [uInd] must be more specified (to include a [uGR]) to excludes the latter possibility.

It is important to remember that the status of formal features in general, especially those without semantic input, is to some extent far from obvious or unresolved; they are, generatively speaking, diacritics signifying that a given syntactic object has the property to either trigger or enter into a syntactic relation for (semantic) interpretive purposes (Chomsky, 1995, pp. 277 – 278; Pesetsky & Torrego, 2001, p. 364; Béjar, 2003, p. 27). Crucially, the cross-linguistic investigations on the status of φ-features, as I indicated in the preceding sections, have revealed that their hierarchical ontology may have far-reaching (typological) ramifications on the syntactic computation than the more traditional use of unstructured φ-features (i.e., simply, Person, Number, and Gender only).

The hypothesis that a given formal feature is more specified along the feature geometry to include (what looks like) a DP-intrinsic feature may unravel mystifying cross-linguistic phenomena in a principled manner (cf. Béjar's (2003) CSA; Béjar & Rezac's (2009) Basque ergative displacement agreement; Nevins's (2011) omnivorous Number agreement; Preminger's (2014) Kichean Agent-Focus agreement, among others). I demonstrated such an effect of φ-feature

specificity on syntactic Agree operation in section (3.4) above based on Béjar's (2003) CSA account, which may serve as a representative for the other cross-linguistic agreement phenomena. Remarkably, the effect of φ-feature specificity is not restricted to feature valuation via Agree. Another domain where such an effect arises revolves around the merging properties of some lexical items. The latter elements have restrictions on their selectees or complements, among other feature-driven processes.

In a nutshell, a quite common approach to (external and internal) Merge in the literature is that such an operation tends to be feature-driven. For two elements (say α and β) to be merged, there must be some featural relationship between them (cf. Chomsky, 2000; Collins, 2002; Pesetsky and Torrego 2006; 2007; Wurmbrand, 2014; Pesetsky, 2019; among others). Although Merge and Agree establish two distinct kinds of relations: structure-building vs. feature-valuating, respectively, these work underlyingly take it that Merge is parasitic on Agree, or, more particularly, Match. In other words, both operations share a sub-operation, viz. Match in the sense that merging elements must have something in common[32].

To take a case in point, consider the subcategorization frame differences between the Arabic quantifiers *kul* "every/all" and *baʕad*^{ʕ} "some"; whereas the former can merge with DPs of varying Number feature, the latter can only take plural DPs, as shown below in (57) and (58) respectively[33].

57. a. kulu ʔal-tˤula:b-i / tˤula:b-i ʔal-dʒa:miʕah … .
all *the-student.M.PL-GEN* *student.M.PL-GEN.INDF* *the-university*
"All the (university) students … ."

[32] In a free-merge approach to syntactic computation, this seems problematic (cf. Boeckx, 2010, pp. 111ff. for some conceptual issues). In this thesis, all things being equal, I maintain that Merge is, for the most part, feature-driven, assuming that nothing dramatically hinges on the difference.
[33] I abstract away from the inner nature of the DP complements, i.e., whether they are construct state, definite, or indefinite. Above all, these imposed requirements support the hypothesis that a probing feature sometimes needs to be more specified to excludes other possibilities provided by their Goal.

b. kulu tˤa:la:b-ain-i / tˤa:lib-i dʒa:miʕat-in /
every *student-M.DU-GEN.INDF* *student.M.SG-GEN.INDF* *university-INDF*

tˤa:lib-in … .
student.M.SG-GEN.INDF

"every two students / (university) student … ."

58. a. baʕadˤ ʔal-tˤla:b-i / tˤula:b-i ʔal-dʒa:miʕah … .
some *the-student.M.PL-GEN* *student.M.PL-GEN.INDF* *the-university*

b. *baʕadˤ tˤa:la:b-ain-i / tˤa:lib-i / tˤa:lib-i
some *student-M.DU-GEN.INDF* *student.M.SG-GEN.INDF* *student.M.SG-GEN.INDF*

dʒa:miʕat-in … .
university-INDF

"Some of the (university) students … ."

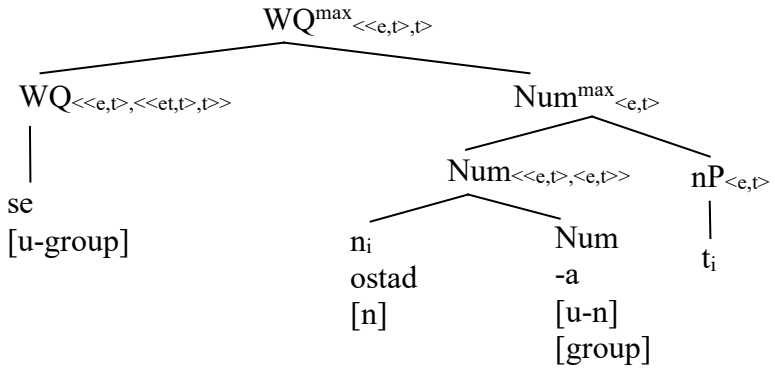
As seen, whereas the Arabic quantifier *kul* "every/all" can, morphosyntactically speaking, occur with singular, plural, and dual DPs, the quantifier *baʕadˤ* "some" can only take plural DPs. Such behavior may be ascribed to the hypothesis that the latter is semantically partitive, in contrast to the former, which can be either. Similar observations regarding the behavior of quantifiers have been brought to light within the linguistic literature.

For instance, attempting to morphosyntactically and semantically account for the cross-variation in the Number marking on the complements to weak (WQ) and strong (SQ) quantifiers in English, Persian, and Mandarin[34], and building on the feature-geometry model of Harley & Ritter (2002), Gebhardt (2009) proposes a small set of formal syntactic features that reside in the head of functional categories across the three languages. In a nutshell, he postulates that the DP

[34] SQs (sometimes called proportional quantifiers or strong determiners) like "all", "every", and "most" express the idea that a certain proportion of a class is included in some other one. They represent asymmetric relations, in that the order of the arguments or sets is significant in the relation (e.g., all dogs bark (D ⊆ B) ≠ all barkers are dogs (B ⊆ D)). On the other hand, WQs (sometimes called cardinal quantifiers or weak determiners) like "some", "four", and "several" provide information about the cardinality of the intersection of two sets. They express symmetric relation whereby the order and roles of the sets in the relation are not different in principle (e.g., some dogs bark (|D ∩ B|) = some barkers are dogs (|B ∩ D|)). One diagnostic proposed to distinguish between the two types is the impossibility or possibility of the two types to occur in "there" sentences, respectively (Heim & Kratzer 1998, p. 164; Gebhardt, 2009, p. 55; Kearns, 2011, p. 99 – 100; Kroeger, 2018, p. 261).

structure in these languages includes a head for weak quantifying determiners and a higher one for strong ones. Additionally, he argues that the complement functional (Num) head may incorporate the more general Number feature [individuation] and its further dependent feature specifications [Group] or [Minimal]. It suffices to indicate that the quantifier, according to him, restricts the required [Num] feature of its complement, assuming that the former may carry a more specified Number probe such as [uGroup] feature, which can only be valued by the [Group] feature on the complement, as shown in (59b) for (a) below (irrelevant features are omitted).

59. a. se ostad-a Persian
three professor-PL
'the three professors'

b. 

(pp. 220, 223)

As seen, the Num^{max}, whose head is specified with [Group] feature, merges with the numeral WQ "se," which has an uninterpretable [u-group] feature, requiring its complement to be plural. Gebhardt (2009, pp. 99 – 103) has assumed similar arguments for English quantified structures such as "some dogs, three dogs". Gebhardt suggests that the (cross-)variation is ascribed to the different feature bundles borne by the functional heads. He contends that "the composition of heads and phrases within DP… is subject to both syntactic and semantic conditions. The syntactic conditions are agreement via subcategorization [uninterpretable] features [via Merge,] while the semantic conditions involve composing the right semantic types" (p. 125). With this being said, such

an analysis may account for the behavior of Arabic quantifiers above and their subcategorization restriction.

Overall, the hypothesis that the properties of formal features are i) to signal that a given syntactic head is able to enter into a syntactic (agreement) relation with another syntactic object with matching feature(s), and ii) to define the consequence of postsyntactic computations may not virtually be escapable, though the role of formal features may drastically be reduced. For that reason, I maintain that the [uInd] part of T's φ-feature Probe in the VDs, in contrast to the standard variety, is [uGroup]. In simple terms, when T's [uGroup] feature part of the φ-feature targets a dual noun specified as [Group-Minimal] in current dialects, it is valued as [Group], rather than [Group-Minimal], considering that the [Group] and [Minimal] features denoting dual number constitute independent nodes in the feature geometry, i.e., they are privative (for further general discussion related to such a matter, see also section (6.3)).

One further question concerns whether the phenomenon in these dialects is, in fact, morphological rather than being syntactic. It is either i) derived from an assumption that these DPs are lexically determined as plural, or ii) that the morphological plural inflection paradigms on the verbal predicates are featurally underspecified to subsume both plural and dual agreement. As for the first scenario, i.e., the idea that these DPs are lexically determined as plural, I believe that this route is not attainable, taking into consideration how Arabic word formation, in general, and Number morphology, in particular, take place, as well be indicated later in chapter (5). Basically, non-singular DPs are derived from singular roots, as indicated in section (2.1.2.1), and for the morphological component to determine the appropriate vocabulary item to insert, the root must incorporate the right [Number] feature, whether [Group] or [Group-Minimal]. It follows that these DPs are fully specified for Number in the syntax, i.e., they are underlyingly [Group-Minimal].

As for the second scenario, it is vital to indicate that without semantic/pragmatic cues, the plural morphological inflection denotes plural entities. To take a case in point, consider the following (60a & b) examples:

60. a. ʔidʒtahad-u: Δ. NA
strive-3M.PL.PER pro
"They strived."
"*They both strived."

b. ʔidʒtahad-u: ʔil-tˁa:lb-ain / ʔil-θnain. NA
strive-3M.PL.PER the-student.M-DU the-two.M
"*The students strived."
"The two students / both strived."

As shown, although the verbal predicates in examples (a) and (b) above take one uniform morphological agreement inflection, the out-of-the-blue utterance in (a), i.e., without pragmatic nor semantic cues as in (b), always denotes plural DP entities, as judged by native speakers. Put simply, the plural inflection on the verbal predicate in such an instance indicates that the DP with which the verbal predicate agrees must be plural. Similar observations can be reflected by non-verbal elements, e.g., demonstrative pronouns and adjectives, whereby their assumed plural inflections without such cues reflect plural DP entities. These observations suggest that the morphological plural inflection the verbal and non-verbal predicates above assume must featurally denote [Group] rather than being underspecified.

With this in mind, if the phenomenon is not lexically determined nor morphological, then I believe that it must be syntactic. In particular, taking into account that agreement inflections are manifestations of the same morphological features of that of DPs, i.e., they would be nominals in essence (Fassi Fehri, 1993; Harley & Ritter, 2002, p. 482; and traditional grammarians), it follows, then, that the plural agreement inflection triggered by dual nominals must be syntactic. Put simply, albeit that a [Group-Minimal], or simply [GR-MI], feature is ever realized in agreement inflection

on verbal predicates, such a feature is morphosemantically motivated elsewhere in the language. Thus, I believe that the agreement syncretism reflects feature geometry restriction in the manner argued for in the preceding section.

Last but not least, it remains to specify how the syntactic valuation of this [uGroup] feature occurs. One of the core properties of the feature-geometry mentioned above relates to its implicational and entailment relations. For one thing, the features in figure (1) are monovalent, subject to Minimal Contrastive Underspecification in the sense that only contrastive features (or nodes) must appear in the underlying representation (Harley & Ritter, 2002, p. 498). Thus, the sole determinant for the presence or absence of a given (terminal) node/feature is its positive effect. In other words, whether it positively impacts the morphosemantic interpretation of a DP dictates its presence; if a feature/node is negatively specified, it is encoded by the structural absence of such a feature/node (Harley & Ritter, 2002, p. 485). It follows that these (terminal) features are underlyingly [+].

It is important to indicate that, to my knowledge, there has not been a consensus on the specific details by which valuation, or more specifically, syntactic transferring of features, from a given target to a probing head is employed. To illustrate, consider a case whereby T's φ-Probe targets a 1st person pronoun. The question concerns whether the transferred person feature is [Part-Speaker], [Speaker], or just simply [1], among other possibilities. Therefore, although the specific details of this valuation mechanism are irrelevant for the general account, for the sake of argument in the following discussion, I will assume that when a [uGroup] targets a dual noun and matches the latter's [Group] feature, the former is valued as [+]. In a value-attribute, non-geometric, linear representation, a DU subject DP would have a [+GR, +MI] individuation attributes and would be able to transmit the [+] value associated with [Group] to T's [uGroup] independent of the [+MI].

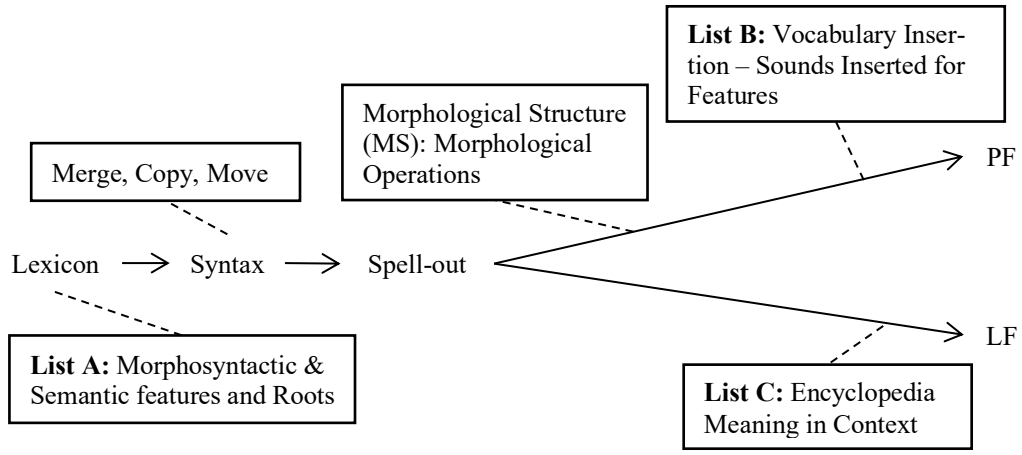
3.5 Distributed Morphology

The Distributed Morphology (DM) framework, as opposed to the earlier Lexicalist approaches to word formation (and verbal subcategorization), came to existence in the early 1990s. It came mostly from within early MP in the works of Morris Halle & Alec Marantz with a more focus on the syntax-morphology interface (cf. Halle, 1992; 1994; Noyer, 1992; Halle & Marantz, 1993; 1994; Harley & Noyer, 1999; Embick & Noyer, 2007)[35]. The DM hypothesizes that words are assembled by the same rules used in the syntax. The proponents of such a framework assume that words are not privileged or form part of a separate grammatical module (mainly the Lexicon). As far as the derivational aspect is concerned, all complex objects, be it words or phrases, are the output of the same generative system (the syntax), contrary to the Lexicalist Hypothesis in the 1970s and 1980s (Embick & Noyer, 2007). Therefore, it calls for the distribution or separation of the Lexicon properties into generative syntactic and postsyntactic processes, an assumption symbolized by the label "distributed".

One of the core assumptions in such a framework is that the syntactic component works in tandem with word-formation. It is essential to indicate that the DM framework has three core properties distinguishing it from other morphological theories: i) A Syntactic Hierarchal Structure all the way down, ii) Underspecification of morphosyntactic features, and iii) Late Insertion of Vocabulary items as shown in figure (2) below.

[35] In this section, the discussion on DM will be very brief, and some other properties are not discussed (for a comprehensive discussion, see Halle, 1994; Halle & Marantz, 1993; 1994; Harley & Noyer, 1999; Embick & Noyer, 2007; references therein; and the references below).

Figure (2): A Simplified Version of DM Y-model[36]



(Harley & Noyer, 1999, p. 3; Embick & Noyer, 2007, p. 301)

Precisely, a generative syntactic Y-model is maintained in such a framework. Within both the syntax and morphology, elements undergo the same types of constituent structures. However, it is assumed that the narrow syntactic component does not manipulate anything related to (phonological) lexical items. Instead, it generates structures via combining abstract morphosyntactic features selected from the Lexicon, subject to some governing syntactic constraints. Subsequently, after spell-out, some morphological processes take place before the cyclic Vocabulary Insertion occurs at PF on the terminal morphosyntactic features. Additionally, it is assumed that the Vocabulary items inserted need not be fully specified for these syntactic terminals' morphosyntactic features, i.e., they may be featurally underspecified with respect to their inserted position. These vocabulary items' phonological features may be a subset of the morphosyntactic featural terminal nodes, subject to the condition that there would be no contradicting features, termed the Subset Principle (61).

[36] In contrast to a given language's Vocabulary, the Encyclopedia designates a list that relates Vocabulary Items, often in the vicinity of other Vocabulary Items, to meanings. Put differently, it encompasses the list of idioms in a language, whether it is a single word or subpart of a word, and whose meaning is unpredictable from its morphosyntactic structural description.

61. **Subset Principle:**

A phonological exponent is inserted into a morpheme (i.e., syntactic node) if the item matches all or a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the Vocabulary Item contains features not present in the morpheme. Where several Vocabulary Items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

(Halle, 2000)

Significantly, the syntactic and morphological terminal nodes, as assumed in DM, consist of only morphosyntactic features, so-called morphemes, which excludes the phonological features provided as part of the inserted Vocabulary Items. These abstract morpheme nodes are matched with phonological exponents containing matching feature bundles[37]. The idea is that the syntactic component manipulates feature bundles that lack morphophonology. In the narrow syntactic components, i.e., before spell-out, morphemes' features consist of syntactico-semantic features drawn from the set made available by UG. In effect, the postsyntactic Vocabulary items, in simple terms, define a relation between phonological pieces and the information about where they are to be inserted. They are part of the phonological signal set in a given language's Vocabulary, encoding the morphosyntactic features of morphemes[38]. It is essential to mention that the Vocabulary of a given language is the list of phonological exponents of all the different abstract morphemes in the language, paired with conditions on their insertion. It is common, for instance, for a set of vocabulary items to compete for insertion, which, as indicated above, is controlled and resolved by the Subset Principle.

[37] Basically, the terminal syntactic nodes are divided into i) abstract morphemes, i.e., the content of syntactic functional head, and ii) roots. Whereas the former represents the non-phonetic features, e.g. [Past] or [PL], the latter reflects items. It is important to indicate that the abstract morphemes are universal, while the roots are language-specific.

[38] It is important to indicate that these phonological signals may be denoted by zero or null phonological realization. In other contexts, it may be an elsewhere item due to being devoid of information.

Typically, Vocabulary item Insertion in the unmarked case is in a one-to-one relation with the terminal morphemes. Nonetheless, several factors may sometimes disrupt or alter this relation via some postsyntactic operations, e.g., morphological Merger, Fusion, Fission, Impoverishment, and Redundancy rules, among others (Noyer, 1992). In simple words, in the typical case, the syntactic and morphological structures are the same. Nonetheless, frequent mismatches arise due to PF minimal readjustments, motivated by language-specific well-formedness requirements. PF, in such a system, is an interpretive component, in contrast to syntax; thus, its operations are not free but rather triggered by a language-specific requirement learned by speakers of the languages. For instance, whereas Impoverishment rules manipulate the contents of morphemes via deleting certain morphosyntactic feature combinations in certain contexts, deactivating its/their influence prior to Vocabulary Item insertion, Redundancy Rules are assumed to supply (default, less marked) morphosyntactic features to (impoverished) terminal morphemes (Bonet, 1991; 1995; Noyer, 1992; 1998; Halle, 1994; Halle & Marantz, 1993; Bobaljik, 2002; among many others)[39]. It is commonly assumed that the Impoverishment and Redundancy rules are strictly ordered before vocabulary insertion by universal principles. Redundancy rules apply whenever their structural description is met (Halle & Marantz, 1993; Noyer, 1998; Bobaljik, 2002; Harley, 2008; Trommer, 2012).

In sum, according to DM, the syntax and morphology work in tandem, and the PF is understood to be operating on the output of this tandem work. Simply put, after the syntactic structures are generated in the syntactic component, they are subjected to further operations in the mapping to the two interfaces. Assuming that the morphological component is part of the PF interface, the principles of morphology are, to some extent, the principle of syntax since the structure at PF

[39] It is essential that these postsyntactically deleted or added features/morphemes, under such a framework, are not crucial for semantic interpretation; otherwise, a problem arises (Embick & Noyer, 2007, p. 305).

is a syntactic structure. The common assumption is that, in some cases, additional morphological processes may modify the syntactic structure in limited ways, e.g., by elaborating the syntactic structure or forcing the introduction of further features or terminal nodes to the syntactic structure, subject to language-specific requirements. Such interference may result in that the syntactic and morphological structures being not isomorphic.

Overall, the morphological component's operations may be an equivalent of their syntactic counterpart, or operations that occur solely in the PF interface. The latter modification, as assumed, is limited or constrained somehow. To make an illustrative point on how the Impoverishment and Redundancy Rules work, which are of great relevance to the discussion to come on Arabic, I will consider in the following section an illustrative example of how DM handles certain syncretism in a given language.

3.5.1 Surface Syncretism As Morphosyntax

(Meta)Syncretism designates a case whereby different combinations of morphosyntactic feature values are exponed or represented morphologically by the same form or vocabulary item, e.g., English past tense of "be" with 1SG and 3SG. Without question, the availability of syncretism is assumed to exist in some, if not all, grammars, which is often attributed to "notions of metaparadigm as a primitive property of the grammar" (Harley 2008, 253)[40]. Even though metaparadigmatic lists of vocabulary items may serve the purpose, it has been argued, within DM, that the presence of metaparadigms is not necessary or desirable, taking into account the presence of postsyntactic morphological operations, e.g., Impoverishment and Redundancy rules, that can achieve the same facts before Vocabulary Insertion (Bobaljik, 2002; Frampton, 2002; among others).

[40] The use of the term "paradigm" tends to refer to nothing more than a nicely structured list of functional affixes and forms, a convenient descriptive device. For a thorough discussion on morphological theories that employ such a notion as the basis for an analysis, see Bobaljik (2002), Lahne (2006), and Harley (2008). It is assumed, within DM among other morphological theories, that the notion is "epiphenomenon - a notationally convenient way to present the affixes that are eligible to realize any given type of syntactic terminal node, defined by the features that are active in the terminal node" (Harley, 2008, p. 253), a use I prescribe to.

In essence, it is a common methodological assumption and a more desirable way to treat syncretism in DM as a case of Underspecification, whose failure results in an appealing to "more powerful tools of the theory … such as Impoverishment rule" (Harley, 2008, p. 253). For instance, Bobaljik (2002) argues that Impoverishment rules are an available tool within DM that allows the theory to account for metasyncretism. In particular, Impoverishment, as Harley (2008, p. 258), Bobaljik (2002, p. 61), and Noyer (1998, p. 264) contend, is a language-specific rule manipulating terminal nodes as they come out of the syntactic component. It reduces the complexity of the form reaching the PF interface, and excludes certain combinations of features from being potential targets for vocabulary item insertion.

One advantage of Impoverishment over a list of paradigms is that it reduces the burden on a given learner. Instead of learning various forms, s/he needs to learn a few in addition to a "language-wide" rule to derive such paradigms (Frampton (2000), as cited in Bobaljik, 2002, p. 62). Additionally, all things being equal, it helps enforce morphological Underspecification effects over forms and rules. It is crucial to indicate that, in addition to having cases where syncretic forms are associated with a single paradigm, e.g., verbal agreement, some languages may have metasyncretism whereby it holds across many paradigms in a certain context.

To take a case in point, Gender, cross-linguistically, often tends to be syncretic in the plural, i.e., plural forms do not typically display Gender distinction, which is reflected in Greenberg's (1963) Universal 37 "A language never has more gender categories in nonsingular numbers than in the singular" (p. 95). Kramer (2019) reports that, in languages such as Maay (spoken in Somalia), Amharic, and Haro (both spoken in Ethiopia), there exists a type of agreement whereby plural masculine and feminine nouns alike trigger a uniform syncretic agreement form. Consider the

metasyncretism phenomenon in Haro, which holds across Vocabulary Items in subject agreement and absolutive pronouns:

Table (4): Haro Subject Agreement Markers

	SG	**PL**
1st P	tá-	nú-
2nd P	né-	ʔíní-
3rd P	ʔé- (M) ʔí- (F)	ʔú-

Table (5): Haro Long-Form Absolutive Pronouns

	SG	**PL**
1st P	tan-á	nún-á
2nd P	nén-á	ʔínen- á
3rd P	ʔés-á (M) ʔís-o (F)	ʔúsún-á

(Kramer, 2019, p. 174)

As can be seen, whereas 3SG forms distinguish Gender, such a distinction is absent in 3PL forms (Kramer has termed it Convergent-to-Plural cases, a term I adhere to). Taking into consideration that Gender is never distinguished in the plural in Haro, Kramer argues that this is attainable via an obligatory Impoverishment rule, whereby Gender features are removed in the context of plural features, as shown below in (62), which would lead to a vocabulary Insertion as exemplified in (63) below for subject agreement:

62. **Gender/Number Impoverishment in Haro:**

$$\begin{bmatrix} +\text{PL} \\ \pm\text{F} \end{bmatrix} \rightarrow [+\text{PL}]$$

63. a. 3M.SG → ʔé-

b. 3F.SG → ʔí-

c. 3PL → ʔú-

(Kramer, 2019, p. 175)

The presence of syncretism examples cross-linguistically indicates that a paradigmatic approach to Vocabulary Item Insertion is less appealing for languages where different paradigms or parts of speech are affixed with distinct surface forms that underlyingly share a φ-feature bundle. In other words, in such metasyncritic cases, the same type of underspecified φ-feature bundles would redundantly be required to occur in every affected paradigm in the language, stating the same syncretism multiple times in a given grammar (Bobaljik, 2002; Harley, 2008). Hence, it is more economical to do so just once using an Impoverishment rule (as in (62)), subject to language-specific requirement (Bonet, 1991; Noyer, 1998; Bobaljik, 2002; Harley, 2008; Nevins, 2011; among others).

Interestingly, Arabic, both the standard as well as the dialects, is no exception. A quick survey of the affixation in the language would reveal several cases whereby a type of syncretism is involved, be it for Case, Gender, Number, etc. To take an example, SA has an idiosyncratic subject-verb agreement phenomenon whereby non-human (masculine) plural nouns, both animal and inanimate nouns alike, trigger 3F.SG agreement on the predicate regardless of the gender of the noun and regardless of the relative word order between the subject and the verb, as illustrated below[41].

64. a. (ʔal-ʔusu:d-u) hadʒam-at (ʔal-ʔusu:d-u) … .

the-lion.M.PL-NOM *attack-3F.SG.PER* *the-lion.M.PL-NOM*

"The lions attacked … ."

[41] Other syncretism cases in Arabic include SA case inflections, 1st person pronouns, 2nd and 3rd person dual pronouns, nouns and adjective declinations, the dialect 3F.PL/DU conversion to 3M.PL for agreement, adjective concord, and demonstrative pronouns, among many others (see chapter (5) for discussion on some of these instances).

b. (ʔal-maba:ni) saqatˁ-at (ʔal-maba:ni) … .
the-building.M.PL.NOM *fall-3F.SG.PER* *the-building.M.PL.NOM*
"The buildings collapsed."

As can be seen, despite that the singular and dual forms, as exemplified below in (65), trigger the typical subject-verb agreement attested with (masculine) human nouns, their plural forms syncretize together with feminine singular human nouns as shown in (64) above.

65. a. (ʔal-ʔasad-u) hadʒam-a (ʔal-ʔasad-u) … .
the-lion.M.SG-NOM *attack-3M.SG.PER* *the-lion.M.SG-NOM*
b. (ʔal-ʔasad-a:ni) hadʒam-a: (*ʔal-ʔasad-a:ni) … .
the-lion.M-DU.NOM *attack-3M.DU.PER* *the-lion.M-DU.NOM*
c. hadʒam-a (ʔal-ʔasad-a:ni) … .
attack-3M.SG.PER *the-lion.M-DU.NOM*
"The lion / two lions attacked … ."
d. (ʔal-mabna:) saqatˁ-a (ʔal-mabna:) … .
the-building.M.SG.NOM *fall-3M.SG.PER* *the-building.M.SG.NOM*
e. (ʔal-mabnj-a:ni) saqatˁ-a: (*ʔal-mabnj-a:ni) … .
the-building.M-DU.NOM *fall-3M.DU.PER* *the-building.M-DU.NOM*
f. saqatˁ-a (ʔal-mabnj-a:ni).
fall-3M.SG.PER *the-building.M-DU.NOM*
"The building / two buildings collapsed."

Not only does this syncretism is available in subject-verb agreement, but it is also attested in adjective concord and pronoun binding as shown below for animal plural nouns; hence, it reflects a metasyncretism in the language.

66. a. ʔal-ʔusu:d-u$_i$ ʔal-ʔafri:qij-at-u hadʒam-at kulu-ha:$_i$ … .
the-lion.M.PL-NOM *the-African-F.SG-NOM* *attack-3F.SG.PER* *all-her*
"All of the African lions attacked … ."
b. dʒa:ʔa-t ʔal-ʔusu:d-u$_i$ wa mudarib-u:-ha:$_i$.
come-3F.SG.PER *the-lion.M.PL-NOM* *and* *trainer.M-PL.NOM-her*
"The lions and their trainers came."

c. ʔal-fata:t-u$_i$ ʔal-ʔafri:qij-at-u ħadˁar-at bi-nafsi-ha:$_i$.
the-girl.SG-NOM *the-African-F.SG-NOM* *attend-3F.SG.PER* *by-self-her*
"The African girl attended by herself."

d. ʔal-fitjat-u$_i$ ʔal-ʔafri:qij-u:n ħadˁar-u: bi-ʔanfusi-him$_i$.
the-boy.PL-NOM *the-African-M.PL.NOM* *attend-3M.PL.PER* *by-self-their.M*
"The African boys attended by themselves."

As can be observed, although the non-human plural nouns are masculine in a similar fashion to "the boys" in (66d), they trigger F.SG adjective concord, as well as being coindexed with a F.SG pronominal clitic in a similar vein to "the girl" in (66c). In anticipation of the discussion later, I assume that these facts do not follow from an Agree relation's failure. Instead, I will argue that these cases follow from how the probing features on a given predicate interact with the Agree relation, whose output may, but not necessarily, undergo morphological alternation or modification before vocabulary Insertion at PF. Such a claim, I believe, is supported by the fact that at the LF interface, these idiosyncratic phenomena attested in the examples above (66a & b) are not much distinct from how examples (66c & d) are handled in such an interface. i.e., the pronominal clitic is still interpreted as referring to M.PL entities.

Compared to SA, this idiosyncratic agreement behavior in (some) NA varieties alternates with the typical subject-verb agreement observed in the VDs, i.e., these types of nouns may trigger either agreement phenomena, as shown below.

67. a. (ʔil-ʔisu:d) hidʒam-at (ʔil-ʔisu:d) … .
the-lion.M.PL *attack-3F.SG.PER* *the-lion.M.PL*

b. (ʔil-ʔisu:d) hidʒam-u: (ʔil-ʔisu:d) … .
the-lion.M.PL *attack-3M.PL.PER* *the-lion.M.PL*
"The lions attacked … ."

c. (ʔil-miba:ni) tˤa:ħ-at (ʔil-miba:ni).
the-building.M.PL fall-3F.SG.PER the-building.M.PL

d. (ʔil-miba:ni) tˤa:ħ-u: (ʔil-miba:ni).
the-building.M.PL fall-3M.PL.PER the-building.M.PL

"The buildings collapsed."

As shown, in such a dialect, verbal predicates entering into an Agree relation with non-human nouns can take either agreement, i.e., a M.PL or F.SG agreement. Significantly, each type of agreement associated with these nouns is associated with a different interpretation, e.g., distributive (68a) or collective (b) readings, and each governs the choice of adjective concord and clitic pronouns, as shown below (underline indicates possible source of ill-formedness).

68. a. ʔil-ʔisu:d$_i$ ʔil-dʒa:jʕ-i:n hidʒam-u: kila-hum$_i$ … .
the-lion.M.PL the-hungry-M.PL attack-3M.PL.PER all-them.M

b. ʔil-ʔisu:d$_i$ ʔil-dʒa:jʕ-ah hidʒam-at kila-ha:$_i$ … .
the-lion.M.PL the-hungry-F.SG attack-3F.SG.PER all-her

c. *ʔil-ʔisu:d ʔil-dʒa:jʕ-ah <u>hidʒam-u:</u> kila-ha: … .
the-lion.M.PL the-hungry-F.SG attack-3M.PL.PER all-her

d. *ʔil-ʔisu:d ʔil-dʒa:jʕ-i:n <u>hidʒam-at</u> kila-hum … .
the-lion.M.PL the-hungry-M.PL attack-3F.SG.PER all-them.M

"(All of) the hungry lions attacked … ."

As indicated, the type of syncretism associated with one element in these nouns' vicinity must comply with and follow the same φ-affixation observed in a given clause; otherwise, the sentence becomes ill-form. In line with Kramer & Winchester (2018), I will argue that this type of meta-syncretism follows from how these nouns are assembled in the syntactic derivation course, given that they have semantic effects. Whereas feminine agreement has an underlying "non-individuated herd/group" interpretation, the plural is associated with an "individuation" interpretation. Above all, I assume that these facts from the agreement with non-human nouns in SA and such a dialect follow from how the Agree operation interacts with the head T's probing features. One may argue

that these examples would be a core case whereby the postsyntactic Impoverishment-plus-Redundancy rule occurs (69) (see sections (5.3.2.1 - 5.3.2.2) for further discussion).

69. **Version (1):**

a. Impoverishment: $\begin{bmatrix} \text{- human} \\ \text{+PL} \\ \pm\text{F} \end{bmatrix} \rightarrow \begin{bmatrix} \text{- human} \\ \emptyset \end{bmatrix}$

b. Redundancy: $\begin{bmatrix} \text{- human} \\ \emptyset \end{bmatrix} \rightarrow \begin{bmatrix} \text{- human} \\ \text{- PL} \\ \text{+F} \end{bmatrix}$

With this being said about the Gender-Number interaction in these Arabic varieties, the presentation in this section is an attempt to draw the interrelation between the standard variety and the present-day dialects, as well as their common syncretic behavior, assuming that, outside the realm of subject-verb agreement, most of the properties attested in the former are also attested in the latter.

3.6 Summary

The above discussion in the preceding sections promotes the idea that the subject-verb agreement attested in SA and the Arabic dialects are a reflex of how each dialect relativizes its φ-feature atomic bundle on a functional head (mostly T and/or Asp) along a rich fine-grained φ-feature geometry, which interplays with how Agree takes place syntactically. Such an account hopes to pertain to the evolutional aspect between the standard variety and its descendent dialects, in contrast to previous accounts, which to my knowledge, has not been attempted before. Therefore, it is assumed that in the syntactic component, Agree establishes a relation between T and a DP in its domain, valuing the former relativized unvalued φ-features. If Match fails, a last-resort default valuation takes place before shipping the representation to the interfaces. It remains to indicate that, under some instances and subject to dialect/variety-specific requirement(s), further postsyntactic morphological processes may occur, altering the feature composition of a given head

before Vocabulary Insertion takes place. A brief illustration was presented to prepare the discussion later in this work. Nevertheless, I opt not to discuss such cases any further in this section until their due time in chapter (5).

CHAPTER (4)
Subjecthood, Subject Positions, & (Null) Pronouns

4.1 Introduction

A perennial theme in the generative syntax since the 1980s regards the hypothesis that every sentence must have a subject (Chomsky, 1981; 1982). Nevertheless, like so many notions, subjecthood, as evinced from various cross-linguistic investigations, is complicated and difficult to formalize. As indicated previously, the clause word order in Arabic is often dictated by the relative order of both the subject and the verb. The effect of such a relative order on the agreement has been extensively studied and pursued in the history of generative investigation of SA (cf. Bakir, 1979; Mohammad, 1990; 2000; Fassi Fehri, 1993; Aoun et al., 1994; 2010; Benmamoun, 2000; Soltan, 2007; Sahawneh, 2017; Albuhayri, 2019; among many others). Therefore, in addition to the subject-verb agreement in the language, no other matter has seen as much extensively debated issue as the preverbal subject DP's status in the SVO order, assuming the interrelation between the two phenomena.

Importantly, these studies on the subject-verb agreement relationship with the relative word order in SA took different shapes based on the underlying framework a given account assumed, as evidenced by the different accounts surveyed in the preceding chapter. As indicated before, one intriguing fact about SA clause structure is that it almost exhibits equal freedom in word order due to its rich morphology, the most predominant of which is VSO and SVO. Although the basic word order of such a variety has been the subject of extensive debate, there has been a major consensus that the basic and neutral word order in Arabic is VSO, based on syntactic and semantic considerations. Any other word order comes with specific interpretive and/or pragmatic implications (Bakir, 1979; Al-Sweel, 1983; Fassi Fehri, 1993; Soltan, 2007; Albuhayri, 2019), as shown by the

examples below in (70)[42]; the SVO order is secondary in terms of basicness in the sense that it is the least word order among the rest with pragmatic effects; hence, it is often taken to be the basic word order by some other linguists (cf. Mohammad, 1990; Musabhien, 2008; among others).

70. a. dˤarab-a Fahd-un Majid-an. (VSO)
beat-3M.SG.PER Fahad-M.NOM Majid-M.ACC
b. Fahd-un dˤarab-a Majid-an. (SVO)
c. dˤarab-a Majid-an Fahd-un. (VOS)
d. Fahd-un Majid-an dˤarab. (SOV)
e. Majid-an dˤarab-a Fahd-un. (OVS)
f. Majid-un$_i$ Fahd-un dˤarab-a-hu$_i$. (OSV)
Majid-M.NOM Fahad-M.NOM beat-3M.SG.PER-him
"Fahad beat Majid."

Assuming the number of positions that a given subject DP can occupy in the clause spine, an unfathomable question relates to whether all of these positions designate genuine subject positions. Such an issue has not received concurrence among (Arab) linguists and has been receiving different diverging analyses regarding the number of subject positions, the status of preverbal subject DPs, and their (External vs. Internal) Merge property. These issues are taken in the following sections.

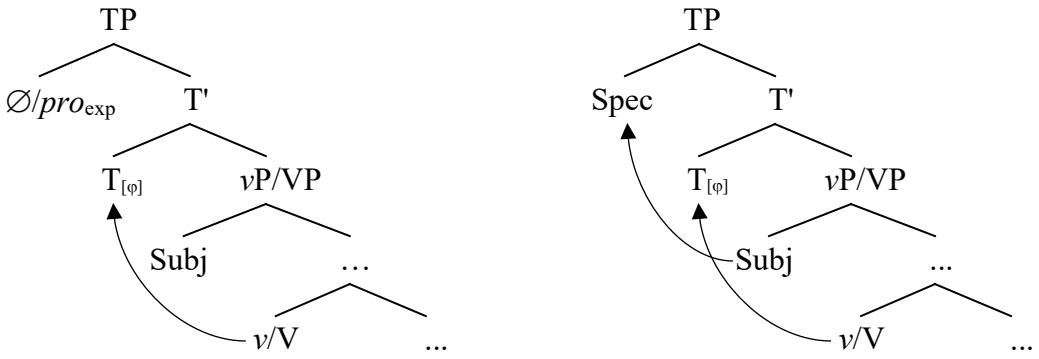
[42] It has been assumed that the VSO is the basic word order based on notions such as frequency, neutrality, restrictedness, syntactic distribution, etc. Put simply, it is the word order that is least marked, least restricted, and most distributed. The other word orders are associated with different pragmatic and semantic notions such as focalizations or topicalization. For a thorough discussion, see Bakir (1979), Soltan (2007), and Albuhayri (2019). Importantly, as I indicated in chapter (2), due to the Case morphology loss in the dialects, the word order in these varieties is less flexible than SA. To my knowledge, the current dialects allow SVO, VSO, and VOS, though they may not allow an OVS and OSV (Aoun et al., 2010).

4.2 Clausal Architecture & Subjecthood

It is generally assumed within the P-&-P framework that there exist at least two subject positions within a given clause (of a verbal predicate), termed the *v*P-internal-subject hypothesis (Koopman & Sportiche, 1991; McCloskey, 1996; 1997); whereas one position designates the thematic locus where a subject receives its thematic role, typically Spec-*v*P/VP, the other (grammatical) position corresponds to Spec-TP, the functional projection dominating *v*P/VP. Against the backdrop of such a hypothesis, some analyses devoted to the clause structure in Arabic maintain, in line with the above hypothesis, that the two subject positions correspond to the specifiers of *v*P/VP and TP. In contrast, some others argue that Arabic has only one subject position corresponding to Spec-*v*P/VP.

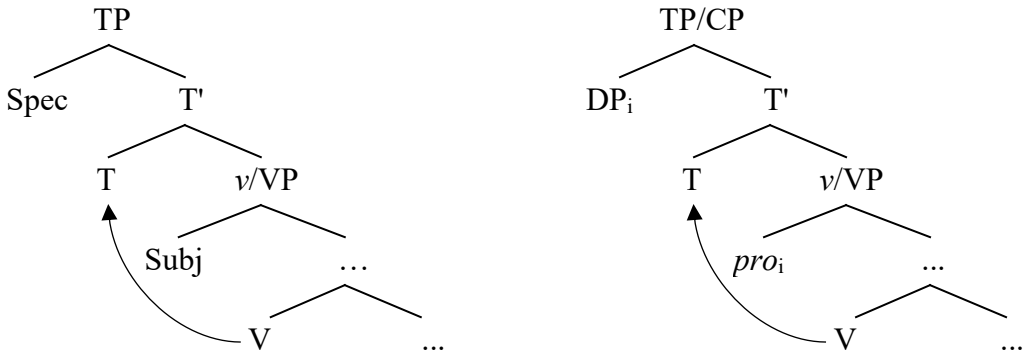
Generally speaking, proponents of the former view tend to assume that the SVO order is subject-movement triggered, similarly to English, from an underlying VSO order (Bakir, 1979; Fassi Fehri, 1993; Ouhalla, 1994; 2013; Mohammad, 2000; Benmamoun, 2000; Aoun et al., 2010; AlQahtani, 2016; Sahawneh, 2017; among others). Nevertheless, they seem to assume that unlike the case in, e.g., English, subject movement is optional, as shown in (71a -b) below. In other words, although the subject in Arabic originates in Spec-*v*P in both word orders, the two are distinguished according to whether the subject moves.

71. **a. VSO:** **b. SVO:**



In contrast, proponents of the latter account postulate that the two-word orders are derivationally distinct. They tend to assume that a preverbal subject DP is not in an A-position; rather, it is in an A-bar position and is related to and binds a postverbal null *pro* in Spec-*v*P/VP as illustrated in (72a -b) below (Soltan, 2007; Al-Balushi, 2011; Albuhayri, 2019). Therefore, such an approach assumes a radical difference between Arabic and, e.g., English as far as the subject syntax is concerned. First, whereas in Arabic SVO order, the subject is assumed to be a (null) pronoun merged in Spec-*v*P and bound by a preverbal subject DP in a higher A-bar position, the subject in English is assumed to be movement-triggered. Second, the only genuine subject position in the Arabic clause structure is Spec-*v*P. In contrast, a preverbal subject is not a genuine subject position but rather a(n) (externally) merged discourse element.

72. **a. VSO** **b. SVO**



Although both approaches assume that in both word orders, unlike in English, the verb moves to T in a head-to-head fashion, they contrast in their underlying premise regarding the status of preverbal subject DPs, and their Merge and position properties. The two-subject-position proposals take that preverbal subject DPs are internally merged to the specifier of a higher projection than the thematic position, while the one-subject-position proposals take it that they are externally merged discourse-elements that binds a null *pro* subject in Spec-*v*P. Considering that the former approach assumes that the two subject positions are derivationally related analogous to other

approaches on the status of preverbal subjects in English and their triggering internal Merge property in response to T's EPP feature, the following discussion will bring into focus the later proposal.

Embracing the (majority of) traditional grammarian's view, so-called Basran grammarians, these accounts presume that preverbal subject DPs, in contrast to postverbal ones, are (left-dislocated) topic elements externally merged in an A-bar position, and categorize a Topic-Comment interpretation (Fassi Fehri, 1993; Soltan, 2007; Al-Balushi, 2011; Albuhayri, 2019). It is essential to indicate that those linguists vary in their account of this A-bar position, whether it is in Spec-CP (Fassi Fehri, 1993; Albuhayri, 2019) or Spec-TP (Soltan, 2007; Al-Balushi, 2011). They also differ in terms of their underlying assumption regarding the base-generated postverbal null element's status, whether it is an incorporated argument pronoun designated by the agreement morphology on the verbal predicate (cf. Fassi Fehri (1993) and traditional grammarians) or a phonetically null *pro* triggering full agreement.

Significantly, there have been several arguments advanced to argue that these preverbal subject DPs in SA are not genuine subject in the common sense of the term. A comprehensive presentation of all arguments is beyond the limit of this section, but significant examples to draw the picture will be presented, and subsume i) subject-verb agreement asymmetries, ii) case properties of preverbal vs. postverbal subject positions, iii) extraction ban across preverbal (subject) elements, and iv) the distributional properties of (in)definite subjects.

First of all, one of the major arguments for such a view is that preverbal subjects are always correlated with a full agreement in SA (73a). Put differently, those linguists who assume that preverbal subjects are topics, in contrast to postverbal ones, take the agreement asymmetry between

the two-word order choices in SA as evidence for the presence of a null *pro* in the SV, in contrast to the VS, word order.

73. a. ʔal-bana:t-u ʃa:had-na ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.PL.PER the-TV.M.SG-ACC
b. *ʔal-bana:t-u ʃa:had-at ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.SG.PER the-TV.M.SG-ACC
c. ʃa:had-at ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.SG.PER the-girl.PL-NOM the-TV.M.SG-ACC
"The girls watched the TV."

As shown in the examples above and indicated throughout, the agreement asymmetry is sensitive to the subject and verb's relative order (in SA). When the DP "the girls" precedes the verb, it must trigger full agreement (in Number, Gender, and Person) on the verb, in contrast to when it is post-verbal, which triggers partial (Gender & Person) agreement. In addition to the hypothesis that null pronominal subjects are only licensed by full agreement, such an observation on the agreement asymmetry facts between VS and SV orders has been taken as an argument that only subjects co-occurring with partial agreement constitute genuine ones. In contrast, the full agreement indicates the presence of a null *pro* in the thematic subject position. Preverbal subject DPs, as contended, must not be real subjects; otherwise, the clause would end up encompassing two subjects, the lexical and pronominal subjects.

Second, preverbal and postverbal DPs exhibit distinguishing morphological case properties. In particular, postverbal subject DPs uniformly bear nominative case as a reflex of an Agree relation with the head T. Preverbal subject DPs, however, are nominative iff they are not in a relationship with lexical Case-shifting elements such as *ʔinna* and *ʔanna* "that", among many others, as shown in (74)[43].

[43] The use of the term "Case-shifter" is intended to reflect on how it is used in traditional grammar literature. A given element, syntactically speaking, is said to SHIFT the nominative case already assigned to a preverbal DP upon entering the derivation.

74. a. ʔinna ʔal-bana:t-a/*-u ʃahad-na … .
indeed *the-girl.PL-ACC/NOM* *watch-3F.PL.PER*
"Indeed, the girls watched … ."

b. ʃa:had-at ʔal-bana:t-u/*-a … .
watch-3F.SG.PER *the-girl.PL-NOM/ACC*
"The girls watched … ."

These case-assignment properties between the two positions suggest, according to such accounts, that postverbal DPs are subjects assigned a structural nominative case, while preverbal DPs are topics that vary in their Case morphology depending on their relationship with lexical case-shifters. To put it another way, these topic subject DPs are assigned default nominative (at PF) as a Last Resort mechanism unless they are assigned a lexical accusative case by a given C head or a matrix ECM verb. It is important to indicate that the underlying hypothesis of such an analysis to the case properties of preverbal DPs is ascribed to the Case Freezing (CF) Condition (Uriagereka, 2008), whereby it is argued that a DP cannot move if assigned case, given the hypothesis that it cannot realize more than one morphological case value.

Third, although Arabic is a *wh*-movement language (Aoun et al., 2010), its landing site constrains its possibility. Specifically, preverbal and postverbal subject DPs contrast with regard to their tolerance to non-subject element extractions; whereas such extraction is tolerable across a postverbal subject DP, it is ill-formed across a preverbal DP, as (75) shows.

75. a. *ma:ða:$_i$ ʔal-bana:t-u ʃa:had-na t_i ?
what *the-girl.PL-NOM* *watch-3F.PL.PER*

b. ma:ða:$_i$ ʃa:had-at ʔal-bana:t-u t_i ?
what *watch-3F.SG.PER* *the-girl.PL-NOM*
"What did the girls watch?"

As shown, such a ban on extraction across preverbal subject DPs is taken to indicate that the postverbal subject DP is in an A-position, contrary to the preverbal (A-bar) subject. Notably, from a syntactic perspective, the preverbal subject DP is assumed to be base-generated in an A-bar

position because it has an intervention effect (defined in terms of minimality effect) on the A-bar-moved *wh*-phrase.

Finally, subject DPs in Arabic display asymmetrical behavior in terms of their distribution, restricted by i) the word order involved, and ii) the semantic type of the DP (definite vs. indefinite); while definite DP subjects in Arabic are distributionally unconstrained, i.e., they can occur pre- or postverbally, indefinite (non-specific & unmodified) DPs can only occur postverbally in Arabic; otherwise, the sentence is ill-formed (76).

76. a. ʔal-bana:t-u / #bana:t-un ʃa:had-na … .
the-girl.PL-NOM *girl.PL-NOM.INDF* *watch-3F.PL.PER*
b. ʃa:had-at ʔal-bana:t-u / bana:t-un … .
watch-3F.SG.PER *the-girl.PL-NOM* *girl.PL-NOM.INDF*
"The girls / girls watched … ."
c. bana:t-un sˁaɣi:r-a:t-un ʃa:had-na … .
girl.PL-NOM.INDF *little-F.PL-NOM.INDF* *watch-3F.PL.PER*
"Little girls watched … ."

As shown, the more specific the subject DP is, the more viable it is to be preverbal. It is unclear what to make of these data as far as the preverbal position's status is concerned. Linguistically speaking, specificity requirements constitute one of the properties of preverbal subject DPs. Nevertheless, such an observation is taken as an argument against the subject-view of preverbal subject DPs. Remarkably, the observation that definite DPs, in contrast to indefinite (non-specific) DPs, can occur preverbally indicates that the two (preverbal vs. postverbal) positions are in two different domains. The preverbal position, hence, is not A-movement-triggered from the postverbal position.

In retrospect, there have been several arguments advanced against the subject-view of preverbal subject DPs. Four prevalent arguments were presented above and included i) subject-verb agreement asymmetries, ii) case properties, iii) *wh*-extraction ban across preverbal (subject) elements, and iv) the distributional asymmetry between definite and indefinite subject DPs. With these arguments in mind, the following section revisits such observations.

4.3 The Topic-View Re-Considered: Status & Position Of Preverbal Subjects

Balancing the two views, i.e., the subject- and topic-view, against each other, I assume that, although Arabic can have topic preverbal subject DPs, the language may, structurally speaking, often allow bare subject DPs in a preverbal position, subject to structural constraints determined by certain C heads. In other words, the possibility of a preverbal bare subject interpretation, or particularly an A-position, is not totally banned or ill-formed in the language. To take a case in point, it is well-known that Arabic incorporates several types of complementizers. Whereas some, such as the embedding *ʔanna* "that" takes a preverbal discourse DP (77), other null C heads, e.g., the one subcategorizing for *ʔan*-clause "to-clause" do not allow such an (overt) discourse DP (78 & 79)[44].

77. ʔiʕtaqad-a [ʔanna Fahd-an sa-ju-sa:fir-u].
believe-3M.SG.PER that Fahad-M.ACC will-3M-travel-SG.IMP.IND
"He thought that Fahad would / will travel."

78. a. ʔal-ʔawla:d-u$_i$ ħa:wal-u: [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
the-boy.PL-NOM try-3M.PL.PER to 3M-travel-PL.IMP.SUB EC the-yesterday
b. ħa:wal-a ʔal-ʔawla:d-u$_i$ [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
try-3M.SG.PER the-boy.PL-NOM to 3M-travel-PL.IMP.SUB EC the-yesterday
"The boys tried to travel yesterday."

[44] As will be indicated later, I assume that *ʔan* "to" is not a C head. Rather it is a functional (Mood) head above TP and below CP.

c. ħa:wal-a $\Delta_{i/j}$ [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
try-3M.SG.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"The boys tried to travel yesterday."
"He tried that the boys travel yesterday."[45]

79. a. ħa:wal-a $\Delta_{*i/j}$ [(*ʔal-ʔawla:d-a$_i$) ʔan (*ʔal-ʔawla:d-u$_i$)
try-3M.SG.PER EC-M.SG the-boy.PL-ACC to the-boy.PL-NOM
ju-sa:fir-u: Δ_i ʔal-ba:riħah].
3M-travel-PL.IMP.SUB EC the-yesterday
"He tried that they travel yesterday."

b. ħa:wal-u $\Delta_{*i/j}$ [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
try-3M.PL.PER pro-M.PL to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"They tried that the boys travel yesterday."

As shown, whereas *ʔanna* "that" allows a following preverbal discourse DP, the embedding (null) C head with control predicates, e.g., "try" does not allow a DP in its Spec (or the Spec of its complement head), if it is taken that the accusative assigned DP in (79a) reside in Spec-*ʔan*P or Spec-TP).

[45] First of all, I would like to thank the anonymous reviewer for the 44th annual Pennsylvania Linguistics Conference for confirming the grammatically and the possibility of *ʔan*-clauses, subcategorized for by "try", to have an overt subject that does not corefer with the matrix subject, as shown by his/her example below.

i. ħawal-a Muħammad-un [ʔan ta-ktub-a Hind-un maqa:l-an].
tried-3M.SG Mohammad-NOM to 3F-write.SG Hind-NOM article-ACC
Muhammad tried that Hind would write an article.

Importantly, although it is more common for "try" to subcategorize for an obligatory subject-control complement, the embedded subject can be overt, provided the right discourse context is supplied, e.g., being an answer to "why have not Hind left?/wrote the article?". As may be observed, the underlying meaning of such constructions is that of causation, whereby the matrix subject unsuccessfully tried to cause the embedded subject to do something. The saliency of the "unsuccessful attempt" can be emphasized by negative/exceptive clausal as in *ʔilla: ʔanna-ha: rafadˁ-at* "but she refused".

Usama Soltan (during the defense) pointed out that the example above and examples (78c & 79) may not be a non-control construction variant to, e.g., the subject control reading in (78a-b). His concern is related to the idea that control/raising constructions such as the latter examples are substitutional with deverbal noun constructions, which is absent or impossible with the examples in the former cases. Nevertheless, I contend that deverbalization and control constructions must be set apart. For one thing, uncontroversial full clauses such as *ʔanna*-clauses, among others, can be deverbalized, which indicates that deverbalization is not only tied with control/raising constructions. What's more, under certain situations, the deverbalization of a given construction results in i) total substitution of lexical items, ii) addition of lexical particles, or iii) alteration of lexical items' morphological case (Hasan, 1975). To take a case in point, consider a "try" control construction with an embedded *la:* "not" such as *ħawala ʔan la: ja-lʕaba* "He tried not to play". To alter such structure into deverbal noun one, *la:* "not" must be substituted with *ʕadama* "lack/absence" as in *ħawala ʕadama ʔal-laʕibi*. Although such construction is a subject control one, it is impossible to deverbalize it unless the negation is substituted. Such fact may indicate that deverbal noun constructions are lexically determined rather than being syntactically derived, given that it involves significant changes to a given construction. For these reasons and others that I leave for space consideration, I maintain that the examples in (78c & 79) are non-control equivalent to their control counterparts.

Interestingly, a canonical configuration for control constructions occurs when an overt controller c-commands a non-overt controllee in the controller's syntactic domain, as shown in (78a & b) above. Nonetheless, a backward control, where the direction of the canonical control configuration is flipped around, is also possible and attested with "try" as in (78c) above. In the latter case, the matrix clause's understood subject is expressed overtly in the embedded clause, establishing co-reference with an unexpressed subject in the matrix clause. The morphological rich inflection, the word order, and the noun plurality play an essential role in the agreement facts. Importantly, although the topic-view may be sufficient and able to account for the agreement facts in (78a & b) & (79a), via assuming that the overt agreement in the embedded clause is a reflex of T-*pro* Agree relation, such a view is insufficient to account for the agreement facts associated with the backward control interpretation in (78c).

For one thing, a long-distance Agree (as well as multiple Agree mechanism) relation(s) between matrix T and the embedded DP will have to cross the matrix *v*'s φ-Probe. Additionally, be that such a long Agree relation would be argued to be possible, the fact that the matrix *v* has a non-discharged thematic role would present a defect in such an account. Therefore, the backward control reading in (78c) poses a challenge for any theory assuming a lack of A-movement in Arabic. After all, the often-distinct agreement between the matrix predicate and the embedded one, as shown above, points toward the conclusion for the presence of such type of A-movement.

For that reason, I contend that such a backward reading and its associated agreement facts are a reflex of a (covert) A-movement of the embedded DP to the matrix clause, although for some reason, to be argued for later, it is pronounced downstairs. Nevertheless, an overall derivation for the forward vs. backward agreement facts is beyond this section's scope, considering that more needs to be said before then. It will lead to a digression from the primary concern of this section.

Therefore, the overall derivation and assumptions are deferred until section (4.4), providing a somewhat speculative analysis of the agreement differences (see also the appendix for more elaborate assumptions and derivations).

By the same token, even though a topical interpretation of preverbal subject DPs is well attested in Arabic, if it is not the most dominant, I believe that the hypothesis that Arabic lacks an A-movement and that all preverbal subject DPs in Spec-TP are A-bar externally-merged elements cannot be unconditionally maintained. For one thing, the existence of A-movement as an operation made available by UG is robustly attested cross-linguistically. It is attested in the language outside the realm of matrix and some embedded domains that often form the core observations. Most compelling evidence, similar to the "try" discussion above, comes from Haddad (2012) & Wurmbrand & Haddad's (2016) investigation of Arabic subject-to-subject raising predicates, so-called verbs of appropinquation (proximity, hope, and inception), in Arabic. These predicates, which include *ka:da* & *ʔwʃaka* "be on the verge of", *ʕasa:* "hope", *ʃaraʕa* "start", among others, license forward and backward, as well as non-raising, structures as illustrated in (80) below.

80. a. ʔal-ʔawla:d-u$_i$ ka:d-u: [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
the-boy.PL-NOM be.almost-3M.PL.PER to 3M-travel-PL.IMP.SUB EC the-yesterday

b. ka:d-a ʔal-ʔawla:d-u$_i$ [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
be.almost-3M.SG.PER the-boy.PL-NOM to 3M-travel-PL.IMP.SUB EC the-yesterday

c. ka:d-a Δ_i [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
be.almost-3M.SG.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday

"The boys were almost to travel yesterday."

Haddad (2012) & Wurmbrand & Haddad (2016) argue that these predicates exhibit structural properties associated with subject-to-subject raising: i) they are one-place predicates, ii) they do not assign an accusative case, iii) they select clausal (TP or CP) complement, iv) unlike control predicates, they have no selectional restriction, v) they preserve idiomatic interpretation, and vi)

their passive and active constructions are semantically equivalent (Haddad, 2012, pp. 63 - 66). Above all, it was argued that the agreement on the matrix predicate in such constructions is not the result of a long-distance agreement with the subordinate subject, taking into account that such complement clauses to these raising predicates, Wurmbrand & Haddad (2016) contend, define opacity domains, i.e., phases, in Arabic raising contexts. Hence, they argue that the partial agreement on the matrix raising verb is an indication that, at some point in the course of the derivation, the subject occupied a postverbal position in the matrix clause.

Without a doubt, the very existence of backward raising or control, whereby covert movement has syntactic as well as semantic outcomes, subside the firm stance proposing the non-existence of A-movement in Arabic (Huang, 1982; May, 1985; Potsdam & Polinsky, 2012; Polinsky & Potsdam, 2013; among others). Aside from these arguments from Arabic (embedded) clausal domains, a few comments on some of the topic-view justifications for the status of preverbal DP subjects are in order.

First of all, one of the arguments put forth for the topical status of preverbal DPs is the overt full subject-verb agreement associated with preverbal subject DPs. In particular, the presence of an externally merged topical subject in a preverbal position is correlated with the presence of a null *pro* postverbally in Spec-*v*P. In turn, the latter is the sole trigger for the full agreement. Although the first premise is warranted, I believe that the latter is not necessarily true. As discussed in chapter (3), in both the form of the standard (CA) variety (81a) and the modern dialects (b), a postverbal lexical DP can trigger a full agreement on the verbal predicate. Remarkably, a preverbal DP in SA can trigger defective agreement as exemplified in (c).

81. a. qa:m-a: ʔax-wa:-ka. CA
stand-3M.DU.PER brother-DU.NOM-your
"Both of your brothers stood."

(Al-kawari:, 2008, p. 266)

b. ʃa:f-u: ʔil-ʕia:l ʔil-film. NA
watch-3M.PL.PER the-boy-PL the-movie.M.SG
"The boys watched the movie."

c. ʔal-tˁula:b-u ta-ndʒaħ-u bi-ʔal-ʔidʒtiha:d-i. SA
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND by-the-hard.work-M.SG.GEN
"Students succeed through hard work."

As shown, both the postverbal DPs "brothers" and "the boys" trigger full agreement. Despite being null-drop varieties, such examples from these dialects would evince that the presence of full agreement and a null *pro* in Spec-*v*P must be dissociated, a move that I will argue for. Additionally, the fact that a preverbal DP in SA, e.g., "the students", may not trigger full agreement, albeit being coindexed with a null *pro* in Spec-*v*P according to the mentioned premise, calls into question this correlation between full agreement and null *pro*.

Therefore, as long as the VS structure, in contrast to the SV order, is limited to the partial agreement, the topic-view analysis to the full agreement is not endangered. Nevertheless, as shown above, the availability of a full agreement with postverbal lexical subject DPs and a defective agreement with preverbal DPs present a stumbling block for such an assumption. For one thing, it is impossible to assume that the subject in examples (a & b) above occupies a position other than the canonical Spec-*v*P. For another thing, per the logic of the topic-view proposal, a null *pro* must be in a higher position than that of the lexical DP in Spec-*v*P for the former to trigger full agreement, a configuration in violation of binding since the null *pro* c-commands the lexical DP. It can be concluded, from the agreement perspectives, that the underlying presumed trigger for full

agreement in those topic-view accounts fails to cover the range of variation in the language. In other instances, it may undergenerate grammatical, well-established sentences.

What's more, the logical consequence of the null *pro*'s correlation with the rich agreement would lead to the expectation that languages with no morphological agreement system must not have null *pro*. However, this is not the case. Specifically, although it is often contended that rich agreement is sufficient to license null *pro* in Arabic, there exist radical *pro*-drop (East Asian) languages that are also morphologically non-inflectional in terms of agreement, such as Chinese (Jaeggli, 1982; Huang, 1989; Jaeggli & Safir, 1989; Duguine, 2012)[46]. Hence, despite that it is often argued that the *pro*-identification requirement may vary from language to language, the presence of such radical *pro*-drop languages, in contrast to Arabic, whereby a null *pro* is employed, albeit that these languages lack overt agreement morphology, constitutes another argument against the association between full agreement and the presence of a null *pro*. It is essential to indicate that my reasoning line should not be taken as a counterargument against the hypothesis that the agreement morphology has a crucial role in identifying null *pro* in Arabic. Instead, I believe that such a role is employed only in the absence of an overt lexical subject (in Spec-*v*P). In such a view, both elements can trigger full agreement on verbal predicates, subject to language-specific properties.

Additionally, other facts that challenge any constant topic-view of all preverbal DPs come from preverbal lexical subjects intervening between a main (imperfective) verb and an aspectual verb, whereby a full agreement is inflected on the former, and a partial (SA) or full (NA) is inflected agreement on the latter (82a for SA and b-c for NA) (other agreement possibilities, especially in SA, are imposed by their relative order with the lexical subject DP).

[46] Jaeggli (1982) and Jaeggli & Safir (1989) contend that null subjects can be identified by different means, e.g., agreement morphology for Italian and c-command for Chinese, among other means, subject to language-specific requirements.

82. a. dʒalas-a ʔal-ʔawla:d-u ja-ktub-u:n. / *sa-ja-ktub-u:n. /
sit-3M.SG.PER the-boy.PL-NOM 3M-write-PL.IMP.IND will-3M-write-PL.IMP.IND
*katab-u:.
wrote-3M.PL.PER

b. #/??qaʕad ʔil-ʔawla:d ja-ktib-u:n. / *bi-ja-ktib-u:n. /
sit-3M.SG.PER the-boy.PL 3M-write-PL.IMP.IND will-3M-write.PL.IMP.IND
*katib-u:.
wrote-3M.PL.PER

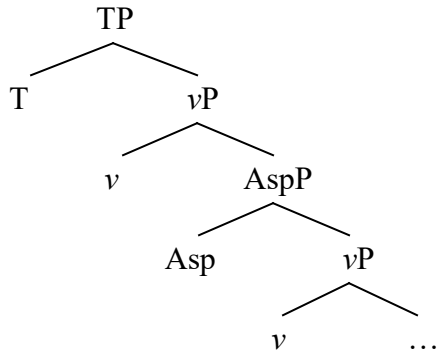
c. qaʕad-u: ʔil-ʔawla:d ja-ktib-u:n. / *bi-ja-ktib-u:n. /
sit-3M.PL.PER the-boy.PL 3M-write-PL.IMP.IND will-3M-write.PL.IMP.IND
*katib-u:.
wrote-3M.PL.PER
"The boys were sitting writing."

An argument that has been put forth for the bi-clausal analysis of complex tense constructions in Arabic is the ability of the main verb to inflect for Tense along with the auxiliary verb (Ouali & Fortin, 2007; Soltan, 2007; Ouali, 2018). Nevertheless, as shown above, such an account is not extendable to these types of constructions since the main verb cannot inflect for Tense, indicating that the main verb "write" and the aspectual verb "sit" are within the same mono-clausal construction.

According to Ouali & Al Bukhari's (2016) investigations of these constructions in Moroccan and Jordanian Arabic, such verbal aspectual predicates (termed motion light verbs) have an aspectual function when co-occurring with main verbs. In other words, the former contributes to the overall aspectual interpretation, albeit the latter can inflect for aspectual morphology. Importantly, they argue that the two predicates head different *v*Ps, as shown in (83) below, whereby the motion verb heading the higher *v*P selects for an AspP projection. Such a hypothesis follows from the fact that i) the construction has a single tense reading, ii) both verbs denote one single event, iii) only one (shared) subject DP is allowed, iv) there are relative order possibilities between

the subject and the predicates, and iv) only one negative particle is possible to negate the whole event.

83.



Per the topic-view logic, I assume that the Asp head carries φ-feature Probe (Soltan, 2007), along with T, the two can enter into Agree relations with the two overt and covert DPs in Spec-AspP/*v*P and the lower Spec-*v*P, respectively, inflecting a partial agreement on T and a full agreement on Asp. Most important of all, aside from the NA full agreement manifestation in the (b - c) examples above, the fact that the subject DP can reside in/move to Spec-AspP (or the higher Spec-*v*P) calls into question the generalization that all preverbal DPs are (A-bar) topics that are coindexed with a null *pro* in SA. In such a context, the preverbal DP, I believe, cannot be interpreted as a topic (or a discourse element in general). Rather, it is a subject in terms of its position, in contrast to Spec-TP or Spec-CP positions.

The same conclusion about the indeterminacy of the status of a preverbal DP can be extended to the following SA and NA examples, whereby the copula "ka:an" and the following participial/adjective enter into an agreement with an intervening element, resulting in partial and full agreement, respectively in SA (Benmamoun, 2000; Aoun et al., 2010; Ouhalla, 2013; Alharbi,

2017)[47]. For that reason, I believe that the status of being a preverbal subject DP and the presence of full agreement must be dissociated.

84. a. ka:n-a ʔal-ʔawla:d-u na:ʔim-i:n. / mari:dˤ-i:n. SA
be-3M.SG.PER the-boy.PL-NOM Sleeping.M-PL.ACC sick.M-PL.ACC

b. #/??ka:n ʔil-ʔawla:d na:jim-i:n. / mari:dˤ-i:n. NA
was-3M.SG.PER the-boy.PL Sleeping.M-PL sick-M.PL

c. ka:n-u: ʔil-ʔawla:d na:jim-i:n. / mari:dˤ-i:n. NA
was-3M.PL.PER the-boy.PL sleeping.M-PL sick-M.PL

"The boys were sleeping / sick."

Second, one other argument presented for the topical status of preverbal subject DPs and their external merged property is that they are assigned a nominative case as a last resort iff they are not in an accusative-assignment relation with a given element. Thus, it is underlyingly assumed, most prominently by Soltan (2007), that postverbal subject DPs undergo case Freezing effect in the sense that they cannot enter a second pair-wise Agree relation with another φ-Probe. Put simply, these subjects may undergo raising for a non-φ-probing feature, e.g., an EPP, and they cannot be assigned multiple cases.

Although I strongly agree that a last-resort nominative-case assignment is available and well-established in the literature on Arabic, contrary to the Freezing Effect hypothesis of Soltan's (2007), I believe that the ability of a DP to receive case multiple times constitutes an option available in Arabic, in compliance with the empirically justified Multiple-Case assignment hypothesis proposed for other natural languages (cf. Béjar & Massam, 1999; Sigurðsson, 2004; Woolford, 2006; Merchant, 2006; Baker, 2015). One evidence for such a case is the presence of backward

[47] It is important to indicate that the overt DP is constrained by the definiteness requirement associated with preverbal DPs. Thus, such a fact present an issue for why even such a position is also constrained. Soltan (2007) argues that all functional domains above TP constitute a left-periphery. As will be discussed later, although his view is accurate, the left-periphery constitutes a layered domain with a distinct requirement, determined by the selecting C head. Thereupon, not all preverbal subject DPs are topics.

control/raising interpretations whereby the embedded DP establishes an agreement with the matrix T. The relevant examples are repeated below.

85. a. ħa:wal-a Δ_i [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
try-3M.SG.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday

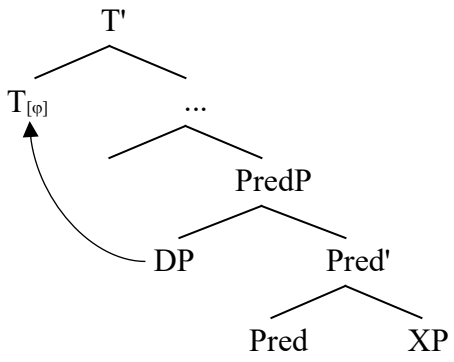
b. ka:d-a Δ_i [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
be.alomst-3M.SG.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"The boys tried to / were almost to travel yesterday."

As evidenced by the backward mechanism, the DP establishes a pair-wise Agree relation with the embedded T before moving up the clausal spine to establish another Agree relation with the matrix T.

One further argument for the presence of multiple case-assignment in Arabic is argued for by Alharbi's (2017) investigation of copular clauses in Arabic. For example, Alharbi maintains that copular clauses in Arabic fall into two types: i) Predicational clauses and ii) Identity clauses, differing in the small clause they contain. Notably, he assumes that the small clause in predicational clauses as in (86), for example, are predicate phrases (PredP) as demonstrated in (87), whose morphologically null (Pred) takes the pre-predicate DP as its specifier and the main nonverbal predicate as its complement. The sole purpose of the null Pred, according to Alharbi, is to mediate the predicational relation.

86. ka:n-a Fahd-un mudaris-an. SA
be-3M.SG.PER Fahad-M.NOM teacher.M.SG-ACC
"Fahad was a teacher."

87.



Under such an assumption, Alharbi asserts that "whatever locates in the specifier of the SC [small clause] must raise to Spec-TP … to satisfy the EPP feature of T" (p. 110). Taking into consideration that the DP in the specifier of PredP is assigned nominative case via an Agree relation with T, it follows, by hypothesis, that the DP, once raised, may not retain its nominative case if it encounters a lexical-accusative assigning head such *ʔinna* "that", which is borne out in Arabic (88) (Fassi Fehri, 1993; Ouhalla, 1994; Mohammad, 2000; Alharbi, 2017).

88. ʔinna Fahd-an ka:n-a mudaris-an. SA
indeed Fahad-M.ACC be-3M.SG.PER teacher.M.SG-ACC
"Indeed, Fahad was a teacher."

The presence of such examples indicates that the case assigned to a DP/NP in an earlier position does not block further case assignment, and a newly overriding case can be assigned. Put differently, the chain head may carry a different case from its tail. For this reason, a DP remains active for the purpose of case assignment. As indicated in footnote (43), the Multiple-Case assignment hypothesis subsumes the traditional grammarian's intuition regarding preverbal topics in the sense that, non-syntactically speaking, they are merged already with their default nominative and assigned a case by other elements if needed. What can be referenced from this brief discussion is that the Activity Condition and the Case Freezing effect may not be on the right track and must be abandoned, given that it is not an essential constraint on derivation, nor part of UG (Nevins, 2005; Asarina, 2011).

Third, one additional argument for the topical status of preverbal DPs is correlated with the *wh*-crossover ban over these preverbal subject DPs. Put simply, a *wh*-extraction over a pre-verbal subject DP yields an ill-formed construction (Fassi Fehri, 1993; Soltan, 2007), although these elements can land in a position below the preverbal subject DP (Albuhayri, 2019) as shown in (89) below for SA.

89. a. *ma:ða:$_i$ Fahd-un ʃa:had-a t_i ?
what Fahad-M.NOM watch-3M.SG.PER
b. Fahd-un ma:ða:$_i$ ʃa:had-a t_i ?
Fahad-M.NOM what watch-3M.SG.PER
"What did Fahad watch?"

As illustrated, the extraction of "what" across the preverbal subject DP, in contrast to its extraction to a position below the subject DP, results in ill-formedness. Despite such an observation in the matrix clause, extraction across embedded topics, e.g., in embedded *ʔanna*-clauses, is tolerable as exemplified in (90) for SA.

90. ma:ða:$_i$ ðˤanann-ta ʔanna Fahd-an ʃa:had-a t_i ?
what think-2M.SG.PER that Fahad-M.ACC watch-3M.SG.PER
"What did you thought that Fahad watched?"

Despite that the DP "Fahad" is often argued to be a topic, extraction across such a position is tolerable and grammatical. What's more, it is not only embedded verbal clauses that tolerate such an extraction, but the freedom and well-formedness of extraction over preverbal topical subjects are also attested in nominal clauses, i.e., clauses that are verbless as in (91) below for SA (Bakir, 1979; Fassi Fehri, 1993; Alharbi, 2017; Albuhayri, 2019).

91. man$_i$ Fahd-un dˤa:rib-un t_i ?
who Fahad-M.NOM beating-M.SG.NOM
"Who did Fahad beat?"
"Who is Fahad beating?"

Assuming that the ban is only restricted to matrix verbal (SVO) clauses, the question that arises considering this discussion relates to whether the topical status of preverbal subject DPs in these matrix verbal clauses should be maintained. In other words, taking into consideration that the (embedded) preverbal DPs in (90) & (91) are considered to be topics, I believe, in line with Albuhayri (2019), that the status of these preverbal subject DPs in verbal matrix clauses are mysterious and may not, in fact, be topical.

Albuhayri (ibid) contends that the assumptions underlying the ban on extraction across preverbal subject DPs are inaccurate; *wh*-phrase (and focus) extractions, according to him, are both licit, provided that the landing site for extracted elements is below the preverbal DP (p. 54), as shown above in (89b). Therefore, given that these elements can occupy a post position with respect to the preverbal subject DP, it is concluded that the latter element must be in a higher position at the left-periphery (basically, Spec-CP) of the clause, contrary to Soltan's (2007). Chiefly, Albuhayri (ibid) attributes the ban on extraction across preverbal DPs to SA clausal hierarchy, whereby preverbal DPs are either focus or *wh*-elements in (a hybrid A- and A-bar) Spec-TP, or topic elements in an A-bar Spec-CP. Thus, whether *wh*-extraction is banned, according to such a hypothesis, follows from either i) the idea that the preverbal DP is a topic higher in the clausal spine than their landing site, or ii) the hypothesis that the preverbal DPs are in Spec-TP, the landing site for extracted elements (p. 66 – 67).

The ban on such a *wh*-extraction, under other views, however, has been commonly observed to follow from a strict adjacency requirement, which mandates that any extracted elements be followed immediately by the verb in SA (Ouhalla, 1994B; Aoun et al., 2010; Sahawneh, 2017). In simple terms, the *wh*-phrase and the verbal predicate must be adjacent in SA; otherwise, the sentence is ill-formed. With this in mind, Albuhayri (ibid) contends that the strict adjacency

requirement is dissolved if the subject DP co-occurring with a fronted *wh*-element remains in Spec-*v*P. Simply, he argues that his underlying hypothesis regarding the landing site of *wh*-elements dissolves the requirement that they must be adjacent to the verb. Nevertheless, I argue that, although such a speculation on Albuhayri's part may be true of SA, it cannot be extended to the modern dialects, as it is the case that there seems to be no imposed adjacency requirement, as shown in (92) below.

92. a. min$_i$ ʔil-walad tˁaqq t_i ? NA
who the-boy.SG beat-3M.SG.PER

b. *min$_i$ walad-in tˁaqq t_i ? NA
who boy.SG-INDF beat-3M.SG.PER
"Who did the boy beat?"

c. #walad-in tˁaqq Majid. NA
boy.SG-INDF beat-3M.SG.PER Majid-M
"A boy$_{\text{-nonref.}}$ beat Majid."

As can be seen, although the preverbal DP "the boy" is in the same position as argued for by Albuhayri and exhibits the same definiteness requirement (a vs. b & c), the extraction across the preverbal DP is tolerated in the dialects. In other words, albeit that preverbal DPs in the dialects, similar to SA, exhibit a specificity requirement, *wh*-extraction across these elements is grammatical (see also Aoun et al., 2010; Al-Daher, 2016; Sahawneh, 2017). Accordingly, I assume, in line with the prevalent MP assumptions, that the ill-formedness of its counterpart in SA follows from the assumption that *wh*-words target Spec-CP, and that subject-verb inversion is lacking in the VDs as argued by, e.g., Ouhalla, 1994B; Shlonsky, 2000; Aoun et al., 2010. Put differently, I assume that the ill-formedness of these instances in SA are attributed to the presence of a violating adjacency between the *wh*-word in Spec-CP and the focus/subject element in Spec-TP, which is peculiar to the standard variety; the standard variety does not tolerate violation to the adjacency requirement between the verb and the *wh*-word as the dialects do, nor it incorporates a late insertion

mechanism of dummy auxiliary as the case in, e.g., English when the *wh*-word relates to a non-subject element (93)

93. a. John met Mary.
    b. Who$_i$ did John meet t_i ?

Importantly, I agree with Albuhayri (ibid) that the only possible word order for the *wh*-headed clauses in SA is a *wh*-VS order. It remains, nonetheless, to explain why it is only a VSO order, hence, partial agreement, is the only possibility in such constructions. I believe one motivation follows from the idea that the T's head in such constructions lacks an EPP (or focus in Albuhayri's terms). This, as I argued in section (3.4), indicates that there are two φ-Probe compositions in SA, in contrast to the present-day dialects, which have only one T with an EPP feature. (for the moment, I opt not to elaborate comprehensively on this until later sections), Nevertheless, I briefly present the derivation, as shown in (94) and (95) below for SA and NA, respectively.

First, assuming that i) the subject DP is externally merged in Spec-*v*P and that ii) the T head in SA in such construction needs to lack an EPP feature, the subject remains in its merged Spec-*v*P position. Furthermore, taking into account that, in transitive constructions, *v*P constitutes a phase, the (second) EF of *v* targets the internal *wh*-element. It triggers the latter movement to *v*'s second specifier or its outer edge, assuming that if the *wh*-element were to remain in its internal position, it will be spelled out along with the *v*P phase and becomes inaccessible to further operations. As commonly assumed, a *v*-to-T raising takes place deriving the VSO order. The derivation proceeds, and a null interrogative $C_{[wh]}$ head is merged, attracting the *wh*-element at the outer edge of the *v*P phase to its specifier position. Interestingly, such a derivation and the underlying

assumption correlates with the obligatory partial agreement on the verb, as the subject cannot be preverbal[48].

94. a. [wh_i [$C_{[wh]}$ [$T_{[uPart, vSG, uCl]}$ +(v+V)$_k$ [t_i [Sub [t_k [… t_i]]]]]]]

b. man_i ʕa:qab-a ʔal-muʕalim-un t_i ?

who *displine-3M.SG.PER* *the-teacher.M-PL.NOM*

"Who did the teachers discipline?"

As seen, by virtue of T having [uPart], [uClass], and [vSG] features, only the former features establish an Agree relation with the subject DP in Spec-*v*P, yielding 3M.SG valuation on the verbal predicate.

In contrast to the standard variety, the T head in the dialects, as I indicated above, always carries an EPP feature. Thus, subject raising is always triggered. I believe the higher copy is more preferred due to the lack of overt case morphology whereby the right interpretation is determined unless (PF) constraints. Compare (95a - b) below.

95. a. min_i Fahad tˁaqq t_i ? NA

who *Fahad-M* *beat-3M.SG.PER*

"Who did Fahad beat?"

b. min_i tˁaqq Fahad ? NA

who *beat-3M.SG.PER* *Fahad-M*

"??Whom did Fahad beat?"

"Who beat Fahad?"

As shown, when the DP "Fahad" (example a) follows the *wh*-element immediately, the only interpretation is that the inquiry is about the direct object. On the other hand, when the subject remains

[48] Obviously, for *wh*-constructions relating to a subject DP, the T head carries an EPP feature, which under the φ-feature composition proposed here will lead to the right agreement, given that *wh*-words are 3M.SG. In other words, any instance of preverbal subject DP should, by hypothesis, be EPP-driven, unless they are externally merged Topic in Spec-CP.

in Spec-*v*P as in (b), the salient reading is that the inquiry is about the subject rather than the object[49].

Importantly, I presume that the analysis and the assumption that *wh*-elements target Spec-CP rather than Spec-TP opens up the possibility that both a focus and *wh*-element (in Albuhayri's terms) can co-occur adjacent to each other (at least in the VDs, and in SA per other traditional schools (f. 49 & 56)). As far as the possibility that a *wh*-element occurs below a topical element, I assume that topics often form a second Spec-CP[50], given that external Merge of topics is not featurally triggered (Albuhayri, 2019). In essence, a *wh*-element can never cross a topical DP since the latter is always merged higher than the former (see also Ouhalla (1997, p. 14) who argues for a slightly similar argument).

Finally, one of the arguments presented for the topical view of preverbal DPs in such a position concern definiteness, or, more specifically, referential indefinite DPs. Although the referential aspect of topical DP, as well as their external merge property, is unquestionable, I believe that diminishing the subject-hood of preverbal DPs is challenged by the fact that it is possible to have an indefinite non-referential DP preverbally as shown below:

96. a. Hind-un$_i$ la:-ʔaħada ju-ħibu-ha:$_i$. SA
Hind-F.NOM *no-one-M.SG* *3M-love-SG.IMP.IND-her*

b. *Hind-un$_i$ ju-ħibu-ha:$_i$ la:-ʔaħada. SA
Hind-F.NOM *3M-love-SG.IMP.IND-her* *no-one-M.SG*

"No one likes Hind."

[49] It is essential to mention that the ban on *wh*-extraction across preverbal subject DPs in the standard variety is only imposed by the Basran traditional school, in contrast to the Kufian school. The latter tolerate the extraction. What is important, I believe, is that the possibility of *wh*-extraction across a preverbal subject DP in the VDs may be attributed to the fact that these varieties lack case morphology. The word order is the only determinant for the argument relations. Interestingly, in the standard variety, there exist some case-indeclinable nouns (ex. *ʔi:sa:* "Jesus", *Musa:* "Moses", among others). These nouns' argument status must be deciphered via word order, given the arising ambiguity. The question that remains is what the case would be if these would occur in interrogative construction. If a *Wh*-verb-Sub order is maintained, as imposed by SA's requirement, similar ambiguity, I believe, would arise as was the case in the modern dialects. The most salient interpretation is that the postverbal DP is an object rather than being a subject.

[50] In Rizzi's (1997) Split-CP hypothesis, the wh-word would be argued to be in Spec-FocP, and the topic is in Spec-TopP.

As can be seen, there exists a quantificational DP of type (< <e,t> t>>) that[51], even though it is indefinite non-referential, still can occur in the preverbal position. The preverbal DP cannot remain lower in Spec-*v*P[52]. What's more, the fact that it is possible to substitute this quantificational DP with a common (referential) noun (97) indicates that not all preverbal DPs are topical.

97. Hind-un$_i$ ʔal-muʕalim-a:t-u ju-ħbib-na-ha:$_i$. SA
Hind-F.NOM *the-teacher-F.PL-NOM* *3F-love-PL.IMP.IND-her*
"The teachers-$_F$ like Hind."

Interestingly, Fassi Fehri (1993) goes as far as to argue that preverbal subject DPs in a SVO order do not always need to be interpreted as topics. Although a topical interpretation, according to him, must be ascribed to the DP "the teachers" in (98a), a similar interpretation cannot be ascribed to the preverbal DP "a cow" in (b). One argument for such differentiation is attributed to the fact that Left Dislocated-elements or topics, in contrast to preverbal DP subjects, cannot be indefinite as in (c). Taking such a hypothesis into consideration, Fassi Fehri argues that a preverbal definite subject DP as in (d) is ambiguous between being a topic or subject, as the translation indicates (see also Albuhayri, 2019, for a similar, but slightly different view).

98. a. ʔal-muʕalim-a:t-u$_i$ qabal-tu-hunna$_i$. SA
the-teacher-F.PL-NOM *meet.1SG.PER-them.F*
"I met the teachers-$_F$."

[51] Following Heim & Kratzer (1998, pp. 140 - 141), in such an example, I consider the DP *la:-ʔaħada* as a generalized quantifier of type ((<<e,t> t>). In a semantically compositional sense, this DP denotes a function from predicates to truth values. Thereupon, I take it that *la:-ʔaħada* states that there is no individual of which the predicate is true; that is, there is no individual who loves Hind.

iii) $[\![la\text{:}-\text{ʔaħada}]\!] = [\![No\ One]\!] = [\lambda g\text{:}\, g \in D_{<e,t>}\,.\, there\ is\ no\ x \in D_e\ such\ that\ g(x) = 1]$

[52] A common assumption in the (semantic) literature is that negative existential quantifiers like "no one" are not definite, though they are not necessarily indefinite per se. It may be the case that the possibility of *la:-ʔaħada* in the preverbal position follows from its being presupposed, as Benmamoun (1996) argued for in the case of Moroccan *ħətta waħəd* "even one". In particular, Benmamoun (1996) postulates that *ħətta* is a presuppositional (focus) particle, which allows the constituent it occurs with to be preverbal. The idea that "la:" may, in fact, be a focus particle may follow from the fact that the example above can be continued by an exhaustive focus such as *ʔilla Fahd-un* "except Fahad". Such a hypothesis may give a rationale for its obligatory preverbal position, as it needs to be in a focus position.

b. baqar-at-un takallam-at. SA
cow-F.SG-NOM.INDF talk-3F.SG.PER
"A cow has spoken."

(Fassi Fehri 1993, p. 28), modified

c. *baqar-at-un$_i$ Fahd-un ðabaħ-a-ha$_i$. SA
cow-F.SG-NOM.INDF Fahad-M.NOM slaughter-3M.SG.PER-her
"A cow, Fahad slaughtered it."

d. ʔal-muʕalim-a:t-u$_i$ qadim-na. SA
the-teacher-F.PL-NOM came-3F.PL.PER
"The teachers-$_F$, they came."
"The teachers-$_F$ came."

Thus, in the face of such examples, the consistently topic-view of preverbal subject DPs seems to be not on the right track. For that reason, I postulate that preverbal DPs can receive a bare subject reading, subject to context/structural constraints. Additionally, on the question of whether the indefinite or the definite DPs are taken to be movement-triggered or base-generated pre-verbally, I take it that the relative order of the two preverbal DPs, e.g., "Hind" on the one hand, and "no-one" and "the teachers" on the other above in (96 & 97), points toward the conclusion reached by others that topics are in Spec-CP, whereas subject (or focus elements) are in Spec-TP (Fassi Fehri, 1993; Ouhalla, 1997; Albuhayri, 2019; among others).

Having said that, a discussion on the trigger for the (external or internal) Merge of preverbal subject DPs, in contrast to topics that are not featurally-triggered, is essential, which will be the subject of the following section, laying the final assumptions to be taken in this work.

4.4 The Movement Trigger's Nature: Does EPP Matter?

Typically, the merger of preverbal subject DPs is featurally driven by an underlying feature on a functional head, typically an EPP or edge feature[53]. Although the presence of an EPP feature on T, which was first motivated in Chomsky (1981) for the necessity of subjects in every clause, was a cornerstone in the GB framework, it is increasingly problematic under the MP framework, motivating many explanatory accounts of its effects (cf. Epstein & Seely, 2006). In simple terms, the EPP has a unique problem reflected in its historical development in the theory. Butler (2004), for instance, contended that it had undergone an evolution from being a specific condition requiring a subject in every clause (Chomsky, ibid) to being a more abstract feature ensuring the projection of a (potentially null) specifier for a given head (Chomsky, 2001 et seq.). The assumption that it is a formal feature par excellence, triggering syntactic operations irrelevant to the interface condition(s), is "a thorn in the side of the Minimalist goal to have syntactic computation be solely interface-driven" (McFadden & Sundaresan, 2015, p. 1). It is crucial to indicate that, though it is controversial in MP, unlike other GB's unnecessary apparatus, the EPP is still around and as stipulative as ever.

Taking the MP framework's primary goal into considerations, the accounts concerned with the EPP effect strive to investigate its conceptual necessity. Hence, over the past two decades or so, the EPP has taken different shapes, functions, and meanings. In some instances, as was first motivated, it is argued to be a syntactic feature on T (cf. Chomsky, 1995 et seq.; Pesetsky, 2019; among others). In other instances, it is also taken to be a featural requirement on T, though these accounts, contrary to the first one, assume that it is a PF requirement rather than being syntactic

[53] The discussion on T's EPP or Edge Feature will be brief. For a full review of the diverse types of EPP and elements that can satisfy it cross-linguistically, see Doner (2019). Based on typologically, geographically, and genetically diverse languages, she argues that there are a total of seven different attested EPP types cross-linguistically. These EPP types are defined based on i) whether EPP targets an argument or a predicate, ii) whether this Goal is a head or a phrase, and iii) whether a large constituent is pied-piped.

(cf. Landau, 2007; McFadden & Sundaresan, 2015; 2018; Richards 2016; among others). In a third instance, it is taken to be a diacritic parasitic on another feature triggering several types of internal or external Merge, e.g. φ-, *wh*-, focus, raising, or case feature (Pesetsky & Torrego, 2001; Bošković, 2002; 2007; Zeijlstra, 2012; van Urk & Richards, 2015; Wurmbrand & Haddad, 2016; Albuhayri, 2019; Pesetsky, 2019; among many others[54]). All in all, the stipulative part of the EPP, which is often underlyingly assumed in all of these proposals, lies in its use as a rationale to explain the unexplainable, i.e., it is used as a way to explain why something moves when no one knows why it moves. Remarkably, extending the investigation on EPP to some diverse languages, other proposals went as far as to argue that the EPP cannot only be satisfied by a nominal argument, but it can also be satisfied by non-nominal elements, e.g., verbal predicates, given that the two processes tend to be in complementary distribution (cf. Alexiadou & Anagnostopoulou, 1998; Wurmbrand & Haddad, 2016; Kang, 2017; Doner, 2019).

Importantly, as can be observed from the overview of the issue of preverbal subject DPs in Arabic, the nature of Spec-TP and the feature motivating its extension is controversial. There exist three views regarding its nature: i) topical (Soltan, 2007; Al-Balushi, 2011; Alharbi, 2017), ii) subject (Mohammad, 1990; 2000; Fassi Fehri, 1993; Aoun et al., 1994; 2010; Benmamoun, 2000; among many others), and iii) focus (Ouhalla, 1997; Albuhayri, 2019). Additionally, the trigger types for such a DP Merge can be divided into two views: i) EPP (subsuming all the cited works) vs. ii) Focus (Ouhalla, 1997; Albuhayri, 2019).

[54] Pesetsky (2019) takes the EPP to be a feature on functional heads such as T or "to", but parasitic on non-functional heads such as *v* or V.

Typically, only one preverbal topic is possible in a clause; Goodall (2001) shows that a topic can co-occur with a preverbal subject. Hence, given that topical DPs, both subject and non-subject elements, must be in the most left periphery of the clause, i.e., they are in the CP layer since other DPs can intervene between them and a verbal predicate, I assume, in line with Bakir (1979), Fassi Fehri (1993), and Albuhayri (2019), that Spec-TP is not associated with topical readings, contrary to Soltan (2007) among others. In other words, I assume that Topical elements reside in the CP layer, while (focus) subjects are internal to the TP projection, taking into account that the two notions are radically different based on the type of elements each can underlyingly take.

Moreover, although Spec-TP may often be associated with focus interpretation, it was shown that Spec-TP might also serve as a landing site for non-focus subject DPs. Nevertheless, I assume, in line with Soltan (2007), Uriagereka (2008), and Ritter & Wiltschko (2009; 2014) that the functional domains above *v*P may constitute periphery zones, determined by the selected complementizer head. Put differently, I assume that such domains represent zones with different underlying semantic outcomes and effects at LF[55]. Whereas any internally merged element within the inflectional TP domain in Arabic may be associated with a focus and bare subject interpretations, those externally merged in the CP layer are associated with topical status, as in (99) below for SA, which is the underlying assumption of Fassi Fehri (1993), Ouhalla (1997), Aoun et al. (2010), Alotaibi (2014), AlQahtani, (2016), and Albuhayri (2019); among many others.

[55] Doner (2019) contends that "under such a view, it is no coincidence that the three domains appear in this order in the spine, nor does the order need to be encoded in UG, as indeed argued by Ramchand & Svenonius (2014). Rather, the discourse domain needs to be the outermost layer so that it can track with the wider discourse locally, and the inflectional domain needs to be sandwiched between the discourse domain and the thematic domain in order to track and create links between them. Furthermore, the IP is the only domain which is not also a phase. If IP were a phase, the CP would have only constrained access to the *v*P, limiting the ability of connections to be tracked, since such relations would have to cross two phase boundaries" (p. 110).

99. a. ʔal-muʕalim-a:t-u$_i$ qadim-na.
the-teacher-F.PL-NOM *came-3F.PL.PER*
"The teachers-$_F$, they came."
"The teachers-$_F$ came."

b. ʔal-muʕalim-a:t-u$_i$ Fahd-un qabal-a-hunna$_i$.
the-teacher-F.PL-NOM *Fahad-M.NOM* *meet-3M.SG.PER-them.F*
"Fahad met the teachers-$_F$."

c. ħa:wal-a Δ_i [ʔan ju-safir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
try-3M.SG.PER *EC* *to* *3M-travel-SG.IMP.SUB* *the-boy.PL-NOM* *the-yesterday*
"The boys tried to travel yesterday."

As argued above, the DP "the teachers" in (a) is ambiguous between two interpretations: a focus vs. topic interpterion, determined by its location in TP vs. CP, respectively. In contrast, the DP "the teachers" in (b) has only a topical status and resides in a location external to the TP layer since the DP "Fahad" intervenes between this topic and the verbal predicate "meet". Remarkably, taking into consideration that the DP "the boys" moves covertly to the matrix clause in example (c), the DP in such a case moves successive-cyclically, transiting via the embedded Spec-TP in its way to the matrix clause (cf. the Movement Theory of Control (MTC) advanced by Hornstein, 1999; 2003; Boeckx & Hornstein, 2003; 2004; 2006; 2006B; Hornstein & Polinsky, 2010; Boeckx et al., 2010; 2010B, as well as Pesetsky's (2019) Exfoliation for such a mechanism). In such a case, I assume that Spec-TP constitutes a landing site for regular subject DPs based on the fact that *ʔan*-clauses lacks the interpretation associated with the peripheral positions in matrix and some embedded (*ʔanna*) clauses (see the appendix for a summary of Pesetsky's (2019) Exfoliation Mechanism, the MTC, as well as speculative derivations for the two control-agreement configurations).

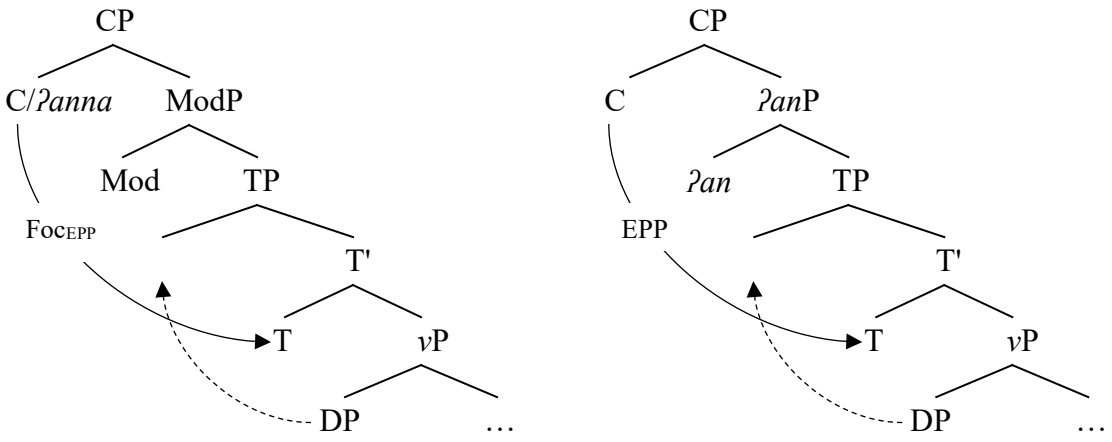
Having said that, I assume that the DP "the teacher" in (a) may also have neutral subject interpretation, as argued for by Fassi Fehri (1993)[56]. In contrast to (focus) subjects that are internally merged in Spec-TP, I assume that topical DPs are base-generated in Spec-CP and bind a null *pro* or a resumptive pronoun in case of subject or non-subject DPs, respectively. Hence, the SV(O) order may conflate with the VSO order, contrary to Soltan (2007), who argues for the total distinction between them. In simple terms, the two orders may derivationally be related in the sense that preverbal subject DPs in the SVO order are internally merged in Spec-TP from within their thematic Spec-*v*P position.

Furthermore, one of the main observations that can be drawn from the brief discussion on the accounts to EPP effects is that, although this feature may be stipulative from a MP perspective, the accounts to its effect assume that it is derivationally present in one way or another. It is either a full-fledge feature on a given head or a parasitic feature on another, e.g., a focus (Foc) feature on T, i.e., it is an attribute or a property of the latter feature. In assent with Chomsky (2000 et seq.) and Pesetsky (2019), I assume that it can be either. That is, I assume that the selecting (phase) heads determine its nature. One evidence for such an assumption can be observed from the contrasting behavior between matrix and embedded *ʔanna*-clauses on the one hand, and *ʔan*-clauses on the other (100).

[56] As indicated previously, although the majority of traditional Arab grammarians deny the presence of preverbal subject interpretation and assume that all preverbal DPs to be topical, there exist other, but less-dominant, traditional grammar schools, e.g., Ku:fa, that admit the presence of preverbal subjects. They assume that preverbal subject DPs may take a neutral subject interpretation and tolerate a *wh*-element to precede a preverbal subject. At the backdrop of the possibility of preverbal subject interpretation, the arguments, in line with the latter school's belief, may be considered an argument that Arabic may be one of the mixed types.

iv) ma:ða: Fahd-un ʔakal-a ?
what-M.SG Fahad-M.NOM eat-3M.SG.PER
"What did Fahad eat?"

100. **a.*ʔanna*-clause:** **b.*ʔan*-clause:**



Whereas in matrix clauses or embedded clauses headed by *ʔanna*, a focus feature with an EPP attribute is/may be passed down to T, I assume that a full-fledge EPP feature is passed down to T (or a higher projection) for the embedded subject to move successive cyclically to a higher clause. It can be concluded that the EPP is empirically indispensable.

As a consequence, I assume that the driving force for movement, in general, and subject DP raising, in particular, is not optional, but rather triggered in response to a given underlying EPP feature or attribute, whether it is an EPP on a Tense head, as initially formulated in Chomsky (1995), or an Edge feature on phase and non-phase heads (Chomsky, 2008). As far as the interpretation is concerned, I assume that preverbal subject DPs are subject unless the context and structure indicate otherwise[57].

In essence, such a mechanism may derive Chomsky's (1995 et seq.) assumption that a DP establishing an Agree relation with T tends to raise to the latter's specifier to satisfy its EPP feature. In different terms, from a minimalist perspective, there is a relationship between the EPP feature and φ-Agree in that, though T may have one independent of the other, the former, if present on T

[57] It may be argued that preverbal subject DPs target Spec-TP given that the latter correlates with what T establishes an Agree relation with, while non-subject DPs are adjoined to TP, as may be discerned from Albuhayri (2019, p. 63) underlying scheme.

along φ-features, is satisfied by whatever T agrees with. Agree is a prerequisite for the EPP's satisfaction (cf. Preminger's (2014, pp. 129, 223) parameterized relation for non-quirky languages).

Significantly, in a Feature-Inheritance scheme, the selecting phase head may determine the type(s) of features passed down to non-phasal heads (Chomsky, 2005; 2008; Miyagawa, 2010). In such a case, a matrix null C or embedded *ʔanna* tends to pass a [Foc_{EPP}] feature to T, other embedded null C, e.g., those that co-occur with *ʔan*-clauses, I believe, hand in an independent EPP feature to T. The latter assumption, I argue, follows from the hypothesis that i) the embedded T head may serve as an intermediate landing site for long-distance movement in both backward control and RT-subject constructions, and ii) the fact that the embedded clause lacks the discourse interpretation, such as topic or focus, prominent in other clauses. I believe that such a feature-inheritance schema correlates with how the property of a given position, whether it is A-, A'- or a hybrid, is determined (cf. van Urk, 2015; van Urk & Richards, 2015), contrary to the general assumptions that confine A'-positions to specifiers of phase heads, while A-positions to non-phasal heads (cf. Chomsky, 1981 et seq.; Mahajan, 1990). Consequently, the type of interpretation associated with the preverbal DPs or raised DPs, in general, may point toward the type of feature it is associated with.

As may be observed to the reader from the surveyed SA subject-verb agreement asymmetry accounts in the literature, there is a strong correlation between the type of word order a given clause assumes and the presence or absence of a type of agreement. Specifically, all of these GB & MP accounts assume that the Number agreement is observed in SV order, but it is absent in VS order. For example, in those GB accounts to the phenomenon, e.g., the Agreement Loss, the Number agreement absence in a given order is attributed to whether the verb raises past the subject, or

the subject remains postverbally, rendering the Number affix/agreement lost or redundant in the former case. On the other hand, other MP accounts, e.g., the null *pro* view or subject-view analyses, attribute the Number inflection loss to either defaultness of such a Number feature or that the Number agreement requires a special mechanism, respectively. The fact that it is the Number feature that correlates with the type of word order, rather than the Person and/or Gender feature can be seen in FCA cases in SA (101):

101. a. ðahab-a [huwa wa Fahd-un] … .
go-3M.SG.PER he and Fahad-M.NOM

b. [huwa wa Fahd-un] ðahab-a: … .
he and Fahad-M.NOM go-3M.DU.PER
"He and Fahad went … ."

c. ðahab-at [Hind-un wa Fahd-un] … .
go-3F.SG.PER Hind-F.NOM and Fahad-M.NOM

d. [Hind-un wa Fahd-un] ðahab-a: … .
Hind-F.NOM and Fahad-M.NOM go-3M.DU.PER
"Hind and Fahad went … ."

As can be observed, the Number feature seems in Arabic to be licensed in a particular configuration, e.g., in a Spec-Head relation. In both examples, the Person and Gender agreement is observed in both word orders, in contrast to the Number agreement, which is only observed whenever the DP is preverbal. Remarkably, this behavior is not only peculiar to Arabic but rather seems to be universal, which can be subsumed under Greenberg's (1963) universal (33), "[w]hen number agreement between the noun and verb is suspended and the rule is based on order, the case is always one in which the verb precedes and the verb is in the singular" (p. 94).

In brief, there seems to be a correlation between T's EPP checking and the presence of full agreement, in particular Number agreement. For that reason, I assume that the EPP on T in Arabic is an attribute of the unvalued [Num] feature in particular (thus, a complete unvalued φ-feature

Probe, per the account in this work), rather than being independent (see in connection Fassi Fehri's (1993: 38) AGR Criterion; Landau (2007); Holmberg (2000); Kang (2017) for slightly similar arguments). By hypothesis, assuming that the lexical default Number feature, i.e., a [vSG] in the account proposed in this work, does not enter into an Agree relation with a subject DP in Spec-*v*P, it follows that the EPP does not target the postverbal DP; in effect, the latter remains in situ. In this connection, such a hypothesis, I believe, can draw "[the unclear] correlation between φ-completeness and EPP" (Soltan, 2007, p. 72, f. 31).

With this in mind, two issues need to be discussed. First, according to works on the informational structure in Arabic, subject and non-subject focus elements can target Spec-TP. Thus, I assume, in line with Coon & Bale (2014), van Urk (2015), van Urk & Richards (2015), and Albuhayri (2019), that in matrix and some embedded clauses, the [focus] feature may, but does not necessarily, fuse with φ-features. Consequently, it is possible to account for when subject or non-subject focus elements can be clause-initial or in Spec-TP, given that focus elements are not recursive (Ouhalla, 1997; Albuhayri, 2019). In other words, whereas the [focus] and [φ] features are fused and target the subject in case of full agreement (Doner, 2019; Albuhayri, 2019)[58], they may independently target two distinct elements in partial agreement cases.

Second, in a backward control configuration, the embedded verbal predicate agreement is partial, indicating that no EPP on the embedded T targets the embedded DP. The arising question concerns why the embedded DP in the above backward control configurations can raise to the matrix clause, despite that the T in such a case would not target such a DP. Importantly, since Chomsky (2000), it has been widely assumed that every Core functional Category (CFC) may bear an EPP feature (i.e., a generalized EPP) (see Landau, 2007: 487). Assuming that such an hypothesis

[58] This, I believe, may follow from Richards' (2016) Multitasking generalization and Pesetsky & Torrego's (2001) Economy Condition, which are in line with the MP economy preference.

is true, I assume that the DP raises in response to an EPP feature on *ʔan*, rather than the T head, although it passes successive cyclically via the latter's Spec.

In essence, in both scenarios, the [focus] feature or *ʔan*'s EPP may target a subject DP in a partial agreement context. Put differently, considering that, e.g., a focus feature targets DPs independent of φ-features in partial agreement context, it follows that the [focus] feature may target the subject in Spec-*v*P, rather than non-subject elements, creating an SVO order with a partial agreement. Importantly, I assume that when a DP moves, it leaves a copy in its base position (as well as in all intermediate positions) to its destination, per the Copy Theory of Movement. A copy gets deleted at PF but may remain available at LF because it plays a crucial role in interpretation (cf. Bobaljik, 2002B). Most important of all, I assume, in line with the common assumption, that copies in a chain are uniform and a higher or lower copy may get deleted at PF due to conflict with a PF constraint(s) (cf. Nunes, 1995 et seq.; Bošković & Nunes, 2007; Wurmbrand & Haddad, 2016; McFadden & Sundaresan 2015; among others). Hence, when C is merged, and a spell-out (and Transfer) of the (embedded) *v*P takes place, a copy choice and reduction mechanism occur at Transfer, i.e., determining which of these copies will be pronounced takes place.

For the matter at hand, I assume that, in such an instance, the lower copy is chosen for pronunciation, and its linearization with respect to other elements is set due to a PF conflict. Specifically, based on Greenberg's (1963) universal (33) above, I assume that partial agreement in (*SV_{par}) order is a PF filter that takes place whenever the syntax provides two options for linearization (cf. Samek-Lodovic, 2002; Ackema & Neeleman, 2003; Ouhalla, 2013; Kinjo, 2015; Wurmbrand & Haddad, 2016, for similar ideas). Although the upper copy is void of phonology (i.e., it no longer plays a part in linearization), I assume that it may not be void of semantic content, somewhat similar to how covert QR plays a part in interpretation. Such an assumption is supported

in a backward control interpretation by the obligatory partial agreement on the matrix predicate and the thematic relation with matrix *v*. As far as matrix clauses are concerned, I assume that the upper copy may also play a part, as shown in the following NA examples[59]:

102. a. ra:ħa-u: [$_{AdvP}$ qabil ja-qa:bl-u:n ʔubu:-hum$_i$] ʔil-bana:t$_i$.
went-3M.PL.PER *before* *3M-meet-PL.IMP.IND* *father.SG-their-M* *the-girl.PL*
"The girls went before meeting their father."

b. qa:bal-u Fahad [$_{AdvP}$ qabil ja-qa:bl-u:n ʔaxwa:n-hum$_i$]
meet-3M.PL.PER *Fahad-M* *before* *3M-meet-PL.IMP.IND* *brother-PL-their-M*
ʔil-bana:t$_i$.
the-girl.PL
"The girls met Fahad before meeting their brothers."

c. qa:bal-at Fahad [$_{AdvP}$ qabil ta-ktib risa:lah] kil
meet-3F.SG.PER *Fahad-M* *before* *3F-write-SG.IMP.IND* *letter-F.SG.INDF* *every*
bint.
girl.SG
"Every girl met Fahad before writing a letter."

Assuming that the adverbial clause is a *v*P adjunct, the only possible way for the subject DP "the girls" to bind the pronoun internal to the adverbial is to raise higher than *v*P. The same can be said about the scope interpretation between "every girl" and "a letter" in (c) in the sense that "every girl" takes wide scope over "a letter". In essence, though the upper copy is devoid of phonological content at PF for some reason, the upper copy remains active at LF for binding/scope purposes. For this reason, I dissociate Movement (and EPP satisfaction) from Copy Determination (for

[59] In these examples, especially with (b – c), I discard the possibility that they involve a right-ward movement of the subject DP for the following reasons. First, a simple right-ward movement would yield an Adv-V-Obj-Sub, which is not borne out on the surface representation, given that other processes must have taken place. For one thing, the fact that the matrix verbal predicate carries a perfective form indicates that a v-to-T movement has taken place. For another thing, the direct object precedes both the subject DP and the adverbial clause, which indicates that an object-shift has taken place in the derivation. Second, a simple right-ward movement would not establish the right interpretations at LF, given that it binds a RP in one example and takes wide scope in another. Third, even if one assumes that the clause structure is a reflect of a *v*P raising followed by right-ward movement of the subject, the object-shit, the *v*-to-T raising, and the word order established between the adverbial clause, on one hand, and the verb and the object, on the other, indicate that such a hypothesis is not right, given that it would require various unmotivated stipulations for why i) the adverbial is pied-piped, ii) how the relative order between the verb and the object is achieved, and iii) how such interpretations arise.

pronunciation); the former is syntactic, but the latter is not, a core hypothesis of many analyses within the Copy Theory of Movement[60].

4.4.1 Dislocation & (Null) Subject Pronouns

The EPP nature and checking mechanism laid-out above entails that full agreement correlates with subject DP raising to Spec-TP. For consistency, I assume that subject raising to Spec-TP in response to a triggering feature occurs for both overt subjects and covert *pro* DPs. As has been repeatedly indicated, null and overt pronouns always trigger full (Person, Number, and Gender) agreement, regardless of whether the pronominal is preverbal or postverbal; partial agreement renders the structure ill-formed as shown below in (103).

103. (hum) ðahab-u: / *ðahab-a (hum).
they-M *go-3M.PL.PER* *go-3M.SG.PER* *they-M*
"They-M went."

Significantly, while both the phonological and semantic contribution of overt preverbal subjects are evident, it is no so clear for preverbal subject *pro* DPs. The latter DP, as may be observed from the discussion throughout, would occur in three environments: i) it may occur in a non-subject topic interpretation, whereby the subject in Spec-*v*P is null (104a), ii) in a subject topical interpretation, whereby the topical subject binds the null *pro* in Spec-*v*P (b)[61], and iii) in

[60] One of the big themes in the previous section is that non-referential or non-specific DPs cannot occupy a preverbal position in Arabic. Such a fact forms one of the arguments presented by Soltan (2007, pp. 51 - 52) for the external Merge of preverbal (subject) DPs in Arabic. Nevertheless, considering that no DP enters the derivation specified with (non)referentiality or (non-specificity), I assume that whether a preverbal indefinite DP is referential is determined at LF than in the syntax proper. Thus, indefinite and definite DPs, I presume, may get targeted for raising alike, whose copies are subject to LF specific requirements. So, along with Soltan (2007, p. 72), I assume that the specificity requirement imposed on preverbal DPs in general and indefinite ones, in particular, follows from the assumption that the left-periphery of some Arabic clauses conflicts at LF with the property of non-specific DPs. In other words, it is attributed to the semantic effects of such positions, whereby a non-specific preverbal DP is uninterpretable at the semantic interface, or perhaps converging as gibberish.

[61] Taking into consideration that the lack of agreement asymmetry in Arabic whenever the subject is a (null) *pro* is attributed to a full set of unvalued T's φ-Probe, imposed by the *pro*-identification requirement, it follows that only a complete unvalued φ-feature set (in this work's terms a T with [uPart, uInd, uCL]) is compatible with a subject pronoun (Fassi Fehri, 1993; Soltan, 2007; Aoun et al., 2010; Albuhayri, 2019; among many others).

focus construction corresponding to how overt preverbal lexical subject focus interpretation arises (c).

104. a. Hind-un$_i$ qa:bal-tu-ha:$_i$.
Hind-F.NOM meet-1SG.PER-her
"I met Hind."

b. Hind-un qa:bal-at-ni:$_i$.
Hind-F.NOM meet-3F.SG.PER-me
"Hind met me."

c. ʔana: ðahab-tu la: Fahd-un.
I go-1SG.PER not Fahad-M.NOM
"I am who went, not Fahad."

It is essential to indicate that the postverbal pronominals' status is controversial in contrast to preverbal ones. However, there has been a consensus that overt (lexicalization of) postverbal subject pronominals signify contrastive focus or emphasis, rather than being the real subject (Fassi Fehri, 1993; Benmamoun, 2000); traditional grammarians; among others). It is, Fassi Fehri (ibid) argues, a "parenthetical" or "appositive" non-argument, i.e., an emphatic focalized element (105a), which functions similarly to other focalized (e.g., object) context in the language (b) (bolded pronoun are focused).

105. a. ðahab-u: **hum** la: ʔax-awa:t-u-hum.
go-3M.PL.PER they-M not sister-PL.NOM-their.M
"They-$_M$ went, not their sisters."

b. qa:bal-tu-hu$_i$ **huwa$_i$** la: ʔaxu:-hu$_i$.
meet-1SG-him him not brother.SG-his
"I met him, not his brother."

According to such a view, a lexicalized postverbal pronominal is not a real argument; instead, it is, in a way, adjunct, adjoined to the *v*P periphery. A contrasting view, advanced by Soltan (2007), assumes that the overt postverbal pronominal designates the null element in Spec-*v*P, whose

overtness is ascribed to a bare-output interface lexicalization condition, triggered by [+emphasis] feature, rather than the result of the early insertion of a pronominal with phonological content.

Above all, although the discussion in this work does not hinge on this distinction, I follow the latter argumentation and consider postverbal pronouns as emphatic focalized subjects. I assume that a null pronoun is externally merged in Spec-*v*P prior to its raising to Spec-TP, in a similar fashion to lexical subject DPs occurring with a full agreement (Holmberg, 2005; Al-Balushi, 2011; Preminger & Polinsky, 2015). This, I believe, follows from the hypothesis that the syntactic component cannot distinguish overt from covert elements.

Consequently, I assume, in line with Fassi Fehri (1993), Soltan (2007), and Aoun et al. (2010), that the unmarked case is to have a null pronominal in both word orders. Nonetheless, the overtness of a postverbal pronominal, due to a PF condition, is marked. I attribute the markedness of sentences with overt pronominal subjects to the fact that Arabic is a null-subject language, whereby the null *pro*-identification is retrievable from the rich agreement inflection (Rizzi, 1982; McCloskey, 1986; Soltan 2007). Hence, the analysis entails that postverbal overt pronominals are lexically emphasized, in contrast to preverbal lexicalized ones. I believe that the latter are lexicalized due to the zone they occur in (cf. Fassi Fehri, 1993: 57, 113, 115), as shown below.

106. a. Majid-un$_i$ hum$_k$ qa:bal-u:-hu$_i$ (la: ʔax-awa:t-u-hum$_k$).
Majid-M.NOM they-M meet-3M.PL.PER-him not sister-PL.NOM-their.M
"They, not their sisters, met Majid."

b. hum$_k$ qa:bal-u:-hu (la: ʔax-awa:t-u-hum$_k$).
they-M meet-3M.PL.PER-him not sister-PL.NOM-their.M
"They, not their sisters, met him."

c. ʔal-ʔatˁtˁfa:l-u$_i$ hum$_i$ (ʔallaði:na$_i$ / man$_i$) qa:bal-u:
the-toddler.M.PL-NOM they-M who-M.PL who meet-3M.PL-PER
muʕalim-at-a-hum$_i$ (la: ʔumaha:t-u-hum$_i$)[62].
teacher-F.SG-ACC-their-M not mother.PL-NOM-their-M
"The toddlers, they, not their mothers, met their teacher."

One implication of this mechanism, I believe, is that the null *pro*-lexicalization at PF is irrelevant to the presence of full agreement. In simple terms, the *pro*-identification via agreement morphology, under this analysis, remains intact, i.e., an interface supplying or requiring the identification on null *pro*s, and it is irrelevant to the postsyntactic insertion of *pro*'s complex φ-features.

Above all, although I believe that a subject topical element must occur with and binds a (null) *pro* in Spec-*v*P, the latter can occur independently of the former. In other words, while the co-occurrence of full agreement in the vicinity of topical subject DPs points toward the presence of a null *pro*, the latter, I argue, is independent of the former as far as subject-verb agreement is concerned. For instance, the presence of a topical object DP with a partial agreement on the verb (i.e., an OV-RP-S order) indicates that the two notions, topicality and agreement, are distinct. Assuming that it is not clear what other than configurations with topical subject DP counts as empirical evidence, I assume that the two notions must be distinguished. In essence, a full agreement can take place (in SVO construction) regardless of the presence of a subject topic (cf. Al-Balushi (2011) for a slightly different proposal). Consequently, Spec-*v*P can either be occupied by a null *pro* or a lexical subject; a null *pro* can be a thematic subject, as long as a thematic lexical subject is absent, vice versa. Put differently, a lexical subject and a null *pro* subject may not simultaneously appear in the same TP domain; only one candidate subject can appear at a time.

[62] Significantly, the way this sentence is constructed may correspond to Fassi Fehri's (1993) observation regarding the ambiguous interpretation of preverbs subject DPs, one of which may equivalently correspond to "for John$_i$, he$_i$ came" in English.

4.5 Summary

The core gist of the above discussion is that despite that the two-word orders, VSO and SVO, may syntactically be unrelated, there are some instances whereby the latter order is derived from the former. In particular, the preverbal subject in an SVO order is syntactically and semantically ambiguous between being a topic externally merged in Spec-CP, binding a null *pro* in Spec-*v*P, or a focus DP internally merged from within Spec-*v*P to Spec-TP. Thus, whereas a *v*-to-T movement derives a VSO order, the SVO order may incorporate two internal movements: a *v*-to-T (head-to-head) and a subject-to-TP (Spec-to-Spec) movements (Fassi Fehri, 1993; Mohammad, 2000; Benmamoun, 2000; Soltan, 2007; Aoun et al., 2010; Wurmbrand & Haddad, 2016; Albuhayri, 2019; among many others). Importantly, it has been shown that Spec-TP may often form an intermediate position for long-distance moved embedded bare subjects, plus its landing position for focused elements in matrix and some other embedded clauses. The primary determinant of such a property is the selecting complementizer. Thus, whereas in clauses with pragmatic and discourse effects, the C head passes a [Foc_{EPP}] feature that can, but does not necessarily, probe the subject along with φ-features, in clauses without pragmatic effects, an independent EPP or a non-discourse feature with an EPP attribute may trigger subject raising[63].

Additionally, as indicated above, subject raising influences the type of subject-verb agreement observed; in particular, T's EPP satisfaction correlates with full agreement, mainly Number feature. It was argued that, in such instances, the EPP is a property of the unvalued Number feature. In essence, the underlying mechanism by which the two-word orders are derived resembles in spirit proposal assuming that the two orders in Arabic demonstrate how T's EPP is checked,

[63] Interestingly, Chomsky et al. (2019), based on their investigation of the core UG primitives, argues against the employment of discourse features in syntactic computations, given that they are ad hoc and unnatural. They are not inherent properties of lexical items, in contrast to, e.g., φ-features and categorial properties. Thus, they violate the Inclusiveness Condition, which bans the introduction of elements external to the Numeration. With that said, it may be the case that in all clauses, the trigger may be an EPP (attribute), which interacts with the clausal domain in a specific mechanism.

predicate vs. subject raising (cf. Alexiadou & Anagnostopoulou, 1998; Wurmbrand & Haddad, 2016; Kang, 2017; Doner, 2019; among others).

Doner (ibid), for instance, argues that i) the EPP is universal, exists in all natural human languages, ii) its effect varies cross-linguistically based on its target, iii) it is predicable from other properties, such as the clausal spine structure, in a given language, and iv) it is obligatory, satisfied by Movement. One of the defining criteria for a given EPP type in a language, according to her, is defined based on whether the EPP targets an argument or a predicate. Doner (ibid) defines the EPP "as the obligatory movement of some element into the inflectional domain" (p. 5). Typically, this follows from the cross-linguistic observation that failure to satisfy the EPP is not a trigger for a derivational crash, whereby an alternative way to satisfy it is triggered, e.g., verb raising instead of subject raising in Arabic, according to such a view, among other processes subject to cross-linguistic variations. She argues that the EPP types can be divided into two broad categories: predicate- vs. argument-sensitive EPP, where Arabic is of the latter type, but with two underlying divisions, DP-EPP vs. D°-EPP. Whereas the former type is found in SVO order, the latter is found in VSO order and is satisfied by agreement features on the verbal predicate (p. 29, 35, 61).

Significantly, the agreement account, along with the underlying EPP attribute associated with full agreement, proposed in this section and the previous ones, provide a mechanism to derive these facts without resorting to the controversial assumption that *v* establishes an agreement with the subject prior verb raising[64]. Given that verb raising takes place syntactically regardless of the

[64] To my knowledge, a recent attempt to derive the EPP effect was motivated by Chomsky's (2013; 2015)'s Labeling algorithm. Albuhayri (2019) adopted an extension of such mechanism, whereby either the subject DP or *v* evacuates to a higher position to resolve their mother node's labeling issue, encompassing the subject DP in Spec-*v*P and *v*'. I believe that such a mechanism is problematic in verb-raising languages such as Arabic, in contrast to affix-hopping languages such as English. In particular, assuming that verb raising is (syntactically) obligatory in Arabic for morphological purposes, it is unclear whether verb-raising under the labeling algorithm is a PF, syntactic, or a hybrid movement, which may require further speculations (cf. Albuhayri, 2019, p. 97). To make a case in point, by the cyclic derivational nature of clause spine, it would be the case that verb-raising always takes place regardless of the underlying word order, assuming that heads are merged before their specifiers and that T's feature may trigger the subject DP movement. For that reason, I continue to assume, in line with previous fruitful accounts to labeling, that a selector

agreement for morphological and conceptual considerations (Fassi Fehri, 1993), it follows that, in no-subject raising cases, the agreement is defective or impoverished.

or a theta-assigner label the mother node. While I believe that the labeling algorithm is not necessary for theta-assigner-assignee relation in Arabic, it may give a rationale for other labeling issues such as a Complementizer and its non-selected Spec, as Albuhayri (ibid) argues.

CHAPTER (5)
(Non)Syncretism Defused: In Favor Of A Morphosyntactic Mode

5.1 An Overview: The Morphosyntactic Relations Behind Agreement

In retrospect, the subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in SA. Whereas a SV order shows full agreement in all φ-features, the VS order, in contrast, shows only partial agreement, typically, in Gender and Person. The agreement associated with each word order apparently cannot overlap with the other. This subject-verb agreement asymmetry in SA and its relationship with word order have been at the heart of an intense debate, five major analyses of which, as well as some of their drawbacks, were briefly surveyed earlier in section (3.2). More emphatically, although the agreement asymmetry represents the standardized form of agreement, the correlation may not be absolute, assuming the existence of examples for the reverse correlation where full agreement and partial agreement is attested in well-formed, uncontroversial VS and SV orders, respectively, as shown by some examples below.

107. a. ʔal-bana:t-u ʃa:had-na ʔal-tilfa:z-a.
the-girl.PL-NOM watch-3F.PL.PER the-TV.M.SG-ACC
"The girls watched the TV."

b. ʔal-tˁula:b-u ta-ndʒaħ-u bi-ʔal-ʔidʒtiha:d-i.
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND by-the-hard.work-M.SG.GEN
"Students succeed through hard work."

c. ʃa:had-at ʔal-bana:t-u ʔal-tilfa:z-a.
watch-3F.SG.PER the-girl.PL-NOM the-TV.M.SG-ACC
"The girls watched the TV."

d. ja-taʕa:qab-u:na fi:-kum mala:ʔikat-un … .
3M-alternate-PL.IMP.IND in-you angel.M.PL-NOM
"Angels alternate on you."

e. ʔaqbal-u: ʔal-muhaniʔ-u:n.
came-3M.PL.PER *the-well.wisher.M-PL.NOM*
"The well-wishers came."

(Hasan, 1975, v. II, p. 74)

f. qa:l-a niswat-un fi ʔal-madinat-i … .
say-3M.SG-PER *woman.PL-NOM* *in* *the-city.F.SG-GEN*
"Some women in the city said ... ."

12:30

Whereas in (107a), the SV order shows full agreement, the same word order as in (b) shows partial/defective agreement. In a similar vein, the VS order can show partial or full agreement, as indicated in (c) and (d), respectively. Some of these non-standardized examples in terms of agreement, though they are often considered less common by traditional medieval grammarians, suggest that the presumed word order correlation with a specific subject-verb agreement is not absolute. The crux of the matter is that the agreement asymmetry associated with the standard variety is lost in most, if not all, of the contemporary dialects, as repeated below in (108 - 109).

108. a. ʔil-bana:t ʃa:f-u: ʔil-film.
the-girl.PL *watch-3M.PL.PER* *the-movie.M.SG*
b. ʃa:f-u: ʔil-bana:t ʔil-film.
watch-3M.PL.PER *the-girl.PL* *the-movie.M.SG*
"The girls watched the movie."

109. a. ʔil-ʕia:l ʃa:f-u: ʔil-film.
the-boy-PL *watch-3M.PL.PER* *the-movie.M.SG*
b. ʃa:f-u: ʔil-ʕia:l ʔil-film.
watch-3M.PL.PER *the-boy-PL* *the-movie.M.SG*
"The boys watched the movie."

As shown, the partial agreement attested in SA is absent in the VDs, and Gender morphology distinction is minimized. This subject-verb agreement loss in these dialects again points to the same conclusion. Put differently, the above examples from the (non-standard) variety, as well as the dialect's examples, demonstrate that the correlation between VS and SV orders on the one

hand, and full and partial agreement, respectively, on the other, is unattainable or that the phenomenon in Arabic, in general, is dialect/variety-specific.

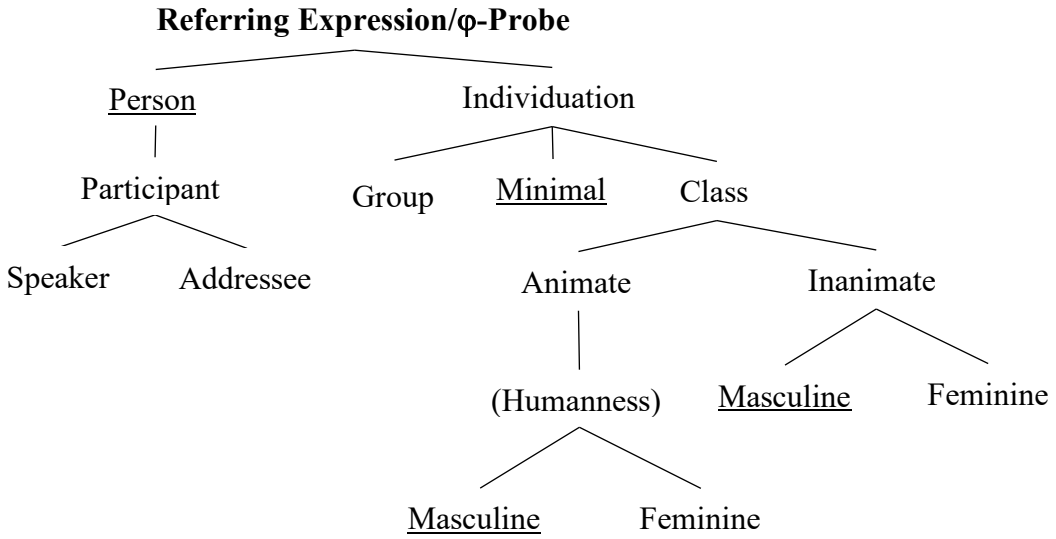
Aside from the non-standard use, despite the dissimilarity between SA and the modern dialects in terms of subject-verb agreement, it is essential to remember that the two varieties are mostly alike, e.g., in terms of flexibility of word order, adjective concord, pronouns and their associated agreement, etc. For these reasons, I believe that any account to the subject-verb agreement must take these points into consideration, i.e., whether the agreement is taken to be asymmetrical or not.

With this in mind, the analytical objective of the discussion in the previous chapters was to propose a derivational account of subject-verb agreement that is capable of i) drawing the interrelation between SA and the modern dialects, i.e., the cross-dialectal subject-verb agreement variation, and ii) paving the way for an analysis to cover these non-standard uses in CA, which often form a baseline in the literature against the agreement asymmetry generalization. Significantly, it was contended that despite the presence of contradicting examples to the standard view, they are not conflicting with the belief that the subject-verb agreement in SA is asymmetrical. Rather, it stems from how the Agree operation interacts with the φ-feature Probe on T. So, the main assumptions of the proposed account can be subsumed under the following points:

I. Taking the Agree-system of Chomsky (2000 et seq.) and the assumptions in Distributed Morphology (Halle, 1994; Halle & Marantz, 1993; 1994), the account argues that the cross-dialectal variation under investigation is argued to be a reflex of an interplay between syntactic and morphological processes.

II. The (downward) long-distance Agree operation interacts relatively with the nature and internal structure of the Probe, i.e., the different sets of φ-features borne by a functional head, arguing that the atomic φ-Probe bundle is feature-relativized along a rich fine-grained φ-feature geometry, subject to language/dialect-specific properties, as repeated below.

Figure (3): Arabic φ-feature geometry



III. Whereas SA's T head is argued to incorporate one of the following φ-Probe bundles: i) $T_{[uPart, uInd, uClass, EPP]}$, or ii) $T_{[uPart, vSG, uClass]}$, for SV (full agreement) and VS (partial agreement) orders, respectively, the Arabic dialects may only incorporate a $T_{[uPart, uGroup, uClass, EPP]}$ φ-Probe, given that no modern dialect, to my knowledge, displays the agreement asymmetry attested in SA.

IV. Agree, thus, establishes a relation between the functional head (T/Asp) and a DP in its domain, valuing the former relativized unvalued φ-feature Probe. If Match fails, a Last-Resort default valuation takes place before shipping the representation to the interfaces.

V. Additionally, since T's EPP satisfaction correlates with full agreement, it is argued that the former feature is an attribute of the unvalued Number, i.e., [uInd] or [uGR], feature. Such a feature, as contended, can target both overt lexical subject DPs, as well as null *pro*s, in Spec-*v*P.

VI. Interestingly, although the two-word orders, VSO and SVO, may syntactically be unrelated, there are some instances whereby the latter order is derived from the former. In particular, the preverbal subject in a SVO order is syntactically and semantically ambiguous between being a topic externally merged in Spec-CP and binds a null *pro* in Spec-*v*P, or a (focus) subject DP internally merged from within Spec-*v*P to Spec-TP. The primary determinant of such a property is the selecting complementizer, as evinced from clauses with and without pragmatic and discourse effects.

VII. After feature valuation takes its normal course in the overt syntactic derivation, further postsyntactic morphological processes may occur under certain cases and subject to dialect/variety-specific requirement(s), altering the φ-feature composition of a given head before Vocabulary Insertion occurs at PF on the morphosyntactic terminal nodes.

VIII. Of importance to the following discussion are the following notions: the Subset Principle (repeated in (110) below), Underspecification of vocabulary items, and the Impoverishment and Redundancy rules. These, along with some other DM's notions, may play a part in handling certain overt syncretism in a given language, i.e., cases whereby different combinations of morphosyntactic feature values are exponed or represented morphologically by the same form or vocabulary item (for a brief discussion on the DM framework and its internal hypotheses, as well as an illustrative example of non-Arabic syncretism, see section (3.5) above).

110. **Subset Principle:**

A phonological exponent is inserted into a morpheme (i.e., syntactic node) if the item matches all or a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the Vocabulary Item contains features not present in the morpheme. Where several Vocabulary Items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

The above assumptions, I believe, can systematically and straightforwardly capture the different agreement facts attested in the different Arabic varieties and simultaneously avoids the drawbacks of the previous analyses. In sections (5.2) and (5.3), the proposed account is presented against some non-syncretic and syncretic agreement phenomena, respectively, with movement-triggered as well as externally merged preverbal subject DPs. Prior to dive into the discussion, it should be taken into account, however, that, although there is a lot of dialectal variation among Arabic dialects in terms of their overt agreement morphology, this section deals with a relatively limited set of data from SA and NA, which is meant to illustrate the analysis. Interestingly, the flexible nature of such a proposed account, I believe, promotes its extendibility to other variations within the present-day dialects (see chapter (6) for some implications).

5.2 On the Mechanism Of Non-Syncretic Agreement

As was pointed out in section (3.4), the standard variety surface agreement morphology is broader than that of the current dialects, which, I believe, works in tandem with the proposed account above. For instance, SA subject-verb agreement is predominantly non-syncretic, as shown below in (111 - 113). Hence, nouns with different underlying φ-feature compositions exhibit the typical agreement asymmetry associated with the language. To take a case in point, consider the verbal agreement with plural nouns in (113). When the plural (masculine or feminine) subject enters into an Agree relation with a given verb, it triggers a partial (M/F.SG) agreement or a full

agreement, based on its relative order with the verbal predicate. It is important to indicate, as exhibited in examples (113a, b & d), animal and inanimate nouns, I label [$Class_{non\text{-}human}$] or [CL_{NH}] for short, are exceptions. I defer their discussion to the next section (the * indicates that these nouns cannot trigger the verb's overt morphological agreement).

111. a. saqatˤ-a ʔal-walad-u. / ʔal-ʔasad-u. / ʔal-mabna:.
fall-3M.SG.PER the-boy.SG-NOM the-lion.M.SG-NOM the-building.M.SG.NOM

b. ʔal-walad-u / ʔal-ʔasad-u / ʔal-mabna: saqatˤ-a.
the-boy.SG-NOM the-lion.M.SG-NOM the-building.M.SG.NOM fall-3M.SG.PER
"The boy / lion-$_M$ / building-$_M$ fell."

c. saqatˤ-at ʔal-bint-u. / ʔal-zar:f-at-u. / ʔal-bina:j-at-u.
fall-3F.SG.PER the-girl.SG-NOM the-giraffe-F.SG-NOM the-building-F.SG-NOM

d. ʔal-bint-u / ʔal-zar:f-at-u / ʔal-bina:j-at-u saqatˤ-at.
the-girl.SG-NOM the-giraffe-F.SG-NOM the-building-F.SG-NOM fall-3F.SG.PER
"The girl / giraffe-$_F$ / building-$_F$ fell."

112. a. saqatˤ-a ʔal-walad-a:n. / ʔal-ʔasad-a:n. / ʔal-mabnj-a:n.
fall-3M.SG.PER the-boy-DU.NOM the-lion-M.DU.NOM the-building.M-DU.NOM

b. ʔal-walad-a:ni / ʔal-ʔasad-a:ni / ʔal-mabnj-a:ni saqatˤ-a:.
the-boy-DU.NOM the-lion-M.DU.NOM the-building.M-DU.NOM fall-3M.DU.PER
"The two boys / lions-$_M$ / buildings-$_M$ fell."

c. saqatˤ-at ʔal-bint-a:n. / ʔal-zar:f-t-a:n. / ʔal-bina:j-at-a:n.
fall-3F.SG.PER the-girl-DU.NOM the-giraffe-F-DU.NOM the-building-F-DU-NOM

d. ʔal-bint-a:ni / ʔal-zar:f-t-a:ni / ʔal-bina:j-at-a:ni saqatˤ-ta:.
the-girl-DU.NOM the-giraffe-F-DU.NOM the-building-F-DU-NOM fall-3F.DU.PER
"The two girls / giraffes-$_F$ / buildings-$_F$ fell."

113. a. saqatˤ-a ʔal-ʔawla:d-u. / *ʔal-ʔusu:d-u. / *ʔal-maba:ni.
fall-3M.SG.PER the-boy.PL-NOM the-lion.M.PL-NOM the-building.M.PL.NOM

b. ʔal-ʔawla:d-u / *ʔal-ʔusu:d-u / *ʔal-maba:ni saqatˤ-u:.
the-boy.PL-NOM the-lion.M.PL-NOM the-building.M.PL.NOM fall-3M.PL.PER
"The boys fell."

c. saqatˤ-at ʔal-bana:t-u. / ʔal-zara:f-a:t-u. / ʔal-bina:j-a:t-u.
fall-3F.SG.PER the-girl.PL-NOM the-giraffe-F.PL-NOM the-building-F.PL-NOM

d. ʔal-bana:t-u / *ʔal-zara:f-a:t-u / *ʔal-bina:j-a:t-u saqatˤ-na.
the-girl.PL-NOM the-giraffe-F.PL-NOM the-building-F.PL-NOM fall-3F.PL.PER
"The girls / giraffes-$_F$ / buildings-$_F$ fell."

In contrast, the subject-verb agreement in current dialects is predominantly syncretic. As far as the non-syncretic morphological agreement is concerned, it can be concluded that a one-to-one morphological correlation between a φ-feature on a noun and the verbal predicate it co-occurs with is only realized with singular and masculine plural nouns, as exemplified in (114 & 115) below. The φ-features of singular nouns, whether animate or inanimate, are morphologically manifested on the surface representation of the verbal predicate, as in (114). The same is true for masculine plural nouns (115), which interestingly shows that the subject-verb agreement asymmetry found in SA is lacking. In other words, a full agreement is exhibited regardless of the subject DP relative order with respect to the verb.

114. a. tˤa:ħ ʔil-walad. / ʔil-ʔasad. / ʔil-mabna:.
fall-3M.SG.PER the-boy.SG the-lion.M.SG the-building.M.SG

b. ʔil-walad / ʔil-ʔasad / ʔil-mabna: tˤa:ħ.
the-boy.SG the-lion.M.SG the-building.M.SG fall-3M.SG.PER
"The boy / lion-$_M$ / building-$_M$ fell."

c. tˤa:ħ-at ʔil-bint. / ʔil-zara:f-ah. / ʔil-bina:j-ah.
fall-3F.SG.PER the-girl.SG the-giraffe-F.SG the-building-F.SG

d. ʔil-bint / ʔil-zara:f-ah / ʔil-bina:j-ah tˤa:ħ-at.
the-girl.SG the-giraffe-F.SG the-building-F.SG fall-3F.SG.PER
"The girl / giraffe-$_F$ / building-$_F$ fell."

115. a. tˤa:ħ-u: ʔil-ʔawla:d. / ʔil-ʔisu:d. / ʔil-miba:ni.
fall-3M.PL.PER the-boy.PL the-lion.M.PL the-building.M.PL

b. ʔil-ʔawla:d / ʔil-ʔisu:d / ʔil-miba:ni. tˤa:ħ-u:.
the-boy.PL the-lion.M.PL the-building.M.PL fall-3M.PL.PER
"The boys / lions-$_M$ / buildings-$_M$ fell."

By and large, it can be concluded that the verb in all Arabic varieties displays Gender and Number inflection i) regardless of the relative order between the singular subject and the verb, and ii) regardless of the noun type, or particularly its Class. Additionally, the VDs contrast with SA in its/their rich agreement paradigms. To be specific, the VD(s), in contrast to SA, is/are mostly syncretic outside the realm of SG and M.PL noun-verb relations. These facts can be summarized in table (6) below (throughout, α and β are variables corresponding to the Gender and the two non-singular Numbers on nouns, respectively).

Table (6): Arabic Noun-Triggered φ-Agreement Paradigms

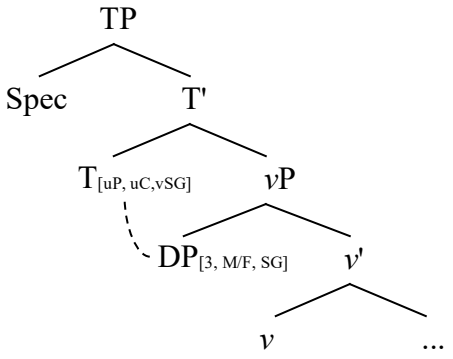
Noun φ-features			**φ-Agreement**			
Participant	**Number**	**Gender**	**Word Order**			
			Language			
			Standard		**Dialect**	
			VS	**SV**	**VS**	**SV**
3	**SG**	**M**	α.SG			
		F				
	DU	**M**		α.DU	M.PL	
		F				
	PL	**M**		α.PL		
		F				

Most importantly, the emerging picture out of the above morphological relations between the nouns and the verbal predicates is that the syntactic and morphological structures are isomorphic; whatever relations and valuations are established in the overt syntactic component remain intact at the morphological component. For that reason, I assume that in each variety, the syntactic Agree operation (as well as default valuation, if any) take(s) place in the relevant manner associated with each dialect. Once the structure is spelled-out, the established morphological φ-feature

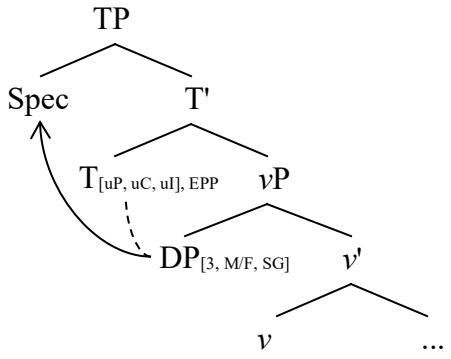
valuations on the verb are phonetically lexicalized as is due to the hypothesis that no morphological interference occurs.

Taking into account the φ-Probes in SA, it follows that either φ-Probe composition in VS and SV order would yield the same agreement facts established with singular nouns. In a VS order, as in (116a), the φ-Probe, which encompasses only unvalued [Part] and [CL], targets the DP, valuing only the latter feature, taking into consideration that the former feature gets default (3rd) valuation due to the DP being not a discourse (1st or 2nd) participant[65]. Thus, the verb's φ-Probe is syntactically valued as 3M/F.SG, depending on the Gender of the DP. In contrast, in a SV order, as in (116b), the φ-Probe carries a full set of unvalued features, i.e., the [Ind] feature is unvalued in addition to the other two; the Goal subject DP in Spec-*v*P values the Probe, yielding a 3M/F.SG valuation, and the DP moves up the clausal spine to Spec-TP. In both word orders, I attribute the lack of postsyntactic morphological alterations in SA to it being sensitive to the composite [CL_{NH}, GR] valuation (see section (5.3.2.1) for more on this matter).

116. **a. VS Order:**



b. SV Order:

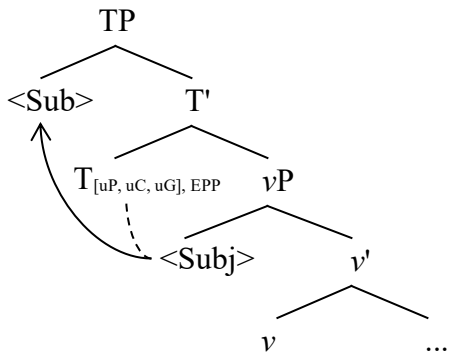


[65] As may be observed throughout the following sections, one prevalent notion is that "the [uPart] is assigned default valuation." Nonetheless, it is essential to remember that the distinct φ-features may often undergo different licensing mechanisms, as argued by a large number of research (Noyer, 1992; Béjar, 2003; Baker, 2011; Nevins, 2011; Preminger, 2014; among others). Person feature, significantly, in contrast to the other two φ-features, tends to require a special licensing mechanism, and that it is the most inclined among them to fail.

As may be observed from examples (112 – 113) above, the agreement in VS order with both dual and plural nouns yields the same agreement established with singular nouns, which is attributed to the valued [vSG] feature of the φ-Probe. In simple terms, only the [uClass] feature is valued, while the other two features [uPart] and [vSG] are syntactically and lexically valued, respectively. The one-to-one correspondence between the [uInd] feature of the verb and that of the subject DP in the SV order, nevertheless, results from whether the DP is dual (yielding a DU.M/F) or plural (PL.M/F), i.e., both the unvalued [CL] and [Ind] are valued depending on the DP's Gender and Number features.

Moving on to the VD case, as indicated above, the φ-Probe composition is featurally relativized and minimized. Contrary to SA, there is only one φ-Probe in both SV and VS orders, incorporating a [uGroup] feature, instead of a bare [uInd] or lexically determined [vSG], in addition to the two other [uPart] and [uCL] features. Like the case with SA, the φ-Probe composition as in (117) would always yield the same agreement established with singular nouns. The φ-Probe targets the DP, valuing only the [uCL] feature since the [uPart] and [uGR] features get default (3rd) and (SG) valuation due to the DP being not a discourse (1st or 2nd) participant, nor a plural noun. Put differently, the two latter features cannot accumulate in valuation due to them not finding suitable matching features on the DP. Therefore, the verb's φ-Probe is (syntactically) valued as 3M/F.SG, depending on the Gender of the DP. However, with plural masculine nouns, the [uGR] finds a matching feature on the subject DP, yielding a 3M.PL valuation. Notably, the φ-Probe, as the case with singular nouns in general, targets the plural DP. Interestingly, the only difference is that the [uGR] feature finds an appropriate [Group] feature on the Goal DP, yielding 3M.PL valuation.

117.



Long story short, the syntactic and morphological structures are the same in the above examples, i.e., the postsyntactic Vocabulary item Insertion is in a one-to-one relation with the terminal syntactic morphemes since no morphological interference occurs resulting in any kind of syncretism. Nonetheless, several factors often may disrupt this relation due to some syntactic and/or postsyntactic operations. Some of these syntactic and morphological/PF factors are the topic of the following section.

5.3 Morphosyntax-Influenced Agreement

Syncretism, as briefly discussed in section (3.5.1), designates a case whereby different combinations of morphosyntactic feature values are exponed or represented morphologically by the same form or vocabulary item. Without a doubt, the availability of syncretism is assumed to exist in some, if not all, grammars, and Arabic, both the standard as well as the VDs, is no exception. A quick survey of the affixation in the language would reveal several cases whereby a type of syncretism is involved, be it for Case, Gender, Number, etc.

In the preceding section, I briefly dealt with how non-syncretic agreement morphology is accounted for under this work's proposed mechanism (summarized in section (5.1)). In this current section, I direct the discussion to syncretic forms in Arabic, both the standard variety and the VD(s). These syncretic agreement morphologies can be subsumed under two categories that I label i) Morphological One-feature Switch (section (5.3.1)) and ii) Number-Gender Switch (section

5.3.2)). The former is typical of the VDs and is dealt with first due to it being the simplest, and the latter is an idiosyncrasy of both SA and VDs, and it is more complex than the former. All in all, the core assumption is that syncretic forms may undergo different morphological interferences, subject to dialect/variety-specific requirement(s) or sensitivity.

5.3.1 Morphological One-Feature Switch

A Morphological One-feature Switch, I take, represents cases where there is an unexpected morphological mismatch in one feature between the φ-feature of the noun and that of the verbal predicate (contrary to or apart from the norm in SA). These cases are subsumed under two categories: i) Conversion-to-Plural (CTP), and ii) Conversion-to-Masculine (CTM). To my knowledge, these cases are prevalent in the VDs. Whereas the former represents cases where both plural and dual nouns trigger plural morphology, the latter represents a case whereby masculine and feminine nouns trigger overt masculine agreement morphology.

The CTP, on the one hand, occurs with both masculine and feminine nouns alike. On the other, the CTM is typically associated with plural and dual nouns; there is a masculine-feminine syncretism when it comes to plural and often dual agreement. In this section, however, I focus on masculine forms for CTP, and plural forms for CTM, as shown in (118) and (119), respectively, below, deferring feminine forms of the former type and dual forms of the latter to later sections.

118. a. tˤa:ħ-u: ʔil-walad-ain. / ʔil-ʔasad-ain. / ʔil-mabnaj-ain.
fall-3M.PL.PER *the-boy-DU* *the-lion.M-DU* *the-building.M-DU*

b. ʔil-walad-ain / ʔil-ʔasad-ain / ʔil-mabnaj-ain tˤa:ħ-u:.
the-boy-DU *the-lion.M-DU* *the-building.M-DU* *fall-3M.PL.PER*

"The two boys / lions-$_{M}$ / buildings-$_{M}$ fell."

119. a. tˤa:ħ-u: ʔil-ʔawla:d. / ʔil-ʔisu:d. / ʔil-miba:ni.
fall-3M.PL.PER *the-boy.PL* *the-lion.M.PL* *the-building.M.PL*

b. ʔil-ʔawla:d / ʔil-ʔisu:d / ʔil-miba:ni tˤa:ħ-u:.
the-boy.PL *the-lion.M.PL* *the-building.M.PL* *fall-3M.PL.PER*
"The boys / lions-$_{M}$ / buildings-$_{M}$ fell."

c. tˤa:ħ-u: ʔil-bana:t. / ʔil-zara:f-a:t. / ʔil-bina:j-a:t.
fall-3M.PL.PER *the-girl.PL* *the-giraffe-F.PL* *the-building-F.PL*

d. ʔil-bana:t / ʔil-zara:f-a:t / ʔil-bina:j-a:t tˤa:ħ-u:.
the-girl.PL *the-giraffe-F.PL* *the-building-F.PL* *fall-3M.PL.PER*
"The girls / giraffes-$_{F}$ / buildings-$_{F}$ fell."

As seen in (118 vs. 119a-b), a plural agreement is not only associated with plural nouns but is also manifested in an Agree relation with dual nouns; the dual noun "the boys", for example, triggers plural agreement on the verbal predicate, regardless of the word order. This suggests that the Number agreement inflection in the dialect, in contrast to SA, is also minimized to SG vs. PL, as illustrated in table (7) below.

Table (7): Dialect Number-Agreement Paradigms

Noun φ-features		**φ-Agreement**	
Participant	**Number**	**Word Order**	
		VS	**SV**
3	**SG**	SG	
	DU	PL	
	PL		

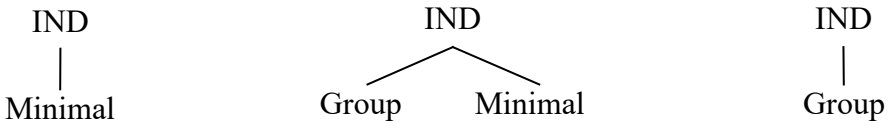
On the contrary, the agreement with plural masculine or feminine nouns triggers masculine agreement on the verb; both nouns "the boys" and "the girls" in (119) above trigger masculine agreement on the verbal predicate, regardless of the word order. So, not only is the partial agreement attested in SA absent in the VD, but also Gender morphology distinction is minimized to masculine only whenever the noun entering into an Agree relation is plural, i.e., it is syncretic, as illustrated in table (8) below.

Table (8): Dialect Conversion-to-Masculine paradigms

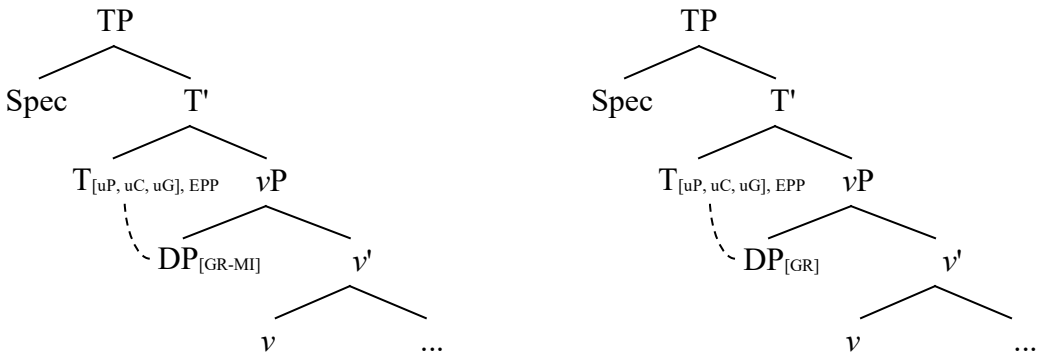
Noun φ-features			φ-Agreement	
Participant	**Number**	**Gender**	**Word Order**	
			VS	**SV**
3	**PL**	**M**	M.PL	
		F		

Importantly, the above morphological relations between the nouns and the verbal predicates suggest that the syntactic and morphological structures may not be isomorphic; relations and valuations established in the overt syntactic component, I believe, may often undergo further modification at the morphological component. Starting with the CTP cases, I assume that the syntactic Agree operation establishes a φ-agreement with the DP in Spec-*v*P in the relevant manner associated with the dialect, i.e., according to how the φ-Probe is relativized in such a variety. Analogous to the agreement with plural nouns in the dialect, the [uGR], as part of the φ-set, targets the dual subject noun in Spec-*v*P. Taking into account that the Number feature on dual nouns as indicated in section (3.4.1) and repeated below in (120), incorporates an [Ind] feature with two independent nodes [Group] and [Minimal], the [uGR] finds the former matching feature on the subject DP, yielding a 3M.PL valuation, as shown in (121).

120. **a. SG:** **b. DU:** **c. PL:**



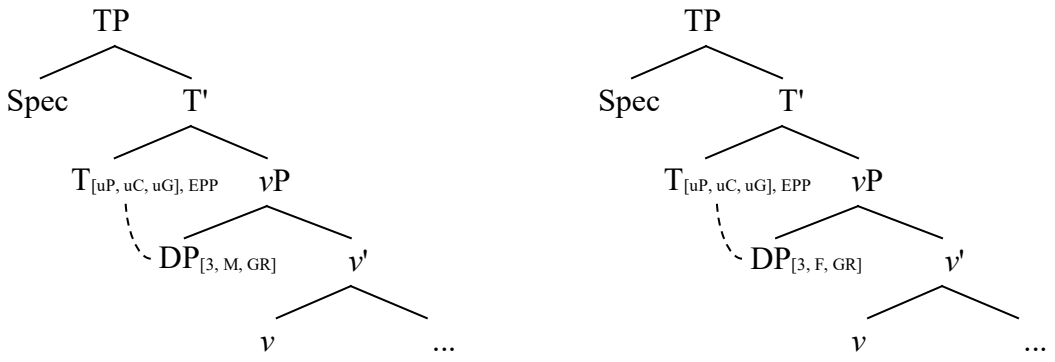
121. **a. DU Nouns:** **b. PL Nouns:**



As seen, the φ-Probe, as the case with plural nouns in the dialect, targets the DP. Interestingly, the only difference, however, is that the [uGR] part of the φ-Probe finds a simple [Ind] with a single [Group] feature on plural nouns, while it finds a complex [Ind] on dual nouns, one feature of which is [Group]. As may be observed, the syncretism is achieved syntactically. Given that the T head in the VD carries a [uGR], it follows that the agreement is always a [Group], whether the DP incorporates [Group] or [Group-Minimal] Number feature since, feature-geometrically speaking, the [Group] and [Minimal] features constitute independent nodes/features (for conceptual motivations and mechanism, see section (3.4.2)). Finally, once the structure is spelled-out, the established morphological φ-feature valuations on the verb, I assume, are phonetically lexicalized as is due to the hypothesis that no morphological interference occurs.

By extension, the [uGR] probing feature plays an essential part in the CTM cases, whether the agreement with plural nouns, as discussed in this section, or with dual nouns, as will be discussed later. Whenever a verbal predicate, particularly a [uGR] feature, establishes an Agree relation with plural masculine or feminine nouns, the syntactic Number valuation is plural; The φ-Probe targets the DP, valuing both the [uGR] and [uCL] features, and the verbal predicate is syntactically valued as 3M/F.PL, depending on the Gender of the DP as in (122) below.

122. **a. Masculine Nouns:** **b. Feminine Nouns:**



As seen in example (119) above, the agreement with either plural masculine or feminine nouns triggers masculine agreement on the verb. The question that remains concerns why the [F] valuation in (122b) does not remain, i.e., it is not maintained in the surface representation. I attribute this manifestation to a postsyntactic, i.e., morphological, consequence. In particular, the dialect at hand, by hypothesis, alter the φ-feature composition, in particular the [CL] feature to the default valuation in the vicinity of [GR] feature. In other words, it is assumed that the alternation reflects a dialect's morphological sensitivity to the complex features achieved; a φ-feature composition incorporating a [F, GR] on (verbal) predicates triggers a postsyntactic morphological alteration before Vocabulary Insertion at PF takes place on the morphosyntactic terminals, as shown in (123), leading to a vocabulary Insertion as exemplified in (124) below.

123. **Impoverishment Rule for Dialect Gender Syncretic Agreement:**

a. Impoverishment: [CL: F] ➞ [CL: __] / [Ind: GR]

b. Redundancy: [CL: __] ➞ [M]

124.

	Perfective	**Imperfective**
a. **3M.SG**	∅	
b. **3F.SG**	-t	t-
c. **3M/F.PL**	-u:	ja-…-u:n

As shown, with PL.F nouns, the syntactic valuation takes its normal course as is the case with their masculine counterparts, yielding PL.F and PL.M agreement, respectively. In a step-wise derivation, the φ-Probe will have both a [GR] and a [F] valuation for Number and Gender features, respectively. Thus, it will be subject to the morphological rule per (123) above. Therefore, at the morphological component, a rule of Impoverishment-Plus-Redundancy (I-P-R) occurs, whereby the Impoverishment rule removes the [F] feature, and subsequently the Redundancy rule supplies a default [M] valuation, instead, for the missing [CL] feature (Halle, 1994, pp. 39 - 40), resulting in the insertion of the Vocabulary Item in (124c) in such a context (cf. section (3.5.1) and the references therein, as well as Noyer (1998) for similar observations).

The motivation behind the Redundancy rule, as Halle (1994, p. 40) indicates, is attributed to the fact that the syntactically established agreement cannot be altered unless the relevant feature is deleted. Interestingly, this feature introduced postsyntactically by the Redundancy rule is without proper semantic input (Trommer, 2016). In a way, what the I-P-R process does is present a highly underspecified VI used as default in the current dialect. It seems, however, that the Redundancy rule may apparently violate the Inclusiveness condition (defined in chapter (2)), which bans the introduction of new elements that are not present in the Numeration into the course of a derivation (Chomsky, 1995; 2000). It is essential to indicate, nonetheless, that operations taking place at PF do not comply with this property, as Chomsky (1995), below, stress:

> A ‘‘perfect language’’ should meet the condition of inclusiveness: any structure formed by the computation (in particular, π and λ) is constituted of elements already present in the lexical items selected for N [the Numeration]; no new objects are added in the course of computation apart from rearrangements of lexical properties … . Let us assume that this

condition holds (virtually) of the computation from N to LF (N → λ); standard theories take it to be radically false for the computation to PF. (p. 228)

As Chomsky put it, it is commonly assumed that various morphophonological operations, e.g., Late Insertion, can introduce elements not present in lexical items. Although operations at PF may violate the principle in some respect, it is essential to indicate that they do not have the absolute power to do so unconstrainedly (Embick & Noyer, 2007). One may argue that the possibility to supply a [M] feature in the given respect follows from the fact that this feature constitutes the default Gender in the language. I, hence, follow this reasoning.

Consequently, a ramification of the above discussion is that the syntactic [GR] valuation in the case of CTP, as well as the rule above in the case of CTM, may apply indiscriminately whether the agreement is with verbal or non-verbal predicates, which is borne out in the dialect, as shown in (125) below, where the adjective "hard-working" exhibits similar agreement phenomena.

125. ʔil-tˤa:lib-a:t ʔil-midʒtahd-i:n ʔindʒaħ-u:.[66]
the-student-F.PL *hard.working.M-PL* *pass-3M.PL.PER*
"The hard-working students-$_F$ passed."

It is crucial to comment on one final note before concluding this section. In this section, the main argument is that the syncretic phenomena observed are attributed to either an idiosyncratic syntactic Probe-Goal Agree relation (CTP) or to a postsyntactic manipulation of the feature of the φ-Probe composite (CTM). Put differently, these phenomena are either syntactic or syntactic-morphological conspiracy; it is assumed that the syntactic feature bundles on nouns are fully

[66] It is important to indicate that this usage represents another agreement option in the VD. The other option, which to my knowledge is less common, may take the normal, expected course, i.e., the adjective carries a 3F.PL inflection, in contrast to masculine nouns that trigger [M] agreement. Interestingly, the dual feminine nouns trigger overt plural morphology on the adjective, supporting the CTP cases' discussion. I leave why these options are available with adjectives, but not with verbs, for future works.

specified for Gender and Number in the syntax. However, as discussed in Béjar (2003) and Harley (2008), there is an alternative, syntactic way to approach syncretism. It may be that the two features on the relevant nouns, whether the dual feature in the case of CTP or the feminine feature in the CTM case, are not distinguished formally because the feature bundles on nouns lack those features from the start, i.e., they are lexically underspecified.

Nonetheless, I believe that a lexical Underspecification analysis to these phenomena cannot be extended to account for the above agreement facts. First, an Underspecification of the [Ind] of dual nouns would suggest that a default [SG] valuation must take place, assuming that the [uGR] feature cannot be syntactically matched, which is not borne out. Second, a similar analysis to [CL] feature of plural nouns, I believe, cannot be maintained, taking into consideration that the singular form of these nouns, as shown above, triggers Gender agreement (see also f. 66). Given how dual, as well as feminine, nouns are derived in the language (cf. Alqarni, 2015, pp. 99, 105), it follows, then, that they, too, should be able to transfer their [DU] and [F] feature to the verbal predicate they co-occur with.

With this being said, the following sections discuss some other syncretic phenomena that involve more than one feature. Interestingly, as will be observed, some of these dialect agreement facts result from the interaction of these two above-discussed types of syncretism.

5.3.2 Number-Gender Switch

As shown in the previous section, a Conversion-To-Masculine/Plural agreement morphology involves a single-feature switch type. In contrast, as the label indicates, a Number-Gender Switch involves both types of (Number and Gender) conversation switches. These idiosyncratic agreement forms are found in i) SA subject-verb agreement with [non-human, PL] nouns (section

5.3.2.1)), and VD subject-verb agreement with iii) [non-human, PL] nouns (section (5.3.2.2)), and iii) dual feminine nouns (section (5.3.2.3)).

5.3.2.1 SA Number-Gender Switch

In section (5.2), it was indicated that not all plural nouns in SA are alike as far as subject-verb agreement is taken into account. Nouns with different underlying φ-feature compositions, except [CL_{NH}] nouns, trigger the typical, standard morphological agreement. [CL_{NH}] (masculine) nouns trigger an idiosyncratic F.SG subject-verb agreement on the predicate regardless of the gender of the noun and regardless of the relative word order between the subject and the verb. That is, their φ-features, almost entirely, do not correspond to the φ-feature inflection on the verbal predicate, as shown below in (126).

126. a. saqatˤ-at ʔal-zara:f-a:t-u. / ʔal-bina:j-a:t-u.
fall-3F.SG.PER the-giraffe-F.PL-NOM the-building-F.PL-NOM

b. ʔal-zara:f-a:t-u / ʔal-bina:j-a:t-u saqatˤ-at.
the-giraffe-F.PL-NOM the-building-F.PL-NOM fall-3F.SG.PER

c. *ʔal-zara:f-a:t-u / ʔal-bina:j-a:t-u saqatˤ-na.
the-giraffe-F.PL-NOM the-building-F.PL-NOM fall-3F.PL.PER

d. saqatˤ-at ʔal-ʔusu:d-u. / ʔal-maba:ni.
fall-3F.SG.PER the-lion.M.PL-NOM the-building.M.PL.NOM

e. * saqatˤ-a ʔal-ʔusu:d-u. / ʔal-maba:ni.
fall-3M.SG.PER the-lion.M.PL-NOM the-building.M.PL.NOM

f. ʔal-ʔusu:d-u / ʔal-maba:ni saqatˤ-at.
the-lion.M.PL-NOM the-building.M.PL.NOM fall-3F.SG.PER

g. *ʔal-ʔusu:d-u / ʔal-maba:ni saqatˤ-u:.
the-lion.M.PL-NOM the-building.M.PL.NOM fall-3M.PL.PER

"The giraffes-$_F$ / lions-$_M$ / buildings-$_{F/M}$ fell."

As seen, all [CL_{NH}, PL] nouns trigger the F.SG agreement regardless of the gender of the noun and regardless of the word order. For instance, although the nouns "the lions" and "the giraffes" in (126b & f) are preverbal, the verbal predicate shows defective idiosyncratic agreement. In these

cases, most evident with masculine nouns, there is an apparent Number-Gender Switch, whereby the expected M.PL/SG agreement in SV and VS orders, respectively, rather surfaces with (F.SG) one, instead. This can be summarized in the following table.

Table (9): SA Number-Gender Switch Agreement Paradigms

Noun φ-features			**φ-Agreement**	
Participant	**Number**	**Gender**	**Word Order**	
			VS	**SV**
3	**SG**	**M-$_{NH}$**	M.SG	
		F-$_{NH}$	F.SG	
	PL	**M-$_{NH}$**		
		F-$_{NH}$		

It is essential to indicate that these examples have both a collective and distributive interpretation, as exemplified below, whereby a collective or distributive adverb is possible (throughout, brackets indicates the available word-order choices)[67].

127. a. (ʔal-ʔusu:d-u) saqatˁ-at (ʔal-ʔusu:d-u) dʒami:ʕ-u-ha:.
the-lion.M.PL-NOM *fall-3F.SG.PER* *the-lion.M.PL-NOM* *all-NOM-her*

b. (ʔal-ʔusu:d-u) saqatˁ-at (ʔal-ʔusu:d-u) wa:ħidan tilwa ʔal-ʔa:xar.
the-lion.M.PL-NOM *fall-3F.SG.PER* *the-lion.M.PL-NOM* *one* *after* *the-other*
"The lions-$_{M}$ fell all / one after the other."

As can be seen, the same surface φ-feature agreement can be associated with a collective, as well as distributive interpretations; whereas in (127a), the (salient) meaning of the noun "lions" incorporates both lions and lionesses, the noun in (b) encompasses only male lions.

[67] The term "collective" may denote various classes of nouns, exhibiting distinct semantic and syntactic properties. Nevertheless, in the discussion to come, I consider the term to denote an uncountable atomic set, which differs from i) group-denoting sets, whose members can directly be countable, and ii) mass collectives such as "furniture", which have object-denoting interpretation, albeit grammatically provide no instances.

With this in mind, as was contended earlier, since the feminine valuation is not the default Gender in Arabic, I assume that the two distinctive readings and their correlated agreement cannot entirely be postsyntactic. Instead, I argue that the phenomenon and the arising interpretations are associated with two distinct underlying derivations, i.e., they are assembled in the syntactic derivation course, given that they have semantic effects (Alqarni, 2015; Kramer & Winchester, 2018; among others). Nevertheless, a brief discussion regarding how SA often handle collective vs. distributive readings of these types of nouns, as well as how they are achieved morphologically with certain nouns, is essential before delving into presenting the overall account.

5.3.2.1.1 Collectivity & Distributivity Manifested

Collective nouns in Arabic, i.e., nouns that denote clumps rather than individuals, are uncountable and neutral as far as Number specification is concerned, as evidenced by the fact that they cannot combine with numeral modifications, as seen below (128a -c).

128. a. zara:f-un / samak-un / waraq-un kaθi:r-un.
giraffe.M.PL-NOM.INDF *fish.M.PL-NOM.INDF* *paper.M.PL-NOM.INDF* *abundant-M.NOM*
"An abundance of giraffe / fish / paper."

b. *θala:θ-u zara:f-in. / samak-in. / waraq-in.
three-NOM *giraffe.M.PL-GEN.INDF* *fish.M.PL-GEN.INDF* *paper.M.PL-GEN.IND*

c. θala:θ-u madʒmu:ʕ-a:t-in min ʔal-zara:f-i / ʔal-samak-i. / ʔal-waraq-i.
three-NOM *group-F.PL-GEN* *of* *the-giraffe.M.PL-GEN* *the-fish.M.PL-GEN* *the-paper.M.PL-GEN*
"Three groups of giraffes / fishes / papers."

As may be observed, these nouns i) seem to have a masculine morphology, as evidenced by the agreeing adjective in (a) above, ii) may not be Number specified, and iii) denote a collective (unindividuated) interpretation, as evidenced by the fact that they cannot be modified numerally unless the modification is to a group-denoting noun (b vs. c).

The crux of the matter, Arabic encompasses a process that is observed cross-linguistically in a couple of languages, so-called Singulation, which distinguishes between collective (i.e., un-singulated) nouns and counted (singulated) nouns (see the so-called *ʔism ʔal-dʒins ʔal-dʒamʕi:* "generic collective plural" in Arabic (Abdul'aal, 1977; Hasan, 1975, IV, Ghala:jini, 1994; Turbiah, 2003; Hanaanu, 2011; Al-Khazraji & Al-Juboori, 2014; among other traditional grammarians). In order to transform these mass nouns into countable nouns in Arabic and tolerate numeral modification, a singulative process takes place where a feminine marker "-at" is employed and subsequently pluralized, without changing the collective noun stem (Zabbal, 2002; Mathieu, 2012; Ouwayda, 2014). That is, a feminine marker "-at" is added, which is then pluralized vocalically as "-a:t", as illustrated in (129), whereby they are rendered tolerant for numeral modification (130b).

129. Stem → Stem-at (F.SG) → Stem-a:t (F.PL)
zara:f zara:f-at/h zara:f-a:t

130. a. zara:f-a:t-un / samak-a:t-un / waraq-a:t-un munaqqatˤtˤ-ah.
Giraffe-F.PL-NOM.INDF *fish-F.PL-NOM.INDF* *paper-F.PL-NOM.INDF* *dotted-F.SG-NOM*
"Dotted giraffes / fishes / papers."

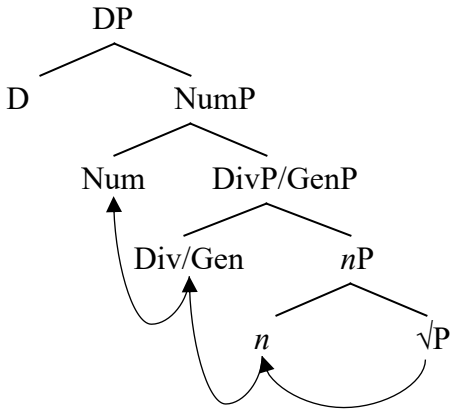
b. θala:θ-u zara:f-a:t-in. / samak-a:t-in. / waraq-a:t-in.
three-NOM *giraffe-F.PL-GEN.INDF* *fish-F.PL-GEN.INDF* *paper-F.PL-GEN.IND*
"Three giraffes / fishes / papers."

A clear difference between examples (128) and (130) is that the unsingulated collective nouns in the former are masculine, while the countable "individuated, singulated" nouns are feminine (compare (128a) and (130)); only when the collective nouns undergo singulation, they can be pluralizable and combinable with numerals (130b). Importantly, these individuated nouns are derived from their collective noun counterparts without changing the collective noun stem, similarly to how a feminine singular noun is derived from its masculine form counterpart (131). The stems in both cases, i.e., collective-to-distributive and masculine-to-feminine cases, can stand alone.

131. muʕalim "*teacher.M.SG*" → muʕalim-ah/t "*teacher-F.SG*"

It is crucial to indicate that the morphological process that alters a given noun interpretation from being collective, uncountable into an individuated, countable one is known cross-linguistically as Individuation. The latter process, as commonly assumed, renders a collective noun distributive and takes place in a designated projection layer (the Division phrase (DivP)) in the DP structural hierarchy, as shown below in (132) (Borer, 2005; Mathieu, 2012; Ouwayda, 2014). It follows, then, that the collective nouns in (128) are individuated in DivP via the singulative process of adding "-at" to the collective nouns stem (Ouwayda, 2014; Alqarni, 2015). As seen, the DivP projection is the same locus where Gender Phrase (GenP) occurs (√P stands for word stem).

132.



According to Borer (2005) and Ouwayda (2014), the mass-count distinction, i.e., the distinction between uncountable and countable nouns, is cross-linguistically derivational, rather than being lexical; whereas mass nouns lack the Division phrase (DivP), the countable nouns incorporate one in the DP structure. Therefore, once a given noun is portioned out in DivP, it then becomes countable. Taking such an assumption, Ouwayda (2014) and Alqarni (2015) argue that the singulation process in Arabic, i.e., the addition of the individuative/singulative "-at" morpheme, arise due to the presence of the DivP.

Based on the DP hierarchal structure, the Number and Gender specifications are assigned in NumP and GenP, particularly their heads, respectively. Consequently, the Number specification may not be exclusively tied with division (Mathieu, 2012; Alqarni, 2015). Thus, individuated nouns can get pluralized, as shown in examples (127 - 128) above. It is argued that the singulation process cross-linguistically and the Gender-shift from masculine to feminine in Arabic takes place in DivP, as in (133), before the noun stem raises to NumP to get Number morphology. Simply put, after the collective noun stem raising to DivP, it undergoes a Gender-shift from masculine to feminine, after which it raises further to NumP to get pluralized.

133. **Gender Shift (Singulative System):**

[-fem] ➞ [+fem] / ____ in Div

(Alqarni, 2015, p. 127)

The emerging picture of all the above brief discussion is that the hierarchical structure of collective nouns lacks a Division phrase, in contrast to countable nouns. The absence of DivP imposes a collective interpretation, while its presence (and the Gender-shift) an individuation interpretation. Importantly, taking into consideration that the two labels: DivP and GenP, are at the same level in the Arabic DP structure, I assume, in line with Alqarni (2015), that the presence of one excludes the other.

Analogous to the Singulation process above, the so-called Blroken Plural (BR) nouns[68], in contrast to Sound (masculine and feminine) Plural (SP) nouns, are susceptible to the collective-distributive interpretations. In other words, these types of nouns can have both interpretations,

[68] In Arabic, there are two types of pluralization depending on the regularity of the singular base form, so-called Sound Plural vs. Broken "irregular" Plural. The former is typically formed via suffixation, whereas the latter undergoes a non-concatenative morphological process, involving vocalic alternation of the vowels of the noun stem, i.e., it leaves the consonant of the noun stem intact (e.g., *tˁari:q* "road.SG" ➞ *tˁuruq* "road.PL"). The broken plurals do not stick to specific rules; instead, they typically depend on some templates. As the case with singular forms, masculine forms of these nouns are not morphologically marked (Kremers, 2003). Whether a given noun can take Broken or Sound plural in Arabic, for the most part, is highly systematic in the language. However, some nouns may take either (*ħa:fiðˁ* "a memorizer" ➞ *ħa:fiðˁ-u:n* (SP) or *ħufa:ðˁ* (BP) "memorizers").

collective and distributive, irrelevant to the pragmatic or syntactic context where they uttered. This optionality, which is associated with BP, in contrast to SP, is manifested from how a given predicate agrees with them, as can be seen below in (134a & b vs. c) for BP and SP nouns, respectively.

134. a. ʔal-tˤula:b-u ja-ndʒaħ-u:na (wa:ħidan tilwa ʔal-ʔa:xari)
the-student.M.PL-NOM 3M-succeed-PL.IMP.IND one after the-other
bi-ʔal-ʔidʒtiha:d-i.
by-the-hard.work-M.SG.GEN
"The students succeed (one after the other) by hard work."

b. ʔal-tˤula:b-u ta-ndʒaħ-u (*wa:ħidan tilwa ʔal-ʔa:xar)
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND one after the-other
bi-ʔal-ʔidʒtiha:d-i.
by-the-hard.work-M.SG.GEN
"Students succeed through hard work."

c. ʔal-muʕalim-una ja-dʒtahid-u:na / *ta-dʒtahid-u fi:
the-teacher.M-PL.NOM 3M-work.hard-PL.IMP.IND 3F-work.hard-SG.IMP.IND in
ʔal-tadris.
the-teaching
"The teachers work hard to teach."

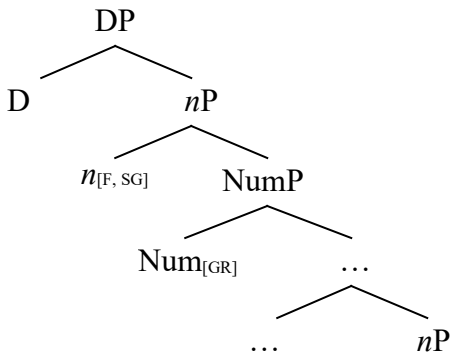
As shown, a defective agreement (i.e., F.SG), in contrast to the typical (full or partial) agreement, is possible with BP nouns, where it imposes a group interpretation, while the (typical) agreement imposes distributive reading (Brustad, 2000). SP nouns trigger the typical agreement on the predicate, and they tend to have distributive interpretation unless the context in which they occur, e.g., the predicate meaning, determines otherwise. In contrast to the SP nouns, BP nouns tend to determine the agreement on the predicate, whereby each agreement option is often associated with one salient interpretation. Notably, it has been argued that the morphological derivation of both SP and BP is the same, whereby both plural types are formed due to a [PL] feature (or [GR] in feature geometry) in NumP (Zabbal, 2002; Acquaviva, 2008). Put differently, it is argued that the two types are derivationally similar as far as their morphological formation is concerned.

Nevertheless, as Zabbal (2002) and Alqarni (2015) argue, the difference in interpretation between the two is attributed to morphological rather than syntactic factors. Parallel to the derivation involves in the Singulation process, I assume that the collective vs. distributive interpretation arises due to the presence or absence of the DivP in the hierarchical structure of these DPs; whereas the collective interpretation associated with the defective agreement is due to the absence of such a projection layer, the distributive interpretation is with its presence. In such a hypothesis, the distributive interpretation available with morphologically singulated and broken plural nouns is uniformly attributed to the presence of DivP. If this mechanism underlies the case for the distributive reading, it remains to explain why the distributive interpretation with singulated forms, on the one hand, and the collective interpretation with BP nouns, on the other, happen to coincide in their underlying (F.SG) φ-features, as evidenced by the agreement they trigger on the predicate they co-occur with. Predicates entering into an agreement with these types of nouns in the relevant readings take a F.SG φ-inflection (135) ("the giraffes" is a singulated noun, in contrast to "the lions").

135. ʔal-zara:f-a:t-u / ʔal-ʔusu:d-u / ta-dʒri:.
the-giraffe-F.PL-NOM *the-lion.M.PL-NOM* *3F-run-SG.IMP.IND*
"The giraffes-$_{F}$ / lions-$_{M}$ are running / run."

In line with Kramer (2009) and Kramer & Winchester (2018), I assume that the [F.SG] φ-feature agreement associated with BP in a collective interpretation, in contrast to singulated cases, is supplied by an *n*P projection above NumP in the DP hierarchical structure, as in (136) below. Thus, I assume that the Number-Gender switch with BP nouns, for the most part, is syntactic, and it is supplied by a lexical null *n*P layer within the DP structure of certain nouns in Arabic.

136.



Kramer & Winchester (2018) hypothesize that the upper *n* head introduces these idiosyncratic features for a couple of reasons. First, it is well-established that it is the highest Gender feature that determines the Gender of the whole *n*P (cf. Kramer, 2009; 2015; Steriopolo & Wiltschko, 2010; De Belder, 2011). Second, it is not uncommon for there to be multiple (*n*)s within a single DP (e.g., in denominal nouns). Finally, as far as the interpretation is concerned, they assume that this head can be understood as a true "light noun" with herd/clump meaning, restricted in its selection to a [+PL] Num head.

Interestingly, since the collective interpretation and the defective agreement are attested with both masculine and feminine nouns alike, I assume that the upper *n*P layer above NumP contributes the defective agreement, whereby the [SG] agreement denotes one single group. This null *n*P, significantly, may happen to have an overt lexicalization, as shown below in (137)[69]. Then, it follows that agreeing heads, in turn, agree with this null *n*P, which may take a [F.SG] φ-feature.

137. a. madʒmu:ʕat-u ʔal-tˁula:b-i / tˁula:b-in … .
group.F.SG-NOM *the-student.M.PL-GEN* *student.M.PL-GEN.INDF*
"The group / A group of students … ."

[69] One of the issues with this analysis, as may be observed between the overt and covert of "group", is why the former cannot inflect a Genitive case on the broken plural, as the overt counterpart does above. One may argue that this is a typical contrasting behavior between overt and covert elements in general. To take a case in point, Arabic incorporate root C heads, as well as embedded C heads, e.g., *ʔinna* "indeed" and *ʔanna* "that", that assign their (lexical) case iff they are overt, i.e., they are overtly present in the derivation. Thereupon, the fact that this noun is covert suggests that it is deprived of its expected behavior.

b. θala:θ-u madʒmu:ʕ-a:t-i ʔal-tˤula:b-i / tˤula:b-in … .
three-NOM group-F.PL-GEN the-student.M.PL-GEN student.M.PL-GEN.INDF
"The three groups of students … ."

Before closing this section, it is crucial to indicate that the syntactic context and the predicate semantics, as will be indicated later, may give rise to one interpretation over the other. The previous discussion regarding the surface agreement and its association with the collective-distributive interpretation, nevertheless, is meant to show that each agreement type brings about one interpretation over the other. For that reason, one may wonder whether the analysis proposed for collective BP nouns may underlyingly be at work in the case of both unsingulated and Singulated forms under the collective interpretation. Nevertheless, I believe that, while the singulated forms, i.e., those suffixed with "a:t" may undergo such a process, it is impossible to extend the structural assumptions associated with BP to the unsingulated nouns for the following reason. As shown above, if the assumption above is on the right track, it follows that the (overtly lexicalized) *n*P denotes a [F] entity, which is responsible for the defective [F.SG] agreement, associated with collective interpretation. In contrast, the unsingulated collective nouns are underlyingly [M], as evidenced by the agreement they trigger in (138). So, I contend that, while the singulated forms may undergo such a process provided that the context gives rise to such an interpretation (139), the two forms, i.e., collective BP and unsingulated nouns, are structurally distinct.

138. a. ʔal-samak-u ja-ʕu:m-u … .
the-fish.M.PL-NOM 3M-swim-SG.IMP.IND
b. madʒmu:ʕat-u ʔal-samak-i ta-ʕu:m-u … .
group.F.SG-NOM the-fish.M.PL-GEN 3F-swim.SG.IMP.IND
"(The Group of) the fish swims … ."

139. (madʒmu:ʕat-u) ʔal-samak-a:t-(i)/u ta-ʕu:m-u … kulu-ha:.
group.F.SG-NOM the-fish-F.PL-(GEN)/NOM 3F-swim.SG.IMP.IND all-her
"All of the fish group swims … ."

Overall, the hierarchical structure of DPs in Arabic includes the following layers: DP, (*n*P), NumP, (DivP)/GenP, and *n*P relatively ordered. Each of these layers is cross-linguistically motivated (cf. Abney, 1987, for DP; Ritter, 1991, for NumP; Picallo, 1991, for GenP; and Borer, 2005, for DivP). Importantly, the Number and Gender features on nouns are encoded derivationally in NumP and GenP, respectively; the individuation process, e.g., of singulated forms, on the other hand, is operative in DivP, while the categorization of nouns is in (the lower) *n*P. In some instances, a null (*n*P) layer above NumP may often be lexically present in the structure of some DPs, e.g., BP, and has both an agreement and semantic inputs. With the above brief discussion in mind, the following lines will mostly be abstract, accounting for both phenomena simultaneously against the backdrop of the agreement proposal developed in this work.

5.3.2.1.2 Discussion

In retrospect, the expected plural agreement in the vicinity of [CL_{NH}] nouns in SA, as seen earlier, is absent. Rather, the latter type of nouns seems to trigger an idiosyncratic behavior where some alteration occurs across the board. Not only in subject-verb agreement cases where this an unusual behavior takes place, but it also occurs across many paradigms, be it adjectives, demonstrative pronouns, relative pronouns, etc., as exemplified below (140)[70] (underline indicates the possible source of ill-formedness).

[70] According to Corbett (2000, pp. 57 – 58), the split between human and non-human categories, as exemplified by SA, is common and well represented cross-linguistically. Example languages are Slave (an Athabaskan language spoken in parts of Canada) and Mayali (a Gunwinjguan language spoken in Australia). Whereas pronouns in the former language distinguish singular from plural, based on whether the noun denotes human or non-human, the verbs in the latter show plural only if the noun denotes human. Additionally, it is also the case that there is a split between singular and plural in terms of animacy (p. 59 – 60). For example, Whereas only animate nouns in Marind (a language spoken in Southern Irian Jaya) show plural agreement on the verb, inanimate nouns do not.

140. a. ha:ðihi: ʔal-ʔusu:d-u ʔal-ʔafri:qij-at-u ʔallati: hadʒam-at … .
this-F the-lion.M.PL-NOM the-African-F.SG-NOM that-F.SG attack-3F.SG.PER

b. *ha:ʔula:ʔi ʔal-ʔusu:d-u ʔal-ʔafri:qij-u:n ʔallaði:na hadʒam-u: … .
these the-lion.M.PL-NOM the-African-M.PL.NOM that-M.PL attack-3M.PL.PER
"These are the African lions-$_M$ that attacked … ."

141. a. ha:ʔula:ʔi ʔal-ʔawla:d-u ʔal-ʔafri:qij-u:n ʔallaði:na za:r-u: … .
these the-boy.PL-NOM the-African-M.PL.NOM that-M.PL visit-3M.PL.PER

b. *ha:ða: ʔal-ʔawla:d-u ʔal-ʔafri:qij-u ʔallaði: za:r-a … .
this-M the-boy.PL-NOM the-African-M.SG.NOM that-M.SG visit-3M.SG.PER
"These are the African boys that visited … ."

142. a. ha:ʔula:ʔi ʔal-fataj-a:t-u ʔal-ʔafri:qij-a:t-u ʔalla:ti zur-na … .
these the-girl-PL-NOM the-African-F.PL.NOM that-F.PL visit-3F.PL.PER

b. *ha:ðihi: ʔal-fataj-a:t-u ʔal-ʔafri:qij-at-u ʔallati: za:r-at … .
this-F the-girl-PL-NOM the-African-F.SG.NOM that-F.SG visit-3F.SG.PER
"These are the African girls that visited … ."

As seen above, whereas the expected syntactic agreement between a given predicate/element and its associated DP with which it agrees is maintained in the surface representation with human nouns, it is lacking with non-human nouns. For this reason, I assume that this reflects a PF constraint in SA, or, more particularly, its morphological component sensitivity, whereby a [GR] valuation in the vicinity of [CL_{NH}: M/F] is morphologically impoverished as in (143), and a default [SG] valuation is redundantly supplied instead, as in (b), before Vocabulary Insertion[71].

143. **Non-Human Plural Agreement Impoverishment[72]:**

a. Impoverishment: [Ind: GR] ➞ [Ind: __] / [CL_{NH}]

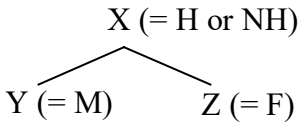
b. Redundancy: [Ind: __] ➞ [MI]

[71] The question that may be raised is whether this I-P-R rule also occurs in an Agree relation with dual nouns, given that they are underlyingly [GR-MI], i.e., the [GR] is independent of [MI]. I believe that the answer is negative. One motivation, I believe, is that such a step is uneconomical, considering that the supplied default valuation, i.e., [MI/SG], is already part of the valuation coming out of the narrow syntax. Additionally, assuming that such a rule does take place, it remains to identify what a [MI-MI] composite feature denotes, which, as far as I know, is unattested cross-linguistically.

[72] The implementation aspect of this is not relevant. However, I follow Halle & Marantz (1993, p. 115) and Embick & Noyer (2007, p. 309) in the assumption that an AGR node for subject-verb agreement is inserted into a hosting element at the morphological structure to meet universal and/or language-specific well-formedness conditions.

As seen, the core morphological trigger for the intervention in the above Impoverishment-Plus-Redundancy rule is the [Humanness] of the noun with which the verb (or any other element) agrees with. Nevertheless, the challenge is to specify how this relates to agreement, given that this relevant feature is the property of the noun, not the agreement head. I assume, in line with Béjar (2003), that such a step can follow straightforwardly from Harley & Ritter's (2002) feature geometry (chapter (3) above). In particular, Béjar (ibid) asserts that "by enhancing the sensitivity of [Agree] to a detailed level of feature structure, it is possible to formulate new generalizations about agreement" (Béjar, 2003, p. 22). Hence, if features in the geometry encode "feature-theoretic notions of intrinsic entailment" among themselves, to which Agree is sensitive, it follows that a subordinate, dependent formal feature (Y) entails the superordinate, dominating one (X), defined by "|" relation in the feature geometry (144). The latter relation, I assume, is central to the syntactic Agree operation. So, I assume that when, for example, the [uCL] feature part of the φ-Probe targets the subject DP, the Gender valuation, e.g., [M], tacitly encodes whether it represents a [M-$_{H}$] or [M-$_{NH}$] (Halle, 1994, p. 40) (cf. den Dikken, 2011, for a similar hypothesis for the inclusion of animacy as an integral part of φ-features).

144.

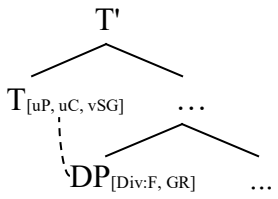


With this in mind, I move to present the account accordingly. First, I consider the (un)singulated forms, i.e., collective nouns that undergo an individuation process via the addition of "at", and their associated subject-verb agreement in both word orders under the agreement account proposed in this work. Subsequently, I direct the discussion to BP nouns and their associated subject-verb agreement in both word orders. It is essential to indicate that, to the best of my knowledge,

while singulated nouns are only non-human, BP can be both human and non-human nouns; hence, the following account will proceed accordingly[73].

Previously, it was argued in the discussion about the Singulation process in Arabic that the distributive-collective alternation of a given DP is played out differently via the presence or absence of DivP, respectively. In other words, while the distributive interpretation is associated with a DivP encompassing a Gender-shift process (or simply a [F] feature) in the DP hierarchy, the collective interpretation, on the other hand, is with its absence. Starting with the distributive interpretation and its associated agreement, I assume that in the VS order, only the [uCL] feature is syntactically valued as [F]. The [uInd] feature, as assumed in this account, is lexically determined as [vSG] in such a word order, and the [uPart] feature, which can only be valued by discourse (1st or 2nd) speakers, is postsyntactically assigned a default [3] valuation, as in (145) (irrelevant information is omitted).

145.

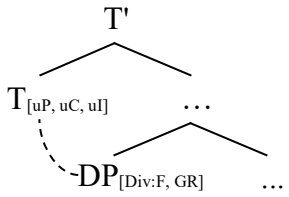


As seen, when the φ-Probe targets the DP, the syntactic agreement output yields [3F.SG] valuation on T. In such a case, I assume that the syntactic and morphological structures are isomorphic, i.e., there is no morphological intervention in such a case due to the hypothesis that SA is only sensitive to [GR, CL_{NH}] composition.

[73] Additionally, it seems that in SA [Humanness] distinction in BP cases is lexically played in different ways/manners, as will be evident in the account below.

On the other hand, the features of the φ-Probe in a SV order are assumed to be all unvalued, as proposed in this work. Taking into consideration that i) these nouns are not a discourse participant and that ii) their syntactic structures include a DivP with [F] feature, it follows that the [Part] and [CL] part of the φ-Probe, similarly to the one in VS order, are assigned [3] and [F] valuations, respectively. The [uInd] feature, by hypothesis, is syntactically active since it is not lexically determined and matches with the [GR] feature on the subject DP, as in (146).

146.



As may be observed, the syntactic output of the agreement valuation would yield [3F.PL], which is not borne out on the surface representation; hence, I assume that the two structures in the syntactic and morphological components are not entirely identical, which is attributed to the morphological intervention indicated above and repeated in (147) below. In simple terms, the intervention effect observed is a consequence of the presence of [GR, CL_{NH}] composite as part of the syntactically valued φ-Probe, whereby the [GR] valuation undergoes the I-P-R rule above yielding [3F.SG] morphological inflection.

147. **Non-Human Plural Agreement Impoverishment:**

a. Impoverishment: [Ind: GR] ➞ [Ind: __] / [CL_{NH}]

b. Redundancy: [Ind: __] ➞ [MI]

The above account concerns the agreement in a distributive derivation of singulated nouns. It remains to show how the agreement facts with their uncountable, collective counterparts are handled. However, it is important to remember that i) the DP structure of these nouns lack a DivP

projection and its Gender-shift effect, and ii) they trigger [M.SG] morphological inflection on the elements they agree or occur with (148).

148. a. ha:ða: ʔal-samak-u ʔal-munaqqatˤtˤ-u ʔallaði: ja-ʕu:m-u … .
this-M the-fish.M.PL-NOM the-dotted.M.SG-NOM that-M.SG 3M-swim-SG.IMP.IND

b. *ha:ðihi: ʔal-samak-u ʔal-munaqqatˤtˤ-at-u ʔallati: ta-ʕu:m-u … .
this-F the-fish.M.PL-NOM the-dotted-F.SG-NOM that-F.SG 3F-swim-SG.IMP.IND

c. *ha:ʔula:ʔi ʔal-samak-u ʔal-munaqqatˤtˤ-u:na ʔallaði:na ja-ʕu:m-u:na … .
these the-fish.M.PL-NOM the-dotted.M-PL.NOM that-M.PL 3M-swim-PL.IMP.IND

"This the dotted fish that swims … ."

As shown, neither [F] nor a [PL] surface agreement is compatible with these types of nouns. For the sake of argument, I assume that these nouns' Gender feature is lexically determined as [M] (see the other example in the preceding section), while the Number feature is [GR], given that a two-member set or less may not semantically denote a group (Link, 2002; Fassi Fehri, 2012; Mathieu, 2012; 2014). Therefore, in a VS order, the only feature that does not undergo default/lexical valuation is [uCL], while in SV order, it is both [uCL] and [uInd] features. Consequently, in both word orders, the [uCL] feature is valued as [M]; the [uInd] feature in the SV order gets a [GR] valuation as in (149).

149. **a. VS Order:** **b. SV Order:**

It was indicated above that the surface subject-verb agreement with these nouns is uniformly [M.SG] regardless of the word order. While the syntactic agreement valuation output in the VS order (i.e., 3M.SG) complies with the surface representation, the (3M.GR) output in the SV order is incompatible. For that reason, I assume that in contrast to the case in the VS order, the SV order's output undergoes further morphological alternation, triggered by the fact that these nouns,

mainly the agreement achieved, are [GR, CL_{NH}]. Put differently, assuming that the morphological component in SA is sensitive to such a featural composition, it follows that the φ-feature valuation also undergoes the I-P-R rule in (147) above, yielding a surface (3M.SG) morphological inflection.

Having presented the account for the (un)singulated forms, both distributive and collective ones, against the agreement proposal laid out in this work, the next discussion is directed toward BP nouns, with both their distributive and collective interpretations, and their associated agreement.

First of all, it was indicated above that the syntactic-morphological formation of BP DPs takes a slightly different route in contrast to the (un)singulated nouns. Although the distributive-collective distinction is still tied with the presence or absence of a DivP layer, BP nouns differ from singulated forms in the trigger for the idiosyncratic F.SG agreement associated with collective interpretation. In particular, it was contended that such an idiosyncratic agreement is due to a (null) *n*P above NumP in the DP hierarchy. Additionally, it is essential to note that human and non-human nouns differ in one respect. Whereas the former types, under a distributive interpretation, may trigger either [M] or [F] in both word orders, non-human nouns only trigger [F] valuation in both word orders. For the sake of argument, I assume that this is one way the language differentiates between human and non-human nouns. I associate such behavior with whether the DivP incorporates a [F] feature. While human nouns, I assume, lacks such a feature, non-human nouns incorporate one[74].

[74] Analogous to masculine nouns such as *ʔal-tˁula:b* "the male students", there are other feminine nouns such as *ʔal-niswah* "the women", *ʔal-ʕaða:ra:* "the virgin women", *ʔal-ħawa:mil* "the pregnant women" that display the collective-distributive interpretation, albeit they either trigger F.SG or F.PL agreement on the following predicate (Yahya Aldholmi, p.c.), as in *ʔal-niswat-u dʒaʔ-na / dʒa:ʔa-t* "the women came". Although the advanced presumed difference between human and non-human nouns under a distributive interpretation is a stipulation, it reduces the derivation's computational complexity. Without such a hypothesis, further stipulations would need to be stated to argue for why the two noun types trigger different surface Gender valuations under the same interpretation. In other words, either route would need further stipulations, and for the sake of argument, I opt for the economical one.

Considering that both human and non-human nouns under a collective interpretation incorporate a (null) *n* head responsible for the [F.SG] valuation, I assume that in both SV and VS order, the syntactic valuation output is uniformly [3F.SG][75]. In a VS order, the Number feature is lexically determined as [vSG], the [uPart] is valued as default [3], and the [uCL] one is valued as [F], resulting in a [3F.SG] valuation, as in (150a). In contrast, in a SV order, all of the features of the φ-Probe are unvalued; while the [uPart] feature receives a default [3] valuation, the [uInd] and [uCL] features are matched with the [SG] and [F] feature on this null *n* head, yielding [3F.SG], as in (b) (only relevant information is included).

150. **a. VS order:** **b.SV order:**

The above account concerns the agreement in a collective derivation of BP nouns, it remains to show how the agreement facts with their distributive counterparts are handled. One of the assumptions indicated earlier is that the DP structure under a distributive interpretation differs in one respect between human and non-human BP nouns; while the structure for human DPs lacks a [F] feature in DivP, the latter type includes one. These are discussed, respectively.

In a VS order, while the [uPart] is assigned a postsyntactic default [3] valuation, the Number feature is lexically determined as [SG]. It follows, then, that the [uCL] feature valuation differs between human and non-human nouns. While in the former case, it is valued as [M] or [F] based on the gender of the noun (i.e., 3M/F.SG), it is valued as [F] only in the latter case, given that non-

[75] The same assumption can, significantly, handle a collective interpretation arising with singulated forms. However, I leave the further discussion on this matter to the following section, where it plays an important role.

human nouns, in contrast to human nouns, incorporate a [F] feature, or particularly a Gender-shift, in DivP, yielding a [3F.SG] valuation, as in (151) (Irrelevant Information is omitted).

151. **a. Human Nouns:** **b. Non-Human Nouns:**

In a SV order, nevertheless, all T's φ-features are unvalued. Consequently, apart from the [uPart] feature, the [uInd] and [uCL] enter into an Agree relation with the subject DP. The [uCL] feature works similarly to how it is assigned valuation in the VS order depending on whether the DP structure incorporates a [F] feature or not in DivP. The [uInd] feature is valued as [GR] with both human and non-human nouns (152).

152. **a. Human Noun:** **b. Non-Human Nouns:**

As indicated earlier, the only difference is that the morphological component in the language at hand is sensitive to the presence of [GR] valuation in the vicinity of [CL_{NH}]. Consequently, a morphological interference takes place in the agreement with non-human nouns, whereby the [GR] valuation is altered to the default [SG], as repeated in (153) below. In other words, the syntactic subject-verb agreement valuation in both cases is [GR], but only in the case of [CL_{NH}] do the [GR] is postsyntactically altered to [SG]; yielding a surface agreement morphology of either [3M/F.GR] depending on the gender of the human noun, or uniformly [3F.SG] due to the assumed intervention.

153. **Non-Human Plural Agreement Impoverishment:**

a. Impoverishment: [Ind: GR] ➞ [Ind: __] / [CL_{NH}]

b. Redundancy: [Ind: __] ➞ [MI]

It is essential, nonetheless, to comment on three aspects before closing this section. First, previously, it was indicated that the type of word order formed significantly interacts with and determines the possible surface agreement in SA. Preverbal subject DPs correlates with a full agreement, while postverbal subject DPs with a partial agreement. Nevertheless, under the analyses presented above, there are cases where preverbal plural subject DPs are possible with defective F.SG agreement, as shown in (154) below.

154. a. ʔal-tˁula:b-u ta-ndʒaħ-u … .
the-student.M.PL-NOM 3F-succeed-SG.IMP.IND
"Students succeed … ."

b. ʔal-zara:f-a:t-u / ʔal-ʔusu:d-u ta-ʔakul-u … .
the-giraffe-F.PL-NOM the-lion.M.PL-NOM 3F-eat-SG.IMP.IND
"The giraffes-$_F$ / lions-$_M$ eat … ."

However, one of the assumptions in this work is that Copy Choice, and its relationship with the achieved (Number) agreement, occurs at a stage before Spell-Out, or, more specifically, at Transfer (see section (4.4) for a discussion). With (un)singulated forms, the subject DP's underlying φ-feature composition is [M.PL] for collective forms or [F.PL] for distributive forms under the relevant word order. Assuming that the syntactic valuation reaching the PF's morphological component, where the I-P-R rule applies, is still [M.PL] or [F.PL] depending on the form of the noun, it follows that at the relevant (Transfer) stage, no conflict arises between the preverbal DP and its associated full agreement, i.e., there is no arising φ-feature mismatch.

On the other hand, with BP nouns, the underlying φ-feature composition of the human or non-human subject DP, under a collective interpretation, is uniformly [F.SG], whereby the latter is provided by the top-most (null) *n*P projection. The syntactic valuation, hence, is [F.SG], and no conflict, I believe, arises, given that this (null) *n*P projection determined the φ-feature of the whole DP. However, the two types of nouns differ with respect to their surface agreement inflection under a distributive interpretation. The syntactic valuation established with human nouns is maintained in the post-Transfer stage, i.e., at the morphological component, while it is altered in the case of non-human nouns. Therefore, like the case with the (un)singulated forms, I believe that no mis-match arises between the φ-feature on the verbal predicates and their counterpart on non-human nouns at Transfer, given that the I-P-R rule is past the latter stage.

Second, albeit the φ-feature Probe is uninterpretable (Chomsky, 1995 et seq.) and may not have contribution at LF, i.e., it is purely PF, I believe that the collective-distributive interpretation, semantically speaking, arise as a reflex of the DP internal structural projection and its relevant features. Nonetheless, it is essential to indicate that some predicates may contribute to the semantic distinction (Ouwayda, 2014). Put differently, considering the syntactic Y-model and the assumption that certain DPs can contribute to the distinction, I assume that the latter can arise due to the DP internal structure and/or the semantic of the predicate it co-occurs with.

Finally, Arabic has two types of nouns classes, as far as Gender is concerned: animate and inanimate nouns. Whereas the former type subsumes any living creature and is classified based on its natural or biological gender, the latter involves non-living materials and concepts like books and happiness. Its gender is semantically arbitrary, corresponding to grammatical gender. For that reason, I assume that the Gender feature on animate nouns is interpretable because it is semantically active, while it is uninterpretable on inanimate nouns due to having no semantic import.

The upshot of all, not all plural nouns in SA is alike as the subject-verb agreement is taken into account. Nouns with different underlying φ-feature compositions, to the exception of [CL_{NH}] nouns, trigger the typical, standard morphological agreement. For instance, singulated, as well as BP, [CL_{NH}] nouns always trigger an idiosyncratic F.SG subject-verb surface agreement on the predicate regardless of the gender of the noun and regardless of the relative word order between the subject and the verb. These types of nouns, as indicated earlier, may have both collective and distributive interpretation. It was argued that these nouns, i.e., singulated vs. BP nouns, differ in their structural formation. Accordingly, the DP structure impacts the agreement achieved on a given predicate. Above all, the surface agreement associated with these nouns results from an interplay between syntactic and postsyntactic computation. In the following section, I discuss briefly the same phenomenon from a dialect perspective, pointing toward the conclusion regarding the interrelation between the standard variety and the present-day dialects, as well as the cross-dialectal variations.

5.3.2.2 VD Idiosyncratic Agreement

This section discusses a case where the idiosyncratic agreement morphology in SA manifested in the previous section has resembling behavior in the VDs. Up to now, it has been contended that all plural (masculine or feminine) nouns in the VDs, whether human or non-human, trigger masculine plural agreement inflection. However, it is essential to assert that sometimes [CL_{NH}] nouns, in contrast to human plural nouns[76], can trigger a F.SG agreement similar to SA, as exemplified in (155) below (brackets indicate possible word orders).

[76] It was indicated that the idiosyncratic (F.SG) agreement with human nouns can only occur in BP's cases. It is important to indicate that the BP nouns denoting human entities in SA pertain to a limited noun class (Fassi Fehri, 1988). I believe that the lack of the idiosyncratic agreement with human nouns, in contrast to non-human nouns, in the dialects is expected. Considering that these types of BP are limited to a certain class, it follows, I assume, that they are expected to be less frequent, whereby their use and behavior are assimilated to other regular human nouns in the dialect. As shown throughout the discussion, although there is a systematic interrelation between the standard and the dialects in some manners, the latter varieties tend to minimize other aspects,

155. a. (tˤa:ħ-u:) ʔil-ʔisu:d / ʔil-miba:ni (tˤa:ħ-u:).
fall-3M.PL.PER *the-lion.M.PL* *the-building.M.PL* *fall-3M.PL.PER*

b. (tˤa:ħ-at) ʔil-ʔisu:d / ʔil-miba:ni (tˤa:ħ-at).
fall-3F.SG.PER *the-lion.M.PL* *the-building.M.PL* *fall-3F.SG.PER*
"The lions-$_{M}$ / buildings-$_{M}$ fell."

c. (tˤa:ħ-u:) ʔil-zara:f-a:t / ʔil-bina:j-a:t (tˤa:ħ-u:).
fall-3M.PL.PER *the-giraffe-F.PL* *the-building-F.PL* *fall-3M.PL.PER*

d. (tˤa:ħ-at) ʔil-zara:f-a:t / ʔil-bina:j-a:t (tˤa:ħ-at).
fall-3F.SG.PER *the-giraffe-F.PL* *the-building-F.PL* *fall-3F.SG.PER*
"The giraffes-$_{F}$ / buildings-$_{F}$ fell."

As seen, in addition to the typical agreement observed in the dialect, i.e., the full (M.PL) agreement, [CL_{NH}] plural nouns can also trigger a F.SG agreement. This agreement is unexpected given that the singular forms of these (masculine) nouns trigger Gender agreement and that these nouns denote plural entities. Significantly, the two agreement options, similar to the standard variety, come with a semantic difference, i.e., a difference in the individuation, as shown in the scenarios (I - IV) below. Importantly, as indicated previously, each agreement option triggers a salient interpretation; while M.PL interpretation is much associated with distributivity, the F.SG agreement is associated with a collective interpretation.

Context (I): A dead donkey is laying on the ground. Every lion that passes individually by this animal during the day takes a bite. The following is reported later:

156. a. ʔil-ʔisu:d qatˤtˤaʕ-u: ʔil-ħima:r.
the-lion.M.PL *tear-3M.PL.PER* *the-donkey-M.SG*

b. ʔil-ʔisu:d qatˤtˤaʕ-at ʔil-ħima:r.
the-lion.M.PL *tear-3F.SG.PER* *the-donkey-M.SG*
"The lions-$_{M}$ devoured the donkey. (*Lit:* The lions-$_{M}$ tore the donkey.)"

one of which I take is the idiosyncratic behavior of human BP nouns. There are, however, some BP human nouns, such as *na:s* and *goum* "people", as well as tribal names, that can take this idiosyncratic agreement (Ingham, 1994, p. 63). Although I opt not to discuss these nouns by any means, I believe that these nouns seem to be peculiar, given that they have no singular nor dual forms.

Under the relevant context, whereas example (156a) reports that the lions distributively took a bite, i.e., each took a bite when it passed by the corpse, example (b) indicates that they collectively reduced the corpse to nothing. Now consider the other scenario, where an attempt is made to force the collective interpretation.

Context (II): A dead donkey is laying on the ground. A group of lions is passing by this animal simultaneously, and each took a bite from this animal. The following is reported later::

157. a. ʔil-ʔisu:d qatˤtˤaʕ-u: ʔil-ħima:r.
the-lion.M.PL tear-3M.PL.PER the-donkey-M.SG
b. ʔil-ʔisu:d qatˤtˤaʕ-at ʔil-ħima:r.
the-lion.M.PL tear-3F.SG.PER the-donkey-M.SG
"The lions-$_{M}$ devoured the donkey. (*Lit:* The lions-$_{M}$ tore the donkey.)"

Here again, whereas in example (157a), it is reported that each took a bite, the one in (b) indicates that they collectively reduced the corpse to nothing[77]. The above two contexts pertain to what has been called BP nouns in Arabic. Now, the question concerns whether the same behavior is maintained with singulated forms, i.e., distributive forms derived via suffixing "a:t". As shown in the two contexts below, both M.PL and F.SG agreement options are similarly associated with distributive and collective interpretations, respectively.

Context (III): There is a thick tree outside a cage where more than three giraffes are kept. Each giraffe is let outside by itself part of the day, and each eats from this tree. The following is reported later:

[77] The example in (a), based on native judgments, may have a slightly similar meaning to (b). However, the agreement with the latter under the collective interpretation is more preferred or acceptable.

158. a. ʔil-zara:f-a:t fadˤ-u: ʔil-ʃdʒar-ah.
the-giraffe-F.PL empty-M.PL.PER the-tree-F.SG
b. ʔil-zara:f-a:t fadˤ-at ʔil-ʃdʒar-ah.
the-giraffe-F.PL tear-F.SG.PER the-tree-F.SG
"The giraffes-$_F$ ate all the leaves. (*Lit:* The giraffes-$_F$ emptied the tree.)"

In a similar manner to context (I) above, while (158a) indicates that the giraffes distributively ate from this tree, the (b) example reports the collective act, without any emphasis on the distributive action of each giraffe. Even if one tries to force a collective act via manipulating the context, as in scenario (IV) below, the same facts are maintained.

Context (IV): There is only one tree outside a cage where more than three giraffes are kept. All of these giraffes let together outside during the day, and all eat from this tree. The following is uttered later.

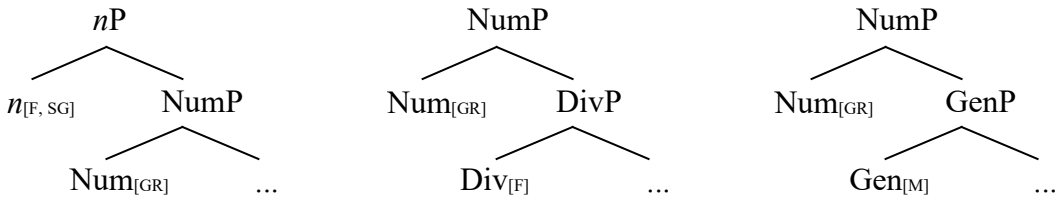
159. a. ʔil-zara:f-a:t fadˤ-u: ʔil-ʃdʒar-ah.
the-giraffe-F.PL empty-M.PL.PER the-tree-F.SG
b. ʔil-zara:f-a:t fadˤ-at ʔil-ʃdʒar-ah.
the-giraffe-F.PL tear-F.SG.PER the-tree-F.SG
"The giraffes-$_F$ ate all leaves. (*Lit:* The giraffes-$_F$ emptied the tree.)"

Like the other scenario, (159a) indicates that they distributively ate from this tree, while (b) indicates that they collectively reduced it to nothing, without any emphasis on the distributive act. In short, the Number-Gender switch creates a herd-type interpretation of plural entity, while the typical plural agreement a distributive interpretation (Brustad, 2000; Acquaviva, 2008; Ouwayda, 2014); the switch makes the individual members of the "herd" undifferentiated, i.e., it gives rise to a homogenous impression, in contrast to the plural agreement.

Taking these agreement facts and judgments in mind, I assume that the collectivity-distributivity distinction of some certain nouns, as was the case in SA, is derivational, which impacts the surface agreement achieved. The general picture from the previous section is that, apart from the

unsingulated forms, the collectivity-distributivity distinction of these nouns correlates with the absence or presence of a DivP, respectively, in the DP hierarchal structure (160) (Irrelevant projections are omitted).

160. **a. BP Collective Forms:** **b. Distributive Forms:** **c. Unsingulated Forms.:**

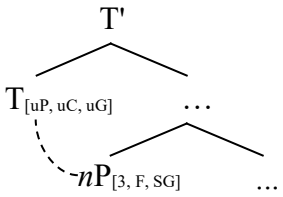


Remarkably, it was reported in the previous section that the singulated forms, like the unsingulated ones, can take a collective interpretation in SA, provided that the context indicates so (see f. 75). It was argued that these cases might undergo a similar derivational route as that of BP nouns, i.e., they may incorporate a null (*n*P) layer, responsible for the idiosyncratic F.SG agreement in the language and the collective interpretation, as in (139) above. For that reason, taking into consideration that GenP and DivP are in complementary distribution, I assume that the DivP is absent under such a (collective) reading, and a GenP is employed instead (Alqarni, 2015). The two projections, DivP and GenP, are at the same level in the Arabic DP structure, whereby one excludes the other. With this in mind, we are now in a position to present the account, accordingly, for collective (i.e., herd-type) and distributive interpretations and their associated subject-verb agreement in the VD. It is crucial, nevertheless, to remember that the φ-feature Probe in the dialect, in contrast to SA, is invariant in both word orders; the T's atomic φ-Probe incorporates [uPart, uCL, uGR] regardless of the word order.

Under a collective interpretation, it was contended that the idiosyncratic F.SG agreement is due to a (null) *n*P above NumP in the DP hierarchy as in (160a) above. Consequently, I assume that when the T's φ-Probe targets the subject DP in *v*P, the syntactic valuation output is uniformly

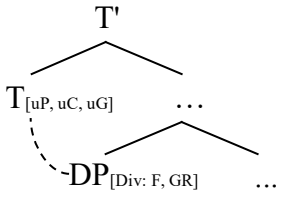
[3F.SG], as in (161) below; all of the φ-Probe's unvalued features, except the [uCL] features, receive postsyntactic default valuation. The [uGR] feature cannot match with the [SG] feature on the DP, resulting in a default [SG] valuation. The [uPart] feature is valued as default [3], given that the DP is not a discourse (1st or 2nd) participant; the [uCL] feature is valued as [F] since the null *n*P incorporates a [F] feature. In such a case, I assume that the syntactic and morphological structures are isomorphic; no postsyntactic tampering at the morphological structure, I assume, takes place, given that the VD, as indicated in section (5.3.1), is sensitive to a [F.GR] composite valuation.

161.



The above account concerns the agreement in a collective derivation of both singulated and BP nouns, it remains to show how the agreement facts with their distributive counterparts are handled. One of the assumptions indicated earlier is that the DP structure under a distributive interpretation differs in one single respect from its collective counterpart. The former incorporates a DivP layer encompassing a [F] feature (160b), while the latter, as shown above, a null *n*P with both [F.SG] features. Owing to the former layer, when the DP is targeted, all of the φ-Probe's features, apart from [uPart] feature, can be syntactically valued as in (162) below; the [uGR] matches the [GR] features on the DP, while the [uCL] feature receives a [F] valuation. The [uPart] feature, the most restrictive of them, is assigned postsyntactic default [3] valuation.

162.



Given the above derivation and syntactic valuation, it follows that the syntactic agreement output would uniformly be [3F.GR] regardless of the underlying Gender of the non-human noun, which is not borne out on the surface representation. The overt morphological agreement on the surface representations under such an interpretation is [3M.GR], as it is the norm in the dialect (163).

163. ʔil-ʔisu:d / ʔil-zara:f-a:t ʔinħa:ʃ-u:.
the-lion.M.PL *the-giraffe-F.PL* *escape-M.PL.PER*
"The lions-$_{M}$ / the giraffes-$_{F}$ escaped."

As seen, whenever a verbal predicate establishes an Agree relation with plural (masculine or feminine) non-human nouns, as the case with their human nouns, the latter triggers masculine agreement on the verb, as summarized in table (10) below; all [CL_{NH}: α, GR] nouns triggers (M.PL) agreement regardless of the underlying Gender of the noun.

Table (10): Dialect [CL_{NH}] Conversion-to-Masculine paradigms

Noun φ-features			**φ-Agreement**	
Participant	**Number**	**Gender**	**Word Order**	
			VS	**SV**
3	**PL**	**M-$_{NH}$** **F-$_{NH}$**	M.PL	

The remaining question concerns why the [F] valuation is not maintained on the surface representation in these cases. In section (5.3.1), it was indicated that the VD undergo a Conversion-to-Masculine (CTM) whenever a [F] feature coincides with a [GR] feature on an agreeing head, be it a verbal predicate or some others, i.e., this manifestation is a postsyntactic, or, more particularly morphological, consequence. By hypothesis, the VD at hand alters the φ-feature composition, in particular, the [CL] feature to the default valuation in the vicinity of [GR] feature due to the presumed sensitivity to such a composite valuation. Consequently, at the morphological

component, the syntactic subject-verb agreement undergoes a CTM mechanism, i.e., an Impoverishment-Plus-Redundancy rule, whereby the [F] feature is altered to a default [M] before the Vocabulary Insertion at PF occurs on the syntactic terminals, as repeated below in (164), yielding a surface (M.PL) agreement morphology. The two structures in the syntactic and morphological components, hence, are not entirely identical.

164. **Impoverishment Rule for Dialect Gender Syncretic Agreement:**

a. Impoverishment: [CL: F] ➞ [CL: __] / [Ind: GR]

b. Redundancy: [CL: __] ➞ [M]

As shown, with F.GR nouns, the syntactic valuation takes its normal course as is the case with their M.GR nouns; nevertheless, at the morphological component, the above I-P-R rule occurs whereby the [F] valuation is deleted, and a [M] valuation is supplied instead. Not only does this behavior is manifested in subject-verb agreement, but it also occurs with other elements, including adjective concord, pronouns, and demonstrative pronouns as illustrated in (165) below, provided that the agreement established on each, if co-occur together, is the same. In other words, this syncretic behavior holds across multiple paradigms, i.e., it is a form of metasyncretism in the dialect.

165. a. ha:ðu:la: ʔil-ʔisu:d_i / ʔil-zara:f-a:t_i ʔil-siri:ʕ-i:n kila-hum$_i$
these *the-lion.M.PL* *the-giraffe-F.PL* *the-fast-M.PL* *all-them.M*
dʒa-u: maʕ mudarib-i:n-hum$_i$.
came-3M.PL.PER *with* *trainer.M-PL-their.M*

b. ha:ði: ʔil-ʔisu:d_i / ʔil-zara:f-a:t_i ʔil-siri:ʕ-ah kila-ha:$_i$ dʒa:-t
this-F *the-lion.M.PL* *the-giraffe-F.PL* *the-fast-F.SG* *all.her* *came-F.SG.PER*
maʕ mudarib-i:n-ha:$_i$.
with *trainer.M-PL-her*
"These fast lions-$_M$ / giraffes-$_F$ all came with their trainers."

Before closing this section, however, it is essential to indicate that the three aspects discussed at the end of the previous section, i.e., the preverbal DP's correlation with full agreement, the LF interpretations, and the Gender of these nouns, remain intact. First, preverbal plural subject

DPs of these types of nouns are possible with a defective F.SG agreement under a collective interpretation considering that the underlying φ-feature composition of the subject DP is [F.SG] and the syntactic valuation is still [F.SG]; therefore, I assume that no conflict arises between the preverbal DP and its associated agreement. On the other hand, under a distributive interpretation, i.e., a [M.PL] surface agreement, I assumed that the latter surface agreement is a postsyntactic reflex of a morphological intervention. It follows that no conflict occurs since the DP's internal φ-feature and its syntactic valuation on the verbal predicate matches at Transfer, a stage before the morphological intervention. Second, I maintain that the collective-distributive interpretation, semantically speaking, arises as a reflex of the DP internal structural projection and its relevant features. However, some predicates may contribute to the semantic distinction. Finally, whereas non-human animate nouns have interpretable Gender features, the inanimate nouns have an uninterpretable Gender feature, given that the latter, in contrast to the former, have no semantic import.

To sum up, not all plural nouns in this VD are alike, taking into account that non-human nouns can trigger an idiosyncratic F.SG agreement on the predicate, regardless of the gender of the noun and regardless of the relative word order between the subject and the verb. While a collective interpretation tends to correlate with the idiosyncratic agreement, the distributive interpretation of these DPs tends to occur with the typical agreement observed in the dialect. Overall, this type of Number-Gender agreement Switch and interpretations are argued to reflect the DP structural formation; the DP structure impacts the agreement achieved. Often, the surface agreement associated with these nouns results from an interplay between syntactic and postsyntactic computations. In the following section, I discuss a related phenomenon from a dialect perspective, pointing toward the same conclusion regarding the VD's morphological sensitivity to the [F.GR] composite valuation.

5.3.2.3 VD Number-Gender Switch

In section (5.3), it was asserted that the subject-verb agreement in the VD(s) is predominantly syncretic. I dealt in section (5.3.1) with a one-feature switch agreement cases, whereby either (feminine) Gender or (dual) Number inflection undergoes a switch. That is, whereas both masculine and feminine plural nouns alike morphologically trigger masculine agreement (166a for CTM), both masculine plural and dual nouns trigger plural agreement (ex. b for CTP).

166. a. tˤa:ħ-u: ʔil-ʔawla:d. / ʔil-bana:t.
fall-3M.PL.PER the-boy.PL the-girl.PL
"The boys / girls fell."

b. tˤa:ħ-u: ʔil-walad-ain. / ʔil-ʔawla:d.
fall-3M.PL.PER the-boy-DU the-boy.PL
"The (two) boys fell."

In close connection to this characteristic, there are cases where, in addition to the masculine agreement, the plural agreement is morphologically resorted to, i.e., both types of conversions are employed. To be exact, feminine dual nouns are morphologically associated with masculine-plus-plural inflection on verbal predicates, as shown in (167) below.

167. a. tˤa:ħ-u: ʔil-walad-ain. / ʔil-ʔasad-ain. / ʔil-mabnaj-ain.
fall-3M.PL.PER the-boy-DU the-lion.M-DU the-building.M-DU

b. ʔil-walad-ain / ʔil-ʔasad-ain / ʔil-mabnaj-ain tˤa:ħ-u:.
the-boy-DU the-lion.M-DU the-building.M-DU fall-3M.PL.PER
"The two boys / lions-$_{M}$ / buildings-$_{M}$ fell."

168. a. tˤa:ħ-u: ʔil-bint-ain. / ʔil-zara:f-t-ain. / ʔil-bina:j-t-ai:n.
fall-3M.PL.PER the-girl-DU the-giraffe-F-DU the-building-F-DU

b. ʔil-bint-ain / ʔil-zara:f-t-ain / ʔil-bina:j-t-ai:n tˤa:ħ-u:.
the-girl-DU the-giraffe-F-DU the-building-F-DU fall-3M.PL.PER
"The two girls / giraffes-$_{F}$ / buildings-$_{F}$ fell."

As seen, plural and masculine agreements are not only associated with plural and masculine nouns, respectively, but are also manifested in an Agree relation with dual feminine nouns; the dual noun "the girls", for example, like "the boys", triggers M.PL agreement on the verbal predicate, regardless of the word order. This suggests that the Number and Gender agreement inflections in the dialect, in contrast to SA, are also minimized whenever the noun entering into an Agree relation is dual, in addition to plural, as illustrated in table (11) below, combining both tables (7 & 8) above.

Table (11): Dialect Number-Gender Switch Agreement Paradigms

Noun φ-features			**φ-Agreement**	
Participant	**Number**	**Gender**	**Word Order**	
			VS	**SV**
3	**DU**	**M**	M.PL	
		F		
	PL	**M**		
		F		

Undoubtedly, the above observed unexpected surface agreement is puzzling; the subject DPs in example (168) are neither masculine nor plural for them to transfer such features to an agreeing head. Remarkably, the above characteristic is not only associated with subject-verb agreement. Similar to the cases discussed throughout, any agreeing element, be it an adjective, a demonstrative pronoun, or a regular pronoun, surfaces with a M.PL morphology, as in (169)[78].

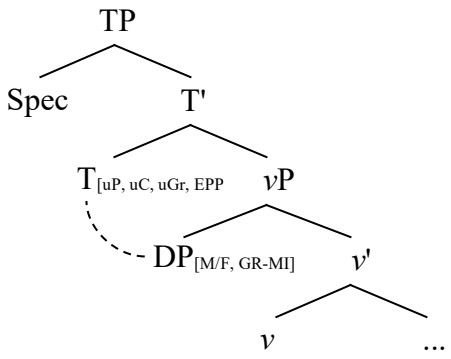
169. ha:ðu:la: ʔil-bint-ain$_i$ ʔil-sˁaɣair-i:n ʔa-da:ri:-hum$_i$ … .
these *the-girl-DU* *the-little.M-PL* *1.SG-take.care.IMP.IND-them-$_M$*
"I take care of these two little girls."

[78] It is important to indicate, nevertheless, that adjectives can optionally surface with M.PL; they can have F.PL morphological inflections as *ʔil-sˁaɣair-a:t* "the-little-F.PL". Other agreeing or bound elements, to my knowledge, can only surface with M.PL.

Analogous to the other cases, I take that the above subject-verb agreement facts to be an outcome of an interplay between the syntactic and morphological structures. Remarkably, the syntactic and the morphological structures are not isomorphic; relations and valuations established in the overt syntactic component undergo further modification at the morphological component.

To elaborate, I assume that both CTP and CTM are at work in such a derivation. First, I assume that the syntactic Agree operation establishes a φ-agreement with the DP in Spec-*v*P in the relevant manner associated with the dialect, i.e., according to how the φ-Probe is relativized in such a variety (170). Analogous to the agreement with plural nouns in the dialect, the [uGR], as part of the φ-set, targets the dual subject noun in Spec-*v*P. Taking into account that the Number feature on dual nouns, as repeatedly stated, incorporates an [Ind] feature with two independent nodes [Group] and [Minimal], the [uGR] finds the former matching feature on the subject DP, yielding a 3M/F.PL valuation, depending on the Gender of the subject DP.

170.



As seen, the φ-Probe targets the DP and finds a complex [Ind] on dual nouns, one feature of which is [GR], yielding a syntactic Number syncretism. Subsequently, once the structure is spelled-out, a CTM occurs at the morphological component on the composite [F.GR] valuation. That is, an I-P-R rule takes place, altering the [CL: F] feature to the default [M] feature in the vicinity of [GR] (repeated in (171) below), before Vocabulary Insertion, given the presumed morphological sensitivity to the established composite.

171. **Impoverishment Rule for Dialect Gender Syncretic Agreement:**

c. Impoverishment: [CL: F] ➞ [CL: __] / [Ind: GR]

d. Redundancy: [CL: __] ➞ [M]

Overall, with F.DU nouns, the syntactic valuation, I assume, takes its normal course as the case with their masculine counterparts, yielding F.PL agreement. Nevertheless, at the morphological component, a rule of I-P-R occurs whereby the [F] valuation is deleted, and a [M] valuation is supplied instead. In essence, whether the agreement is with plural nouns as discussed earlier in section (5.3.1), or with dual nouns as discussed in this section, the [uGR] probing feature plays an essential part in the syntax of the VD at hand, as well as in its morphological component.

All in all, the above sections were concerned with an established surface agreement with lexically overt subject DPs (in movement-triggered scenarios). In the following section, the discussion is directed toward how the proposed assumptions and agreement mechanisms handle the facts with (null) pronouns in SA and briefly with their VD counterparts.

5.3.3 On The Derivation Of (Null) Pronoun-Verb Agreement

A (MP) theorem is that any linguistic analysis to a given phenomenon in a language is measured and characterized based on its capability to account for and cover its associated properties. In the preceding sections (5.2 - 5.3.2.3), I dealt with (non-)syncretic agreement cases with overt (movement-triggered) lexical subject DPs under the proposed morphosyntactic agreement mechanism advanced in this work. In this current section, I direct the discussion to (non-)syncretic subject-verb agreement where the main subject DP is a (null) pronoun, in particular, and an empty category, in general, in SA and the VD. I argue that the same fate that met subject-verb agreement cases with an overtly lexical subject is, to a large extent, extendable to these data. Particularly, both the syntactic and morphological components interplay to derive optimal representations, leading to the two structures being not isomorphic.

Importantly, in section (2.1.2.1), it was indicated that, of the eight major inflectional categories in Arabic, four apply to pronouns: Person, Gender, Number, and Case, and that these come into two forms: independent pronouns and corresponding pronominal suffixes (see tables (1 & 3) in that section). In a word, all non-subject pronouns in SA are clitics, whereas subject pronouns are often lexical free morphemes, as shown in table (12) below for subject pronouns.

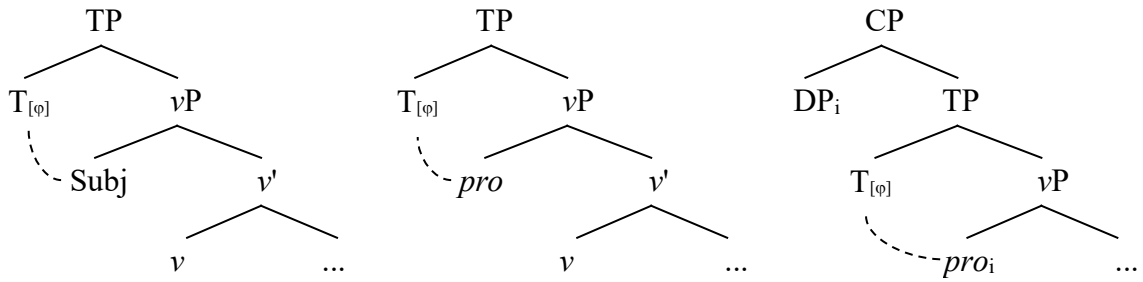
Table (12): Standard Arabic (SA) Subject Pronouns

Person	**Singular**		**Dual**		**Plural**	
	M	**F**	**M**	**F**	**M**	**F**
1	ʔana:		naħnu:			
2	ʔanta	ʔanti:	ʔantuma:		ʔantum	ʔantunna
3	huwa	hiya	huma:		hum	hunna

Additionally, although the subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in SA, this agreement asymmetry is absent whenever the subject DP is a(n) (c)overt pronoun; the verbal predicate displays full φ-agreement regardless of the position of the pronoun.

Moreover, it was argued that lexical DPs are in complementary distribution with pronouns (172a vs. b); either a lexical DP or a pronoun can occur in Spec-*v*P. The only case where the two can co-occur is in a topical interpretation of a preverbal overt subject DPs. The lexical subject DP is in a (left-dislocated) topical position, particularly Spec-CP, and is coindexed with a base-generated null pronoun in the TP domain (c). Significantly, the latter case correlates with full φ-agreement due to T's φ- Probe being in an Agree relation with this null *pro*.

172. **a. Lexical Subject DP:** **b. : Subject (null) *pro*:** **c. Topical Subject DP:**



As can be seen, while it is argued that the agreement asymmetry in the language is attributed to the T's varying φ-Probe composite which interacts with a lexical DPs in SV and VS order, the lack of this asymmetry in case of (null) subject *pro*s is attributed to a full set of unvalued T's φ-Probe, which is imposed by the *pro*-identification requirement. In other words, given the undeniable correlation between full agreement and a(n) (o)vert pronouns, only a complete unvalued φ-feature set, in this work's terms a T with [uPart, uInd, uCL], is compatible with a subject pronoun (Fassi Fehri, 1993; Soltan, 2007; Aoun et al., 2010; Albuhayri, 2019; among many others),

The subject-verb agreement in SA, as repeatedly indicated, is predominantly non-syncretic. The agreement with nominals with different underlying φ-feature compositions is exponed with the typical agreement associated with the language. It is essential, nonetheless, to indicate before delving into the main discussion that whereas some subject pronouns, as illustrated in table (12) above, do not distinguish Gender (e.g., 1st or non-1st dual pronouns), others do not distinguish Number and Gender (e.g., 1st non-singular pronouns). That is, these pronouns are syncretic as far as the relevant φ-feature is concerned, whereby a single vocabulary item, e.g., *ʔana:* "I", is used to phonologically represent different singular 1st person speakers with different Gender valuations, as in "I-$_M$" and "I-$_F$".

Consequently, I assume that the vocabulary items corresponding to the underlying φ-feature composite on agreeing heads may often lack the relevant non-distinguishing feature(s), per the Subset Principle, i.e., they are underspecified. For instance, the fact the 1st singular and non-singular pronouns do not distinguish Gender, and Gender and Number, respectively, suggests that these features do not play a part in Vocabulary insertion. Consequently, taking into account that the underlying φ-features (Person, Number, and/or Gender) relevant for the composite of each pronoun, i.e., the ones that play a crucial part in its distinction, correspond to how they are divided in table (12), I assume that the apparent φ-morphological inflectional exponent on these heads, i.e., the φ-composite relevant for their phonological signals/vocabulary entries, is as in table (13) below (the English pronouns are placeholders for Arabic pronouns whose underlying φ-features subsume one of the listed features, be it nominative or accusative/genitive pronouns, as well as for agreement inflection):

Table (13): Standard Arabic (SA) φ-Feature Exponents

I	= {1SG}	**You-DU**	= {2DU}	**She**	= {3F.SG}
We (both)	= {1}	**You-M.PL**	= {2M.PL}	**They.Both-M/F**	= {3M/F.DU}[79]
You-M	= {2M.SG}	**You-F.PL**	= {2F.PL}	**They-M**	= {3M.PL}
You-F	= {2F.SG}	**He**	= {3M.SG}	**They-F**	= {3F.PL}

Given the feature composition outlined in the table above, it follows that (systematic) syncretism at Vocabulary Insertion occurs when two distinct morphosyntactic nodes are exponed by the same vocabulary item. At the relevant stage for Vocabulary items Insertion, the phonological exponent of a vocabulary item may oftentimes be underspecified relative to the syntactic context in which it is inserted, whereby the latter is fully specified. The syntactic nodes reaching the

[79] Although 3DU pronouns, be it subject or non-subject, are syncretic in Gender, subject pronouns trigger Gender agreement on agreeing heads, be it verbal, adjectives, or demonstrative pronouns. Although subject and non-subject pronouns are featurally underspecified for Gender, other (agreeing) elements are not.

morphological component contain a full complement of morphosyntactic features (Embick & Noyer, 2007, p. 299), though the phonological features of these vocabulary items may be a subset of their matched syntactic morpheme nodes, subject to the Subset Principle (Halle, 2000).

By adopting such a feature-based distinction, it would become possible to capture the role of the syncretic vs. non-syncretic patterns across varying paradigms in a natural way. For instance, the Underspecification of Gender feature in the case of 1st person pronouns and their associated phenomena opens up the possibility for vocabulary candidates that contrast in their Gender feature only to target the relevant terminal node. In other words, its absence "becomes a grammar-wide fact, rather than an accident of vocabulary specification" (Harley, 2008, p. 276). Consequently, a set of pronouns or their associated agreement might compete for insertion in some instances, which, as indicated above, is controlled and resolved by the Subset Principle. With this in mind, the following sections discuss both syncretic and non-syncretic φ-agreement in order, in both matrix and embedded clauses.

5.3.3.1 (Non-)Syncretic Pronoun Agreement: Underspecification & φ-Feature Competition

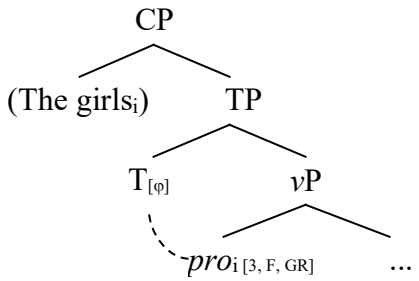
As seen above in tables (12 & 13), apart from 1st and (2nd) dual pronouns, all other pronouns with different underlying φ-features, as well as their φ-feature agreement, are non-syncretic. Each φ-feature set corresponds one-to-one with a morphophonological agreement inflectional item. To take a case in point, consider the verbal agreement with a (null) 3F.PL pronoun, as shown below:

173. a. zur-na *pro* / hunna ʔal-matħaf-a.
visit-3F.PL.PER *EC-3F.PL* *pro-3F.PL* *the-museum.M.SG-ACC*
"They$_{F.PL}$ visited the museum."

b. ʔal-fataj-a:t-u$_i$ ʔal-matħaf-a zur-na *pro*$_i$ la: ʔal-ħadi:qat-a.
the-girl-PL-NOM *the-museum.M.SG-ACC* *visit-3F.PL.PER* *EC-3F.PL* *not* *the-park.F.SG-ACC*
"The girls visited the museum, not the park."

As seen above, a verbal predicate entering into an Agree relation with a 3F.PL (null) pronoun is morphologically inflected with a single vocabulary item whose underlying φ-features correspond in a one-to-one relation with that of the subject pronoun. For that reason, I assume that such a non-syncretic agreement case reflects a typical syntactic Agree valuation with no morphological interference; in such a case, the T's unvalued φ-Probe set targets the (null) subject DP as in (174) below, valuing both the [uClass] and the [uInd] features only, apart from the [uPart] feature given that it gets default valuation due to the (null) pronoun being a non-discourse participant.

174.



The syntactic valuation reaching the interface, hence, is [3F.GR], and no morphological alteration takes place due to the hypothesis that the morphological component in SA, as I argued previously, is sensitive to [CL_{NH}, GR] composition valuation. Per the Subset Principle, the only vocabulary item candidate for such a morphosyntactic terminal morpheme node is "na", which, as shown in table (13) above, is featurally composed of a [3F.PL] φ-feature bundle. Significantly, similar observations can be seen in an established agreement between a verbal predicate and pronouns with different combinations of morphosyntactic feature values, particularly, either 2.SG/PL or 3.SG/DU/PL pronouns with different Gender features, as exemplified for the 2nd person singular pronouns in (175) below.

175. a. zur-ta *pro* ʔal-matħaf-a.
visit-2M.SG.PER *EC-2M.SG* *the-museum.M.SG-ACC*
b. zur-ti: *pro* ʔal-matħaf-a.
visit-2F.SG.PER *EC-2F.SG* *the-museum.M.SG-ACC*
"You$_{2.SG.M/F}$ visited the museum."

Similarly, it is assumed that the syntactic valuation takes its normal course in the derivation with no morphological interference, whereby the pronouns' φ-features transferred to their unvalued counterpart on the verbal predicate are matched with individual non-syncretic candidates (see table (13) above). As indicated previously, these postsyntactic Vocabulary items, in simple terms, define a relation between phonological pieces and the information where they are to be inserted.

The above discussion dealt briefly with non-syncretic cases of subject-verb agreement with pronouns; these agreement cases are non-syncretic since each morphosyntactic φ-feature bundle on a verbal head is matched with a unique candidate. In the following paragraphs, I direct the discussion to syncretic pronoun-verb agreement forms.

To recapitulate, not all subject pronoun-verb agreements are defined in such a non-syncretic mechanism; some subject pronouns do not distinguish Gender (probably a morphological (CTM) one-feature Switch), while others do not distinguish Number (a Number-Gender (CTP) Switch case)[80]. The crucial question, then, concerns whether this is a reflex of syntactic Agree failure. The answer, I believe, is no. To illustrate, I consider these facts below in order.

As observed from table (13) above, one of the syncretic subject pronouns is 1st person pronouns, be it for singular pronouns on the one hand, or dual and plural pronouns on the other. Whereas the first is only syncretic in Gender, the latter is in both Gender and Number, as illustrated, respectively, below.

[80] Interestingly, these cases resemble the CTM and CTP cases observed in the VDs. This type of minimization/syncretism points toward the interrelation between the standard variety and the VDs.

176. a. ʔaina ta-drus-u ?
where 2-study-M.SG.IMP.IND

b. ʔaina ta-drus-i:n ?
where 2-study-F.SG.IMP.IND

"Where do you$_{M/F}$ study?"

c. (ʔana:) ʔa-drus-u fi: ʔal-dʒa:miʕ-ah.
I-M/F 1-study-SG.IMP.IND in the-university-F.SG

"I study at the university."

177. a. ya: Fahd-u wa Majid-u, ʔaina ta-drus-a:n ?
hey Fahad-M.NOM and Majid-M.NOM where 2-study-M.DU.IMP.IND

b. ya: Hind-u wa Zainab-u, ʔaina ta-drus-a:n ?
hey Hind-F.NOM and Zainab-F.NOM where 2-study-F.DU.IMP.IND

c. ya: ʔawla:d-u, ʔaina ta-drus-u:n ?
hey boy.PL-NOM where 2-study-M.PL.IMP.IND

d. ya: fataj-a:t-u, ʔaina ta-drus-na ?
hey girl-PL-NOM where 2-study-F.PL.IMP.IND

"Where do you study, you Fahad and Majid?"

"Where do you study, you Hind and Zainab?"

"Where do you study, you boys / girls?"

e. (naħnu:) na-drus-u fi: ʔal-dʒa:miʕ-ah.
We-PL 1-study-PL.IMP.IND in the-university-F.SG

"We study at the university."

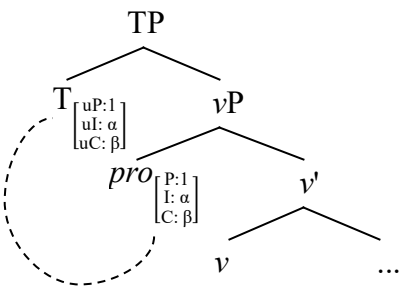
A clear difference between these examples and the previously discussed pronoun cases is that, in the current case, different composite φ-features are morpho-phonologically represented by (a) single form(s). Although the agreement between a verb and its external argument is a purely morpho-syntactic phenomenon, the φ-feature correspondence between these utterances in each hypothetical dialogues above is pragmatic. The reference tracking in the exchanges above is interface independent despite that speakers' mental grammar does regulate the dialogue correspondence (Preminger, 2014; Preminger & Polinsky, 2015).

As observed in (176) above, although the pragmatic context, based on the form of the question asked, involves either a 2nd masculine or feminine singular speaker, both entities' replay takes one (1.SG) form, i.e., both of the bracketed subject pronouns and their associated agreement are all (1.SG), despite that the utterers differ in Gender. Additionally, as seen in (177e), the plural subject pronoun "we" is not only associated with a 1st person plural reference, but it is also manifested in a 1st person dual reference despite that the question forms asked in (a - d) takes varying Gender and Number composite forms. Masculine and feminine Genders, on the one hand, are interplaying with dual and plural Numbers, on the other. The answer takes on the unified (1.PL) form, as evidenced by the bracketed subject pronoun and the agreement it triggers.

Parallel to the early cases, taking into account that i) Agree is obligatory, provided its syntactic configuration is met (Preminger, 2014), and that ii) Agree cannot establish a relation between some features part of an atomic φ-Probe independent of others, I assume that these facts are morphological. Notably, different combinations of morphosyntactic feature values, I argue, are exponed or represented morphologically by the same form or vocabulary items.

To illustrate, consider the 1.DU/PL syncretic forms. Suppose that the T's φ-Probe targets the subject (PL or DU) pronoun in *v*P as in (178) below. Without question, these pronouns enter the derivation with valued Gender feature, considering the pragmatic reference tracking mentioned above. Consequently, the syntactic Agree transfers the valued φ-feature composite on these pronouns to their unvalued counterpart on T, yielding either (1M/F.DU) or (1M/F.PL) valuation. In simple terms, the T's unvalued φ-Probe set targets the (null) DP, valuing all of its unvalued features, including the [uPart] feature given that the pronoun is a discourse (1st) participant.

178.



After spell-out, the syntactic valuation reaches the (PF) interface. By hypothesis, all vocabulary candidates compete for the phonological signals of this valuation, per the Subset Principle; nevertheless, due to the syntactic valuation reaching the interface incorporates a [Part: 1], only the two 1st forms specified in table (13) above compete for such syntactic terminal node. Taking into consideration the assumption that the singular form incorporates a Number specification, it follows that it stands in a conflict with the [Num] feature on the syntactic terminal node; only the plural form, which is underspecified for Gender and Number, win the competition. Analogously, the subject-verb agreement with 1.SG pronouns undergoes similar derivation. However, the only difference is that the singular form among the two 1st vocabulary items wins the competition due to i) being the most specific item in terms of features, and ii) being in compliance with the targeted syntactic node, according to the Subset Principle.

Additionally, it has been shown that dual 2nd pronouns are syncretic; they always show what is referred to in this work as Conversion-to-Gender (probably a CTM, I believe). Remarkably, each of these pronouns triggers a unified subject-verb agreement morphology, but whose Gender reference depends on the pragmatic context, as can be observed from the questions asked in (177a-b) above, and repeated in (179) below, as well as the example in (180).

179. a. ya: Fahd-u wa Majid-u, ʔaina ta-drus-a:n ?
hey Fahad-M.NOM and Majid-M.NOM where 2-study-M.DU.IMP.IND

b. ya: Hind-u wa Zainab-u, ʔaina ta-drus-a:n ?
hey Hind-F.NOM and Zainab-F.NOM where 2-study-F.DU.IMP.IND

"Where do you study, you Fahad and Majid?"

"Where do you study, you Hind and Zainab?"

180. a. ʔantuma:, ya: Fahd-u wa Majid-u, sa-ta-drus-a:ni fi:
you-DU hey Fahad-M.NOM and Majid-M.NOM will-2-study-M.DU.IMP.IND in
ʔal-dʒa:miʕ-ah.
the-university-F.SG

b. ʔantuma:, ya: Hind-u wa Zainab-u, sa-ta-drus-a:ni fi:
you-DU hey Hind-F.NOM and Zainab-F.NOM will-2-study-F.DU.IMP.IND in
ʔal-dʒa:miʕ-ah.
the-university-F.SG

"You$_{F\&M/H\&Z}$ will study at the university."

As can be seen, in a similar fashion to the agreement observed with 1.SG pronouns, the different φ-features composite, which only differs in their Gender reference, are represented morpho-phonologically by a single form. Despite that the pragmatic references in these contexts differ only in their underlying Gender, the agreement morphology and the subject pronoun involve one single (2.DU) form. Accordingly, I assume that these facts are morphological in the sense that the morphosyntactic feature values reaching the morphological exponent are exponed by the same featurally underspecified vocabulary item. In other words, the pronoun is Gender specified upon entering the syntactic derivation and values T's Gender feature. Nonetheless, such a feature does not play a role at Vocabulary Insertion since the associated agreement inflection is underspecified in terms of Gender.

Significantly, the same observations can be demonstrated with either accusative- or genitive assigned pronouns, as shown respectively for 1.SG and 2.DU pronouns below:

181. a. ʔiʕtaqad-a Fahd-un ʔanna-ni: sa-ʔu-sa:fir-u.
believe-3M.SG.PER Fahad-M.NOM that-I.ACC will-1SG-travel-IMP.IND

b. ʔiʕtaqad-a Fahd-un ʔanna-kuma: sa-tu-sa:fir-a:n.
believe-3M.SG.PER Fahad-M.NOM that-you.DU.ACC will-2-travel-DU.IMP.IND

"Fahad believed that I / you$_{-DU}$ would travel."

182. a. ju-ri:d-u-ni: Fahd-un ʔan ʔu-sa:fir-a.
3M-want-SG.IMP.IND-me Fahad-M.NOM to 1SG-travel-IMP-SUB

b. ju-ri:d-u-kuma: Fahd-un ʔan tu-sa:fir-a:.
3M-want-SG.IMP.IND-you.DU.ACC Fahad-M.NOM to 2-travel-DU.IMP.SUB

"Fahad wanted me / you$_{-DU}$ to travel."

183. a. ʔasˁarr-a Fahd-un ʕala-jja ʔan ʔu-sa:fir-a.
insist-3M.SG.PER Fahad-M.NOM on-me to 1SG-travel-IMP-SUB

b. ʔasˁarr-a Fahd-un ʕalai-kuma: ʔan tu-sa:fir-a:.
insist-3M.SG.PER Fahad-M.NOM on-you.DU.GEN to 2-travel-DU.IMP.SUB

"Fahad insisted on me / you$_{-DU}$ to travel."

As shown, Arabic incorporates several types of complementizers. Whereas the embedding *ʔanna* "that" in the vicinity of "think" takes a preverbal discourse DP (181), *ʔan* "to", which occurs with control predicates such as "insist" and "want", do not allow such an (overt) discourse DP (182 - 183). Although the elements with which the embedded predicates establish an Agree relation are null pronouns that are coindexed with a (non-)c-commanding overt non-nominative DPs, the agreement morphology assumes a single form. Significantly, the reference of these over pronominal DPs can be masculine or feminine in the case of 1.SG and 2.DU pronouns, or even a combination in the latter case.

Above all, based on the discussion above, it can be concluded that the syntactic and morphological structures are isomorphic, i.e., the postsyntactic Vocabulary item Insertion is in a one-to-one relation with the terminal syntactic morphemes since no morphological interference occurs. Whatever relations and valuations are established in the overt syntactic component remain intact

at the morphological component (table (14) below) (γ is a variable standing for any of the three person features in Arabic).

Table (14): (Null) Pronoun-Verb Syntactic Agree Paradigms

Noun φ-features			**φ-Agreement**	
Participant	**Number**	**Gender**	**Word Order**	
			VS	**SV**
γ	**SG**	**M**	$\gamma.\alpha.\beta$	
		F		
	DU	**M**		
		F		
	PL	**M**		
		F		

Nevertheless, although the syntactic Agree operation (as well as default valuation, if any) may take place between the verbal predicate and its pronominal subject, later morphological algorithms may often take place to determine the appropriate candidates, i.e., the phonetically lexicalized elements for the established morphosyntactic φ-feature valuations. Put differently, the Vocabulary items investigated above may often be featurally underspecified, i.e., their features are a subset, with respect to their syntactic terminals' morphosyntactic features where they are inserted, subject to the condition that there would be no contradicting features per the Subset Principle.

Overall, in this section, it was argued that no postsyntactic morphological alterations occur due to the SA's morphological component, by hypothesis, is sensitive to the composite [CL_{NH}, GR] valuation. In the following sub-section, I consider how the idiosyncratic agreement facts observed in SA, i.e., those that occur with [CL_{NH}] nouns, are handled when the reference of the above (null) subject pronouns denote such nouns.

5.3.3.2 SA Pronoun-Triggered Idiosyncratic Agreement: A *pro*-Identification Failure?

In the preceding section, I briefly dealt with how non-syncretic and apparent syncretic *pro*-verb agreement morphology are accounted for under this work's proposed mechanism. In this current section, I direct the discussion to the idiosyncratic agreement observed in SA, investigated in section (5.3.2.1), whereby the external argument with which the verbal predicate agrees is a (null) pronoun (coindexed with a lexical DP), rather than being an overt lexical DP. In that section, it was indicated that these idiosyncratic agreement [F.SG] morphology is ascribed to a postsyntactic morphological manipulation of the syntactic φ-feature valuation composition due to SA being sensitive to a [CL_{NH}, GR] feature complex. Additionally, it was argued previously that the full agreement with (null) pronouns is associated with a PF requirement, mainly the *pro*-identification requirement. The main issue in this section concerns whether the assumed *pro*-identification requirement would suppress the observed idiosyncratic (F.SG) agreement attested with non-human lexical subject DPs. In anticipation, the answer would be "no".

On the whole, SA subject-verb agreement morphology, as far as lexical DPs are concerned, is predominantly non-syncretic in the sense that nouns with different underlying φ-feature compositions trigger the typical agreement asymmetry associated with the language. Nonetheless, animal and inanimate nouns, i.e., [CL_{NH}, GR] nouns in general, are exceptions, as repeated below in (184 - 185). The latter DPs trigger a [F.SG] agreement on verbal predicates, regardless of the relative word order and the gender of the noun (the * indicates that these nouns cannot trigger the overt morphological agreement on the verb).

184. a. saqatˤ-a ʔal-ʔasad-a:ni. / ʔal-mabnj-a:ni.
fall-3M.SG.PER the-lion.M-DU.NOM the-building.M-DU.NOM

b. ʔal-ʔasad-a:ni / ʔal-mabnj-a:ni saqatˤ-a:.
the-lion.M-DU.NOM the-building.M-DU.NOM fall-3M.DU.PER
"The two lions-$_{M}$ / buildings-$_{M}$ fell."

c. saqatˤ-at ʔal-zar:f-t-a:n. / ʔal-bina:j-at-a:n.
fall-3F.SG.PER the-giraffe-F-DU.NOM the-building-F-DU-NOM

d. ʔal-zar:f-t-a:n / ʔal-bina:j-at-a:n. saqatˤ-ta:.
the-giraffe-F-DU.NOM the-building-F-DU-NOM fall-3F.DU.PER
"The two giraffes-$_{F}$ / buildings-$_{F}$ fell."

185. a. (*saqatˤ-a) ʔal-ʔusu:d-u. / ʔal-maba:ni. (*saqatˤ-u:.)
fall-3M.SG.PER the-lion.M.PL-NOM the-building.M.PL.NOM fall-3M.PL.PER

b. (saqatˤ-at) ʔal-ʔusu:d-u. / ʔal-maba:ni. (saqatˤ-at)
fall-3F.SG.PER the-lion.M.PL-NOM the-building.M.PL.NOM fall-3F.SG.PER

c. (saqatˤ-at) ʔal-zara:f-a:t-u. / ʔal-bina:j-a:t-u / (*saqatˤ-na.) /
fall-3F.SG.PER the-giraffe-F.PL-NOM the-building-F.PL-NOM fall-3F.PL.PER
(saqatˤ-at)
fall-3F.SG.PER
"The lions-$_{M}$ / buildings-$_{M/F}$ / giraffes-$_{F}$ fell."

As seen, all [CL_{NH}, PL] nouns triggers (F.SG) agreement regardless of the gender of the noun and regardless of the word order. For instance, although the nouns "the lions" and "the giraffes" in (185) can be preverbal, as well as that they differ in their Gender feature, the verbal predicate shows defective (F.SG) agreement. The expected (M.PL/SG) and (F.PL) agreements are infelicitous.

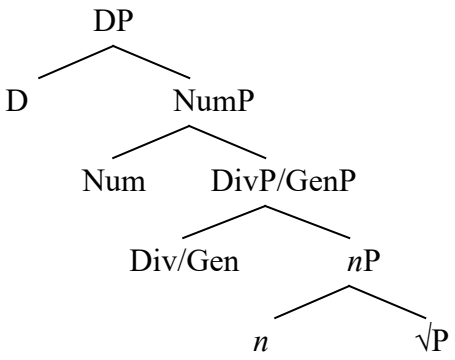
Most important of all, the emerging picture out of the above morphological relations between the nouns and the verbal predicates is that not all plural nouns in SA are alike as far as subject-verb agreement is taken into account; the syntactic and morphological structures seem to be non-isomorphic when an Agree relation is established with these nouns. Whatever relations and valuations are established in the overt syntactic component is altered at the morphological component. It was argued, hence, that the syntactic Agree operation (as well as default valuation, if any)

take(s) place in the relevant manner associated with SA word orders; once the structure is spelled-out, the established morphological φ-feature valuations on the verb may often undergo an Impoverishment-Plus-Redundancy rule before vocabulary insertion.

In retrospect, these idiosyncratic nouns come into two types: (un)singulated vs. BP forms. Significantly, the surface idiosyncratic surface φ-feature agreement, as shown previously, can be associated with a collective, as well as distributive, interpretations. It was argued that the two distinctive readings and their correlated agreement cannot entirely be postsyntactic; rather, I argued that the phenomenon and the arising interpretations are associated with two distinct underlying derivations of their DP hierarchy, i.e., they are assembled in the course of the syntactic derivation, given that i) they have semantic effects, as well as ii) the fact that feminine feature valuation is not the default Gender in Arabic.

In brief, singulated forms denote a type of (countable) nouns that are derived via suffixation of feminine (at ➞ a:t) marker from collective (uncounted) nouns (e.g., zara:f "giraffe" ➞ zara:f-<u>at</u>-un "a giraffe" ➞ zara:f-<u>a:t</u>-un "giraffes"). Whereas the uncountable nouns are masculine, the individuated nouns are feminine. Of major concern, the individuation process, i.e., the Gender-shift, is ascribed to the presence of a designated projection layer (the DivP) encompassing a [F] feature in the DP structural hierarchy, as repeated below in (186), rendering the collective noun distributive. It follows that the hierarchical structure of collective nouns lacks a Division Phrase, in contrast to the countable (individuated) nouns.

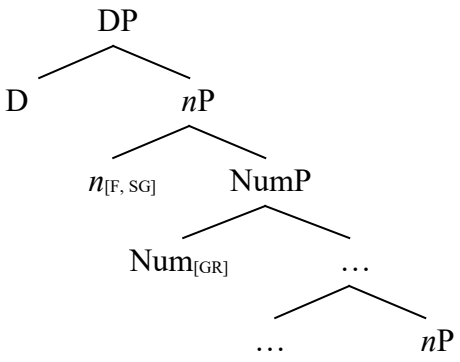
186.



Contrarily, BP nouns denote irregular templatic nouns, and they are also susceptible to the collective vs. distributive interpretations. Parallel to the derivation involved in the singulation process, it was argued that the collective-distributive interpretations with these types of nouns arise due to the presence or absence of the DivP in the hierarchical structure of these DPs; whereas the collective interpretation is due to the absence of such a projection layer, the distributive interpretation is with its presence.

If the defective [F] agreement with the distributive interpretation is associated with such a projection, it remains to explain why the distributive interpretation in both forms and the collective interpretation happen to coincide in their underlying (F.SG) φ-features, as evidenced by the agreement they trigger on the predicate they co-occur with. I argued then that the [F.SG] φ-agreement associated with the collective interpretation is supplied by an *n*P head above NumP in the DP hierarchical structure, as repeated below in (187). That is, the Number-Gender switch, for the most part, is syntactic, and it is supplied by this lexical null *n*P layer within the DP structure of certain nouns in Arabic.

187.



Overall, the hierarchical structure of these idiosyncratic DPs may incorporate designated projections that are associated with lexical collective-distributive interpretations. These lexical projections have both an agreement and semantic inputs. With this in mind, the following discussion will be concerned with the agreement morphology aspect of these types of nouns and its relevance to their presumed *pro*-identification requirement. Thus, the discussion will not dwell on the semantic distinction (for a brief discussion on such a semantic aspect, see section (5.3.2.1.2)).

To begin with, it is well-argued that preverbal subject DPs in Arabic are ambiguous between being a movement-triggered (focus) subject in Spec-TP and an externally merged topical element in the left periphery of the clause, particularly, in Spec-CP. Accordingly, one of the interpretations attributed to all of the preverbal [CL_{NH}] nouns in the examples above is topical, as shown below in (188).

188. ʔal-ʔusu:d-u / ʔal-zara:f-a:t-u ʔal-tˁaʕa:m-a ʔakal-at-hu.
the-lion.M.PL-NOM *the-giraffe-F.PL-NOM* *the-food.M.SG-ACC* *eat-3F.SG.PER-him*
"The lions-$_M$ / giraffes-$_F$ ate the food."

As shown, the verb "ate" and the non-human nouns are intervened by a focused object (the food) above TP, which evinces that these non-human nouns are in an A-bar-position, specifically Spec-CP, given that the verbal predicate is perfective undergoing a *v*-to-T movement. Remarkably, preverbal topical subject DPs, as argued, co-occur and are co-referenced with a base-generated null *pro* in Spec-*v*P, whereby the latter enters into an Agree relation with T's φ-Probe, triggering full

φ-agreement (Fassi Fehri, 1993; Soltan, 2007; Al-Balushi, 2011; Albuhayri, 2019; among others). Albeit such observation, the presumed full agreement is absent on the surface morphological agreement with these null *pro*s in Spec-*v*P. Consider the following example in (189) below.

189. raʔ-at ʔal-ʔusu:d-u / ʔal-zara:f-a:t-u ʔal-tˁaʕa:m-a wa
see-3F.SG.PER *the-lion.M.PL-NOM* *the-giraffe-F.PL-NOM* *the-food.M.SG-ACC* *and*
ʔakal-at-hu kula-hu.
eat-3F.SG.PER-him *all-him*
"The lions-$_{M}$ / giraffes-$_{F}$ saw the food and ate it all."

One of the prevalent hypotheses in the literature is that (at least some manifestation of) Head Movement occurs in the narrow syntax (cf. Matushansky, 2006; Lechner, 2006; Gallego, 2007; Roberts, 2010; Iatridou & Zeijlstra, 2013; among others), in contrast to accounts that assume that it occurs postsyntactically at PF due to its countercyclic nature (cf. Lasnik, 1999; Chomsky, 2000 et seq.; Boeckx & Stjepanović, 2001; among others). Insofar as the *v*-to-T movement in Arabic is concerned, such a movement derives the VS order, which is interpretively distinct from the SV order (Bakir, 1979; Mohammad, 1989; 1990; 2000; Benmamoun, 1992; 2000; Fassi Fehri, 1993; AlQahtani, 2016; Sahawneh, 2017; Albuhayri, 2019; among others).

As indicated in section (2.1.2.2), Arabic verbal forms may have three (aspectual) tenses: perfective, imperfective, and future tense. Equally important, there has been a consensus that the difference between the former two tenses, i.e., past and present (as well as other tenses and modalities) is derivational, achieved via the (featural) composition of the head T(ense) (Benmamoun, 2000; Soltan, 2007; Aoun et al., 2010; Ouali, 2018). Simply put, whereas a past-tense clause mandates the overt and raising of the lexical verb to T, a present-tense clause does not prescribe the movement (Benmamoun, 2000; Soltan, 2007).

Benmamoun (2000) argues that past and present tenses are null [+past] and [-past] morphemes on T, but only the former of which requires lexical support either by (raised or in-situ) verb or negation. The general assumption in the literature is that movement of the verb to T is attributed to the presence versus absence of a feature on T; either φ-features according to Soltan's (2007) mechanism or a [+V] in Benmamoun (2000) and Aoun et al.'s (2010) system. In either case, $T_{[+past]}$, unlike its $T_{[-past]}$ counterpart, carries the aforementioned feature, triggering the verb's movement[81]. All things being equal, I assume Soltan's φ-features analysis as represented below in (190a) and (b) for past and present tenses, respectively.

190. a. $[_{TP}\ T_{[+Past,\ +\varphi]} + (v+V)_k\ [_{AspP}\ t_k\ [_{vP}\ t_k\ \ldots.\ ]\ ]\ ].$

b. $[_{TP}\ T_{[-Past]}\ [_{AspP}\ Asp_{[+\varphi]} + (v+V)_k\ [_{vP}\ t_k\ \ldots.\ ]$

Accordingly, in examples (189) above, the coordinated elements are at least TPs, considering that the two verbal predicates are perfective undergoing a *v*-to-T movement. Interestingly, each of these verbal predicates carries the assumed idiosyncratic agreement morphology. Whereas the verb "saw" is in an Agree relation with the postverbal lexical DPs "the lions/the giraffes", the verb "ate", I believe, is with a null pronoun coindexed with these lexical nouns[82].

As seen above, albeit it is expected that full φ-feature agreement between the predicates and their associated (null) pronouns should be maintained on the surface representation due to the presumed *pro*-identification requirement, such an expectation is not borne out. For that reason, I assume that this reflects a morphological suppression in the sense that the morphological intervention via the I-P-R rule seems to override the presumed PF *pro*-identification requirement.

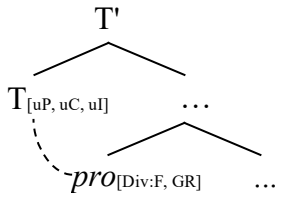
[81] In clauses with present tense, the feature is assumed to reside on the Aspect head, deriving the VS order.

[82] As far as the Topic-*pro* coreference, in line with Soltan (2007, p. 63, f. 21), I assume that the obligatory coreference between the topical subject DP and the base-generated null pronoun in Spec-*v*P with which it is coindexed involves A'-binding (McCloskey (Non-dated) as cited in Soltan, 2007). The latter element is interpreted as a variable element whose most local binder occupies an A'-position (Safir, 1986). On the other hand, as for the coreference established between the null *pro* and the non-c-commanding lexical DP in these examples, One may assume that a null (aboutness) topic mediates the coreference between the lexical DP and the null pronoun in the left periphery of the clause, i.e., the null subject has a dependent reference on some other element in the clause.

Based on Harley & Ritter's (2002) assumptions, pronouns are feature-geometrically structured. Taking this as a base-ground, I assume that the co-reference between the [CL_{NH}] nouns and the (null) pronouns and their collectivity-distributivity distinction are established on structural identity for LF reasons, i.e., they are derivational[83]. Put differently, the fact that these nouns are underlyingly [CL_{NH}: F/M], depending on the DP structure, suggest that the (null) pronouns corresponding to them incorporate such a distinction. That is, the [Humanness], as well as the presence of designated distributive-collective projections, I believe, play a crucial role in their binding/co-reference relations. Therefore, I assume that, in such a case, the syntactic-morphological derivations to the surface agreement morphology take the same step-wise accounts proposed to their associated lexical DPs under a SV word order, as briefly shown below.

The distributive interpretation (of both singulated and BP pronouns) and its associated agreement are associated with a DivP encompassing a Gender-shift process (to [F] feature) in the DP hierarchy. When T's unvalued φ-Probe set targets the pronoun, the [uPart] and [uCL] features are valued as [3] and [F] valuations, respectively, given that they are not discourse participant, and their syntactic structures include a DivP with [F] feature. The [uInd] feature, by hypothesis, is syntactically active since it is not lexically determined and matches with the (null) pronoun [GR] feature, as illustrated below in (191) (irrelevant information is omitted).

191.



[83] The fact that a replay to the question "who/what is the reference of this (null) pronoun?" must semantically encompass the presumed [Humanness] distinction suggests that these pronouns must be hierarchically structured, in a similar fashion to their overt lexical counterparts. In other words, this would be reflected in the classificatory of such a pronoun as [non-human, PL, M/F] and other classes of features to distinguish its reference from human entities.

As shown, the syntactic output of the agreement valuation would yield [3F.GR], which is not borne out on the surface representation. In a similar fashion to their associate lexical DPs, I assume that the two structures in the syntactic and morphological components are not entirely identical due to the presumed intervention effect observed as a consequence of the presence of [CL_{NH}, GR] composite as part of the φ-Probe; the [GR] valuation undergoes the I-P-R rule, repeated below, yielding a [3F.SG] morphological inflection.

192. **Non-Human Plural Agreement Impoverishment:**

a. Impoverishment: [Ind: GR] ➞ [Ind: __] / [CL_{NH}]

b. Redundancy: [Ind: __] ➞ [SG]

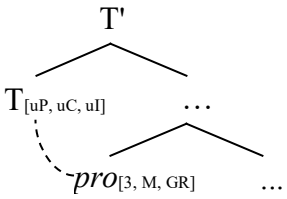
The above account concerns the agreement in a distributive interpretation of these DPs, it remains to show how the agreement facts with their collective interpretation counterparts are handled. However, it is important to remember that although the collective interpretation of singulated and BP nouns is still tied with the absence of a DivP layer and its Gender-shift effect, the former is derived from an uncountable (collective) DP, which triggers [M.SG] morphological inflection on the elements they agree or occur with as in (193).

193. ʔal-samak-u ʔakal-a ʔal-tˤaʕa:m-a.
the-fish.M.PL-NOM eat-3M.SG.PER the-food.M.SG-ACC
"The fish-$_M$ ate the food."

194. raʔ-a: ʔal-samak-u ʔal-tˤaʕa:m-a wa ʔakal-a-hu kula-hu.
see-3M.SG.PER the-fish.M.PL-NOM the-food.M.SG-ACC and eat-3M.SG.PER-him all-him
"The fish-$_M$ saw the food and ate it all."

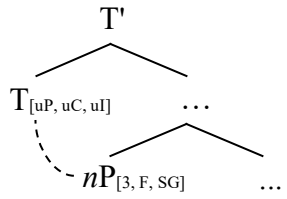
It was argued that the collective unsingulated forms' DP structure incorporates lexically determined [M] and [GR] features. Accordingly, when the φ-Probe target the pronoun, the [uCL] and [uInd] features are valued as [M] and [GR] as in (195), rendering the φ-feature valuation composite susceptible to the I-P-R- rule above, due to being [CL_{NH}, GR].

195.



In contrast, the collective structure of singulated and BP nouns and its associated idiosyncratic [F.SG] surface agreement were attributed to the (null) *n* head above NumP ((187) above) in the DP hierarchy. Therefore, I assume that the syntactic output of the φ-Probe targeting the pronoun is [3F.SG], as in (196), with no morphological intervention in the manner illustrated above.

196.



The above account concerns the agreement in a collective-distributive derivation of (non-human) BP and (un)singulated nouns[84]. By and large, not all plural nouns in SA are alike as far as subject-verb agreement is taken into account. [CL_{NH}] nominal elements, be it lexical nouns or (null) pronouns, in contrast to human ones, trigger the overmentioned idiosyncratic (F.SG) surface agreement morphology on the predicate regardless of the gender of the noun and regardless of the relative word order between the subject and the verb. As repeatedly indicated, this agreement is a consequence of an interplay between the syntactic and postsyntactic computations. Significantly, the PF *pro*-identification requirement that presumably constrains the type of φ-Probe set co-occurring with (null) pronouns seems to be suppressed in favor of the presumed I-P-R rule intervention, which is triggered due to SA's sensitivity to a [CL_{NH}, GR] composite valuation.

[84] The derivation of collective-distributive interpretations for human BP pronouns coindexed with lexical ones would receive a similar account to the one proposed to their non-human noun counterparts. The only differences are that i) their DP structure under a distributive interpretation lacks a [F] feature in DivP, in contrast to non-human nouns, and ii) no morphological intervention occurs, as argued previously.

In simple terms, considering that the null *pro*-lexicalization at PF, via Vocabulary Insertion, is irrelevant to the presence of full agreement, as argued for in this work, it follows that the *pro*-identification via agreement morphology remains intact. Simply put, the latter is an interface condition requiring the identification of null *pro*s, and it is irrelevant to the postsyntactic insertion of *pro*'s complex φ-features.

In the following section, I briefly visit the syncretic cases in the VD, discussed earlier, which points toward i) the same conclusion regarding the interrelation between the standard variety and the modern dialects, ii) the *pro*-identification apparent failure, and iii) the cross-dialectal variations in terms of such an agreement.

5.3.3.3 A VD Correspondence

In retrospect, one of the core hypotheses of this work is that the range of surface agreement morphology, i.e., the rich agreement paradigms, in the contemporary dialects is narrower than that of the standard variety, which, as shown previously, tone nicely with this work's proposed account. In contrast to the standard variety, the subject-verb agreement, and the pronoun paradigms, as shown in table (15) below for subject pronouns, in the current dialects are predominantly syncretic.

Table (15): Dialect Subject Pronouns

Person	**Singular**		**Dual**		**Plural**	
	M	**F**	**M**	**F**	**M**	**F**
1	ʔana:		ʔinna: / ħina:			
2	ʔint	ʔinti:	ʔintu: / ʔintum			
3	hu:	hi:	hum			

Non-syncretic pronouns, as shown in the table above, as well as a one-to-one morphological agreement correlation between a φ-feature on a noun and an agreeing head, as indicated previously, are mostly restricted to singular nouns and masculine plural nouns only. Whatever relations

and valuations are established in the overt syntactic component remain intact at the morphological component (cf. section (5.2) above). In contrast, consider the non-singular paradigms in the table above. The syncretic phenomenon observed with 1st person non-singular pronouns in SA seems to be maximized or extended to define other person (2nd and 3rd) pronouns in the dialect (cf. table (12) above).

With this in mind, I assume that the apparent φ-morphological inflectional exponent on these heads, i.e., the φ-composite relevant for their phonological signals/vocabulary entries, in the VD is as in table (16) below. As observed, at the relevant stage for Vocabulary item Insertion, the vocabulary item's φ-feature composition, more evident with 1st person pronouns, might be featurally underspecified with respect to the abstract morphosyntactic features of their counterparts on agreeing heads.

Table (16): Dialect φ-Feature Exponents

I	= {1SG}	**You (both/all)-M**	= {2M.PL}
We (both)	= {1}	**He**	= {3M.SG}
You-M	= {2M.SG}	**She**	= {3F.SG}
You-F	= {2F.SG}	**They (both/all)-M**	= {3M.PL}

In the meantime, I limit the discussion to the syncretic forms in the dialect investigated, which were subsumed under two categories: a Morphological One-feature Switch (either CTP or CTM cases, discussed in section (5.3.1) above) and ii) Number-Gender Switch (dual feminine & idiosyncratic cases, in sections (5.3.2.2) and (5.3.2.3)). These will briefly be discussed in such an order, focusing on their (null) pronoun-verb agreement morphology. All in all, the core assumption is that the syntactic and morphological structures may not often be isomorphic; syncretic forms undergo different morphological interferences.

Notably, whereas CTP cases represent a syncretism to plural agreement morphology on predicates triggered by plural or dual nouns, the CTM cases represent a syncretism triggered by masculine and feminine nouns to masculine agreement morphology. Interestingly, like the idio-syncratic cases in the standard variety, pronominal elements trigger the subject-verb agreement associated with their overt lexical DPs, as shown in (197 - 198) and (199) for CTP and CTM, respectively.

197. a. ʔil-walad-ain / ʔil-ʔasad-ain / ʔil-mabnaj-ain tˤa:ħ-u:.
the-boy-DU *the-lion.M-DU* *the-building.M-DU* *fall-3M.PL.PER*
"The two boys / lions-$_{M}$ / buildings-$_{M}$ fell."

b. ʔil-ʔawla:d / ʔil-ʔisu:d / ʔil-miba:ni tˤa:ħ-u:.
the-boy.PL *the-lion.M.PL* *the-building.M.PL* *fall-3M.PL.PER*
"The boys / lions-$_{M}$ / buildings-$_{M}$ fell."

198. a. ʃa:f-u: ʔil-walad-ain / ʔil-ʔasad-ain ʔil-ʔakil wa
watch-3M.PL.PER *the-boy-DU* *the-lion.M-DU* *the-food.M.SG* *and*
kal-u:-h kila-h.
eat-3M.PL.PER-him *all-him*

b. ʃa:f-u: ʔil-ʔawla:d / ʔil-ʔisu:d ʔil-ʔakil wa kal-u:-h
watch-3M.PL.PER *the-boy.PL* *the-lion.M.PL* *the-food-M.SG* *and* *eat-3M.PL.PER-him*
kila-h.
all-him
"The (two) boys / lions-$_{M}$ saw the food and ate it all."

199. a. ʔil-bana:t / ʔil-zara:f-a:t ʔil-bina:j-a:t. tˤa:ħ-u:
the-girl.PL *the-giraffe-F.PL* *the-building-F.PL* *fall-3M.PL.PER*
"The girls / giraffes-$_{F}$ / buildings-$_{F}$ fell."

b. ʃa:f-u: ʔil-bana:t / ʔil-zara:f-a:t ʔil-ʔakil wa kal-u:-h
watch-3M.PL.PER *the-girl.PL* *the-giraffe-F.PL* *the-food-M.SG* *and* *eat-3M.PL.PER-him*
kila-h.
all-him
"The girls / giraffes-$_{M}$ saw the food and ate it all."

Earlier, it was indicated that preverbal subject DPs are ambiguous between being a movement-triggered (focus) subject in Spec-TP or an externally merged topical element in Spec-CP coindexed with a null *pro* in Spec-*v*P. Hence, the preverbal DPs in the above examples (197 & 199a) can assume a topical interpretation. Additionally, it was contended that the examples in (198 & 199b) constitute coordination of at least two TPs since the verbal predicates are perfective, which undergo a *v*-to-T raising. Finally, it was argued that (null) pronouns are feature-geometrically structured, similar to the overt lexical DPs. The co-reference between a given overt DP and a pronoun is established on structural identity for LF reasons. These assumptions entail that the syntactic-morphological derivations to the surface agreement morphology take the same step-wise account as their lexical DP counterparts, as briefly shown below.

First, the fact that dual pronouns trigger plural agreement was ascribed to a syntactic factor. Mainly, I argued that the syntactic Agree operation establishes a φ-agreement with the DP in Spec-*v*P in the relevant manner associated with the dialect, i.e., according to how the φ-Probe is relativized in such a variety (200). In an Agree relation with plural pronouns, the φ-Probe targets the DP, and the [uGR] part of the φ-Probe finds a simple [Ind] with a single [Group] node on plural nouns. Analogously, the [uGR] targets the dual subject noun in Spec-*v*P, whereby it finds the [GR] node part of the [Ind] complex mother node, however, yielding a syntactic 3PL valuation (irrelevant nodes are omitted).

200. **a. DU Pronouns:** **b. PL Pronouns:**

As may be observed, taking into account that the T's φ-Probe incorporates a [uGR], it follows, then, that the agreement is always a [Group], whether the DP incorporates [Group] or [Group-Minimal] Number feature, since, feature geometrically speaking, the [Group] and [Minimal] features constitute independent nodes. Once the structure is spelled-out, the established morphological φ-feature valuations on the verb are phonetically lexicalized as is due to the hypothesis that no morphological interference occurs.

On the contrary, the fact that any agreement with plural masculine or feminine pronouns surfaces with masculine morphology was argued to be a conspiracy between the syntactic and morphological components. To be specific, when the φ-Probe, mainly the [uGR] and the [uCL], targets the plural nouns, the syntactic Number and Gender valuations are [GR] and [M/F], respectively, yielding 3M/F.PL, depending on the Gender of the DP, as shown in (201) below.

201. **a. Masculine Nouns:** **b. Feminine Nouns:**

As seen in examples (197b, 198b & 199), the agreement with either plural masculine or feminine nouns triggers masculine agreement on the verb. As argued previously, the Gender-shift to [M] in the case of feminine pronominals is due to morphological interference. Such a hypothesis was attributed to the idea that the dialect at hand is morphologically sensitive to [F, GR] composite, altering the [F] feature to the default [M] Gender valuation in the vicinity of [GR] feature before Vocabulary Insertion, as shown by the I-P-R- rule repeated below in (202).

202. **Impoverishment Rule for Dialect Gender Syncretic Agreement:**

a. Impoverishment: [CL: F] ➞ [CL: __] / [Ind: GR]

b. Redundancy: [CL: __] ➞ [M]

Simply put, with F.PL pronouns, the syntactic valuation takes its normal course as their masculine counterparts; nevertheless, at the morphological component, a rule of I-P-R occurs whereby the [F] valuation is deleted, and a default [M] valuation is supplied instead.

Moreover, one ramification of the above-observed two phenomena is that the CTP and CTM, presumably, join forces whenever the Agree relation is established between a predicate and a dual feminine noun, which is borne out on the surface representation, as shown below.

203. a. ʔil-bint-ain / ʔil-zara:f-t-ain / ʔil-bina:j-t-ai:n tˤa:ħ-u:.
the-girl-DU *the-giraffe-F-DU* *the-building-F-DU* *fall-3M.PL.PER*
"The two girls / giraffes / buildings-$_F$ fell."

b. ʃa:f-u: ʔil-bint-ain / ʔil-zara:f-t-ain ʔil-ʔakil wa
watch-3M.PL.PER *the-girl-DU* *the-giraffe-F-DU* *the-food-M.SG* *and*
kal-u:-h kila-h.
eat-3M.PL.PER-him *all-him*
"The two girls / giraffes-$_F$ saw the food and ate it all."

Under such a scenario, Agree establishes a relation analogous to how it is manifested in CTP cases, and the syntactic valuation output undergoes the Gender-shift observed with CTM contexts whenever the [F] valuation is in the vicinity of [GR], as demonstrated above, yielding a Number-Gender switch case. Overall, there is a masculine-feminine syncretism when it comes to plural and dual nouns. The [uGR] probing feature plays an essential part in the CTM cases, whether the agreement with plural or dual nominals. In addition to the masculine agreement, the plural agreement is morphologically resorted to.

Finally, SA's idiosyncratic agreement morphology manifested in sections (5.3.2.1 & 5.3.3.2) was argued to have a resembling behavior in the VDs. Although all plural nouns in the VDs, whether human or non-human and masculine or feminine, trigger masculine plural agreement inflection, [CL_{NH}] nouns, in contrast to human plural nouns, can trigger a F.SG surface agreement.

204. a. ʔil-ʔisu:d / ʔil-miba:ni tˤa:ħ-at
the-lion.M.PL *the-building.M.PL* *fall-3F.SG.PER*
"The lions-$_M$ / buildings-$_M$ fell."

b. ʔil-zara:f-a:t / ʔil-bina:j-a:t. tˤa:ħ-at
the-giraffe-F.PL *the-building-F.PL* *fall-3F.SG.PER*
"The giraffes-$_F$ / buildings-$_F$ fell."

c. ʃa:f-at ʔil-ʔisu:d / ʔil-zara:f-a:t ʔil-ʔakil wa kili-t-ah kila-h.
see-3F.SG.PER *the-lion.M.PL* *the-giraffe-F.PL* *the-food-M.SG* *and* *eat-3F.SG.PER-him* *all-him*
"The lions-$_M$ / giraffes-$_F$ saw the food and ate it all."

Without delving deeply into the issue, assuming that i) the two agreement options, similar to SA, come with a semantic difference (see contexts I – IV in section 5.3.2.2), and ii) that these interpretations arise derivationally based on the DP hierarchal structure, it follows that the syntactic-morphological facts arise relative to how the T's φ-Probe interacts with these nominals. Crucially, whereas a M.PL interpretation is much associated with distributivity (i.e., a DivP projection), the F.SG agreement is associated with a collective interpretation ascribed to a (null) *n*P, which creates a herd-type interpretation of plural entity.

205. **a. Distributivity:** **b. Collectivity**[85]**:**

Starting with the distributive interpretation of these types of DPs and their associated (M.PL) agreement, owing to the assumption that the DP structure incorporates a DivP layer responsible for the Gender-shift to [F] feature, I assume that when the DP pronominal is targeted, all of the φ-Probe features, apart from [uPart] feature, is syntactically valued. Whereas the [uGR] matches the [GR] features on the DP, the [uCL] feature receives a [F] valuation. It follows that the syntactic valuation is [3F.GR] regardless of the underlying Gender of the non-human pronoun, which is not borne out on the surface representation. The overt morphological agreement on the surface representations under such an interpretation is [3M.GR], as it is the norm in the dialect, which suggests that the morphological component manipulates the valuation in the relative manner repeated in (206) below, i.e., it undergoes a postsyntactic CTM rule before vocabulary insertion.

206. **Impoverishment Rule for Dialect Gender Syncretic Agreement:**

c. Impoverishment: [CL: F] ➞ [CL: __] / [Ind: GR]

d. Redundancy: [CL: __] ➞ [M]

In contrast, under a collective interpretation and its associated F.SG agreement, it was contended that the idiosyncratic F.SG agreement is due to the (null) *n*P above NumP in the DP hierarchy. Consequently, when T's φ-Probe targets the pronormal subject element in *v*P, the syntactic valuation output is uniformly [3F.SG]; all of the Probe's unvalued features, excluding the [uCL]

[85] It is important to remember that, in section (5.3.2.2), it was argued that under a collective interpretation of singulated forms, the DivP is absent since GenP and DivP are in complementary distribution, and they are at the same level in the DP hierarchical structure, whereby the presence of one excludes the other.

feature, receive postsyntactic default valuation; the [uCL] is valued as [F] since the null *n*P incorporates a [F] feature. In such a case, it is assumed that the syntactic and morphological structures are isomorphic, with no postsyntactic adjustment, given that the morphological structure in the VD is sensitive to a [F, GR] composite valuation.

Based on such an account for the subject-verb agreement in the VD, the DP's hierarchical structure for each interpretation should, by hypothesis, governs other types of agreement with these non-human nouns, be it for adjectives, demonstrative or clitic pronouns, which is borne out in such a VD, as in (207) below (underline defines the possible source of ill-formedness).

207. a. ha:ðu:la: ʔil-ʔisu:d_i ʔil-dʒa:jʕ-i:n hidʒam-u: kila-hum$_i$ … .
these *the-lion.M.PL* *the-hungry-M.PL* *attack-3M.PL.PER* *all-them.M*

b. ha:ði: ʔil-ʔisu:d_i ʔil-dʒa:jʕ-ah hidʒam-at kila-ha:$_i$ … .
this-F *the-lion.M.PL* *the-hungry-F.SG* *attack-3F.SG.PER* *all-her*

c. *ʔil-ʔisu:d ʔil-dʒa:jʕ-ah <u>hidʒam-u:</u> kila-ha: … .
the-lion.M.PL *the-hungry-F.SG* *attack-3M.PL.PER* *all-her*

d. *ʔil-ʔisu:d ʔil-dʒa:jʕ-i:n <u>hidʒam-at</u> kila-hum … .
the-lion.M.PL *the-hungry-M.PL* *attack-3F.SG.PER* *all-them.M*

"(All of) these hungry lions attacked … ."

To sum up, apart from singular and masculine plural nominals, the predicate agreement with nominals of varying φ-feature compositions are syncretic. Whereas some syncretic cases are syntactic, others are syntactic-morphological, i.e., they are a consequence of an interplay between the syntactic and postsyntactic computations. Significantly, the (null) *pro*-verb agreement morphology illustrated in this section points toward the same conclusion reached in the preceding section, whereby it is argued that the presumed PF *pro*-identification requirement is often morphologically suppressed in favor of the I-P-R rule.

5.4 Summary

In sum, SA surface agreement morphology is broader than that of the present-day dialects because the former is predominantly non-syncretic compared to the latter. Of the possible subject-verb agreement computations in the VDs, the non-syncretic morphological agreement is restricted to agreements triggered by either singular nouns or masculine plural nouns. Importantly, it was contended that the non-syncretic agreement manifestations in both SA and the VD suggest that the syntactic and morphological structures are isomorphic; whatever relations and valuations are established in the overt syntactic component, per the relevant manner associated with each variety, remain intact at the morphological component.

As far as the syncretic subject-verb agreement is concerned in Arabic, the discussion went over a couple of manifestations, subsumed under two categories: i) Morphological One-feature Switch cases attested mostly in the VDs, and ii) a Number-Gender Switch attested in both varieties. The former are subsumed under two categories: i) Conversion-to-Plural (CTP), and ii) Conversion-to-Masculine (CTM). The latter types, in contrast, are found in i) SA subject-verb agreement with [non-human, PL] nouns, and Dialect subject-verb agreement with iii) [non-human, PL] nouns, and iii) dual feminine nouns. All in all, the core assumption was that syncretic forms might undergo different morphological interferences, subject to dialect/variety-specific requirement(s) or sensitivity.

Overall, the gist of the discussion in this chapter is that whether the subject is a lexical DP or a (null) pronoun, the fate facing one in a given variety is assumed to face the other. In other words, whether the Agree relation is an established surface agreement with lexically overt subject DPs or (null) pronouns, the fact remains that sometimes both the syntactic and morphological components interplay to derive optimal representations, leading to the two structures being not

isomorphic. Such a morphological intervention may suppress the presumed *pro*-identification requirement imposed on null pronouns in Arabic.

CHAPTER (6)
Conclusion, Implications, & More

This chapter summarizes the present thesis's theoretical and empirical conclusions and discusses some of the proposed account's implications. It also considers questions that may raise, given the underlying mechanism of the agreement account. Finally, it comments on some research routes that I would like to explore in future research against the backdrop of the proposal made in this thesis.

6.1 Conclusion

The subject DP relative order with respect to the verbal predicate influences the possible subject-verb-agreement choices attested in SA, though such an agreement asymmetry may not be absolute. The crux of the matter is that the agreement asymmetry associated with SA is absent in well-documented uses in the standard variety, both CA and SA. What's more, the SA agreement asymmetry is lost in most, if not all, of the modern VDs, and the latter varieties' Gender and Number morphology distinctions may often be minimized. Despite this dissimilarity in terms of the subject-verb agreement, SA and the VDs are mostly alike in some other matters.

The discussion throughout chapters (3 - 5) promotes the idea that the subject-verb agreement attested in SA and the Arabic dialects is a reflex of how each dialect relativizes its φ-feature atomic bundle on a functional head (namely, T or Asp) along a rich fine-grained φ-feature geometry. In turn, it interplays with how Agree takes place syntactically. Such an account hopes to pertain to the evolutional aspect, i.e., the interrelation, between the standard variety and its descendent dialects, as well as to address the cross-dialectal variations, in contrast to previous accounts, which to my knowledge, has not been attempted before for subject-verb agreement. It also hopes to pave the analysis to cover the other CA non-standard uses pointed out in chapter (3),

some of which form the baseline argument advanced against the notable agreement asymmetry generalization observed in SA.

The overall assumption was that although these types of agreement data may seem, from a syntactic Agree & SA perspectives, special and unnatural, these outwardly non-canonical agreement patterns, I argued, are often manifestations of the core syntactic Agree mechanism and that their agreement behavior is often attributed to a fundamental mismatch between the syntactic and morphological components, subject to variety/dialect-specific requirement(s). In simple terms, I argued that these agreement patterns attest very general conditions on the agreement and φ-features manifestations in Arabic, defined in terms of restrictions on T's φ-Probe that agrees with a subject DP. In the syntactic component, Agree establishes a relation between T's relativized φ-Probe and a (covert) subject DP in its domain, subject to dialect/variety-specific mechanism and requirement(s). Nonetheless, under certain cases, further postsyntactic morphological processes may take place, altering the feature composition of a given head before Vocabulary Insertion occurs.

Given this formulation of the conditions advanced here, the baseline counterargument advanced in the literature, I believe, dissolves. The agreement facts across the Arabic varieties arise naturally and predictably from the interaction of Agree, conditions on T's φ-Probe, and postsyntactic requirements. For illustration, the work contrasts SA with a VD, known as Najdi Arabic (NA), under the Agree-based system of Chomsky (2000 et seq.), the assumptions in Distributed Morphology (Halle & Marantz, 1993; 1994; Halle, 1994), and the feature geometry advocated by Harley & Ritter (2002), among others. In particular, it was argued that whereas SA's T head is argued to incorporate one of the following φ-Probe bundles: i) $T_{[uPart,\ uInd,\ uClass,\ EPP]}$, or ii) $T_{[uPart,\ vSG,\ uClass]}$, for SV (full agreement) and VS (partial agreement) orders, respectively, the VDs, in general, and NA, in particular, incorporate a $T_{[uPart,\ uGroup,\ uClass,\ EPP]}$ Probe, given that no modern dialect, to

my knowledge, displays the agreement asymmetry attested in SA. To illustrate the derivation, consider the following examples in (208) and (209) for SA and NA, respectively (brackets denotes subject's (copy) choice).

208. a. (*ʔal-ʔawla:d-u) dʒalas-a ja-ktub-u (ʔal-ʔawla:d-u).
the-boy.PL-NOM sit-3M.SG.PER 3M-write-SG.IMP.IND the-boy.PL-NOM

b. (*ʔal-ʔawla:d-u) dʒalas-a (ʔal-ʔawla:d-u) ja-ktub-u:n.
the-boy.PL-NOM sit-3M.SG.PER the-boy.PL-NOM 3M-write-PL.IMP.IND

c. (ʔal-ʔawla:d-u) dʒalas-u: (*ʔal-ʔawla:d-u) ja-ktub-u:n.
the-boy.PL-NOM sit-3M.PL.PER the-boy.PL-NOM 3M-write-PL.IMP.IND
"The boys were sitting writing."

d. (ʔal-ʔusu:d-u) dʒalas-at (ʔal-ʔusu:d-u) ta-ʔakul … .
the-lion.M.PL-NOM sit-3F.SG.PER the-lion.M.PL-NOM 3F-eat-SG.IMP.IND

e. *dʒalas-a ʔal-ʔusu:d-u ja-ʔakul-u:n … .
sit-3M.SG.PER the-lion.M.PL-NOM 3M-eat-PL.IMP.IND
"The lions were sitting eating … ."

209. a. (ʔil-ʔawla:d) qaʕad-u: (ʔil-ʔawla:d) ja-ktib-u:n (ʔil-ʔawla:d).
the-boy.PL sit-3M.PL.PER the-boy.PL 3M-write-PL.IMP.IND the-boy.PL
"The boys were sitting writing."

b. qaʕad-u: ʔil-ʔisu:d ja:-klu:n … .
sit-3M.PL.PER the-lion.M.PL 3M-eat-PL.IMP.IND

c. qaʕad-at ʔil-ʔisu:d ta:-kil … .
sit-3F.SG.PER the-lion.M.PL 3F-eat-SG.IMP.IND
"The lions were sitting eating … ."

Taking into consideration, as discussed previously, that the two verbal predicates in these examples constitute mono-clausal domain, it follows, according to the account proposed here, that the agreement established, as well as whether the agreement asymmetry is available, arise due to the presumed φ-feature relativized Probe(s), its interaction with Agree, and whether a given φ-feature composite valuation would trigger postsyntactic interference. The agreement asymmetry in SA (208a - c), in contrast to NA (209a), for instance, I argued, follows from the proposed relativized φ-Probe options available in both varieties. Assuming that the verbal predicates reside

in/moves to T and Asp, respectively, and that both heads carry a relativized φ-Probe in the manner associated with each variety, it follows that the subject DP in SA can only raise to Spec-AspP and/or Spec-TP iff the φ-Probe is entirely unvalued, given that the EPP is an attribute of T/Asp's unvalued [Ind] feature, or, generally unvalued φ-feature set, in contrast to NA whose φ-Probe encompasses a full set of unvalued features.

Additionally, consider the obligatory defective agreement observed in SA with non-human nouns (208d - e) and its optionality in NA (209b - c). I argued that the apparent idiosyncratic surface agreement and its obligatoriness are postsyntactic or, more particularly, a morphological process, in essence, considering that some φ-feature compositions are offending in one variety, contrary to some others, triggering some interface intervention.

I believe that one virtue of such an approach to the subject-verb agreement is that it i) avoids the issues raised against the previous account to SA agreement asymmetry, surveyed in chapter (3), and ii) gives a rationale for other subject-verb agreement phenomena attested in Arabic, as will be discussed in the following section.

6.2 Implications

Amongst the goals of generative linguistics is to determine the general conditions and principles, whose interactions yield the broadest possible empirical coverage. This thesis's proposed account has aimed to uncover the common architecture of the subject-verb agreement mechanism across the Arabic dialects. The selection of the internal formal features of a φ-Probe, is argued, has a crucial impact on the expected subject-verb agreement in a given language.

Therefore, the implication of the above account, I assume, is that the apparent counterargument(s) to the agreement asymmetry generalization from CA non-standard uses, such as the obligatory subject-verb agreement regardless of the word order in (210a - b), as well as the fact

that animal nouns trigger full agreement (c), in contrast to SA, follows, accordingly, from how such a CA tribe, so-called *ʔakalu:-ni: ʔal-bara:ɣi:θ* "lit: the fleas ate me", relativizes its T'φ-Probe, as well as the fact that the SA's offending [CL_{NH}, GR] feature valuation composite has no postsyntactic consequence at this particular CA dialect. I assume, thus, that i) the lexically [vSG] determined T's φ-Probe in SA is absent in this dialect, and that ii) this particular dialect's morphological component is insensitive to the presumed offending φ-feature composite.

210. a. ʔaqbal-u: ʔal-muhaniʔ-u:n.
come-3M.PL.PER *the-well.wisher.M-PL.NOM*
"The well-wishers came."

(Hasan, 1975, v. II)

b. qa:m-a: ʔax-wa:-ka.
stand-3M.DU.PER *brother-DU.NOM-your*
"Both of your brothers stood."

(Al-kawari:, 2008, p. 266)

c. ʔakal-u:-ni: ʔal-bara:ɣi:θ.
eat-3M.PL.PER-me *the-flea-M.PL.NOM*
"The fleas bite me."

Similar observations can be stated for the cross-dialectal variations within the current dialects. Consider the following examples from Qassimi (NA) dialect (211 - 212) below.

211. a. ʔil-bana:t ʃa:fa-nn ʔil-film.
the-girl.PL *watch-3F.PL.PER* *the-movie.M.SG*
b. ʃa:fa-nn ʔil-bana:t ʔil-film.
watch-3F.PL.PER *the-girl.PL* *the-movie.M.SG*
c. ʔil-bint-ain ʃa:fa-nn ʔil-film.
the-girl-DU *watch-3F.PL.PER* *the-movie.M.SG*
d. ʃa:fa-nn ʔil-bint-ain ʔil-film.
watch-3F.PL.PER *the-girl-DU* *the-movie.M.SG*
"The (two) girls watched the movie."

212. a. ʔil-ʔawla:d ʃa:f-u: ʔil-film.
the-boy.PL watch-3M.PL.PER the-movie.M.SG
b. ʃa:f-u: ʔil-ʔawla:d ʔil-film.
watch-3M.PL.PER the-boy.PL the-movie.M.SG
c. ʔil-walad-ain ʃa:f-u: ʔil-film.
the-boy-DU watch-3M.PL.PER the-movie.M.SG
d. ʃa:f-u: ʔil-walad-ain ʔil-film.
watch-3M.PL.PER the-boy-DU the-movie.M.SG
"The (two) boys watched the movie."

As seen, although this particular dialect displays the CTP phenomenon observed in NA, it seems to lack the CTM phenomenon, given that a [F] syntactic valuation is postsyntactically retained whenever the verbal predicates enter into an Agree relation with both dual or plural feminine nouns, as in (211) above. In simple terms, although the partial agreement attested in SA is lacking in this dialect, the Gender morphology distinction is not minimized, as was the case in other varieties of NA.

Last but not least, the proposed account, I assume, has two less direct theoretical consequences. On the one hand, it supports the idea that the morphological form achieved is dependent on a derived syntactic configuration. In simple terms, it provides indirect support for the DM core assumption in which the syntactic component feeds into the morphological component, contrary to the lexicalist hypothesis to word forms. On the other hand, it provides support for the generative hypothesis that the syntactic valuation configuration mechanism is, for the most part, invariable within and across languages (Cinque, 2002). The valuation mechanisms do not vary across the Arabic dialects/varieties, but rather the lexically specified bundles of features can vary, and this is what drives the cross-dialectal distinctions in the agreement behavior that we observe.

Above all, the above-laid account, I argued, can systematically and straightforwardly capture the different agreement facts attested in the different Arabic varieties and simultaneously

avoids the drawbacks of the previous analyses. Moreover, It draws the interrelation between the standard variety and the contemporary dialects in terms of subject-verb agreement, among other matters. With this in mind, the following section touches briefly on what this thesis's proposed morphosyntactic agreement account takes to be a crashing derivation.

6.3 A Brief Notes On Crashing Derivations

Two pillars of the morphosyntactic agreement account advanced in this thesis are that i) the φ-feature Probe is relativized along a feature geometry, subject to the variety's specific requirement, and ii) Agree may fail to find an appropriate φ-feature, which would give rise to default valuation postsyntactically. A logical consequence of the former assumption is that the internal composition of the φ-Probe may be composed of features that may not result in an optimal outcome, iff Select is free to build a given Probe internal features[86]. An example would be a derivation whereby the φ-Probe is relativized to [uInd-MI] (i.e., the number probing feature is [uSG]), and that it enters into an Agree relation with a dual Noun in the VD. Under such a case, the φ-Probe would be able to match with the [MI] feature, part of the complex [GR-MI] on the noun, yielding singular valuation on the predicate, as in (213) below. Such a derivation is (ultimately) ill-formed in the VD (but see later discussion), though it may derive the facts right in a VS order in SA (brackets indicate position options).

213. *(ʔil-bint-ain) ʃa:f-at (ʔil-bint-ain) ʔil-film.
the-girl.DU watch-3F.SG.PER the-girl.DU the-movie.M.SG
"The two girls watched the movie."

The question that remains: what constitutes a crashing derivation from this thesis's perspectives? The obvious answer, which may be inferred from the second pillar assumption above,

[86] Select defines a bridge operation, linking the Lexicon to the C_{HL}. Simply put, the phrase structure is initiated from the Lexicon via Select to generate derivations from selected linguistic items and their internal (formal) features.

is that crashing is contingent on other matters related to language-specific properties. Such a view is in line with the current minimalist assumptions situated in the so-called crash-tolerant (or free-merge) derivations (cf. Chomsky, 2004 et seq.; Epstein & Seely, 2006; Epstein, 2007; Gallego, 2007; Richards, 2007; Epstein et al., 2010; Ott, 2010; Boeckx, 2010; Preminger, 2014; among others)[87]. Long story short, this model is of the "free generation and filtering sort" (Boeckx, 2010, p. 108), whereby the generative engine is not "crash-proof" (cf. Frampton & Gutmann, 2002, e.g., for a crash-proof system). The crash-tolerant model, thereupon, contends that the derivational engine allows a free application of the operations at its disposal, albeit it does not guarantee a well-formed result (Ott, 2010). The latter is contingent on interface conditions, per the full interpretation (FI) condition, and may result in different degrees of deviance (Chomsky, 1995, p. 220; 2000, p. 95). In other words, the result may be deviant for some (PF or LF) interface reasons, given that "well-formedness is something of interaction effect, depending on a variety of components and factors, only one of which is narrow syntax … [and the latter if optimally designed] guarantees legibility at the interfaces, not well-formedness" (Boeckx, 2010, pp. 109 – 110).

To illustrate, consider Chomsky's (1975) famous utterance "colorless green ideas sleeps furiously." Even though the utterance is semantically odd given the contradiction it raises, i.e., it is not well-formed or acceptable, it is, generatively speaking, grammatical (Chomsky, 1965, p. 151). Thus, Ott (2010) contends that the notions of "well-formedness" and "grammaticality", given

[87] Considering how optimality of derivations plays a part in MP, two MP routes to optimal derivation arise: A Crash-Proof syntax advocated first by Frampton & Gutmann (2002 et seq.) and a Free-Merge syntax advocated by Chomsky (2004 et seq.), among others. The Crash-Proof syntax attempts to completely remove the notion "crash" from the overt syntactic cycle via filters/constraints and algorithms. In essence, the overt syntactic cycle operates optimally to the extent that it must prevent illegitimate derivation(s) from reaching the interfaces; the outputs of the overt syntactic cycle are consistently convergent. A Free Merge route, in contrast, is crash-tolerant and assumes that well-formedness is contingent on interface conditions only (the strong Minimalist Theory). The label reflects how Chomsky puts the main burden on these interface conditions when it comes to Merge in the sense that the latter is free to generate any derivation whose convergence is interface contingent. Earlier versions of the latter view, more prominent in the publication of Chomsky & Lasnik's (1977) Filters and Control, relied on the logic of syntactic (over)generation-followed-by filtration in the sense that (a set of) filters apply to the syntactic outputs to eliminate derivations that are not well-formed.

rise by formal-language theory, is not necessarily of relevance to the study of natural language, assuming that it requires a richly structured UG (p. 89). Put differently, albeit "acceptability" and "grammaticality" relate to each other, the former has a close relation to the performance system, which is a by-product of multitudes of factors, among which the massive cognitive interaction among faculties beyond the I-language (for Internal-language). In contrast, the latter refers to the (infinite) structure set generated by the I-language. Thus, whether an expression is grammatical is irrelevant to its "meaningfulness, truth, intelligibility ... [since] structures that are in some sense "deviant" can be quite appropriate in, e.g., literary contexts; likewise, the acceptability of structures is only losely connected to their conformity to grammatical rules" (p. 91). All in all, it is commonly assumed, since Chomsky (1975), that the notion "grammaticality" is too vague to be decided on theoretical grounds, assuming that it is a technical concept that we can have no intuitions about.

What emerges from the above discussion is that a crashing derivation may not entirely be deducible from whether a given utterance is acceptable or not, given that the latter notion is graded. I follow a similar logic as far as feature valuation is concerned in the sense that a φ-Probe may incorporate features that may seem to be doomed to yield an unacceptable utterance[88]. Most importantly, despite the lack of a lucid definition of "crash" in current Minimalism, certain operations are obligatorily triggered in any well-formed derivation, provided that their structural conditions are met; otherwise, the derivation crashes (Preminger, 2014, pp. 10, 98). Whether a certain derivation is convergent or deviant, I assume, is interface-based, i.e., an interaction of the I-language

[88] This view may seem to create a redundancy in the grammar, as it seems to be able to achieve the same result by different means, and may make the learner's task more difficult. Nevertheless, as Boeckx (2010) points out, such a view may not be "necessarily bad. After all, the situation is not at all unique to agreement. Research over the past 20 years has made it clear that there are multiple ways of giving rise to *wh*-in-situ …, or 'verb first' …, or resumption. This is not a sign of redundancy internal to the grammar, for the grammar's Goal is not to generate constructions (surface patterns). There may indeed be subtle interpretive or morphological differences among the various options" (p. 118).

and other external (performance) factors (Chomsky, 2008, p. 10), subject to variety-specific requirement(s).

Throughout the previous chapters, the discussion intended to show the least of what an optimal derivation would need to look like to result in a convergent derivation at the interfaces. To make a case in point, consider the example above, repeated below in (214). Although I indicated above that the derivation whereby a verbal predicate is inflected for singular agreement with dual nouns is ultimately not acceptable in the VDs, it is, in fact, acceptable, but less common (hashtagged), in a NA dialect, so-called Balgarn. According to the informants, a verbal predicate can be inflected with singular agreement whenever it enters into an Agree relation with a post-verbal dual noun only, as shown below, although it is more common for the verbal predicate to be inflected for plural agreement instead, in a similar manner to an agreement with plural nouns.

214. #(*ʔil-bant-ain) ʃa:f-at ʔil-bant-ain ʔil-film.
the-girl.DU *watch-3F.SG.PER* *the-girl.DU* *the-movie.M.SG*
"The two girls watched the movie."

Interestingly, albeit more investigation is needed, if the observation regarding the example above is true, it further provides a couple of supports for the proposed account in this thesis. First, the fact that the verbal predicate can be inflected for singular when the DP is dual, in contrast to, e.g., plural, provides support for the conclusion that the two nodes [Group] and [Minimal] are independent of each other in the feature geometry of dual nouns. Second, the latter observation rationalizes this thesis's assumption that the unvalued Number feature on T can be more specified to exclude other possibilities. Put differently, the fact that the [Minimal] feature of a given dual noun can be targeted independently of the [Group] indicates that the T's Number feature in such a sub-dialect, in contrast to the other NA dialects, can be either [uInd-GR] or [uInd-MI] to derive the range of agreement possibilities, some which may not be acceptable in other closely related

dialects. Third, the fact that the feminine feature is retained on the verbal predicate supports the postsyntactic Impoverishment-Plus-Redundancy rule advanced in this thesis for VDs, which is only triggered whenever there is an offending [F, GR] composite valuation; otherwise, no morphological interference takes place. Finally, only postverbal dual nouns can trigger such an agreement, indicating that Copy Choice may help determine the right word order-agreement interaction.

Above all, I strongly believe that any analysis to the Arabic agreement patterns discussed above must make room for interface conditions (and processes) to play a part in the derivation's legibility. Nonetheless, the lexicon and the overt syntactic cycle may do so too (Boeckx, 2010); the computational system optimally strives hard by exhausting all means in the grammar to generate legitimate outputs at the interfaces (Ouali, 2010, p. 15). With this being said, the following section discusses other prospective research in the realm of the account proposed in this thesis.

6.4 Extensional Future Research

In this last section, I would like to point out briefly some prospective research areas that would be natural extensions of the account proposed in this thesis, which I could not discuss for considerations of space and time. Importantly, the morphological agreement inflection, as indicated in the introduction of this thesis, is diverse in Arabic, including subject-verb agreement (both single and complex (coordinated) subject DPs), subject-participle/adjective agreement in clauses, noun-modification agreement, noun-relative complementizer agreement, etc., each is complex in its own right and deserves an independent recognition. The crucial focus of this thesis, nevertheless, was, for the most part, on simple DP-verb agreement in Arabic, assuming the novelty of the proposed account, and the need to carefully establish its potential hypotheses before weighing the account against other complex agreement phenomena (and possibly refining the account). In essence, it suffices to consider, e.g., the so-called First-Conjunct Agreement (FCA) and noun-

adjective concord/agreement in Arabic to illustrate how complex the other agreement phenomena across the Arabic varieties are.

On the one hand, analogous to the agreement with simple DPs, the word order influences the type of agreement observed with coordinated DPs in SA. Whereas in SV order, a full agreement with the entire conjunct phrase is triggered (a resolved agreement), it is partial, typically with the Gender of the first conjunct, in VS order, as shown below in (215); full agreement with the whole conjunct phrase is ill-formed.

215. a. Hind-un wa Fahd-un ʃa:had-a: ʔal-tilfa:z-a.
Hind-F.NOM and Fahad-M.NOM watch-3M.DU.PER the-TV.M.SG-ACC

b. ʃa:had-at / *ʃa:had-a: Hind-un wa Fahd-un ʔal-tilfa:z-a.
watch-3F.SG.PER watch-3M.DU.PER Hind-F.NOM and Fahad-M.NOM the-TV.M.SG-ACC
"Hind and Fahad watched the TV."

As seen, when the conjunct phrase is preverbal, the verbal predicate exhibits a complete φ-set corresponding to the entire conjoined subject, in contrast to when the conjunct is postverbal, whereby it carries only the Gender feature of the leftmost DP. Significantly, despite the fact that the VDs may display similar agreement manifestations (216a and b), the agreement can be resolved in a VS order in the sense that a full agreement with the entire conjoined phrase is achieved (c). In other words, in a VS order, there seems to be optionality in terms of the agreement manifested, as shown below:

216. a. Hind wa Fahad ʃa:h-u: ʔil-film.
Hind-F and Fahad-M watch-3M.PL.PER the-movie.M.SG

b. ʃa:f-at Hind wa Fahad ʔil-film.
watch-3F.SG.PER Hind-F and Fahad-M the-movie.M.SG

c. ʃa:h-u: Hind wa Fahad ʔil-film.
watch-3M.PL.PER Hind-F and Fahad-M the-movie.M.SG
"Hind and Fahad watched the movie."

Remarkably, the attested CTP agreement phenomenon, discussed in chapter (5), seems to be at work when the conjunct DPs (or its coreferential null *pro*) must denote a dual entity. The phenomenon of FCA in SA has been under extensive debate for the past decades, receiving various and diverging accounts in the generative literature (cf. Aoun et al., 1994; 2010; Soltan, 2007; Benmamoun et al., 2009; Sahawneh, 2017; among many other). To my knowledge, a few research has discussed the possibility of a resolved agreement in the VD VS order and its relationship with the FCA in SA. So, I would hope to inquire into such an interesting observation in the realm of this thesis account and its consequences it brings.

On the other hand, the optionality observed in an Agree relation with a conjunct DP is also observed in the case of noun-adjective concord, both attributive and predicative adjectives, in the VD, in contrast to the case in SA. In particular, the adjective in SA agrees with the noun it modifies in Number and Gender, in addition to case (and definiteness if attributive), as shown below in (217a & b) for attributive and predicative adjectives, respectively.

217. a. ʔal-fataj-a:t-u ʔal-sˁaɣi:r-a:t-u … . SA
the-girl-PL.NOM *the-young-F.PL-NOM*
"The young girls …. ."

b. ʔal-fataj-a:t-u sˁaɣi:r-a:t-un … SA
the-girl-PL.NOM *young-F.PL-NOM*
"The girls are young."

As shown, the adjective, be it attributive or predicative, must agree with the noun it modifies in Number and Gender; otherwise, ill-formedness arises. On the contrary, in the VDs, as has been repeatedly indicated throughout the previous chapters, the adjective can either agree with a feminine (dual or plural) noun in Number and Gender, or inflect for what looks like a defective (M.PL) agreement, as shown in (218) and (219) below for attributive and predicative adjective concord, respectively.

218. a. ʔil-banaj-a:t ʔil-sˤiɣajr-a:t …. . NA
the-girl-PL *the-young-F.PL*
b. ʔil-banaj-a:t ʔil-sˤiɣajr-i:n …. . NA
the-girl-PL *the-young-M.PL*
"The young girls … ."

219. a. ʔil-banaj-a:t sˤiɣajr-a:t. NA
the-girl-PL *the-young-F.PL*
b. ʔil-banaj-a:t sˤiɣajr-i:n. NA
the-girl-PL *the-young-M.PL*
"The girls are young."

As seen, whereas the adjective agrees with the noun it modifies in Number and Gender in the (a) examples, it is inflected for a defective M.PL agreement in the (b) examples. The crux of the matter is that the latter manifestation resembles those agreements referred to in this thesis as CTM cases. The interesting property of the agreement observed with an adjective is the arising optionality, in contrast to the subject-verb agreement cases discussed previously. These types of noun-adjective concords frequently go unnoticed in the generative literature on Arabic constructions. For that reason, they present an interesting ground for testing the account's hypotheses advanced in this thesis.

All in all, the above-surveyed two agreement cases, which have not been investigated in this thesis, were intended to illustrate that the cross-dialectal agreement phenomena are diverse and that their characteristics are worth investigating within the realm of this thesis account.

"With this, I cross the end of the beginning."

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APPENDIX

A Control-Agreement Interaction Analysis in Standard Arabic

I. Mono-clausality and Exfoliation: An Old-New Perspective

Clauses, as assumed cross-linguistically, come in different types and sizes: finite (a & b), infinitival (c - f), gerund clauses (g), among other types.

1.	a.	John believes [that Mary would travel tomorrow].	Finite CP
	b.	Who do you think [(*that) met Mary]?	Finite (C-less) TP
	c.	John would prefer [[for Mary] to travel tomorrow].	For-infinitival
	d.	John wants Mary [to travel tomorrow].	Control
	e.	John seems to be tired.	Raising-to-Subject
	f.	John believes Mary to be hiding something.	Raising-to-Object/ECM
	g.	John remembers Mary [traveling to France].	Gerund

Most importantly, extraction of a subject of an embedded clause, as seen in examples (b – g), often correlates with a reduction in clause size. This phenomenon often associates with the clause (non-)finiteness and with the obligatory absence of "the normal declarative complementizer" (Pesetsky, 2019, p. i), exemplified by the absence of, e.g., "that" or "for" in the above examples. Nevertheless, even though such behavior is attested cross-linguistically, the common assumption is that it is associated with/restricted to certain predicates, e.g., raising-to-subject (R1), raising-to-object/ECM (R2), control predicates, etc., as well as being often language-specific.

Although clause-size reduction had been assumed to derivationally be a by-product of a particular process(es) in the early days of Generative Syntax (cf. Lees, 1963, Rosenbaum, 1965)[89], the approach to such clause types and sizes over the past four decades of generative syntax shifted toward a standard lexicalist approach in the sense that the choice of building a type of clause is

[89] The two linguists assumed the distinction to fall out as a consequence of some syntactic operations rather than being derived by lexical choice. The correlation between, e.g., raising and control, on one hand, and the non-finiteness of a clause, on the other, was a by-product of certain process(es), triggering the infinitivization of the base (finite) clause.

part of the lexicon (cf. Kiparsky & Kiparsky, 1971; Bresnan, 1972). Hence, it is not so different "from the choice between two different nouns or prepositions" (Pesetsky, 2019, p. 1)[90]. In other words, the presumed clause-size reduction; i.e., the (non-)finiteness of a clause ($T_{[\pm Past]}$) and the presence or absence of C, arises as a consequence of the free lexical choice of items chosen to participate in the derivation; it is assumed that finite as well as non-finite clauses exist hand in hand in a given language Lexicon. Hence, in contrast to finite ones, the different properties of non-finite clauses are commonly attributed to some deficiencies, e.g., case, agreement, or tense, of the clause, all of which determine whether particular structures are permitted. According to this lexical approach, the lexicon and the syntactic computation are assumed to be rich enough to permit the generation of the various clause types found in a natural language. For instance, the obligatoriness of raising in R1 and R2 constructions, from a lexicalist approach, is case-driven, a by-product of the generation of an infinitival clause, per the general assumption that the distribution of nominal phrases, unlike CPs or PPs, need case-licensing.

Nonetheless, the lexicalist view to clause-size distinctions, according to Pesetsky (2019), "commits us to a particular logic for explaining phenomena that correlate with clause type," e.g., subject case-licensing in English finite versus non-finite clauses; it is not necessarily the case that clause-type distinction "should be a matter of random lexical choice" (p. 1), nor should it be the sole explanation for some syntactic phenomena, e.g., raising, finiteness, etc. Thereupon, Pesetsky attempts to refute the assumption that non-finite/reduced clauses exist as an independent lexical choice. Notably, he argues that these types of clauses start their derivational life as full and finite, which are later rendered reduced (non-finite) derivationally via a Language Faculty (FL) process

[90] Given the model of grammar presuming the presence of a DS in early generative syntactic theories and the lack of any mechanism to trace back the history of derivations, the early derivational approach had to be abandoned given that i) different predicates select for different clause types, and ii) clause-type choice has semantic interpretations that need to apply to DS prior any syntactic transformation.

called *Exfoliation*, a revival of the earlier (abandoned) derivational approach to clause-size distinctions in the early days of Generative Grammar. As Pesetsky argues, *Exfoliation* peels away the outer layer(s) of a full finite clause so that the subject ends up occupying its edge, resolving a locality problem arising in the syntactic derivation course. The central hypothesis is that clause-size distinctions are "a by-product, rather than a trigger, of the syntactic operations with which they correlate" (p. 3). With this in mind, at the heart of Pesetsky's proposal are the following:

i) All embedded clauses are pre-Exfoliationally full finite CP, hypothesis (2), built via Merge, and that some outer layer, e.g., a CP projection, may subsequently get reduced or exfoliated due to the need to resolve a locality problem.

2. **Full CP hypothesis:**
   Every embedded clause is built by Merge as a full finite CP, and may be reduced to a less-than-full clause only as a consequence of later derivational processes.

(p. 9)

ii) A potential Goal within a phase may be located across such a phase; hypothesis (3a), but cannot move to the next higher phase unless it occupies the edge of the phase (b).

3. **Probing across a clause boundary:**
   a. **Phase penetrability:** A probe π with an EPP property can locate a goal γ across a CP boundary, even if γ does not occupy the edge of that CP…
   b. **Phase impenetrability:** …but γ can move to π only if occupies the edge of its clause.

(p. 10)

iii) *Exfoliation* applies iff its Structural Description (4) is met. Specifically, *Exfoliation* is triggered iff: i) there is a phase-external Probe targeting the embedded Goal, ii) the Goal is not at the edge of the embedded clause, iii) the Goal is one phase away from the Probe, and iv) the Goal moves to the higher Probe.

4. **Exfoliation:**

   a. **Structural Description:** ... β ... [$_{YP\ (phase)}$ ... [$_{\gamma P\ (non\text{-}phase)}$ ... α ...]], where

      i) YP is the phase that dominates α but not β,

      ii) α occupies the edge of γP, and

      iii) a movement-triggering probe on β has located α as its goal.

   b. **Structural Change:** Replace YP with γP, which takes the phasal property of its predecessor.

(p. 11)

iv) Finally, the movement to the edge of a given phase; e.g., movement of a *wh*-element to the embedded Spec-CP, is conditioned by the requirement that this element occupies a unique position between *v*P and CP, i.e., it is never moved to, but rather externally merged into that position; hypotheses (5) & (6). Simply put, in order to move to the phase Edge, it must not be part of an (A'-)chain.

5. **Lethal Ambiguity Antilocality Constraint (LAAC):**

   Movement of α to the edge of a phase π is possible only if α occupies a unique position visible in π.

6. **"Visible":**

   α is visible in a phase π iff

   a) every phase that dominates α also dominates π; or

   b) α occupies the edge of phase ρ and every phase that dominates ρ also dominates π (i.e. ρ is the phase constructed immediately before π).

(p. 38)

In brief, the proposal is an attempt to re-investigate the earlier (abandoned) derivational approaches to clause size in the realm of current assumptions in the theory, abandoning the assumption that infinitives and reduced clauses are "born, not made." Notably, it maintains that the interaction between a clause-external Probe (R1, R2 or A') and an embedded subject precedes the reduction process of the (finite) embedded clause into a reduced (non-finite) clause, i.e., deletion

of, e.g., C (and T) of a full finite CP. It is essential to mention that the proposal, as Pesetsky (ibid) assumes, does not disregard the importance of predicates lexical properties. Put differently, Pesetsky contends that "selection for particular sizes of clauses [should not be considered] in any sense a "bad guy" that [his proposal] can dispense with. Exactly the opposite [is] the case. Selectional properties [play] a crucial role in distinguishing lexical items within and across languages ... Crucially, however, these selectional properties hold post-Exfoliation, as permitted by contemporary models of grammar" (p. 4).

To take a case in point, the correlation between, e.g., English raising or finite C-less constructions, on one hand, and the (non-)finiteness of the embedded clause, on the other, is assumed to be a by-product of Exfoliating the CP and/or the TP layer(s); the lack of the latter layer, as presumed, is associated with English infinitive clauses. Restricting the discussion here on Pesetsky's account for English R1 and R2 constructions, he assumes that, contrary to the lexicalist approach whereby the obligatoriness of raising in R1 and R2 constructions is case-driven, it is Probe-driven in the sense that raising-to-subject and raising-to-object/ECM cases are triggered by an R1- and R2-Probes on matrix *v* and V, respectively. Furthermore, he proposes that the English infinitival marker "*to*", contrary to the common assumption, heads its independent projection, lower than T in the clause, carrying a φ-Probe with an EPP attribute so that the embedded subject moves successive-cyclically to its Spec on its way to Spec-TP[91]. This "*to*" head becomes overt iff it is exposed (rules (7) & (8)).

7. **Overtness of "to":**

   English *to* is overt only when exposed.

[91] The proposal of a "*to*P" projection (above *v*P) is not new, and its head property, according to Pesetsky, is not limited to English. Rather it is extendable to other languages, e.g., French qui/que distinctions, among others such as Bùli & West Flemish. In other words, this hypothesis is "a special instance of a broader family of rules that link pronunciation to exposure" (p. 43). As for the position of "to," this is supported, according to Pesetsky, by the presence of semi-modal predicates such as "ought to" and "used to," whereby "to" for some reason, is not covert.

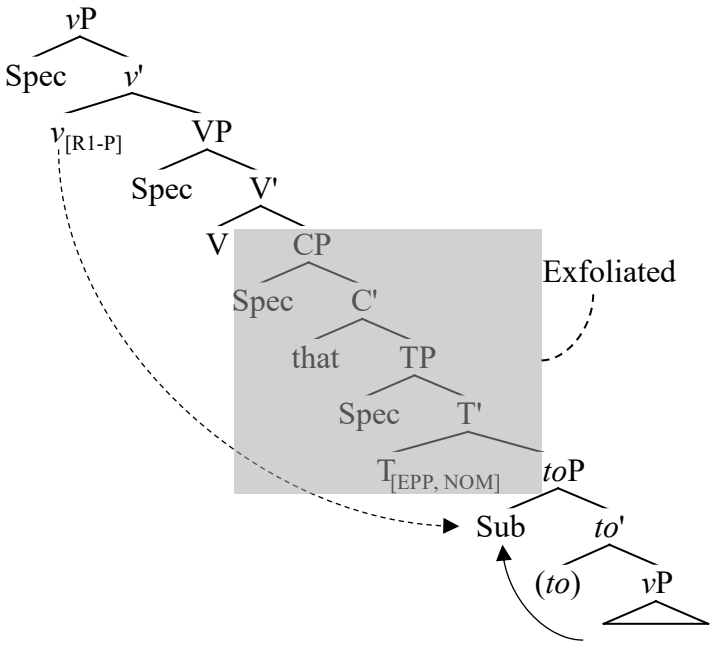
8. **Exposure**:

α is exposed iff it heads a phase and does not retain a specifier.

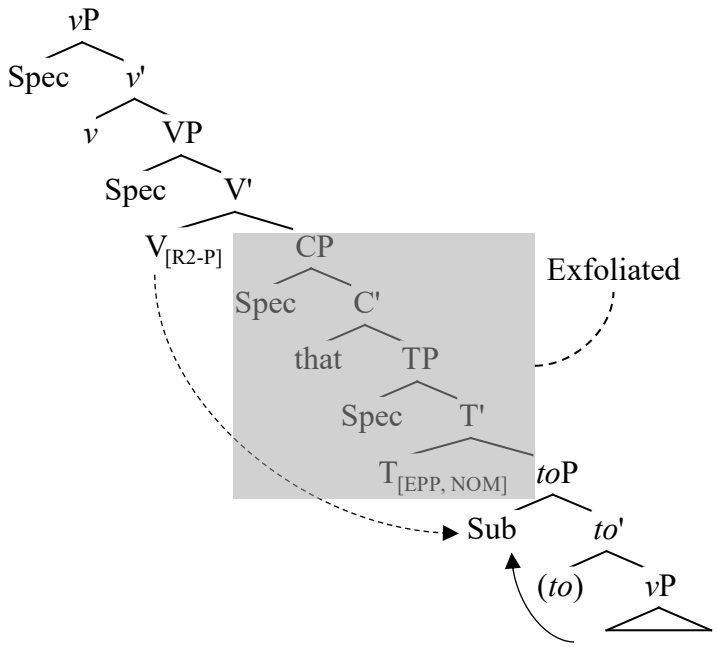
(p. 11, 46)

Consequently, the derivation for R1 and R2 constructions would proceed as in (9) and (10) below. In particular, i) the embedded subject raises to Spec-*to*P but not further, ii) the matrix *v* or V has an R1 or R2 φ-like Probe, respectively, which triggers the movement of the embedded subject, iii) given that the CP boundary does not act as a barrier to an external Probe to find a potential Goal (Phase penetrability), the R1 or R2 locates the embedded subject in Spec-*to*P, and iv) considering the impenetrability condition, *Exfoliation* applies, reducing enough structure from the periphery of the clause for the Goal to be at the phase edge capable of moving to the next phase. Accordingly, under certain circumstances, raising of the embedded subject triggers infinitivization, stripping away the CP and TP layers from a previously full finite CP. In other words, the infitivization, i.e., the *Exfoliation* of some layer(s), of an initially full finite clause is attributed to the raising of the embedded subject or Goal.

9.



10.

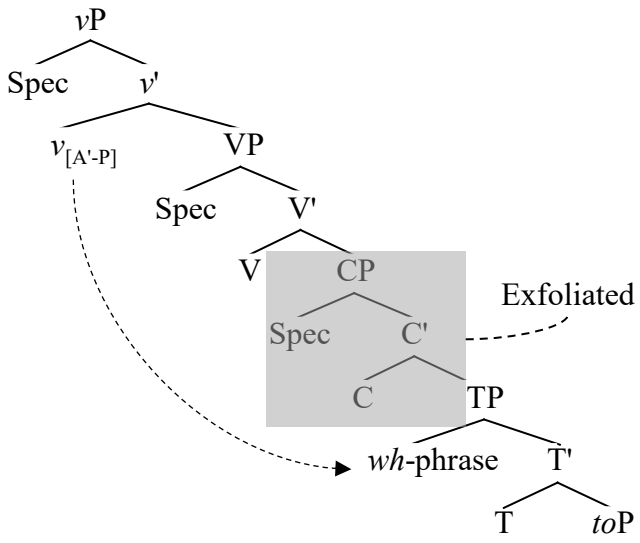


Interestingly, in contrast to the above cases where the embedded subject raises as far as Spec-*to*P, the subject, under certain situations, may also continue its journey to Spec-TP satisfying the EPP feature of T, and be targeted by a similar higher raising-Probe(s)[92]. As a consequence, *Exfoliation* takes place on the CP layer (and any layer above TP) only, leaving the embedded clause finite. Consider, as an illustration, the interaction of an A'-Probe on a matrix *v* and a *wh*-phrase in the embedded Spec-TP as in "*Who do you think (*that) met Sue?*". *Exfoliation* accounts for the well-known *Complementizer-trace* effect phenomena, whereby the clause, though remains finite, it obligatorily lacks a C element[93]. Thus, the phenomenon of complementizer-trace effects found in a couple of languages, according to Pesetsky, would result from a "shallower" *Exfoliation* process whereby Tense and Agreement (projections) are left untouched, peeling away the CP layer

[92] Pesetsky speculates that functional heads above *v*P, e.g., *to*P, are, in fact, available, i.e., they are not specified as phonologically null, but they are phonologically unrealized in a certain construction within a language due to the Exposure condition.
[93] Given the Lethal Ambiguity condition, the *wh*-element cannot move to Spec-CP because it occupies two positions; Spec-*to*P and Spec-TP, rather than occupying a unique position accessible to C, the phase head.

(as well as often some others) and places the subject at the edge of the embedded clause to be extracted later.

11.



More importantly, the mechanism of *Exfoliation* presented above, according to Pesetsky, is extendable to other English embedded constructions, e.g., English embedded declarative (C-less) clauses, contact relative (C-less) clauses (12a - b), *For*-infinitival or control constructions (c - d)[94], as well as to non-English embedded constructions, e.g., French *qui-que* or Bùli *ālì-ātì* alternation, among others, as indicated in footnote (91) above, though often with some postulations.

12. a. John claims (that) John spoke with Fred. — Embedded Declarative
    b. This is a person (that) Bill knows well. — Contact Relative
    c. John would prefer [[for Mary] to travel tomorrow]. — For-infinitival
    d. John wants Mary [to travel tomorrow]. — Control

The commonality of all these constructions is that *Exfoliation*, triggered by subject extraction, is the only mechanism for clausal reduction to a smaller-than-full CP complement. In other words, Exfoliation is not peculiar to English but commonly found across the world's languages (with

[94] The general assumption revolving around these English constructions is that they involve superstructure in the embedded clause's left periphery. Whereas English C-less clauses, i.e. declarative and relative clauses, are of the form [$_{CP}$ [$_{PredP}$ [$_{CP}$]]], English control constructions are [$_{fP}$ [$_{FP}$ [$_{CP}$]]]. Nevertheless, I opt not to present the discussion due to space limitations; however, the reader is referred to the relevant sections in Pesetsky's work for motivations and argumentations.

some structural modification), yielding "unusual clausal syntax ... distinct from the configurations found in other circumstances" in a language (Pesetsky, 2019, p. 42), giving some rationale to some cross-linguistic phenomena. In all these cases, the subject is placed at the edge of a phase via Exfoliating enough clausal layer(s) due to a higher (matrix) Probe attracting the (further) movement of the subject. However, the degree to which sub-layers are exfoliated/reserved is language-specific, reflecting the selecting heads' selectional properties[95]. All things considered, presenting all the cases discussed in Pesetsky's work is beyond this appendix's purpose. The general picture to be drawn from the discussion above is that a subcategorization analysis to clause size is not the only candidate, assuming the theory's current assumptions. Above all, it is essential to point out some salient features that any analysis assuming a biclausal analysis to such a phenomenon should account for, which I highlight in the following points.

First, one of the assumptions indicated above for the infinitivization of finite clauses, e.g., in English, involves an extraction of a subject in Spec-*to*P, rather than being in Spec-TP. Although the latter, as commonly assumed, carries an EPP feature, it remains unsatisfied; hence a crash. Nevertheless, Pesetsky assumes that if the to-be-attracted subject stops at Spec-*to*P in a full finite embedded CP, but no further, and the TP is eliminated along with the CP layer, it follows that the EPP violation that would cause the derivation to crash would be rendered undetectable, i.e., it would go unnoticed due to being exfoliated along with the bearing projection, in analogy to the logic of "salvation by deletion" proposed in the literature, among other phenomena (Ross, 1969; Chomsky, 1972; Lasnik, 2000). The presence of T prior to Exfoliation, however, is sufficient for subject case-licensing in Spec-*to*P.

[95] The nature of the Probe, i.e., whether a particular predicate has R1-, R2-, or A'-Probe and the embedded clause-size allowed, are subject to cross-linguistic variation and within the same language in different constructions. Thus, they are the by-product of universal properties interacting with language-specific lexical resources and post-Exfoliation selectional restrictions.

Second, one primary assumption is that every embedded clause is born full, finite one, which is later rendered smaller. Accordingly, the presence of (accusative) case-assignment in raising constructions, among others, given the lexicalist approach, should present a thorn in Pesetsky's mechanism. Nonetheless, under Exfoliation, the obligatoriness of raising, contrary to the Lexicalist assumption, should not fall out of case-licensing requirement since the "analysis entails that no clause should present a case-licensing problem for its subject" (Pesetsky, 2019, p. 11), recognizing that the clause is pre-Exfoliationally a full finite CP[96]. Hence, the nominative case assigned to the embedded subject and the accusative case assigned to it when raised in raising constructions, according to Pesetsky, is a matter of multiple-case assignments in that a newly-assigned case overwrites a previous one.

Finally, it is well-known that some predicates, e.g., *believe* as shown in (13) below, may optionally have either finite or non-finite clauses; thus, the presence of a CP layer in such constructions should trigger a minimality violation in a mechanism whereby a Probe can locate a Goal across a CP. Pesetsky postulates that both the embedded subject of a CP complement as well as the CP itself compete to satisfy the probing requirement "with Minimality failing to prefer one over the other" (p. 12); thereupon, the outcome underlyingly reflects the syntactic choice (for arguments see Pesetsky, 2019, section (4.3)).

13. a. John believes [that Mary would travel tomorrow]. Finite CP
    b. John believes Mary to be hiding something. RT-Object/ECM

[96] The assumption is that embedded DPs are licensed pre-Exfoliationally "by whatever licenses [them] in finite clauses that never undergo Exfoliation" (p. 28). This idea gains support, according to Pesetsky, from unraised nominative object DPs in Icelandic, which get licensed pre-Exfoliationally via an agreement with a φ-Probe on T. For a full discussion, see the relevant section in Pesetsky's work.

In a word, Pesetsky, throughout his paper, presented several arguments from the perspective of subject extraction and its relationship with clause-size reduction. He proposes and resurrects a derivational approach to clause-size over the common lexicalist approach to such a phenomenon. The central assumption of his proposal is that reduced clauses are not born, constructed in response to (random) lexical choice(s); rather, he assumes that non-finite clauses and other reduced clauses start their derivational life full and finite, which later are rendered reduced (or non-finite) derivationally via Exfoliating enough outer layer(s) of the clause. It advocates when a full finite clause can be legally reduced. Accordingly, clause-size distinctions should be an aftermath of, rather than being a trigger for, syntactic operations with which they correlate; nominal (or even clausal) subject extraction, which shrinks the clause size, is the only mechanism for clausal reduction, whenever its Structural Description is met.

II. The Movement-Theory of Control: The Backward Control Candidate

In opposition to PRO-based theories in general, the A-movement theories to control, or so-called the Movement Theory of Control (MTC), entertain the possibility of treating control and raising as being two faces of the same coin, given that both constructions involve an obligatory interpretive dependency between an overt argument NP/DP in the matrix clause and a silent argument in the embedded clause (Hornstein, 1999; 2003; Boeckx & Hornstein, 2003; 2004; 2006; 2006B; Hornstein & Polinsky, 2010; Boeckx et al., 2010; 2010B; among others). The approach proposes that raising and control should no longer be theoretically distinct[97]. It postulates that the structural and interpretive similarities between control and raising motivate capturing the two phenomena "with the same mechanisms, unless presented with strong independent reasons for not

[97] The approach, as advocated within minimalism, is not radically new. The proposal is attributed to Bowers (1973), who argued that raising and control should involve the same computation. Nevertheless, due to the incompatibility with core principles of UG "of almost every model of UG from Aspect to GB, it did not find fertile soil to blossom for a long time (Boeckx et al., 2010, p. 3).

doing so" (Boeckx et al., 2010, p. 36). Such reasoning is at the heart of the MTC, which takes it, as a null hypothesis, that both configurations are generated via A-movement. Its main proposal is that, rather than being motivated via a special and separate mechanism, e.g., null case or ad hoc anaphoric tense-agreement dependencies, Obligatory Control (OC) should be seen as an instance of A-movement dependency on a par with other A-movement phenomena in the literature such as raising or passivization[98].

Although early versions of such a proposal were not much of a success, the MP's advent and its core idea that the DS, the very major theoretical obstacle, should be eliminated provided a nest for the proposal to blossom again. Specifically, the elimination of the ban on movement to a theta-position and the requirement that an argument is inserted in a theta position at DS (Theta-Criterion) opened a logical possibility for movement to target a theta position. Aspired by the MP core idea of explaining why UG properties are the way they are, the MTC, according to Boeckx et al. (2010), is an attempt to "[deduce] the properties of control configurations from more basic postulates," rather than being generated in response to featural codes of individual lexical items (p. 3). Methodically, the OC is categorized as an A-chain (formed via a case-driven movement), the head of which is often the controller, and its tail is the copy rather than being PRO

All in all, the MTC, according to Hornstein (1999), simplifies the theory in two further ways. First, the null formatives' inventory is reduced, given that PRO now is no other than a copy. Secondly, given this reduction, the control module responsible for determining the controller

[98] According to Boeckx et al. (2010), it is essential to note that equating control with raising, as is always objected by proponents of other proposals, is not right. All the theory says is that they both descriptively involve A-movement given that control has some features that raising does not, and vice versa. Notably, control-raising asymmetries do exist, which can be attributed to independent factors. The two constructions descriptively work similarly to constructions involving wh-movement, topicalization, or relativization. The latter cases are all A`-movements even though the derivation's inner details are attributed to external factors to the movement operation itself. There is "no obvious conceptual barrier to categorizing control with passive and raising, all sharing the same generative resources ... (A-movement) and their differences allocated to different components of the grammar" (Boeckx et al., 2010, pp. 2 – 3, 39).

becomes superfluous, considering that the movement is now determined via locality of movement. Besides, it treats OC PRO as a copy of A-movement, unifying form, and meaning. It also accounts for the distribution of PRO and its interpretive properties with respect to its antecedent: the controller. Finally, the approach fairs better than other PRO-based theories to control in accounting for backward control interpretations (Polinsky, 2013; Landau, 2013; Potsdam & Haddad, 2017).

III. SA Control Forward and Backward Control-Agreement Interaction

Given the above approaches and mechanisms to control, this section briefly speculates how the forward vs. backward control readings, along with their agreement, are achieved syntactically. First, consider the forward control example in (14a), as well as its subsequent representation in (b), below (phase boundary represented as "ʃ", and strikethrough represent deleted copies).

14. a. ħa:wal-a ʔal-ʔawla:d-u$_i$ [ʔan ju-sa:fir-u: Δ_i ʔal-ba:riħah].
try-3M.SG.PER *the-boy.PL-NOM* *to* *3M-travel-PL.IMP.SUB* *EC* *the-yesterday*
"The boys tried to travel yesterday."

b. [$_{TP}$ T$_\varphi$ ʃ[$_{vP}$ the boys$_i$ v_φ … ʃ[$_{CP}$ [$_{ʔan P}$ ~~t$_i$~~ *ʔan*$_{EPP}$ [$_{TP}$ ~~t$_i$~~ T$_\varphi$ ʃ[$_{vP}$ ~~t$_i$~~ v_φ [$_{VP}$]]]]]]].

As seen, I assume that the subject "the boys" is externally merged with the embedded *v′*. Subsequently, a T with complete unvalued φ-features merges and enters into an Agree valuation with the embedded subject, resulting in a pair-wise valuation whereby T's φ-features receive a full agreement, and the DP's case is assigned. Taking into account that T carries a φ-feature with an EPP attribute, and that *ʔan*, as argued in chapter (4), carries an independent EPP feature, it follows that the subject moves successive cyclically to their Specs. The derivation continues, and C is merged, triggering the spell-out (and transfer) of the embedded *v*P. At this point, copy choice and reduction occur, whereby the higher copy is chosen since there is no PF conflict. Upon merging matrix *v,* the embedded CP phase is spelled-out. Assuming that the matrix predicate's semantics determines the probing or the structural representation of its projection, matrix *v* carries a Probe

(an interpretable φ-feature for simplicity) with an EPP attribute. Provided that the Lexical Array for this *v*P phase encompasses no DP able to (externally merge and) satisfy this Probing feature, matrix *v* locates the subject in Spec-*ʔan*P (Phase penetrability). Given that the structural condition for Exfoliation is met, the CP domain (the shaded part) is exfoliated, and the subject raises to Spec-*v*P.

In contrast to example (14) above, the examples in (15) below involve a lower copy pronunciation of the DP "the boys" and a partial agreement on the embedded predicate. The two contrast in the matrix agreement, whose choice determines the right (backward) control reading; a partial agreement, in comparison to a full agreement, derives the control reading. With this, I assume that, in both, the embedded T's φ-feature is not entirely unvalued in the sense that the Number feature is lexically valued as [vSG]. Accordingly, I assume that the sole difference between the two examples lies in the type of elements satisfying the matrix *v*'s probing feature: externally merged *pro* in (a), but a (covert) copy in (c).

15. a. ħa:wal-u: Δ*$_{i/j}$ ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
try-3M.PL.PER pro-M.PL to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"They tried that the boys travel yesterday."

b. [$_{TP}$ T$_φ$ ⟨[$_{vP}$ *pro* $v_φ$ … ⟨[$_{CP}$ [$_{ʔanP}$ t$_i$ *ʔan*$_{EPP}$ [$_{TP}$ t$_i$ T$_φ$ ⟨[$_{vP}$ the boys $v_φ$ [$_{VP}$]]]]]]].

c. ħa:wal-a Δ$_{i/j}$ [ʔan ju-sa:fir-a ʔal-ʔawla:d-u$_i$ ʔal-ba:riħah].
try-3M.SG.PER EC to 3M-travel-SG.IMP.SUB the-boy.PL-NOM the-yesterday
"The boys tried to travel yesterday."
"He tried that the boys travel."

d. [$_{TP}$ T$_φ$ ⟨[$_{vP}$ t$_i$ $v_φ$ … ⟨[$_{CP}$ [$_{ʔanP}$ t$_i$ *ʔan*$_{EPP}$ [$_{TP}$ t$_i$ T$_φ$ ⟨[$_{vP}$ the boys $v_φ$ [$_{VP}$]]]]]]].

The derivation, I assume, goes as follows. Similar to (14), the subject "the boys" is externally merged to the embedded Spec-*v*P. Upon merging T, its φ-probe enters into an Agree relation with the embedded subject, yielding a partial agreement on T since it has a valued Number feature,

and a nominative case on the DP. The EPP feature of *ʔan* triggers movement of the subject to its Spec, whereby the latter element moves successive-cyclically through the specifier of T. When embedded *v*P is spelled-out, and copy choice takes place, the lower copy, I argue, is chosen for pronunciation, and its linearization in respect to other elements is set due to a PF conflict. Though it is void of phonology (i.e., it no longer plays a part in linearization), yet I assume that it is not void of semantic content (in essence, I believe that though it is somewhat covert, it is important for LF purposes as covert QR plays a part in interpretation)[99].

The next derivational steps, I assume, play a crucial role in the distinct interpretations between (15a) and (c). In the former, I assume that the probing feature of *v* is satisfied via external Merge of a null *pro*, and the embedded CP is spelled-out. Given that the copy in Spec-*ʔan*P is void of PF content, the derivation converges, per the cyclic linearization of Fox & Pesetsky's (2005). Conversely, the probing feature of *v* in (c) is satisfied similarly to (14), i.e., *v* locates the covert copy in *ʔan*P as the sole element, Exfoliation occurs on the CP domain, and the DP merged with *v*'. At this point in the derivation, a matrix T with a complete set of unvalued φ-features, I believe, is not tenable given that it would have an EPP feature, and the latter checking by the covert DP would be in conflict with the (focus) domain. In other words, it is argued that Spec-TP would be a focus position, and given that focused elements need to be overt at PF, the covert DP in Spec-*v*P would not be a suitable candidate.

[99] According to Potsdam & Polinsky (2012, p. 75), a covert movement encodes "displacement operations in the grammar that have syntactic and semantic consequences but no visible phonological reflex." One of the diagnostics for the presence of covert movement, according to Polinsky & Potsdam (2013, pp. 218 – 219), is reflected in the arising locality relations, e.g., agreement, where two elements need to be sufficiently close to each other, e.g., in the same clause, the same phase, or the same projection. Given that the matrix verb displays agreement with the embedded subject, I assume, indicates that the subject covertly moves to the matrix clause. Besides, if my understanding of Chomsky (2008, p. 146) is right, although copies, but one, are erased for PF, all copies remain active for LF purposes.

Above all, the A-movement analysis and the Exfoliation process derive the right agreement and the OC interpretation. For that reason, I contend that such a backward reading and its associated agreement facts are a reflex of a (covert) A-movement of the embedded DP to the matrix clause. Such a derivation, I argue, avoids the problems of a long-distance Agree (as well as multiple Agree mechanism) relation(s) between matrix T and the embedded DP, pointed out in section (4.4). For one thing, both matrix and embedded *v* are able to discharge their external theta-role. For another thing, it avoids the Condition C violation if the matrix subject were a (null) *pro*.

CURRICULUM VITAE

Turki M. Alwahibee

Place of Birth: Riyadh, Saudi Arabia

Education:

B.A., Imam Mohammad Ibn Saud Islamic University, June 2007
Major: English Language & Literature

M.A., Oakland University, December 2014
Major: Linguistics

Dissertation Title: Simple Subject-Verb Agreement: A Morphosyntactic Path to Arabic Variations

Teaching Experience:

2008 - 2015	Teaching Assistant at Department of English Language and Literature, Imam Mohammad Ibn Saud Islamic University, Saudi Arabia
2015 – present	Lecturer at Department of English Language and Literature, Imam Mohammad Ibn Saud Islamic University, Saudi Arabia