THE STRUCTURE OF DP IN CENTRAL KURDISH

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Abstract

This thesis investigates the syntactic structure of DP (determiner phrase) in Central Kurdish within the Minimalist Program (Chomsky 1995, and subsequent work). It explores the syntax of functional categories including inflectional elements such as Izafe, number, definite and indefinite markers. The study examines the structural relation between these functional categories and the noun, shedding new light on the syntax of DP in a language which has not so far been well investigated. Using the Minimalist derivational theory, this thesis explores the derivation of extended nominal projections in Central Kurdish.

The study provides a detailed account of the Izafe construction. I argue that Izafe triggers movement of NP to a position above the modifier(s), and also marks agreement in definiteness. Two types of Izafe are recognized: AP Izafe and NP Izafe. While AP Izafe agrees in definiteness with D realized by the definite article, NP Izafe shows Case agreement with a modifying DP complement. I argue that such agreement relations are established by Chomsky's (2000, 2001) probe/goal agreement operation, except that the agreement relations occur upwards, the probe being c-commanded by the goal (contra Chomsky 2000, 2001, but in line with Baker 2008; Wurmbrand 2012; Zeijlstra 2012).

Given that Central Kurdish has two definite articles, *-eke* and *–e*, which occur on different sides of number at spell-out, I argue that there are two DP layers projected, with the functional projection of number (NumP) intermediate between them. The higher D is realized by *-e* and the lower D by *–eke*. The featural make-up of the lower D bears uniqueness and specificity (the two features subsumed under definiteness), while the higher D carries only specificity. The thesis also argues that the inflection *–êk* is a marker of indefiniteness realized by the higher D category, and is not merely a grammaticalized diachronic remnant of the numeral *yêk* 'one' to mark singularity, as claimed by Lyons (1999: 95).

The analysis also accounts for the syntax of number morphology and quantification in Central Kurdish. As a functional category, number is argued to project NumP realized by the inflection *-an*. Based on the morpheme order, NumP seems to take scope over DP, a phenomenon challenging the well-established cross-linguistic generalization that D scopes over NumP (Rijkhoff 2002; Ritter 1991). Assuming that scopal relations among functional categories are structurally represented, the peculiar hierarchical relation between DP and NumP in Central Kurdish poses a problem for Baker's (1985, 1988) Mirror Principle, as well. However, I provide evidence that the projection of number (NumP) falls under the scope of another DP projection headed by a D which is morphologically realized in some situations by the definite marker *–e*.

Two types of quantifiers are distinguished: definite and indefinite. This division offers a principled account of quantifiers, providing empirical evidence that they are realized by two structurally distinct functional categories: one above and the other below the DP projection.

Declaration

No material contained in this thesis has previously been submitted for a degree at Newcastle University or any other university.

Signed

Rebwar Shafie Tahir

Date

"We shouldn't be looking for heroes, we should be looking for good ideas"

Noam Chomsky

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Table of Contents

Abstract iii

Acknowledgements vii

Table of Contents ix

List of Abbreviations xi

Chapter 1. Introduction 1

1.1 Outline of the thesis and research questions 1

1.2 Central Kurdish: a brief background 8

1.3 Previous research on Central Kurdish 10

1.4 Theoretical framework and basic assumptions 11

Part I. The Izafe Construction 16

Chapter 2. The Izafe Construction: Description and Overview 17

2.1 Introduction 17

2.2 The distribution of Izafe 18

2.3 The morphology of Izafe: a suffix or a clitic? 22

2.4 Constituency 25

2.5 The functions of Izafe 28

2.6 Previous works on Izafe: a literature review 31

2.7 The syntax of Izafe: why does Izafe occur in CK? 40

2.8 Concluding remarks 47

Chapter 3. The Izafe Construction: A Syntactic Analysis 49

3.1 Introduction 49

3.2 The derivation of Izafe: a syntactic analysis 49

3.2.1 AP Izafe: a roll-up movement analysis 51

3.2.2 NP Izafe: a non-roll-up movement analysis 66

3.3 Agreement within the nominal phrase 74

3.3.1 Agreement of AP Izafe in DEF feature 75

3.3.2 Agreement between NP Izafe and DP in Case feature 86

3.4 Concluding remarks 89

Part II. Definiteness, Number and Quantification 92

Chapter 4. The Structure and Realization of (In)definiteness in CK 93

4.1 Introduction 93

4.2 From NP to DP: theoretical background and basic assumptions 94

4.3 The data 96

4.4 The syntax of definiteness and the status of -e 99

4.5 The structure of definite DP 105

4.5.1 Definiteness and the lower DP 107

4.5.2 Demonstratives and the higher DP 112

4.6 The syntax of indefiniteness 119

4.6.1 Indefiniteness, singularity and the status of –êk 120

4.6.2 The derivation of indefinite DP 122

4.7 Concluding remarks 130

Chapter 5. Number and Quantification in CK 131

5.1 Introduction 131

5.2 Number: theoretical background and assumptions 132

5.3 The syntax of number in CK 133

5.4 Quantifiers: distribution and classification 147

5.5 Quantifiers: research background and basic assumptions 155

5.6 The syntactic analysis of quantifiers in CK 157

5.6.1 The syntax of definite quantifiers 158

5.6.2 The syntax of indefinite quantifiers 165

5.7 Concluding remarks 173

Chapter 6. Conclusions and Suggestions for Further Research 175

6.1 Conclusions 175

6.2 Suggestions for further research 179

List of References 182

List of Abbreviations

ADD: Additive
AM: Agentive marker
Agr: Agreement
AgrP: Agreement phrase
AP: Adjective phrase
ASP: Aspect
C-command: Constituent command
CARD: Cardinality
CardP: Cardinality phrase
COMP: Comparative
CK: Central Kurdish
CS: Construct state
D: Definiteness category
DEF: Definite (marker)
Dem: Demonstrative
DemP: Demonstrative phrase
DP: Determiner phrase
EPP: Extended Projection Principle
F: Functional category
FEM: Feminine
FP: Functional phrase
HMC: Head movement constraint
IMP: Imperative
INDEF: Indefinite (marker)
Infl: Inflection
Iz: Izafe
IzP: Izafe phrase
LCA: Linear Correspondence Axiom
LF: Logical Form
LNK: Linker
M: Masculine
MP: Mirror Principle
n: Node

N: Noun

NP: Noun Phrase

Num: Number

NumP: Number phrase

PF: Phonological Form

PP: Prepositional Phrase

PL: Plural (marker)

PROG: Progressive

PRS: Present tense

PST: Past tense

Q: Quantifier

QP: Quantifier phrase

SG: Singular

SP: Specificity phrase

Spec: Specifier

SPEC: Specificity

SUBJU: Subjunctive

SUP: Superlative

T: Tense

Tns: Tense

TP: Tense phrase

VOC: Vocative

VP: Verb phrase

Chapter 1. Introduction

1.1 Outline of the thesis and research questions

This thesis deals with the structure of the nominal phrase (or determiner phrase, DP) in Central Kurdish (CK, henceforth) within generative syntactic theory, in particular Chomsky's (1995, and subsequent work) Minimalist Program.[1] It explores the distribution of prenominal and postnominal functional elements, focussing on the syntactic structure of constituents inside the nominal phrase. The study examines how the DP in CK is structurally derived based on the surface realization of elements. Specifically, the structural relation between the noun and other co-occurring lexical and functional categories, words as well as inflections, is investigated. Word level elements addressed include numerals, quantifiers, demonstratives and postnominal modifiers, while inflectional morphemes include definite and indefinite markers, number and Izafe. Analysing these functional categories, the thesis scrutinizes and thereby sheds new light on the syntax of the nominal phrase in CK.

Functional elements within the nominal phrase play an essential role in explaining syntactic relations and accounting for the properties of extended nominal projections. In CK, these elements have either been poorly characterized or incorrectly identified. For instance, the enclitic *–e* which co-occurs with demonstratives is identified in the literature as part of the demonstrative construction (see Fattah 1997; Öpengin 2013; Windfur 2009: 612), while there is empirical evidence that this inflection independently marks definiteness. Also, the homophonic quantifiers *hemu* 'all' and *hemu* 'many' are both treated (for instance, by Fattah 1997) as identical in terms of their category, and are both incorrectly interpreted as 'all'. Thus, an essential goal of this study is to provide appropriate characterization of the functional morphemes co-occurring with the noun.

The CK nominal phrase demonstrates a complex set of functional categories, both lexical and inflectional, co-occurring with the noun. While functional elements such as numerals, demonstratives and quantifiers precede the noun (1a, b), others like (in)definite articles, the Izafe morpheme and the plural number marker are always inflectional, appearing after the noun (2a, b).

[1] Throughout this thesis I will use the term 'nominal phrase' to refer to the maximal projection of a nominal construction, irrespective of its maximal syntactic category. I will use the labels 'NP' and 'DP' while referring to specific maximal projections of the noun and the determiner, respectively.

(1)

a. ew du sêw-an-e
that two apple-PL-DEF
'those two apples'

b. her de sêw-ek-an
all ten apple-DEF-PL
'all the ten apples'

(2)

a. sêw-ek-an[2]
apple-DEF-PL
'the apples'

b. sêw-êk-i sewz
apple-INDEF-IZ green
'a green apple'

In addition to providing a descriptive account of functional elements within the nominal phrase, the present study theoretically addresses a number of syntactic issues, related to the structural categories of the functional heads and how they result in deriving the nominal phrase containing them.

The first issue concerns the Izafe morpheme, a functional inflection which attaches to the noun, introducing a postnominal modifier. In CK Izafe is realized as either *–i* or *–e*, depending on the (in)definiteness of the nominal phrase, as shown below:

(3)

a. sêw-i sewz
apple-IZ green
'green apples'

b. sêw-êk-i sewz
apple-INDEF-IZ green
'a green apple'

[2] The definite marker is normally realized as *–eke*; however, when it is immediately followed by an element starting with the vowel *a* or *e*, the final vowel in *–eke* is elided, probably for ease of pronunciation as in (1b) and (2a).

c. sêw-e sewz-eke
apple-IZ green-DEF
'the green apple'

d. sêw-e sewz-e zıl-eke
apple-IZ green-IZ big-DEF
'the big green apple'

e. sêw-i pyaw-eke-i
apple-IZ man-DEF-CASE
'the man's apple'

Chapter two, then, offers an overview of Izafe, explaining its functions and morphosyntactic properties. Previous works on CK have dealt with Izafe as a single inflectional element (see Fattah 1997; Karimi 2007). However, the current study argues for the existence of two different types of Izafe, depending on the category of the postnominal modifier: AP Izafe which occurs when the modifier is an adjective (3a-d) and NP Izafe when it is a noun (3e). These two forms are distinguished by their morphosyntactic properties. For instance, AP Izafe exhibits two realized forms *–i* and *–e* (see the examples in 3a-d), while NP Izafe is always –i (3e). Unlike AP Izafe, NP Izafe assigns oblique Case to the following complement. Taking Izafe as a functional head, the current thesis attempts to address the difference between these two types of Izafe and investigate whether the nominal phrase containing them undergoes different derivational processes. Chapter two also provides a critical review of the literature on Izafe. Various proposals have attempted to account for the syntactic function of Izafe in other Iranian languages (see Den Dikken and Singhapreecha 2004; Larson and Yamakido 2005; Samvelian 2007, 2008). However, most of these proposals are shown not to apply to the construction in CK. The analysis attempts to explain the reason why Izafe exists within extended nominal projections in CK. Thus, it provides evidence that Izafe occurs to trigger movement of NP to a position before the postnominal modifier(s), and also mark agreement in Case and definiteness in the nominal phrase.

Chapter three provides a syntactic analysis of Izafe as a functional head, explaining the structural category where it is spelt out. As shown in (3c, d), AP Izafe agrees in definiteness with the definite marker *–eke*. Note that there can be as many instances of Izafe as there are postnominal modifiers (see 3d), where all of the Izafe occurrences agree with the definite marker. Considering Chomsky's (2000, 2001) probe/goal agreement relation and taking the

Izafe morpheme as the probe carrying an unvalued DEF feature, it seems that a single goal (possibly the definite marker) values the DEF feature on more than one Izafe probe. This is an intriguing pattern of probe/goal agreement relation, and at face value, poses a problem for Chomsky's (2000, 2001) activity condition according to which the goal is not available for more than one agreement relations; it is deactivated after valuing an unvalued feature on the probe. One of the main goals of chapter three, thus, is to examine this agreement process as to how it is established in light of the current trends of the Minimalist Program. Given that the category D (the goal) where the definite marker is realized merges above the functional category of Izafe, the agreement operation between the two projections seems to be upwards. Izafe as a probe is c-commanded by the goal (D). This militates against Chomsky (2000, 2001) where the probe c-commands the goal. This discrepancy in the directionality of agreement in the nominal phrase is another topic investigated in chapter three. Likewise, as shown above, NP Izafe assigns oblique Case to a following DP complement (see 3e). Based on current generative syntax, a Case feature is uninterpretable, as it is devoid of any semantic content, hence is considered to be a purely syntactic phenomenon. According to Chomsky (1995, 2000, 2001), structural Case is attested to be a feature valued on the Case-assigning category, but unvalued on the Case assignee. Taking NP Izafe as a case-assigning functional head bearing a Case feature, the analysis also needs to explain this agreement relation in Case feature between NP Izafe and the postnominal DP modifier.

Due to the fact that Izafe occurs in most Iranian languages including Kurdish, a great deal of research has been carried out on this functional element across Izafe languages. Also, as shown above, the CK Izafe plays an essential role in extended nominal constructions, exhibiting several intriguing characteristics. These and several other factors contribute to devoting chapters two and three in the current thesis to the Izafe construction. These two chapters fall under Part I in the thesis, while chapters four and five which address definiteness, number and quantification, are investigated under Part II.

Chapter four deals with the realization of definiteness, shedding light on the derivation of (in)definite nominal phrases. The inflection *–eke* (4a) is used in the literature as the only article encoding definiteness in CK (see Fattah 1997; Karimi 2007; Öpengin 2013). However, I argue that the enclitic *–e*, which obligatorily co-occurs with demonstratives, is a second definite marker playing a similar role to that of *–eke* (see 4b). For reasons which become clear in the analysis, *-eke* is regarded as the primary definite article, while *–e* is considered a secondary marker of definiteness.

(4)

a. esp-eke
   horse-DEF
   'the horse'

b. ew esp-e
   that horse-DEF
   'that horse'

Given that two markers of definiteness exist in CK, the question emerging here is: are the two definite markers realized by the same D category? The fact that they appear on different sides of number morphology (see 5a, b) indicates that the answer is negative.

(5)

a. esp-ek-an
   horse-DEF-PL
   'the horses'

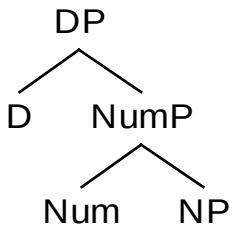
b. ew esp-an-e
   that horse-PL-DEF
   'those horses'

The standard cross-linguistic assumption is that a DP is a discourse-related functional projection (Abney 1987, among many others). Also, the thesis argues that number in CK heads a functional projection realized by the inflection *–an* (see Ritter 1991, 1992, 1995). Based on the fact that the two definite markers in (5) have different distributions in relation to the number morphology, two different D categories appear to exist in the structure of the nominal phrase. That is, two DP layers seem to project each headed by a distinct definite article, with the functional projection of number (NumP) intermediate between them. This provisional conclusion immediately raises the question of why the language should show this kind of discrepancy in terms of definiteness, exhibiting two different definite markers. Could the structural difference lead to two different readings imparted by the definite articles? In other words, can the two D categories be different in their featural make-up such that the features encoded in one D is not shared by the other? Thus, the analysis further scrutinizes the structural and semantic properties of these articles. Another issue investigated in chapter four is the indefinite nominal phrase realized by the suffixal element *–êk* (see 3b). Lyons (1999: 95) argues that this inflection is a grammaticalized diachronic remnant of the numeral *êk* 'one' which

merely marks singularity and is realized by a quantifier functional category, hence is not a marker of indefiniteness. However, contra Lyons, since the suffix can co-occur with various quantifiers, I argue that *–êk* is not spelt out in the same structural category as the quantifiers. Moreover, the analysis shows that *–êk* can occur with plural quantifiers and even with numerals other than one, further casting doubt on Lyons' claim and supporting the assumption that the inflection marks indefiniteness. Therefore, chapter four also aims to examine the syntax of this inflection and find out where (between the two Ds) it is realized.

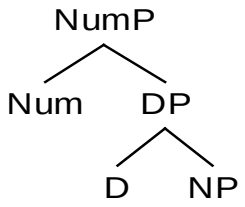
Chapter five investigates two interrelated functional categories: number and quantification. Along the lines of (Ritter 1991, 1992, 1995), the plural morphology in CK is argued to be the result of merger of a Num head with the nominal element NP rather than a lexical property of the noun per se. That is, number morphology projects a phrase above NP, which is realized by the plural marker *–an*. The position of number morphology is cross-linguistically closer to the noun in the surface representation, hence lower in the structure, than the definite article or the category D. That is, as shown in (6), the functional projection of number (NumP) is structurally located below the DP projection, such that D c-commands NumP not the other way round (see Aboh 2004b; Bernstein 1991; Cinque 1996; Giusti 1992; Picallo 1991; Rijkhoff 2002; Ritter 1991, 1992).

(6)



However, CK seems to be a counterexample to these well-established proposals. The main definite marker *–eke* appears closer to the noun than the plural number marker *–an* (see 5a). Given the non-lexicalist approach (Marantz 1997, 2001) together with the roll-up movement I have adopted in the thesis, I posit that the closer a functional inflection to the noun, the lower in the structure, and vice-versa. Accordingly, the functional projection of number (Num) takes scope over, hence is structurally higher than, the DP realized by *–eke*. In other words, a definite plural nominal construction containing the definite marker *–eke* is the projection of number (NumP) which takes scope over, hence is structurally higher than DP, as shown in (7).

(7)



This structural relation between DP and NumP poses a serious challenge to the well-established generalization that D scopes over NumP (see, especially, Rijkhoff 2002; Ritter 1991). Assuming that scopal relations among functional categories are structurally represented, the peculiar hierarchical relation between DP and NumP in CK also casts doubt on Baker's (1985: 375, 1988) Mirror Principle, stating: 'Morphological derivations must directly reflect syntactic derivations (and vice versa)'. According to generative syntax, universal uniformity between languages is due to semantic compositionality, which results from scopal relationships (Rice 2000). This entails that the scopal relations among functional elements are structurally represented, where morphemes of wider scope c-command those with narrower scope (see Baker 1985, 1988; Marantz 1984). D (definiteness) standardly has a wider scope than Num (number), a contention which should be reflected in the structure, suggesting that DP should be above NumP. Thus, one of the main goals of the thesis in chapter five is to account for the structural/scopal issue between DP and NumP within the CK nominal phrase.

Another issue investigated in chapter five is the syntax of quantifying elements. Quantifiers in CK exhibit various salient properties in terms of their distribution and morphological realization. Most of them require the presence of a definite or indefinite marker, hence are divided into two groups: definite and indefinite quantifiers. Indefinite quantifiers, for instance, are distinguished by whether they are directly provided with an indefinite article (8a, b) or whether they precede the noun to which the indefinite marker is attached (9a, b).

(8)

a. hend-êk kes
amount-INDEF person
'some people'

b. toz-êk nan
dust-INDEF bread
'a little bread'

(9)

a. ĉend kes-êk
(a) few person-INDEF
'(a) few people'

b. hemu kes-êk
all person-INDEF
'every person, everybody'

The quantifiers in (8a, b) consist of a noun carrying the indefinite marker *–êk*. Based on their morphological makeup, these quantifying constructions are classified as complex quantifiers. On the other hand, the prenominal elements in (9a, b) are identified as simple quantifiers, since they appear as bare forms before the noun, and the indefinite marker *–êk* is attached to the noun. Quantifiers and their role in deriving a quantified nominal projection, then, will be another subject matter to be examined in this thesis.

Chapter six offers the main conclusions and findings of the study, followed by some suggestions for further research.

1.2 Central Kurdish: a brief background

Kurdish is a member of the Iranian language family which is, in turn, a branch of the bigger Indo-European family of languages. The total number of Kurdish native speakers is not easy to obtain; estimates range it between 35-40 million speakers (see Windfur 2009, among others). Kurdish is spoken across a large contiguous area spanning the borders of Turkey, Iran, Iraq, Syria and also some parts of Azerbaijan, Armenia and Russia.

According to Haig (2004) and Windfuhr (1989), Kurdish is classified into three main dialects: Northern Kurdish, Central Kurdish and Southern Kurdish. Northern Kurdish, or Kurmanji, is the most widely spoken Kurdish dialect with an estimated 25 million speakers. It is spoken in south eastern Turkey, northern Syria, eastern Caucasus, north western Iran, the northern province of Duhok in Kurdistan Region of Iraq and some scattered regions of ex-Soviet Transcaucasia. Central Kurdish, also known as Sorani, is the second largest group with approximately seven million speakers (see Öpengin 2013: 1). It is used mainly in the Kurdistan Region of Iraq and the Iranian province of Kurdistan. Southern Kurdish or Gorani is another dialect which is spoken in southern parts of Iraqi Kurdistan Region in the Khanaqin area over to Kermanshah in south east Iran. The number of its speakers is estimated between 3-4 million (see also Windfur 2009). Some scholars, including Haig (2004), identify two more genetically

related (but geographically separated) dialects subsumed under Kurdish. The first one is Zazaki spoken in Dersim region in south eastern Turkey (north-west of the present Kurdish area) above the rivers Euphrates and Tigris. The other dialect is Hawrami which is spoken in the Hawraman region of the middle Zagros mountain ranges in north western Iran and south eastern Kurdistan region of Iraq. Due to the dispersion of their populations, the exact number of native speakers of Zazaki and Hawrami is not clear (see the map in 10).

(10) Map of Kurdish dialects (modified from Öpengin 2013: 2)

The current thesis covers only the Central Kurdish dialect (Sorani Kurdish). The data under scrutiny is from a specific variety which is referred to by Mackenzie (1961) as Bingird variety and is spoken in areas located between Sulaimani city and Pizhdar district.[3] This variety is the mother tongue of the current researcher; hence, the data presented in the analysis represents the judgments of the author and are intended only to cover this particular variety, unless otherwise stated.

[3] Bingird is a small town situated between the city of Sulaimani and Pizhdar district. The language spoken there shares grammatical properties with both Sulaimanyah and Pizhdar varieties. It diverges somewhat from the more formal and written form spoken in Sulaimanyah. Case, which is relevant to this work, is a noticeable difference between the two varieties. Within the nominal phrase of Bingird variety, but not that of Sulaimanyah, an oblique Case marker is morphologically realized on DP in Izafe constructions, an issue investigated in chapter three.

1.3 Previous research on Central Kurdish

Since the early twentieth century, a number of studies on Central Kurdish have been produced by both native and non-native authors. The majority of these works have been conducted within the framework of traditional grammar, explaining the nature of the language by describing, for instance, the patterns of word inflection and morpheme order. Fattah (1997: 7) notes that Sidqi (1929) and Wahby (1929) are among the earliest grammar works written on CK. While the former is a short morphology book with plenty of examples, the latter is a rather detailed study which provides a descriptive account of Kurdish grammar.

Mackenzie (1961) and McCarus (1958) are regarded as two significant and widely-cited scholarly works. Having been written in a pre-generative period, these two studies offer a generally systematic description of the properties of Kurdish. Mackenzie's 'Kurdish Dialect Studies' is regarded as a highly important work in the Kurdish linguistics in general and Kurdish dialectology in particular (see Öpengin 2013: 12). It is a comprehensive comparative study of various varieties of Kurdish spoken in Iraqi Kurdistan Region. The author's treatment of the Kurdish dialects is concerned mostly with their phonology and morphology and least with syntax. Even his description of syntax generally targets the clausal domain where he sheds light on the passive, relative and conditional clauses. McCarus' work 'A Kurdish Grammar', on the other hand, is perhaps a more succinct study providing a descriptive analysis of Central Kurdish with the main focus on the Kurdish of Sulaimanyah. Although McCarus provides a more detailed syntactic account of CK, he, too, devotes much of his analysis to the verbal domain, dealing with verb phrase structure, clause types and displacement of subject and object markers (see also Fattah 1997: 8). Apart from two very short subsections, which is a purely descriptive account, he has very little to say about the CK nominal phrase and its properties.

The most comprehensive work on Central Kurdish is by far Fattah's (1997) PhD thesis titled 'Generative Kurdish Grammar'. What distinguishes this work from previous studies is the author's outstanding knowledge and awareness of recent up-to-date trends in linguistics. However, since the work has covered several components of CK including morphology, phonology and syntax, it is like a rather detailed sketch of CK grammar based on a generative (Government and Binding) approach. This work does not offer a comprehensive account of the noun phase, either. The chapter which deals with syntax is mostly devoted to the clausal domain, with just a sketchy analysis of the CK nominal phrase. To the best of my knowledge, Karimi's (2007) paper is the only work to offer a rather concise analysis of some DP-internal issues in CK, using the Generative framework. This work primarily addresses the Izafe

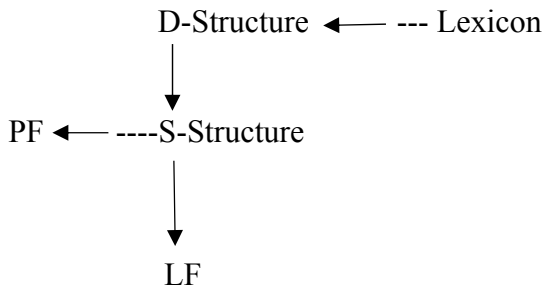
construction, examining the functions of Izafe and its role in deriving the nominal phrase. However, it abstracts away from several other lexical and inflectional elements within the extended nominal projection. Even the author's treatment of the Izafe construction is not immune to criticism, as it suffers from some drawbacks to which I will return in due course. There are several other studies written by native scholars on various linguistic domains. However, since the majority of the authors lack command of English, they are not aware of the modern trends of linguistics; hence, they have based their research on a descriptive traditional framework.

The current research, on the other hand, explores the syntax of the CK nominal phrase in light of the current trends of generative grammar. A significant aspect of the study is that the topic has not been subject to much research within a theoretical framework. As mentioned above, previous works have either provided a descriptive analysis of the topic or focused mainly on a specific issue inside the DP. All in all, these works have left several questions unanswered regarding the DP structure including the syntax of the various functional categories within the nominal phrase. This research, by contrast, presents a detailed analysis of such categories in light of current syntactic theory. In so doing, it brings into focus some salient issues some of which are rare or even unique to the DP structure in CK, hence have considerable general interest for linguistic theory in general and the theory of the nominal phrase in particular.

1.4 Theoretical framework and basic assumptions

The theoretical framework adopted in the current thesis is Chomsky's (1995, and subsequent work) Minimalist Program. According to Chomsky (1995), there are universal principles and a limited number of universal parameters regarding how to apply such principles. According to the Extended Standard Theory (an early precursor to the Minimalist Program), four levels of representation were attested: Logical Form (LF), Phonetic Form (PF), S-Structure and D-Structure which relates the lexicon to the (derivational) computational system (see Chomsky 1995: 21-22). While PF is associated with sound aspects and LF specifies meaning, an intermediate level mediates these two levels and is identified as Surface structure (S-Structure), as shown below.

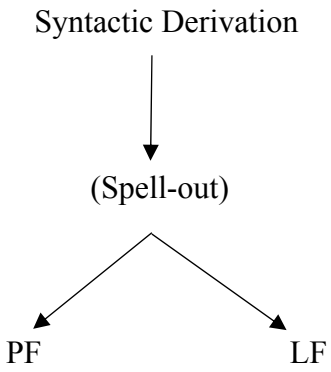
(11)



(Chomsky, 1995:22)

In the Minimalist Program, Chomsky (1995) revised the proposal and argued for only two interface levels of syntactic representation: PF (articulatory-perceptual) and LF (conceptual-intentional). Based on this two-interface model of PF and LF, Embick and Noyer (2007) propose the following architecture for the model of grammar in natural language.

(12) The Grammar



(Embick and Noyer, 2007: 3)

Syntax normally incorporates a set of rules generating syntactic structures. According to Embick and Noyer, these syntactic structures are still subject to further operations in subsequent PF and LF interface levels.

To account for the derivation of a syntactic construction, the Minimalist Program postulates three syntactic operations: Merge, Agree and Move. Merge is an operation combining two syntactic objects, *a* and *b*, which maybe words or phrases to form a third object $c = \{a, b\}$, where c's features are determined by either *a* or *b*, the head of $\{a, b\}$ (Chomsky 2001). Further, according to Chomsky (2000, 2001), the operation Agree is a syntactic relation that a category with unvalued features, a so called probe, establishes with a category that carries the same features, but valued – called 'goal' in a syntactic structure. Finally, the operation Move takes a category already merged in a syntactic structure and merges it again higher up the structure, building a structure with two or more copies of the same constituent. This is now often referred to as 'internal merge' as opposed to 'external merge', when a 'new' category is merged. From

this perspective, Move is a variety of Merge. Crucially, in Chomskyan Minimalist Theory, syntactic structures are always built from the bottom up, by Merge. New categories can only be added at the root of the tree, by external or internal merge, a condition that Chomsky (1995) called the Extension Condition.

It is generally agreed that two distinct types of syntactic categories exist in every natural language: lexical and functional categories. This distinction plays an essential role in generative syntactic theory. While lexical categories directly contribute to the interpretation of the phrase containing them, functional categories contribute to the semantic content of the phrase via encoding grammatical relations between the linguistic entities. Given that the current study addresses the nominal phrase (in CK), it focuses only on syntactic categories within the extended nominal projection. It is widely assumed that the construction which has, as its lexical core, a nominal element (i.e. NP) is the domain of various functional categories. These include elements related to reference and deixis (demonstratives, definite and indefinite articles) and quantification (number and quantifiers). This is on a par with functional categories in the clausal domain including the complementizer, tense, aspect and negation morpheme (see Abney 1986, 1987; Pollock 1989; Szabolcsi 1983).

In CK, numerals, demonstrative elements and quantifiers are realized as free-standing morphemes preceding the noun, whereas Izafe, number as well as definite and indefinite markers are all spelled out as inflectional elements. Throughout this work, special attention is given to the nature of these inflections which make a clear contribution to the semantics of the nominal phrase. It is widely assumed in the current literature that words can have internal structure similarly to sentences, and words with inflections can share several properties with syntactic structures (see Baker 1985, 1988; Giusti 2005; Holmberg and Roberts 2013; Vangsnes 2001). Accordingly, a word carrying inflections in some language can impart the same meaning as a syntactic phrase in another language. For instance, the word *esp-eke* (horse-DEF) 'the horse' in CK conveys the same meaning as the English phrase *the horse*, where *–eke* serves the same semantic function as *the* in English. In relation to this, standard syntactic reasoning generally presumes that any inflectional category which has a grammatical function and contributes to the semantic content of a co-occurring lexical element is the head of a maximal projection (Chomsky 1995; Ouhalla 1991).

In order to capture the syntactic derivation of nominal functional categories, the current work adopts a non-lexicalist theory (Baker 1985, 1988; Cinque 1999; Cinque and Rizzi 2008; Drijkoningen 1994; Julien 2002a, 2002b, 2005; Marantz 1997). According to this approach,

syntax is the only generative modus operandi: thus, "syntax all the way down" (Marantz 1997, 2001) is responsible for deriving word structure (word formation) as well as phrase structure. In this model, the basic raw material that syntax makes use of in deriving structures is morphemes which consist of non-phonetic syntactic features picked up from Universal Grammar. Every morpheme in syntactic structures is abstract and does not have any phonological content. So, the category gets its phonological form (the vocabulary item) realized post-syntactically in an operation known as *spell-out* after the structure is delivered to the Phonological Form (PF) level. This whole process is described in the generative system as *late insertion,* assuming that relevant phonological expressions are inserted after syntax in the process of vocabulary insertion (see also Embick 2003). Given the non-lexicalist approach, functional inflections should be dealt with in the syntactic component such that each inflection corresponds to a node in the syntactic representation. Thus, I assume that nouns enter the syntactic derivation from the lexicon as bare forms. If a noun is realized with inflectional suffixes attached, it must have received these inflections during the derivation (see, for instance, Baker 1985, 1988; Drijkoningen 1994; Julien 2002a, 2002b, 2005; Marantz 1997).

Further, a bottom-up Minimalist derivational theory of building syntactic objects (Chomsky 1995, 2000, 2001) is adopted by most non-lexicalist approaches. Along the lines of Anderson (1982) that inflectional morphology is directly related to syntax, I assume that morphologically complex nominal constructions in CK are derived by merging the noun with functional inflections within syntax. This is also in compliance with Baker's (1985) Mirror Principle, stating that a morphological derivation directly reflects a syntactic derivation. In CK, functional inflections such as number and (in)definite markers are, therefore, assumed here to head functional categories entering the derivation above NP in the hierarchical structure. Having stated this, the general line of reasoning regarding these inflections (following Cinque 2013) is that the noun in an extended nominal construction is the lowest constituent merging in the structure, hence is the first one launching the syntactic computation. Thus, the fact that the noun appears before these inflections (as well as postnominal modifiers) after spell-out is the result of the noun moving up past them, ending up to their left (see Julien 2002a, 2005). As is elaborated in the analysis, phrasal movement is the major syntactic operation to account for morpheme order in the CK nominal phrase. In this respect, I will provide conceptual evidence that head movement does not work to derive extended nominal projections. An essential point to be included concerns the realized form of functional elements. In CK only demonstratives, numerals and quantifiers appear before the noun after spell-out. Other functional categories such as Izafe, number and (in)definite markers always follow the noun as inflections. In relation

to this, movement of NP is attested only with inflectional functional categories. That is, in the case of prenominal functional elements the noun does not move past the functional morpheme, an issue which I assume in the analysis to be related to movement-triggering features on some functional heads, but not others.

Kayne's 1994 Linear Correspondence Axiom (LCA) is another principle which I rely on in the current research. The LCA is a syntactic principle designed in part to explain word order variations across languages, mostly through syntactic movement (see Belletti 2004; Biberauer *et al*. 2014; Cinque 1996, 1999, 2002, 2005, 2010; Moro 2000; Rizzi 2003; Roberts 2011). The point of the LCA is to account for the relation between linear word order and hierarchical structure, thereby considerably reducing the possible constituent orders allowed by Universal Grammar. The following is a slightly simplified version of the LCA on the basis of an asymmetric syntax:

- α precedes β iff α asymmetrically c-commands β, or if α is contained in γ, where γ asymmetrically c-commands β.[4]

(Biberauer *et al*. 2014: 172)

The LCA has two important consequences related to first merge position and movement. As regards the former, syntactic constituents have a universal order where specifiers precede heads and, in turn, heads precede their complement. This is because a specifier asymmetrically c-commands the head it is a specifier of, hence precedes it. Likewise, the head asymmetrically c-commands the constituents of a branching complement. If, in effect, a complement is always a branching constituent, it then follows from the LCA that the basic universal word order is Specifier-Head-Complement and that all other word orders are derived by movement of constituents. As regards movement, the important consequence that ensues from the LCA is that movement must be leftward. Given that movement is always upward, a consequence of the Extension Condition, the moved element will asymmetrically c-command its trace (i.e. its first merged copy). It then follows from the LCA that the moved category will precede its trace. In this sense, the movement is leftward. This will all be relevant in the derivation of nominal phrases to be discussed in subsequent chapters.

[4] In the current analysis I depart from Kayne's original version of the LCA as far as the relation between lexical items and the syntactic categories are concerned. Thus, I draw on the basic assumptions of bare phrase structure (Chomsky 1995) within the Minimalist theory. Accordingly, unlike the LCA, α and β (given in the formulation above) are taken in the current analysis as both terminal nodes and lexical items simultaneously, and that lexical elements are not regarded as components under categories.

Part I. The Izafe Construction

Chapter 2. The Izafe Construction: Description and Overview

2.1 Introduction

The Izafe construction is a striking characteristic of CK which plays an essential role in the syntactic structure of its nominal phrase. It is a semantically vacuous adnominal element linking all the postnominal modifiers or complements to the noun. The term *Izafe* simply means addition or supplement and, based on Windfuhr (1989), it is named after the Arabic word *Idafat* which literally means 'annexation'. Diachronically, it is not easy to trace the origin of Izafe, and several scholars have studied its roots. The inflection is argued to have developed from a free-standing relative pronoun in Old Persian (Haider and Zwanziger 1984; Karimi 2007; Moyne 1971).

The Izafe construction in CK is attested to be a functional category realized as either *–i* or *–e*. The latter co-occurs only with definite nominal phrases, when the noun is followed by an adjective modifier. By contrast, Izafe always appears as *–i* if the postnominal modifier is a noun or proper name. Based on this and other empirical observations presented in subsequent sections, two types of Izafe are argued to occur in CK: NP Izafe which introduces the noun to a following modifying noun, and AP Izafe which attaches to the noun and is always followed by an adjective modifier. As is explained later, AP Izafe agrees in definiteness with D. On the other hand, NP Izafe is argued to be a Case-assigning category entering an agreement relation in Case feature with a following DP complement.[5]

While the syntactic analysis of Izafe is mainly investigated in chapter three, the current chapter is concerned with some aspects of Izafe including its distribution and constituency. Likewise, in addition to providing a critical review of the literature on Izafe, the phonological and morphological status of this construction will also be explored. So, the chapter is organized as follows. Section 2.2 provides a descriptive overview of the Izafe construction, focussing on its distribution within the nominal phrase. Section 2.3 presents a brief description of the morphological realization of Izafe, arguing for a clitic rather than suffixal status of the element. In 2.4, the constituency of Izafe is discussed, arguing that the morpheme is syntactically part of the postnominal modifier it introduces though it is phonologically attached to the constituent preceding it. This is followed in 2.5 by an account of the functions served by Izafe. As Izafe has extensively been investigated in the literature, a critical analysis of the construction is presented in 2.6, illustrating why most of the previous proposals cannot account for the

[5] Following Abney's (1987) DP Hypothesis, the nominal phrase in CK is argued to be a projection of a D category realized by an (in)definite article (see chapter four, 4.2). Hence, the term DP is used, henceforth, where relevant.

behaviour of the element in CK. Section 2.7 explores the syntax of Izafe with focus on why the inflection occurs from a syntactic point of view. Finally, section 2.8 offers the concluding remarks.

2.2 The distribution of Izafe

In CK, demonstratives, superlative adjectives, numerals and various other quantifiers precede the noun without any linking morpheme between them, consider the following examples.

(1)

a. hemu em de sêw-an-e[6]
   all this ten apple-PL-DEF
   'all these ten apples'

b. gewre-tırin sêw
   big-SUP apple
   'the biggest apple'

c. ew hemu sêw-an-e
   that many apple-PL-DEF
   'all those many apples'

d. her hemu sêw-ek-an
   all many apple-DEF-PL
   'all the many apples'

On the other hand, other modifying elements including nouns, common and comparative adjectives invariably follow the modified noun. These modifiers are not merely juxtaposed with the noun they modify; an Izafe is obligatorily inserted between the noun and the modifier. In other words, Izafe appears after the noun whenever the latter is followed by an adjective (2a), a descriptive noun (2b), a genitive DP (2c), a DP complement (2d) and a restrictive relative clause (2e). Additionally, the example in (2f) wherein the noun appears uninflected (i.e. without being marked by the Izafe) proves to be a completely ill-formed construction.

[6] Whether the morpheme *–e* at the end of the nominal phrase in (1a), which always occurs with demonstratives, is a marker of definiteness is controversial and has hardly been addressed in the literature. In chapter four, though, I provide empirical evidence that *-e* marks definiteness, hence glossing the inflection as DEF at this stage for expository convenience.

(2)

a. sêw-i sewz
apple-IZ green
'green apples'

b. mêz-êk-i asın
table-INDEF-IZ iron
'an iron table'

c. esp-i pyaw-eke-i
horse-IZ man-DEF-CASE
'the man's horse'

d. xıwardın-i sêw-eke-i
eating-IZ apple-DEF-CASE
'the eating of the apple'

e. ew pyaw-e-i ke to bini-t
that man-DEF-IZ that you see.PST-2SG
'the man that you saw'

f. *sêw-êk sewz
apple-INDEF green
intended meaning: 'a green apple'

Further, when the noun is followed by more than one modifier, all the modifiers, except the last one, are obligatorily preceded by Izafe. Thus, the Izafe construction is recursive such that multiple postnominal modifiers of the kinds given above trigger multiple instances of Izafe, as shown in (3). However, one should observe that the element does not occur on every single word within a complex AP (see 3b).

(3)

a. sêw-i sewz-i zıl
apple-IZ green-IZ big
'big green apples'

b. esp-êk-i bor-i zor zıl
horse-INDEF-IZ grey-IZ very big
'a very big grey horse'

c. sêw-e sewz-e zıl-eke
apple-IZ green-IZ big-DEF
'the big green apple'

d. ew sêw-e sewz-e zıl-e
that apple-IZ green-IZ big-DEF
'that big green apple'

Note that the phonetic form of Izafe in these examples is determined by the definiteness of the nominal construction. It is realized as *–i* if the nominal phrase is indefinite (3b) or generic (3a), but as *–e* when it is definite (3c, d). This property of Izafe is argued in chapter three (3.3.1) to be due to an agreement relation the inflection shows in definiteness with the category D. Note that, Rebuschi (2002, cited in Samvelian 2006:51) also attributes this variation in the surface form of Izafe to an agreement relation between Izafe and the noun, hence employs the terms *definite* and *indefinite Izafe* to characterize each one.

However, only when it is followed by an adjective modifier, does Izafe show agreement in definiteness with the noun (see the examples in 3). That is, when Izafe is followed by a noun or a proper name, it is realized as *–i* irrespective of whether the nominal construction is definite or indefinite.

(4)

a. seg-eke-i Aram-i
dog-DEF-IZ Aram-CASE
'Aram's dog'

b. seg-i pyaw-eke-i
dog-IZ man-DEF-CASE
'the man's dog'

c. *seg-e pyaw-eke-i
dog-IZ man-DEF-CASE
intended meaning: 'the man's dog'

Notice that in (4a), for instance, the noun *seg* 'dog' is suffixed with the definite marker *–eke* and the postnominal modifier is a proper name which is inherently definite; yet, Izafe appears as *–i*. Similarly, the nominal modifier *pyaw* 'man' in (4b) is definite through bearing the definite marker *–eke* and the noun *seg* 'dog' is also rendered definite since it is a possessum within a genitive construction. However, the phonetic form of Izafe remains unchanged, surfacing as *–i*. The example in (4c) where Izafe shows as *–e*, agreeing with the definite marker, is completely ungrammatical.

In light of the data above, two types of Izafe are distinguished: the first one introducing a noun to a postnominal adjective modifier, and is labelled AP Izafe following Holmberg and Odden (2008) on Hawrami.[7] The second type connects the noun to a modifying noun and is referred to as NP Izafe. One can observe that the two Izafe types are not only different in their surface form, but also in their function or behaviour. In most CK varieties including the one under study, NP Izafe assigns Oblique Case to the DP complement following it. As shown by the examples in (4), the Case is marked as *–i* attaching to the DP construction. By contrast, the AP Izafe never assigns Case to a following modifier. [8]

Evidence in support of two distinct Izafe morphemes in CK is found cross-linguistically. Mandarin Chinese, for instance, uses the free morpheme *de* to link a noun to a modifier within the nominal phrase. According to Rubin (2002), two homophonous (but different) forms of *de* exist in Chinese: one linking the noun to an adjective modifier and the other introducing a noun modifier to the noun. Japanese is another example which demonstrates a similar contrast, employing the suffix *–no* to link the noun to a noun or DP modifier with a genitive relation. However, the language uses two different suffixes (*–i* and *–na*) to link the noun to two groups of modifying adjectives: true and nominal adjectives, respectively (see Larson and Yamakido 2005: 18).

Summing up, in light of the data presented above, the Izafe construction in CK is characterized by a number of properties which should be taken into account in the analysis. The modified constituent in the construction is basically a noun, while the postnominal modifier can be either

[7] Hawrami is another Kurdish dialect, which shows some similarities to CK as far as the Izafe construction is concerned. Holmberg and Odden propose a similar treatment of Izafe in Hawrami, distinguishing between AP Izafe and Poss(essive) Izafe.

[8] Mackenzie (1961: 157-161) also distinguishes between two types of Izafe in CK on the basis of the behaviour shown by the element. He uses the terms Primary Izafe and Secondary Izafe for the two forms *–e* and *–i*, respectively.

a noun or an adjective.[9] Moreover, the Izafe which links a noun to a nominal modifier (NP Izafe) is different from the one linking the noun to an adjective (AP Izafe). NP Izafe assigns oblique Case to the following DP modifier, and always appears as *–i* regardless of whether the nominal phrase is definite or indefinite. By contrast, AP Izafe does not assign Case, and is spelled out as either *–i* or *–e*, depending on the (in)definiteness of the construction.

2.3 The morphology of Izafe: a suffix or a clitic?

This section addresses the morphophonological status of Izafe. The question whether the Izafe morpheme should be treated as a suffix or a clitic is worth some investigation, since the topic has not been properly examined in the literature of CK.

There is extensive research on the difference between clitics and affixes (Anderson 2005; Klavans 1985; Zwicky and Pullum 1983, to list just a few). Spencer (1991: 350) characterizes them both as bound morphemes which do not occur on their own, but invariably need to attach to a host.

Identifying morpheme as clitic or affix is notoriously hard. To determine the morphophonological status of Izafe, the current analysis draws on a number of well-established diagnostic tests advanced by Zwicky and Pullum (1983: 503-504). Five (out of six) of the criteria are relevant and apply to CK which are summarized below.

(5)

A. Clitics show a low degree of selection in respect of their hosts, while affixes show a high degree of selection.
B. In the set of combinations, arbitrary gaps are more characteristic of words with affixes than of clitic groups.
C. Morphological idiosyncrasies are more characteristic of affixal elements than of clitics.
D. Clitics can attach to material already containing clitics but affixes cannot.
E. Rules in syntax can affect affixed words, but they cannot affect clitic groups.

[9] It should be pointed out that the postnominal modifier can sometimes be a PP. However, the prepositions qualified to occur after the noun including *bın* 'under', *ser* 'over' *naw* 'in' and *pıŝt* 'up', are noun-like elements. That is, they share the same properties with typical nouns in the language, such as carrying the definite marker *–eke*. Such prepositions (in Persian) are also argued to hold nominal features [+N], hence considered to be nominal categories (see Larson and Yamakido 2005; Samiian 1994). Based on these grounds, the current analysis only addresses adjectival and nominal modifiers that follow the noun.

Izafe is not highly selective regarding the category of the word it follows. Constituents like NPs, APs, PPs and infinitives can host the Izafe in complex nominal phrases (see 6). In light of the first criterion, then, Izafe is a clitic rather than a suffix.

(6) řuxandın-i ŝura-i zor berz-i naw ŝar-i berlin
destroying-IZ wall-IZ very high-IZ inside city-IZ Berlin
'destroying the very high wall inside Berlin city'

The second criterion further supports the clitic status of Izafe as well. Izafe is obligatorily required whenever a noun is post-modified by other categories without exception. Thus, one can hardly find a complex nominal phrase where the noun is not followed by Izafe.

Further, the Izafe construction does not allow any idiosyncrasy. That is, the category hosting Izafe never bears an exceptional phonological form of the morpheme. Based on Criterion C, then, this indicates that Izafe is a clitic. One should not be confused, though, by the two allomorphs of Izafe '*–i*' or '*–e*' determined by the (in)definiteness of the nominal phrase.

Criterion D strongly substantiates the clitichood of Izafe, simply stating that clitics, unlike affixes, can attach to categories already carrying other clitics. Taking the definite article *–eke* and the plural marker *–an* both as clitics, the Izafe can be readily added to a nominal phrase already containing either one or both of these clitics.

(7) esp-ek-an-i Aram-i
horse-DEF-PL-IZ Aram-CASE
'Aram's horses'

A coordination test can be used in view of criterion E according to which syntactic operations do not treat a clitic and its adjacent word as a single unit. Consider the example below.

(8)

a. esp u seg-eke-i Aram-i
horse and dog-DEF-IZ Aram-CASE
'Aram's horse and dog'

b. *esp-i u seg-eke-i Aram-i
horse-IZ and dog-DEF-IZ Aram-CASE
intended meaning: 'Aram's horse and dog'

In (8a) the coordination process links two nouns (*esp* 'horse' and *seg* 'dog') and does not involve the Izafe *–i*; i.e., the operation does not take the noun and Izafe as a unit. This is clearly borne out by the inability of the first conjunct to bear Izafe, indicating that the latter is a syntactic category which independently heads a constituent.

An intriguing property of Izafe in CK which supports its clitic status relates to its occurrence as a free element. Pullum and Zwicky (1988) and Zwicky (1977) describe simple clitics as belonging to the same word class as some other free-standing little words in the language, which can replace them in certain contexts. Along the same lines, Izafe can sometimes appear independently in ellipsis constructions, as follows.

(9)

a. Question

(to) esp-i kê debei-t ?

(you) horse-IZ who take.PRS-2SG

'Whose horse are you going to take?'

b. Answer

hi Aram-i[10]

IZ Aram-CASE

'Aram's'

Thus, based on the arguments above and the data presented there, it is concluded that Izafe in CK should be regarded as a clitic not a suffix. This outcome further corroborates the contention that Izafe is a phrasal element attached to constituents rather than individual words, hence should be accounted for within syntax. A question arising at this stage is: to what group of clitic does Izafe belong to as far as its phonological host is concerned? Klavans (1985: 98) classifies clitics based on three parameters: dominance, precedence and phonological liaison. Phonological liaison, which is most relevant to the current analysis, is concerned with the direction the clitic takes in its phonological attachment and is subdivided into proclitic and enclitic. The former are any clitics that precede the hosting element, whereas the latter are those clitics that follow the host. Accordingly, Izafe can straightforwardly be described as an enclitic,

[10] The fact that Izafe starts with /h/ is attributed to the rules of phonology in Kurdish, as the language does not allow onsetless syllables; every syllable must start with a consonant. So, when no consonant is present in the underlying representation, phonological rules provide an epenthetic consonant (either /h/ or a glottal stop /ʔ/) to the surface form to satisfy the constraint.

since it invariably attaches to the end of the modified category. Thus, the term 'enclitic' is used, henceforth, while referring to the element.

Although Izafe is phonologically attached to the modified element (the noun), the following section argues that the inflection syntactically forms part of the postnominal modifier. This is also in line with Klavans (1985) and Marantz (1989) who, drawing on Greek, Kwakwala, French and Papago, suggest that certain clitics are likely to have two distinct hosts: one phonological and the other syntactic. Likewise, Zwart (2006: 57) convincingly argues that when an element is phonologically attached to a head, it might still syntactically mark the dependent, a phenomenon he describes as 'affix migration'. So, the Izafe in CK is most probably identified as an enclitic which displays this kind of 'dual citizenship', so to speak. This will be the focus of the following section.

2.4 Constituency

In the previous section, Izafe is shown to be an enclitic and is phonologically attached to a preceding element. This section, on the other hand, deals with the syntactic host of the morpheme, hence investigates its constituency. I argue that the morpheme constitutes part of the following modifying dependent rather than the modified noun. This account of Izafe is essential for subsequent analyses, since it illustrates that its occurrence is syntactic, and that Izafe is not merely a phonological element inserted at PF as claimed by some scholars including Gomeshi (1997) and Samvelian (2007).

As far as its realization is concerned, Izafe is phonologically cliticized to the constituent to its immediate left. However, several arguments are in order, supporting the assumption that the morpheme syntactically forms a constituent with the modifying element to its right. It is already demonstrated that Izafe occurs if and only if a noun is modified by a following element. That is, its existence invariably depends on the occurrence of a postnominal modifier. This suggests that Izafe is a dependent marking and not a head marking element. The former is described by Philip (2012: 13) as a functional head, marking a morphosyntactic dependency relation between a modified element and a dependent. An unmodified nominal phrase in CK simply appears uninflected, hence is not marked with Izafe. This rather indicates that Izafe is syntactically related more to the modifying category than it is to the noun, since it occurs to introduce the modifier.

Based on typological data from a number of languages including English, French, Swahili, Mandarin Chinese, Japanese and Persian, among others, Philip (2012) proposes some tests to

establish the constituency of linkers within complex nominal phrases. Since the tests can readily apply to the data in CK, the analysis below offers an account of these tests to determine the syntactic host of Izafe.

When two nouns are coordinated, followed by a modifier, only one Izafe element is added to the right of the coordinated construction, and is adjacent to the modifier. No Izafe instance is inserted within the conjuncts.

(10)

a. esp u seg-i zıl
horse and dog-IZ big
'big horses and dogs'

b. *esp-i u seg-i zıl
horse-IZ and dog-IZ big
intended meaning: 'big horses and dogs'

c. daik u bauk-i Aram-i
mother and father-IZ Aram-CASE
'Aram's mother and father'

Given the coordination test in these examples, and in light of Philip's (2012: 38) argument on Persian, the Izafe in CK is assumed to make up a constituent with, and syntactically belongs to, the postnominal modifier. This is so because if the linker is structurally part of the preceding modified element, it would have been repeated on every conjunct inside the conjunction phrase, a case which is shown by (10b) to be totally ungrammatical (for more on conjunction within the nominal phrase, see Heycock and Zamparelli 2005).

By contrast, when two coordinated adjectives or possessors modify a noun, each of them can readily carry Izafe as follows.

(11)

a. esp-i bauk-ım u hi mam-ım
horse-IZ father-1SG and IZ uncle-1SG
'my father and uncle's horse'

b. sêw-i sewz u hi sur[11]
apple-IZ green and IZ red
'green apples and red ones'

These examples again show that any occurrence of Izafe indicates the presence of a postnominal modifier. This, in turn, strongly supports the prediction that Izafe is syntactically part of the dependent element.

Ellipsis is another strategy to test the constituency of Izafe.[12] Either the noun or the modifying adjective (or possessor) within a complex nominal phrase might be elided. As is the case with the deletion of other grammatical categories, the material which undergoes ellipsis must be a constituent. The fact that Izafe can survive with the modifying constituent when the modified noun is deleted constitutes robust evidence that the enclitic forms a constituent with the modifier. Consider these examples.

(12)

a. pyaw-ek-an esp-i mın-yan bırd nek hi to
man-DEF-PL horse-IZ I-3PL take.PST not IZ you
'The men took my horse, not yours.'

b. Aram sêw-i sewz-i kıři bełam Azad hi sur-i kıři
Aram apple-IZ green-3SG buy.PST but Azad IZ red-3SG buy.PST
'Aram bought green apples, but Azad bought red ones.'

However, Izafe undergoes deletion together with the modifying element when the latter is elided, further confirming that the two form a syntactic constituent, as illustrated by the following example.

(13) Aram derga-i ẑur-eke-i daxıst, Azad-iŝ penjere
Aram door-IZ room-DEF-3SG close.PST Azad-ADD window
'Aram closed the door of the room, and Azad the window.'

Further evidence substantiating the contention that Izafe forms a constituent with the modifier is provided by the definiteness agreement the enclitic shows with a definite noun. As is

[11] A similar case of Izafe is attested in Kurmanji Kurdish which is described by Wurzel (1997: 25, cited in Strunk 2003: 5) as 'absolute Izafe' and is considered to be parallel to the English pronoun 'one' in, for instance, *a green one*, or *the big ones*.

[12] Ellipsis is defined as the deletion of a syntactic constituent subject to identity with an antecedent in a previous discourse (see Algryani 2012; Hankamer and Sag 1976, 1984; Lobeck 1993, 1995).

discussed in the next section, the principal function served by Izafe is to mark a dependency relation between the noun and the dependent. In relation to this, Nichols (1986: 58) and Zwart (2006: 56-57) argue that if a linking element, which marks the dependent rather than the modified category, shows agreement, it must bear the agreement features of the projection that sets up the dependency relation with, not of the modifier construction of which the element forms a part. As touched upon in 2.2, the realization of an AP Izafe varies depending on the (in)definiteness of the noun. It is spelled out as *–i* if the noun is indefinite, but as *–e* if it is definite. This kind of reasoning that Izafe cross-references the features of the noun (not of the dependent) lends further support to the assumption that the enclitic is a dependent-marking element, hence, forms a constituent with the following modifying construction.

Linkers similar to Izafe are also existent in languages like Chinese, Japanese, Hindi-Urdu and English which are morphologically realized as *de*, *no*, *k* and *of*, respectively. Applying the above-mentioned tests, Philip (2012: 48) demonstrates that such linkers syntactically mark their modifying dependent rather than the modified element, and that they belong syntactically to the modifier.

Given all these arguments, it is concluded that Izafe syntactically belongs to the postnominal modifier though it is phonologically cliticized to the preceding element. Thus, that Izafe is a dependent marker, hence a syntactic element, is further borne out. In the following section, the functions of Izafe is examined to find out what role it plays within the nominal phrase.

2.5 The functions of Izafe

This section addresses the functions of Izafe construction, explaining the reason underlying its presence. It describes the role the enclitic plays in terms of the relation between the elements within the nominal phrase.

In the spirit of Parsafar (2010) on Persian, it is demonstrated that Izafe in CK does not serve any semantic function. It is simply a dummy morpheme whose occurrence is purely syntactic, hence does not contribute to the compositional meaning of the nominal phrase, whatsoever. Moreover, the semantic relations deduced from elements in the Izafe domain depends merely on the meaning of the two associated constituents connected to each other by Izafe. For instance, the NP type of Izafe which sometimes introduces a possessor can show far more semantic relations than just a possessive relation. Consider the examples below.

(14)

a. řoiŝtın-i pyaw-eke-i
departure-IZ man-DEF-CASE
'the man's departure' (the man is an agent)

b. kuŝtın-i pyaw-eke-i
killing-IZ man-DEF-CASE
'the killing of the man' (the man is a patient)

c. pertuk-i pyaw-eke-i
book-IZ man-DEF-CASE
'the man's book' (the man is either a possessor or an agent who has written the book.)

d. berbun-i pyaw-eke-i
release-IZ man-DEF-CASE
'the man's release' (the man is a theme)

Many other semantic relations can be expressed by the nominal elements linked by Izafe, suggesting that the enclitic does not play a part in this regard. Instead, it is inserted as a syntactic element linking the hosting constituent to a following modifying category. In other words, Izafe simply functions as a morphosyntactic strategy to mark an existing dependency relation between a modified noun and a modifier (see Parsafar 2010: 665 on Persian). For the role of similar linking elements, also see Den Dikken (1998) and Kayne (1994), arguing that such relators are considered functional heads which are necessary for articulating an existing dependency relation between the two categories.

Semantically meaningless linkers within the nominal phrase are found across languages, with the main function of introducing a modifying element to the noun. These include the Mandarin Chinese *de*, Japanese *-no*, French *de* and, in some contexts, English *of*. Such linkers often serve to signal a relation between a noun and a modifier; hence, their occurrence fully depends on the presence of this relation (Den Dikken and Singhapreecha 2004; Rubin 2002; Samvelian 2006: 26). In addition, one of the main tenets of generative syntax is to investigate the relation(s) between component elements within a syntactic constituent such as an NP, VP or a PP. So, the existing dependency relation in CK between the noun and a postnominal modifier is plausibly marked by the Izafe construction.

Holmberg and Odden (2008) define the Izafe construction as a characteristic of Iranian languages; they describe it as an inflectional element attached to modified categories within the nominal phrase, which is correspondent to English *of* in some of its uses but not others. In this respect, the NP Izafe that links a noun to another noun or DP complement behaves most similarly to the English *of* which, following Kayne (1994: 85-6), stands as a dummy syntactic element between the noun and a following complement and assigns Case to it (see Hashemipour 1989; S. Karimi 1989, 1990; Samiian 1994 for an analysis of Izafe as a Case assigner in Persian).

However, the second type of Izafe (AP Izafe), which links a noun to an adjective, is posited to have a different role from the NP Izafe. Despite its function of marking a dependency relation between the noun (NP) and a following modifier, Izafe plays another role associated with agreement. Unlike Persian, and similarly to other Kurdish dialects including Hawrami, Kurmanci and Zazaki, Izafe in CK displays syntactic agreement within the nominal phrase. As a functional category, Izafe occurs to show agreement features. As illustrated in 2.2, the phonetic form of AP Izafe depends on whether the nominal phrase is definite or indefinite. This change of form, which is elaborated in chapter three (3.3.1), is argued to result from an agreement between AP Izafe and the category D. Likewise, the NP Izafe assigns Case to, hence agrees in Case feature with a following DP on which the Case is morphologically realized. Thus, the fact that AP Izafe agrees in definiteness with the definite article, and that NP Izafe assigns Case to the DP strongly suggests that the element does not only serve to mark a modification relation. Rather, it is additionally attested to be a morphologically realized functional category whose realization is required to bear and consequently show agreement feature(s) within the nominal phrase.

Summarizing, it is demonstrated that the presence of Izafe is a requirement of syntax, not semantics. The morpheme does not add any further compositional meaning to the semantic relation between the two juxtaposed constituents. Rather, it serves as a functional head which is required by syntax to mark a dependency relation between a noun and a modifying dependent. As a functional category, Izafe occurs to show agreement in definiteness within the nominal phrase (when AP Izafe is used), or in Case feature with a following DP, when NP Izafe occurs. In the following section, I will bring into focus a number of previous proposals on the syntax of Izafe in Persian and some Kurdish dialects, where I provide evidence as to why they do not apply to Izafe in CK.

2.6 Previous works on Izafe: a literature review

This section presents a critical review of existing literature on the Izafe construction. It demonstrates some proposals which have previously been put forward, and the reason why they fall short to account for the CK Izafe construction.

It should be noted that most of the literature on Izafe is confined to Persian (Ghaniabadi 2010; Ghomeshi 1997; Kahnemuipour 2014, 2016; Larson and Yamakido 2005; Moenzadeh 2001; Parsafar 2010; Samiian 1983, 1994; Samvelian 2006, 2007; among others). A few studies, though, address the construction in other Kurdish dialects including Zazaki, Hawrami and Kurmanci which show some structural differences with CK (see Atlamaz 2016; Holmberg and Odden 2004, 2008; Strunk 2003, 2005; Toosarvandani and Van Urk 2012). These works are mainly focussed on DP-internal agreement shown on Izafe within the nominal phrase. To the best of my knowledge, Karimi (2007) is the only theoretical work addressing Izafe in CK; the drawbacks this work suffers will be discussed in the course of the analysis (section 3.2.2). A thorough review of literature on Izafe construction is far beyond the scope of this study. Therefore, I will try to shed light on a few studies conducted on Persian and Hawrami. As far as Persian is concerned, I will focus on the two most widely-cited proposals: Samiian (1994), also adopted by Larson and Yamakido (2005), and Gomeshi (1997), which is further taken on and followed by Ghaniabadi (2010). A seminal proposal made by Kahnemuipour (2014) on Persian Izafe is also presented. With regard to Hawrami, I will review two studies carried out by Holmberg and Odden (2004 and 2008).

Samiian considers Izafe as a dummy element assigning Case to a following complement. Based on Chomsky (1970) and Jackendoff's (1977) categorial feature hypothesis, the author takes all postnominal NP, AP and even PP modifiers as nominal complements with the feature [+N]. According to the proposal, Izafe is inserted between a non-assigning head noun and a following nominal complement, assigning Case to it. This proposition partially works for Izafe in CK as far as NP Izafe is concerned. As mentioned above, the NP Izafe enclitic is supposed to assign Case to the postnominal DP modifier. The Case is phonologically realized on it in most CK dialects. Consider the examples below.

(15)

a. esp-i kuř-eke-i
   horse-IZ boy-DEF-CASE
   'the boy's horse'

b. esp-eke-i Aram-i
horse-DEF-IZ Aram-CASE
'Aram's horse'

c. řıfandın-i mındał-eke-i
abduction-IZ child-DEF-CASE
'the abduction of the child'

Given these examples, the NP Izafe seems to assign Case to the DP to its right, due to the inability of the head noun before the Izafe to do so. This is further confirmed considering the standard syntactic tenet that only DPs, as maximal projections, are assigned Case. As is obvious from these examples, the postnominal construction is either a full DP (NP + definite article) or a proper name which is inherently definite and is considered a DP on its own. Thus, Samiian's (1994) proposal seems to be borne out as far as the NP Izafe in CK is concerned, where Case is phonologically realized on the post-Izafe DP complement. However, the proposal does not apply to the AP Izafe, and encounters serious problems concerning the AP postnominal modifier(s). Taking the notion of 'complement' as purely syntactic, the APs are not likely to be complements at all. Therefore, they cannot be assigned Case by the head noun.

(16)

a. esp-i zıl-(*i)
horse big-(CASE)
intended meaning: 'big horses'

b. esp-e zıl-eke-(*i)
horse-IZ big-DEF-(CASE)
intended meaning: 'the big horse'

As shown in these examples, the adjectives cannot be marked for Case. If the adjective is a nominal complement to the head noun, as is claimed by Samiian, it is not obvious why Case is not realized on the adjective, since there is no phonological restriction on it. Moreover, these attributive adjectives can neither semantically nor syntactically function as complements to the head noun, because the adjective can be followed by multiple instances of other adjectives. Specifically, the analysis would need to address the question of how a single head noun could be followed by an infinite number of complements.[13] Thus, while possessors and complement

[13] Ghomeshi (1996) presents a similar analysis for Persian, where she rejects Samiian's proposal altogether.

DPs might require Case within the nominal phrase, attributive adjectives standardly do not need to be assigned Case. There is a standard reasoning that the category to which Case is assigned must be a DP (see Coene and D'hulst 2003; Danon 2006; Giusti 1995; Horrocks and Stavrou 1987; Longobardi 1994). Another reason why AP Izafe cannot be associated with Case assignment is due to the special property the morpheme holds compared to Persian. One of the main arguments Samiian (1994) and Larson and Yamakido (2005) provide to justify their proposal (that Izafe is a Case assigner) relates to the non-occurrence of DP-internal relative clauses after Izafe. They argue that Izafe does not allow a relative clause modifier to its right, since the latter is not [+N], hence standardly cannot be assigned Case. However, though Izafe is a property shared by most Iranian languages, not all constraints on Izafe equally apply to the element in all the Izafe languages. For instance, contra Samiian, Izafe in CK is readily used to link the noun to a following restrictive relative clause (see 17). This lends further support to the conjecture that the enclitic does not always occur for Case reasons.

(17) ew esp-e-i ke to kıři-t
that horse-DEF-IZ that you buy.PST-2SG
'the horse that you bought'

Turning now to Ghomeshi (1997), the author attributes the existence of Izafe to a merely phonological operation that occurs post-syntactically at PF. She argues for a phonetically-based Izafe insertion rule which simply states: insert Izafe vowel on a head which carries the feature [+N] and is followed by another non-affixal constituent within the same extended projection (Ghomeshi 1997: 781). The rule suggests that Izafe is inserted as a fundamentally phonological phenomenon which is triggered at PF as a result of pre-PF syntactic co-occurrences. According to this proposal, Izafe should not be considered a morpheme occurring in syntax. This assumption does not account for Izafe in the current work, since Izafe in CK has syntactic effects. As pointed out above, the enclitic shows agreement in definiteness in a definite nominal phrase, and this agreement is strongly argued (in the next chapter) to be syntactically motivated. So, if agreement is a syntactic process, then it requires Izafe to occur within syntax, rather than in the post-syntactic PF component. If the element is originated in PF, its realization would be unaffected by syntactic phenomena such as definiteness. Note that in other Kurdish dialects, including Hawrami, Kurmanji and Zazaki, Izafe also exhibits agreement with the noun in phi-features including number and gender, as shown in (18). This further confirms the contention that Izafe must occur in syntax.

(18) [Kurmanji]

a. heval-ê Azad-i
friend-IZ Azad-CASE
'Azad's (male) friend'

b. heval-a Azad-i
friend-IZ.F.SG Azad-CASE
'Azad's (female) friend'

c. heval-ên Azad-i
friend-IZ.PL Azad-CASE
'Azad's friends'

The agreement of Izafe in gender with the noun is also frequently observed in some CK varieties such as Pizhdar and Mukuryan, as shown in (19), further supporting the contention that Izafe occurs in syntax.

(19) [Pizhdar and Mukuryan]

a. ẑın-ê mın
woman-IZ.F I
'my wife'

b. kuř-i mın
boy-IZ.M I
'my son'

c. mał-ê me
house-IZ.F us
'our house'

Thus, if it is true that there is an existing syntactic relationship between the noun and a following modifier, and that the relation is marked by Izafe, disassociating the Izafe from syntax and attributing it to a purely phonological phenomenon is hardly justifiable. Based on an X-bar account that she provides for Izafe, Ghomeshi (1997) also claims that Izafe occurs to link non-projecting heads adjoined to one another. That is, Izafe is inserted at PF to mark bare heads which can have neither specifiers nor complements. Accordingly, the domain of Izafe is that of bare lexical heads, and the enclitic can never attach to, or link phrasal constituents. This, in turn, suggests that Izafe invariably selects non-projecting categories and is inserted as a head marker

at PF merely to indicate phrasing or constituency marking, since the nouns cannot project on their own. However, if Izafe always marks the head noun and only attaches to heads, it is not clear how it can form a constituent with the dependent as argued in (2.4). Once again, this seems to be too strong a claim for Izafe in CK. As shown in the examples below, Izafe can readily be added to an AP (20a), a PP (20b) and an AP with a complement (20c).

(20)

a. pyaw-êk-i [zor aza]-i zirek
man-INDEF-IZ very brave-IZ clever
'a clever, very brave man'

b. wêne-i [ser diwar-eke]-i berlin
picture-IZ on wall-DEF-IZ Berlin
'the picture on the Berlin wall'

c. name-yêk-i [pıř le hełe]-i baw
letter-INDEF-IZ full of mistake-IZ common
'a letter full of common mistakes', literally, 'a full-of-common-mistake letter'

In (20a) the intensifier *zor* 'very' is a free functional head which is merged with the adjective to form an AP without being provided with Izafe. So, the Izafe is added to the full AP. On the same grounds, Holmberg and Odden (2004: 80) reject Gomeshi's proposal and consider it as too weak to account for Izafe in Hawrami. Likewise, the Izafe in (20b) is attached to a PP but not to the preposition itself as a functional lexical head. More crucially, the fact that Izafe in (20c) attaches to an extended AP with an adjective head and a PP complement is another challenge to Gomeshi's proposal, indicating that the constituents linked by Izafe are not only likely, but are required to be phrasal categories.[14] In light of all these arguments, it follows that an entirely phonological analysis of Izafe inserted between non-projecting (bare) heads is not empirically corroborated in CK and is seriously challenged.

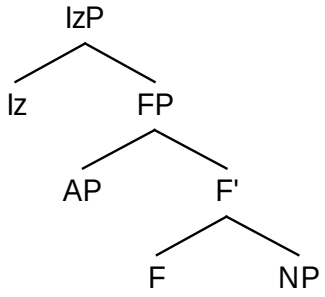
Holmberg and Odden (2004) is another proposal I bring into focus here. This work investigates the Izafe construction in Hawrami - a Kurdish dialect which displays some differences with CK including agreement of Izafe in number which the CK Izafe lacks. The study adopts a minimalist derivational theory (Chomsky1995), and is heavily grounded on Kayne's LCA

[14] Based on several empirical arguments, Samvelian (2007), too, objects Gomeshi's proposal of the non-projecting behaviour of nouns in Persian and utterly rejects the assumptions. However, it should be mentioned that Samvelian's own proposal where she attributes the occurrence of Izafe to purely a cliticization process is empirically rejected by Karimi (2007: 2173) as an account for CK Izafe, hence is disregard here, too.

(1994) (see 1.4 in the previous chapter). Holmberg and Odden argue that merging NP and AP makes too symmetrical a structure which can neither be interpreted nor linearised (based on the LCA); the Izafe is then merged to create asymmetry, marking the head in an otherwise too symmetrical phrase. According to this analysis, the role Izafe plays is purely syntactic: it breaks the symmetry between two merged categories neither of which selects the other, by making one of them the head. The reasoning Holmberg and Odden (2004) develop is as follows. Merge of AP and NP is an optional operation, not motivated by selection. This means, they argue, that the resulting AP-NP phrase has no head, therefore no label. As such the phrase is not visible for further operations, and is not linearizable at the PF interface. Such constructions are even not visible for movement in Narrow Syntax. Different languages have different mechanisms to resolve this problem. One of them is the Izafe, which, according Holmberg and Odden, is merged in order to trigger movement of the noun to a position where it asymmetrically c-commands the adjective. This, in their system, has the effect that the noun provides the label of the resulting construct. That is, Izafe occurs to establish a relation between the two merged categories through picking the noun out as the head, hence making it the provider of the label NP for the whole construction.

There is no doubt that this analysis is a novelty in investigating the Izafe construction through providing a purely syntactic account of Izafe and its hierarchical structure. However, the analysis I have adopted for Izafe in the current study basically accounts for the symmetric relation problem raised by Holmberg and Odden (2004). In the following section (2.7), following Kahnemuipour (2014), I provide empirical evidence instantiating an existing correlation between the Adjective-Noun morpheme order on the one hand and the occurrence of Izafe, on the other. The evidence offered in (2.7) supports the assumption that movement of the noun (NP) occurs to a position before the adjective modifier, where, based on the LCA, I argue for a leftward fashion of NP movement. Adopting Cinque's (2005) proposal, I argue that adjectives merge as APs in a dedicated specifier position of a null functional head above NP (see section 3.2.1 for further details, see also the structure in 21 below). If this structural derivation is on the right track, the analysis principally bleeds the symmetric-relation issue which would otherwise arise based on Homberg and Odden's (2004) proposal. This is simply because the adjective (AP) in my analysis asymmetrically c-commands the noun (NP), satisfying Kayne's (1994) LCA principle. In other words, the adjective-noun relation is an asymmetrical relation from the start. So the role of the Izafe is something other than symmetry-breaking.

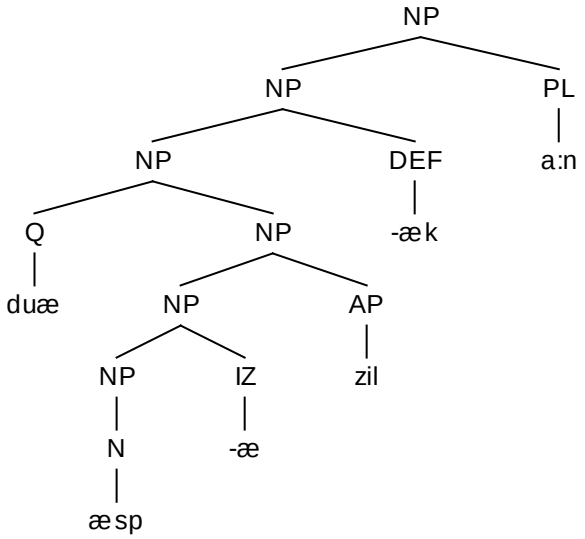
(21)



I will now give an account of Holmberg and Odden (2008) who also investigate the structure of the noun phrase in Hawrami. This analysis pays special attention to DP-internal agreement of Izafe with other functional categories without discussing the exact function of Izafe. It is a rather theory-neutral study which presents syntactic structures with both rightward and leftward merger of lexical and functional categories, depending on the surface morpheme order. For instance, the structure they assume for (22) is as given in (23), further below.

(22) duæ æsp-æ zil-æk-a:n[15] [Hawrami] Holmberg and Odden (2008: 6)
two horse-IZ.DEF big-DEF-PL
'the two big horses'

(23) Holmberg and Odden (2008: 7)



In the case of demonstrative constructions which, similarly to CK, consist of two parts, a similar structural derivation such as that in (23) is attested where the prenominal part merges with NP to its left, while the postnominal inflectional part (which they also consider as a marker of

[15] In the remainder of this section I will give the same phonemic conventions as Holmberg and Odden's original paper, for expository convenience.

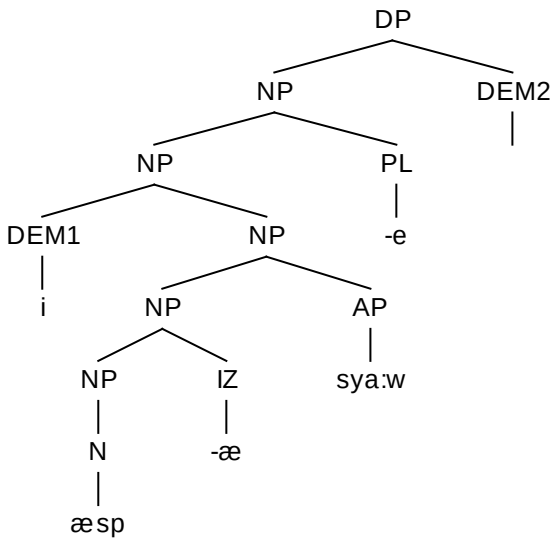
definiteness) is merged to the right of the noun (NP). Look at the following examples and the structure further below for (24b).

(24) (Holmberg and Odden 2008: 8-9)

a. a: æsp-æ sya:w-æ
that horse-IZ.DEF black-DEF
'that black horse'

b. i æsp-æ sya:w-e
these horse-IZ.DEF black-PL
'these black horses'

(25)



Holmberg and Odden argue that DEM2 in (25), though in this case not realized for phonological reasons, is syntactically present and bears a DEF feature. Further, based on the fact that the definite article –æ*k*æ is not realized when a demonstrative article is present, they argue that the former occupies the same structural category as the latter which, in the case of (25), is DEM1.

As explained above, the LCA-based analysis I have adopted can largely and consistently account for both pre- and postnominal functional categories in CK. My roll-up movement proposal is, thus, different from Holmberg and Odden's (2008) treatment of such functional categories, where they assume a rightward merger for postnominal functional elements, but leftward merger operation for prenominal functional categories. Apart from these differences in the theoretical assumptions, Holmberg and Odden's account has the following problem: Similarly to the current analysis, Holmberg and Odden (2008) assume that the two parts of the

demonstrative constructions have different roles such that the prenominal element encodes the deictic feature (distance or proximity) and the postnominal suffix marks definiteness. However, they argue that it is the prenominal locative element which is responsible for governing agreement on Izafe, rather than the co-occurring postnominal definite marker (see 24a, b). This contention does not seem to work: if the Izafe category carries a DEF feature which needs to be valued, the category which marks definiteness should be the one bearing a valued DEF feature. According to Holmberg and Odden, in plural nominal phrases the postnominal definite marker is syntactically present though not realized phonologically (see 24b and 25). Yet, they propose that for reasons of structural locality the prenominal demonstrative controls the agreement on Izafe in definiteness, rather than the category D which encodes the DEF feature. On the basis of complementary distribution, Holmberg and Odden argue that the prenominal demonstrative article *a:* and the postnominal definite marker *–ækæ* are realized by the same structural category. As the prenominal demonstrative element encodes a deictic feature (either proximity or distance) and *–ækæ* marks definiteness-related features such as specificity and familiarity (see 4.5.2), the assumption that both occupy the same position is questionable. In chapter four, I provide empirical evidence that the definite marker *–eke* in CK encodes a similar feature to the postnominal demonstrative part '*-e*', which is different from the feature denoted by DEM. This is a more consistent analysis suggesting that these definiteness-marking suffixes should be responsible for governing agreement on Izafe, rather than the prenominal demonstrative element. Given Holmberg and Odden's analysis, both markers of definiteness in Hawrami (similarly to CK) are postnominal inflectional suffixes realized as –æ*k*æ or (in the case of demonstrative constructions) as *–æ*. Accordingly, while Izafe is realized exactly the same (as *–æ*) in the presence of either definite marker *(-ækæ, -æ*), it is hard to believe that Izafe would agree with the postnominal *–ækæ* in definite nominal phrases, but with the prenominal *a:* (DEM1 in 25) in demonstrative constructions.

Finally, I will give a brief account of a proposal made by Kahnemuipour (2014) on Persian Izafe, which I have adopted in the current analysis. This proposal associates the presence of Izafe with the word order of elements within the nominal phrase. Providing overwhelming evidence, Kahnemuipour claims that there is a strong correlation between the DP-internal word order and the occurrence of Izafe. He argues that the first merge structural order within the DP is AP-NP in the sense that AP asymmetrically c-commands NP where the latter merges with a null functional head (F), and the AP merges in Spec F. According to Kahnemuipour, the fact that the order is spelled out as NP-IZ-AP is due the NP having moved to a position above the AP. He claims that the presence of Izafe, in turn, marks the movement of the NP within the

nominal phrase. That is, Izafe is realized in a functional category above FP as the reflex of NP movement. In the following section, I provide additional evidence supporting Kahnemuipour's proposal regarding Izafe and its relation to NP-AP word order. However, unlike Kahnemuipour's contention that Izafe is the reflex of movement of NP to a position above the modifier(s), I claim that Izafe occurs as a functional head to trigger the movement in question (rather than being the reflex of movement) in addition to marking agreement in Case and definiteness. A detailed account of Kahnemuipour's most relevant evidence is offered below (2.7), supplemented with additional arguments further supporting the hypothesis.

2.7 The syntax of Izafe: why does Izafe occur in CK?

This section explores the syntax of Izafe, addressing its occurrence and the reason underlying its existence from a theoretical point of view. There is substantial research in the literature arguing that Izafe is a functional category heading its own maximal projection (Holmberg and Odden 2004, 2008; Kahnemuipour 2014, 2016; Karimi 2007; Larson and Yamakido 2005; Moinzadeh 2001; S. Karimi 1989, 1990; Samiian 1983, 1994). Along the same line, I shall take Izafe in the current analysis to be a head realized in an independent structural category. Further, drawing on a number of criteria suggested first by Zwicky (1985: 4-8) to determine the headedness of syntactic categories, Karimi (2007: 2170) argues convincingly that Izafe meets most of the criteria, hence must be considered a syntactic head. The overwhelming literature on the role of functional categories in explaining syntactic relations, and the considerable attention these categories have received over the last two decades will lend further support to the claim that Izafe could best be described as a functional head. Functional elements have been argued in the literature to be syntactic categories which realize syntactic features (see Chomsky 1995; Drijkoningen 1994; Julien 2002a, 2002b, 2005).

As just noted above (2.6), the current analysis regarding the syntax of Izafe is heavily based on Kahnemuipour's (2014) proposal which relates Izafe to the word order of elements within the nominal phrase. The reasoning developed here (following Kahnemuipour) is that the first merge morpheme order underpinning the CK nominal phrase is AP-NP, and that the surface order at PF (NP-IZ-AP) is a derived structure where the NP is fronted to the left of the modifier. Apart from cross-linguistic evidence, which is subsequently provided, arguments instantiating this hypothesis abound.[16] One main piece of reasoning concerns the correlation between the

[16] Some of the examples documented in this section are similar to those presented by Kahnemuipour (2014) for Persian. This is mainly because the two languages belong to the same language family, hence share many properties in common.

occurrence of Izafe, on the one hand, and the position of the modifier in relation to the noun, on the other. There are ordinal numbers and other modifying elements which appear either before or after the noun. Crucially, when they follow the noun, Izafe must appear; however, the same modifiers precede the noun with no use of Izafe.

(26)

a. duwem kes
second person
'the second person'

b. kes-i duwem
person-IZ second
'the second person'

c. tenha kes-êk
only person-INDEF
'the only person'[17]

d. kes-êk-i tenha
person-INDEF-IZ lonely
'a lonely person'

e. weha kes-êk
such person-INDEF
'such a person'

f. kes-êk-i weha
person-INDEF-IZ such
'such a person'

g. kota name-i bawk-ım
final letter-IZ father-1stSG
'my father's final letter'

[17] I would claim that the definite article *the* given in the English translation (26c) does not provide the noun with semantic definiteness (or familiarity) reading by itself. Evidence supporting this hypothesis is that such constructions mostly need a restrictive relative clause following them to further reveal the identity of the noun. That is, the reason why the definite article occurs here is most likely syntactically motivated due to the presence of the modifier *only* in the construction. The noun *kes* 'person' in (26c) is not familiar to the interlocutors, hence taking the indefinite marker '*-êk*', as expected.

h. name-i kota-i bawk-ım
letter-IZ final-IZ father-1stSG
'my father's final letter'

So, the fact that Izafe occurs only with postnominal (and never with pre-nominal) modifiers constitutes compelling evidence suggesting a correlation between the presence of Izafe and the order of modifiers in relation to the noun. The NP *kes* 'person' in (26b, d and f) or *name* 'letter' in (26h) must have moved to a position before the modifier.

This systematic relation between the occurrence of Izafe and the position of modifiers before or after the noun is an asymmetry which needs some explanation. According to Samvelian (2008: 342), Izafe is unique to Iranian languages which have head-initial (i.e. NP-AP) nominal phrases. That is, only when a noun precedes a modifier does Izafe occur and, as maintained by Kahnemuipour (2014: 7), Izafe does not exist in languages with head-final (i.e. AP-NP) nominal phrases such as English, German and French.[18] Thus, the question arising is: why Izafe occurs in a nominal phrase only when the noun comes before the modifier and never appears otherwise.

In addition, as far as the DP-internal word order is concerned cross-linguistically, the projection of the noun (NP) is assumed to be the first element constructed. Cinque (2010) advances a seminal proposal to capture the universal word order within the nominal phrase. As regards the structural relation especially between the noun and the modifier, Cinque, based on Kayne's (1994) LCA principle, claims that the universal base merge order is AP-NP: the NP is first constructed followed by merger of the AP. The AP merged with a functional category (F) above NP will asymmetrically c-command the constituents of NP. If the structure is spelled out like this, the AP will precede the NP, by the LCA. However, when the order after spell-out is the other way round in a given language, the NP must have undergone movement to a position above the AP in the structure (see also Atlamaz 2016; Cinque 2005; Karimi 2007; Shlonsky 2004, 2012). A more detailed account of Cinque's proposal is given in the following chapter (section 3.2).

Moreover, morphological constructions such as compound words offer more evidence substantiating both the base-merge DP-Internal AP-NP order and the concomitant non-occurrence of Izafe. Compounds in CK mostly consist of either two nouns (with one of them

[18] The notion of head-final (or head-initial) here is used to indicate the position of the noun in relation to an accompanying modifier. Thus, head-final nominal phrases is meant to identify those nominal constructions whose surface word order is AP-NP, while the order in head-initial nominal phrases is the other way round.

functioning as the head), or an adjective and a noun. The dominant order is strikingly N-N (head) or A-N; i.e., the modifier precedes the head with no linkers between them.

(27)

a. ĵın-bıra
   woman-brother
   ‘brother-in-law’, literally, ‘brother of wife’

b. xor-hetaw
   sun-light
   ‘sunshine’

c. ŝa-ĵın
   king-woman
   ‘king’s wife’

d. spi-dar
   white-tree
   ‘aspen’

e. zıl-hêz
   big-power
   ‘superpower’

Crucially, there are numerous compounds where the head noun precedes the modifier and the two components are combined with a meaningless linker between them which is likely to have a similar function as that of Izafe.

(28)

a. guł-e-genım
   flower-LNK-wheat
   ‘wheat flower (ear)’

b. beĉw-e-pıŝile
   young-LNK-cat
   ‘kitten’

c. kun-e-mıŝk
hole-LNK-mouse
‘mouse hole’

d. ker-e-kêwi
donkey-LNK-wild
‘zebra’

e. bab-e-gewre
father-LNK-big
‘grandfather’

More evidence in support of the current assumption regarding compounds is drawn from some agentive nouns consisting of the present stem of a verb suffixed with agentive markers such as *–er* or *–yar*.

(29)

a. nus-er
write-AM
‘writer’

b. kıř-yar
buy-AM
‘buyer’

These agentive nouns are followed by postnominal modifiers with an obligatory Izafe morpheme between them.

(30)

a. nuser-i řoman
writer-IZ novel
‘novelist’

b. fıroŝyar-i guł
seller-IZ flower
‘florist’

On the other hand, the agentive nouns can participate in a process of compound formation where they form the right-hand head part of the construction after losing the agentive suffix. So, the agentive noun is concatenated with a modifier without any linking element between them.

(31)

a. řoman nus
   novel writer
   'novelist'

b. guł fıroŝ
   flower seller
   'florist'

As these examples show, the compounds are head-final (A-N or N-N), where the agentive noun follows the modifier. Comparing these structures to the nominal phrases in (30), it then follows that there should be a correlation between the occurrence of Izafe and the position of the noun in relation to the modifier.[19] A similar argument can be formulated, depending on another group of head-final compounds which consist of a noun modifier and a verbal noun, with the former having a theta role assigned to it by the latter (32a and c). Importantly, these verbal nouns require the Izafe morpheme when they precede the modifier in a nominal phrase (32b and d).[20]

(32)

a. nan-kırdın
   bread-making
   'bread baking'

b. kırdın-i nan
   making-IZ bread
   'baking, or the making of bread'

c. pyaw-kuŝtın
   man-killing
   'manslaughter'

[19] The correlation in word order between the nominal phrase and compounds is also argued for by Cinque (1994: 103).

[20] Such compounds which consist of a verbal element on the right and a nominal argument of the verb on the left are typically known as synthetic compounds (Bauer and Renouf 2001: 117).

d. kuŝtın-i pyaw
killing-IZ man
'the killing of men'

Given these cases, CK nominal compounds are predominantly head-final with the head noun always occurring on the right, while their correspondent nominal phrases are head-initial whose component constituents need to be linked by Izafe. This modifier-head (AN) co-occurrence inside compounds is taken to be the reflection of the base word order in CK. The essential reasoning here is that the modifier-N morpheme order within compound nouns suggests the first merge structure of the elements in the nominal phrase as well. This assumption is best accounted for based on the non-lexicalist approach to morphology, adopted in the current work, whereby all word formation processes take place in syntax through various syntactic rules. That is, complex nominal constructions consisting of a noun and a modifier or a functional inflection are derived as a result of syntactic operations within the syntactic component (see, for instance, Baker 1988; Cinque 1999; Cinque and Rizi 2010; Drijkoningen 1994; Julien 2002a, 2005; Marantz 1997).

All these arguments strongly support Kahnemuipour's proposal (2014) that the first merge morpheme order underpinning the nominal phrase is AP-NP, and that the surface order at PF (NP-IZ-AP) is a derived structure where the NP has moved to a position before the modifier, with Izafe playing an essential role. In relation to this, Kahnemuipour proposes that the first merge structural order within the DP is AP-NP in the sense that AP asymmetrically c-commands NP where the latter merges with a null functional head (F), and the AP merges in Spec F. According to Kahnemuipour, the fact that the order is spelled out as NP-IZ-AP is due to the NP having moved to a position above the AP, where the presence of Izafe marks such NP movement within the nominal phrase. That is, Izafe is realized in a functional category above FP as the reflex of NP movement. Like Holmberg and Odden (2004), I argue, instead, that Izafe occurs as a functional head to trigger the movement in question, in addition to marking agreement in Case and definiteness. In other words, as a functional category, Izafe is responsible for triggering the movement of NP, instead of being the reflex of such movement. This is further discussed in the next chapter which focusses on the syntactic analysis and derivation of the Izafe construction.

To recapitulate, in this section I presented several arguments supporting Kahnemuipour's (2014) proposal regarding a correlation between the occurrence of Izafe and the word order within the nominal phrase. Thus, compound words are mostly head-final, and those with the

head noun preceding the modifier must have a linker (similar to Izafe) between them. Furthermore, certain modifiers such as ordinal numbers and determiners like *weha* 'such' can both follow and precede the noun; yet, only when they occur after the noun do they require the Izafe morpheme. Succinctly, this is all reduced to a single tenet: when the word order within the nominal phrase is modifier-NP, no Izafe exists, whereas Izafe is obligatorily required if the opposite word order is attested. These observations suggest a systematic relation within the nominal phrase between the presence of Izafe and the word order of the modifier against the noun. So, the analysis in chapter three should account for this kind of obvious asymmetry between the prenominal and postnominal modifiers and the relevant occurrence of Izafe.

2.8 Concluding remarks

In this chapter, I offered a general overview of Izafe construction in CK, focussing on its distribution, constituency, functions and phonological and morphological status. Based on the different behaviours they exhibit, I distinguished between two types of Izafe: AP and NP Izafe. The former features an enclitic that introduces postnominal adjectives to the noun, while the latter always introduces the noun to a following noun or DP modifier. In light of some works that have previously investigated Izafe, I also provided a review of some literature, explaining their weaknesses and the reason why they cannot sufficiently account for the CK Izafe construction.

As far as its morphology is concerned, Izafe is argued to be an enclitic, hence a dependent element requiring a host to which it attaches. Further, based on some tests, I demonstrated that Izafe in CK syntactically forms a constituent with a following modifier though it phonologically attaches to the noun on its left.

As for the functions it serves, I have shown that Izafe marks an existing dependency relation between a noun and a modifier in the nominal phrase. As a functional category, Izafe heads a maximal projection which, I argue in chapter three, triggers movement of NP to a position above the modifier(s). Izafe also exhibits agreement feature(s): the AP Izafe displays a definiteness feature, and the NP Izafe has a Case feature assigning oblique Case to a following DP.

In light of the properties of Izafe shown above, the following chapter, then, sheds light on the syntax of Izafe, exploring its role in the derivation of the nominal phrase. This is through providing a theoretical account of the topic, focussing on its structural category, its spell-out and the agreement process it establishes within the nominal phrase.

Chapter 3. The Izafe Construction: A Syntactic Analysis

3.1 Introduction

This chapter offers a syntactic analysis of Izafe construction, focussing on its derivation within the nominal phrase. As pointed out in the previous chapter, Izafe is a functional category heading a phrase in the extended nominal projection. Since Izafe is always required to introduce a noun to a postnominal modifier, it must then play a crucial role in the structural derivation of the nominal phrase.

Two types of Izafe were distinguished in the previous chapter: AP and NP Izafe. While the latter serves to assign Case to a following DP, the former shows agreement in definiteness with the definite article. The current chapter, then, theoretically addresses these issues and proposes some syntactic analyses to capture the behaviours of Izafe.

As the discussion is developing, I will propose two types of movement depending on which Izafe type is realized. I will, thus, argue for a roll-up movement pattern for the AP Izafe construction, but a non-roll-up movement analysis for the NP Izafe. I will also provide empirical evidence supporting the syntactic characteristics of the agreement the AP Izafe exhibits with the category D. This is then followed by an analysis of the agreement both AP and NP Izafe enclitics show in DEF and Case features, respectively.

The chapter is organized as follows. In 3.2, I will present the theoretical analysis which is argued to account for the Izafe construction in CK: in 3.2.1 I will first develop an analysis of the AP Izafe, proposing a snowballing movement of the construction. This is then followed in 3.2.2 by a non-roll-up (NP-only) movement analysis of the NP Izafe construction. Section 3.3 addresses the agreement process the AP Izafe and the NP Izafe show in DEF and Case features, successively, drawing on Chomsky's (2000, 2001) probe-goal agreement hypothesis. The agreement established between the AP Izafe and D is discussed in 3.3.1, while agreement in Case feature between the NP Izafe and a c-commanded DP is presented in 3.3.2. Finally, section 3.4 concludes the chapter.

3.2 The derivation of Izafe: a syntactic analysis

This section provides a syntactic analysis of Izafe, focussing on its categorial status and the role the element plays in the derivation of the nominal phrase. Based on the reasoning observed in the previous chapter (section 2.2) that two kinds of Izafe exist in CK (NP and AP Izafe), the present analysis argues for two rather different kinds of operations that lead to the derivation of

the nominal phrase, depending on which Izafe type occurs. In relation to this, two movement patterns are attested: when the AP Izafe is employed, the nominal phrase is derived through pied-piping movement of NP, and all other categories on its way upwards. However, if the NP Izafe is used, the construction is derived via raising NP alone. Before proceeding any further, a recapitulation of the two Izafe types should be offered as a reminder of their main properties. The AP Izafe is attached to the noun and always introduces a postnominal adjective modifier. A special characteristic of this Izafe is that its morphological realization depends on the (in)definiteness of the nominal phrase: it is spelled out as *–i* with an indefinite nominal phrase (1a), but *–e* when the construction is definite (1b). This suggests that Izafe agrees in definiteness with the category D. Further, it cannot assign Case to the following AP modifier. By contrast, the NP Izafe always links a noun to a following noun or DP modifier, assigning Case to it which is morphologically realized on it as *–i*.[21] Unlike the AP Izafe, under no circumstances does this type of Izafe change its form; it is invariably realized as *–i* regardless of whether the nominal phrase is definite or indefinite (1c and d).

(1)

a. sêw-êk-i sewz
apple-INDEF-IZ green
'a green apple'

b. sêw-e sewz-eke
apple-IZ green-DEF
'the green apple'

c. esp-i pyaw-eke-i
horse-IZ man-eke-CASE
'the man's horse'

d. esp-eke-i Azad-i
horse-DEF-IZ Azad-CASE
'Azad's horse'

[21] It should be mentioned that this type of syntactic Case came to be identified as oblique Case by Mackenzie (1961: 57). The Case in question is also found in other Kurdish dialects including Hawrami, in which it is realized as *–u*, as well as Zazaki and Kurmanji, where the Case is spelled out as *–i*, similarly to CK.

In the following sections, I argue that the two kinds of Izafe undergo rather different derivational operations where agreement of Izafe with D in definiteness has a considerable bearing in the discrepancy. Thus, the derivation of AP Izafe is first addressed in 3.2.1, followed in 3.2.2 by an analysis of NP Izafe.

3.2.1 AP Izafe: a roll-up movement analysis

As illustrated in chapter one (1.4), the theoretical framework adopted in this thesis is Chomsky's (1995, and subsequent work) Minimalist Program, with reference also to Kayne's (1994) LCA principle. Whereas the former approach mainly argues for a bottom-up structural construction of phrases, the latter basically accounts for the relation between the hierarchical structure and the linear word order within a phrase, building on the antisymmetric syntax. A central tenet following from the LCA, which is also widely adopted in works within the Minimalist Program, is that all specifiers are to the left of a given head and all movement occurs leftwards. Also, a non-lexicalist approach to morphology (Marantz 1997, 2001) is also adopted here, assuming that every functional inflection is correspondent to a node in the structural representation. Thus, when a noun is spelled out with inflectional morphemes such as (in)definite or plural markers following it, the noun is supposed to merge below theses inflections and undergo movement to a position above them, ending up to their left. In developing the analysis, special attention is also given to the head or phrasal status of postnominal modifiers and their structural relation to the nominal projection (NP). In this respect, following Cinque (1994, 2005 and 2010) and Shlonsky (2004), I will argue that postnominal modifiers are non-projecting maximal elements merged in the specifier of functional heads. So, based on conceptual and empirical evidence presented below, Karimi's (2007) analysis that takes such modifiers as adjuncts to NP is challenged.

Two types of word order are cross-linguistically attested within the nominal phrase: those with prenominal modifiers such as in English, and others, under which CK falls, which have postnominal modifiers. As pointed out in the previous chapter (2.7), there seems to be a correlation between word order and the occurrence of Izafe within the CK nominal phrase. In a construction with a structurally AP-NP word order when the NP moves to a pre-modifier position, I argue that Izafe plays a key role in this process which is to trigger the movement. However, in languages like English wherein the surface order is AP-NP, no Izafe projections exist, hence no movement occurs (see Kahnemuipour 2014, 2016).

As far as raising of the noun is concerned, two types of movement are proposed in the literature: head movement (see Cinque 1996; Longobardi 1994, 2001; Matushansky 2006; Ritter 1991;

Siloni 1997) and phrasal movement proposed and advocated by Cinque (2000, 2005), Fassi Fehri (1999), Laenzlinger (2005), Sichel (2002, 2003) and Shlonsky (2004, 2006, 2012). Based on some conceptual and empirical evidence, the latter movement fashion is adopted in this work, particularly the derivation pattern advanced by Cinque (2005, 2010) and Shlonsky (2004).[22] The basic proposal put forward in these works is that a nominal phrase first starts off by an NP followed by a modifier (AP) merged in the specifier position of a null functional category to the left of the NP. Based on Greenberg's (1963) Universal 20 and a carefully surveyed set of languages, Cinque (2005, 2010) developed a proposal to account for the structure of the nominal phrase across languages. Adopting Kayne's (1994) LCA principle, Cinque claims that the basic structure of the four main elements: demonstratives, numerals, adjectives and the noun is [Dem [Num [A NP]]], which yields the order Dem < Num < A < N.[23] Cinque argues that any variation in the surface order of such elements must result from phrasal movement of NP to the left of the modifier, deriving the correct surface order. The NP is regarded as the engine of movement such that no category moves to the exclusion of the NP. When the order is Dem < Num < N < A, as it is the case in CK (see 2), only a partial phrasal movement of NP to a position above AP, but lower than (hence to the right of) the numeral and the demonstrative occurs, yielding the surface word order.

(2) ew de sêw-e sewz-an-e
that ten apple-IZ green-PL-DEF
'those ten green apples'

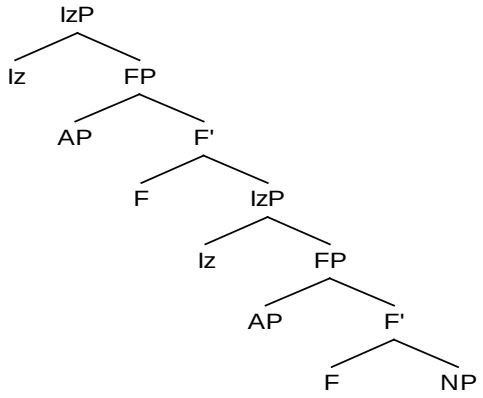
Relevant to this analysis, though, is the Izafe domain which covers the noun and postnominal elements, and that the two other prenominal categories (demonstrative and number) are investigated in subsequent chapters. The structure used in (3) is adapted from Cinque (2005: 317) according to which modifiers merge in the specifier of dedicated functional categories

[22] It should be noted that most of the recent literature has abandoned head movement analysis in favour of phrasal movement (see, for instance, Chomsky 2000, 2001; Cinque 2010; Dehé and Samek-Lodovici 2009; Giusti 2002; Koopman and Szabolcsi 2000; Shlonsky 2004, 2102).

[23] Greenberg's (1963: 87) universal 20 states that the basic word order of demonstratives, numerals and adjectives in prenominal position is universally Dem < Num < A, while the same elements post-nominally either have the same order or its mirror image, namely A < Num < Dem. Subsequent work has supported the essentials this hypothesis provides (see Cinque 2005: 315; Dryer 1992; Hawkins 1983: 117; Roberts 2011). Likewise, following an appropriate refinement of data in more than fifty languages, Rijkhoff (2002) develops a rather similar proposal, claiming that the structurally hierarchical scope relation between the elements of locality (like demonstratives), quantity (such as umber) and quality (such as adjectives) in relation to the NP is as follows: [Locality [Quantity [Quality [NP]]]]. This can be interpreted in the current analysis in a similar fashion to Greenberg's universal. For detailed discussions, see Cinque (1996, 2005).

(FP) above NP (see also Borer 2004; Cinque 2010; Pylkkänen 2008). Each FP is, in turn, dominated by an IzP in the extended nominal projection.

(3)



Given this structure, postnominal adjective modifiers in CK are assumed to be non-projecting phrasal categories. Thus, before moving on to the derivation, some digression is in order to identify the categorial status of such modifiers, since the topic has not been investigated before, to the best of my knowledge.

Adnominal adjectives in the Izafe domain have often been assumed to be non-projecting heads in the nominal phrase (see Ghomeshi 1997; Samiian 1994). However, there is evidence supporting the phrasal condition of such modifiers within the CK nominal phrase. One piece of evidence is based on intensifiers such as *zor* 'very' which precede the adjective.

(4) sêw-êk-i zor zıl-i jıwan
apple-INDEF-IZ very big-IZ beautiful
'a very big beautiful apple'

As a functional head, the intensifier takes the adjective as a complement. That is, the adjective can take a pre-modifier, hence must be a maximal category. The example in (4) is also evidence against the assumption that DP-internal adjective modifiers are projecting heads in the nominal phrase (see Abney 1987; Baker 2004; Bernstein 1992, 1993; Bouchard 1998, 2002; Sadler and Arnold 1994; Truswell 2006). Based on Svenonius (1994), if adjectives were basically projecting heads, a degree element (intensifier) that modifies the first of several adjectives in a sequence would take scope over (hence modify) all the adjectives following it, not only over the one immediately to its right. However, as the example in (4) shows, this is not borne out. The modifier *zor* 'very' only modifies the first adjective *zıl* 'big'. The apple cannot be interpreted as both very big and very beautiful, but only as very big. So, *zor* 'very' takes scope

over the adjective which is to its immediate right. This is strong evidence that the adjectives must be non-projecting maximal elements in the specifier position of functional categories. (For more arguments against the head status and/or phrasal status of adnominal adjectives see, also, Bernstein 1993; Julien 2005: 8; Knittel 2005: 203; Laenzlinger 2005; Leu 2008: 75; Matushansky 2002; Roehers 2006: 19-20; Sadler and Arnold 1994; Svenonius 2008).

In addition, not only can the postnominal modifier be pre-modified by an intensifier, but can also be followed by a PP complement, further confirming its phrasal status.

(5) nusraw-e pıř le hełe-ke-i Aram-i
letter-IZ full of mistake-DEF-IZ Aram-CASE
'Aram's letter full of mistakes', literally, 'the full-of-mistake letter of Aram's'

The most compelling evidence in support of the phrasal status of postnominal modifiers is the occurrence of fully fledged relative clauses in the Izafe domain after the noun, as shown below.

(6) ew esp-e-i ke to kıři-t
that horse-DEF-IZ that you buy.PST-2SG
'the horse that you bought'

These arguments all corroborate the reasoning that postnominal modifiers in CK are maximal categories, hence invalidating any analysis that treats the modifiers as non-projecting heads. So, based on Chomsky's (1995) Bare Phrase Structure, even bare adjectives are considered as APs which can occupy the same structural position as APs accompanied by a complement.

Another issue to be examined now is the merger location of the modifier in the nominal phrase. According to some proposals in the generative syntax, attributive adjectives are structurally adjoined to NP (see, for instance, Alexiadou and Wilder 1998; Bernstein 1991; Carstens 1991; Picallo 1991; Valois 1991, 1996, both cited in Shlonsky 2004: 1486). However, conceptual as well as empirical evidence is available rejecting this assumption. Basically, there is no motivation for assuming that the modifier in CK is an adjunct to NP, since the modifier does not show typical properties of adjuncts. For instance, it cannot undergo any scrambling (movement) processes, nor can it be separated from the noun by any other adjoining constituent such as a PP. As pointed out by Holmberg and Odden (2004: 81) for Hawrami, the assumption is hardly applicable to the CK nominal phrase, especially owing to the presence of a functional category (Izafe) between the noun and the modifier. Furthermore, drawing on Hetzron (1978) and Sproat and Shih (1988), Cinque (1994) claims that there is a thematic restriction on the

order of adjectives modifying the noun. So, observing the typical freedom of mobility displayed by adjuncts, Cinque postulates that attributive adjectives must not behave as adjuncts in structural representations, because merger of adjuncts with NP is free and does not depend on any selection as is the case with adjectives in many languages (see also Lienzlinger 2005; Scott 2002, 2003).

In CK, there is a restriction on the DP-internal word order between adjectival and nominal modifiers in relation to the modified category. When an adjective and a possessor simultaneously modify a noun, there is a rigid linearized word order between the two modifiers which reflect their first merge hierarchy in the structural representation.

(7)

a. sêw-i sewz-i Azad-i
apple-IZ green-IZ Azad-CASE
'Azad's green apple'

b. *sêw-i Azad-i sewz
apple-IZ Azad-IZ green
intended meaning: 'Azad's green apple'

Here, it is not plausible to take both postnominal modifiers (the adjective and the possessor) as adjuncts to the NP *sêw* 'apple'. This is due to the standard reasoning that adjuncts are free of ordering restrictions (see Crisma 1990: 60, cited in Cinque 1994: 96).

In addition, the survival of the modifier after the noun undergoes ellipsis constitutes further evidence that postnominal modifiers in CK cannot merge as adjuncts to the NP.

(8)

a. Aram sêw-i sewz dexw-at bełam Azad hi sur
Aram apple-IZ green eat.PRS-3SG but Azad IZ red
'Aram eats green apples, but Azad red ones'

b. esp-i Aram řeŝ-e bełam hi Azad bor-e
horse-IZ Aram black-3SG.PRS but IZ Azad grey-3SG.PRS
'Aram's horse is black, but Azad's is grey'

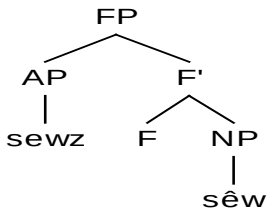
Given these examples, the postnominal modifiers are not adjuncts; or would be deleted together with the noun. The assumption is that adjoined constituents do not survive the deletion of the

element they adjoin to, since they both fall under the same projection (see Kayne 1994: 17). Here, if the nominal projection (NP) undergoes ellipsis, the adjunct will be left stranded and can no longer have a projection to adjoin to. Based on all these arguments, I can then conclude that postnominal modifiers are not adjuncts.

Following Cinque (1994, 2005, 2010), I argue that postnominal modifiers are non-projecting phrasal elements merging with a null functional category in its Spec above NP. Thus, drawing on Chomsky's (1995) Minimalist derivational theory a nominal phrase such as (9) is plausibly derived as shown in (10).[24]

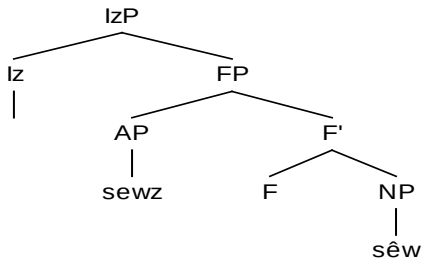
(9) sêw-i sewz
apple-IZ green
'green apples'

(10)



Given this structure, the noun first merges with a null functional category (F), followed by merger of the adjective in the specifier of F. Izafe is subsequently merged with FP where Spec Izafe will eventually serve to accommodate NP after the latter is raised.[25]

(11)



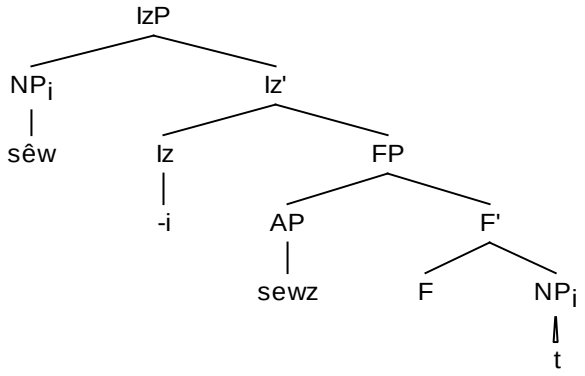
According to the current analysis, Izafe is present as a functional category to trigger movement of NP, and is subject to showing agreement features (see, also, Atlamaz 2016; Franco *et al*. 2015; Kahnemuipour 2014, 2016). Drawing on Cinque (2005, 2010), the possibility regarding

[24] The words on the structural representations might sometimes appear differently from the same words in the text for typographical reasons.

[25] One of the major roles functional heads play in syntax is to make landing sites available for various phrases moving out of their first merge position at some point in the course of the derivation (see Kayne 1994: 30).

movement of the NP and word order in the nominal projection is that NP moves to a positon above the modifier, where it ends up getting realized to its left. Accordingly, the NP *sêw* 'apple' moves to the specifier of IzP to be linearized to the left of the AP, due to a movement-triggering feature on Izafe.

(12)



Considering that Izafe is a characteristic of Iranian languages which shares some basic properties, Izafe in CK is assumed to hold the EPP feature postulated by Holmberg and Odden (2004: 79) for Hawrami Izafe. The EPP feature is what triggers the movement in question.[26] One might ask the question of why AP is not raised in (12), since such movement can equally satisfy the EPP feature on Iz. This question seems to be invalid in the face of two pieces of evidence: first, following Baker (2004), I assume that the constituent that moves must have a criterion of identity, hence bears a referential index. The only category meeting this requirement in the structure is the nominal projection (NP).[27] Secondly, in the previous chapter (2.6) I demonstrated that Izafe shows agreement in phi-features with the noun (NP) in three Kurdish dialects (Hawrami, Zazaki and Kurmanji). I also provided examples from Pizhdar and Mukuryan varieties of CK with some remnant phi-feature agreement between Izafe and the noun. Although not all such features are phonologically realized on Izafe in the language under discussion, I assume that the features are syntactically present. This being the case, Izafe in (12) should establish Agree in phi-features with the NP *sêw* 'apple', where the latter values the matching features on Izafe. In this respect, drawing on Chomsky (2000, 2001) that Agree is

[26] The movement operation attested here is assumed to be the kind of linearization movement proposed by Biberauer *et al*. (2014), which is further elaborated in chapter four (4.5.1).

[27] According to Baker (2004), there are distinct properties which distinguish nouns (NP) from adjectives (AP):

i. A noun can be assigned a theta role, but an adjective cannot.
ii. A noun can be an antecedent to, hence bind, an anaphor while an adjective cannot.
iii. A noun can become the subject of a clause or a DP, but an adjective cannot.
iv. A noun can appear in argument positions, but an adjective cannot.
v. Number marking and determiners select a NP (rather than AP) complement.

Based on such arguments, Baker (2004) claims that NPs have a criterion of identity and a referential index, making them a proper candidate to undergo certain movement processes which APs cannot entertain.

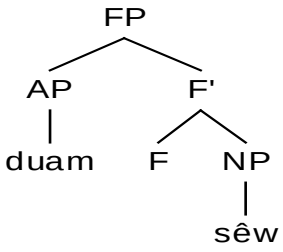
part of the operation Move, and assuming that the phi-features on Izafe bear an EPP feature, Agree between Iz and NP would be accompanied by movement of the latter to Spec IzP due the presence of the EPP feature on Iz. That is, this agreement relation between Iz and NP entails that the NP has priority over AP for movement to Spec IzP, in the sense that the EPP feature on Izafe will attract the category that Iz agrees with (see Chomsky 1995: ch. 4). The presence of the EPP feature is further attested by the observation that no Izafe occurs in the modified constructions given in (13a, b), where a modifier precedes the noun. With no Izafe, no movement of NP occurs, as represented in (14). However, such modifiers always need the Izafe before them when they follow the noun (see also the examples in (26) in the previous chapter (2.7) for the two word order differences and the concomitant occurrence of Izafe).

(13)

a. duem sêw[28]
second apple
'the second apple'

b. kota pırsyar
final question
'final question'

(14) (the structure for 13a)



As shown in (14), the surface AP-NP word order matches the first merge structural representation. There is no Izafe and no movement. This follows if Izafe has an EPP feature triggering NP-movement. Since Izafe does not project above FP, no category with EPP feature is present and, consequently, no movement of the NP is triggered. The NP then ends up remaining in situ and is spelled out in its first merge position below the AP.

[28] The ordinal number shows more characteristics of adjectives than of numerals for two reasons: first, all ordinals in CK can comfortably take the superlative-forming suffix *–in* which is typically added to adjectives (see 15). Secondly, the ordinal number does not have number feature such as plurality, as it never refers to two entities, but to a referent (which might be singular) in the second position.

Unlike simple and comparative adjectives, superlatives always precede the noun with no Izafe between them, as shown below.

(15) zıl-tır-in sêw
big-COMP-SUP apple
'the biggest apple'

This intriguing behaviour of superlatives in relation to the noun raises the question why they are always spelled out to the left of the noun. Following Cinque (2010), I assume that the superlative morpheme *–in* is a functional category, morphologically a suffix, merging higher in the extended nominal projection, which attracts the AP to provide it with a host (see also Heim 2004; Matushansky 2008).[29]

Compelling evidence to support movement of NP to a position above the modifying element comes from scope and binding phenomena. Extending Chomsky's (1982) principles of binding theory to the nominal domain, the constructions in (16) provide intriguing evidence that the element(s) to the right of the noun in a CK extended nominal projection must c-command, hence be higher than the one on the left.[30] Consider the examples below.

(16)

a. Azad xo-i
Azad self-3SG
'Azad himself'

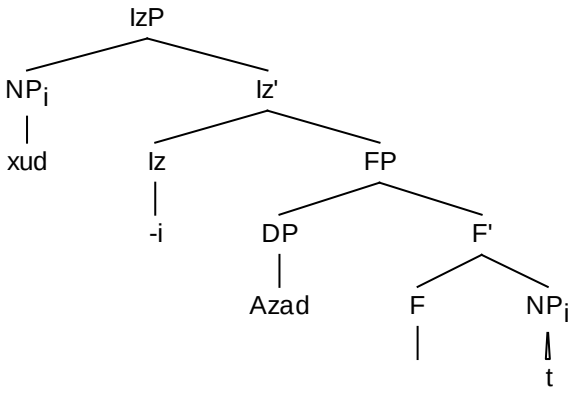
b. xud-i Azad
self-IZ Azad
'Azad himself'

The distribution of *xud* 'self' in (16b) allows us to claim that this anaphor merges first as an NP followed later on by merger of the proper name *Azad* with F at Spec FP on a par with a DP or AP modifier. Comparing (16b) to (16a), one can notice that the anaphor is now in a derived position, having moved from its base position to Spec IzP. This further confirms the assumption that the effect of Izafe is to trigger movement of NP to a position above the modifying element.

[29] One could assume that the functional category of superlatives (SUP) is located above FP, but below the Izafe projection (see 14). If it is, it will bleed Izafe; the N-projection must "know" that there will be a SUP morpheme merged later, so no Izafe is merged and, in turn, no movement of NP occurs.

[30] The same argument is raised by Kahnemuyipour (2014: 19) to account for NP raising in the Persian nominal phrase.

(17)



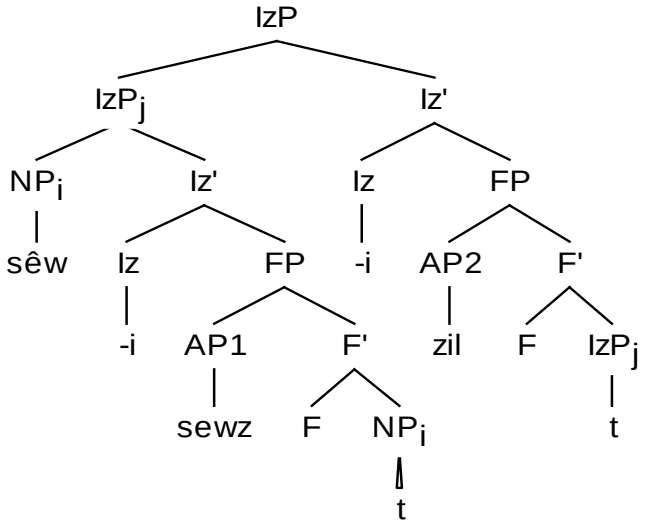
Principle A of the binding theory roughly states that an anaphor must be bound by a c-commanding antecedent within a local domain (see Chomsky 1980, 1981, 1982, 1986). Given the construction in (16b), the position where the anaphor *xud* 'self' first merges cannot be the same as its current position after spell-out. As represented in (17), the element must have first been in a position where it was bound by the c-commanding antecedent *Azad* (respecting Principle A) before moving to its current post-PF location. Thus, the evidence is twofold: first, the fact that the morpheme *xud* 'self' appears to the left of the proper name *Azad* in (16b) compared to the same morpheme following the name in (16a) suggests that the anaphor has moved to a position above the name. Secondly, in light of Principle A of binding theory, the anaphor must have merged somewhere c-commanded by the antecedent and have then moved up, further supporting the current analysis.

Back to the derivation in (12), when the noun is modified by more adjectives (18), the derivation recurs: the new adjective (AP) merges in the Spec of a higher functional category above IzP before a second category of Izafe merges further up, whose specifier serves to accommodate the raised constituent(s). Next, the NP is further raised in a roll-up fashion, picking up all the constituents on its way upwards and landing in the Spec of the new Izafe projection as shown in (19). [31]

(18) sêw-i sewz-i zɪl
apple-IZ green-IZ big
'big green apples'

[31] It has been argued in the literature that a movement involving pied-piping bigger chunks (roll-up movement) is a typical property of head-final/ SOV languages under which CK is classified (see Cinque 1996; Kayne 1994).

(19)



Given this structure, the NP has to be linearized to the left of all the modifiers. Thus, to achieve the surface structure NP>AP1>AP2 from the base merge order AP2>AP1>NP, the NP *sêw* 'apple' needs to move around AP1 first, and next the IzP containing NP+AP1 needs to move around AP2. Notice that the NP pied-pipes all the categories that dominates it in a snowballing pattern, reversing the order of the modifiers and finally moving the whole projection up to Spec Izafe, yielding the surface representation. As pointed out above, phrasal movement is widely attested across languages, with cyclic movement of NP up to the specifier of a c-commanding category, pied-piping any containing projection on its way along the derivation (see, for example, Bernstein 1997; Cinque 1999, 2005; Giusti 2002; Laenzlinger 2005; Shlonsky 2004).

At this point of the derivation, the functional category D realized by the definite article *–eke* merges, projecting a DP that dominates the Izafe domain (see 21 and 22).[32] As the AP Izafe is assumed to bear a definiteness feature, it enters an agreement relation with D and is subsequently spelled out as *–e*. Consider the examples below followed by the structural representations for (20a) and (20b), respectively.

(20)

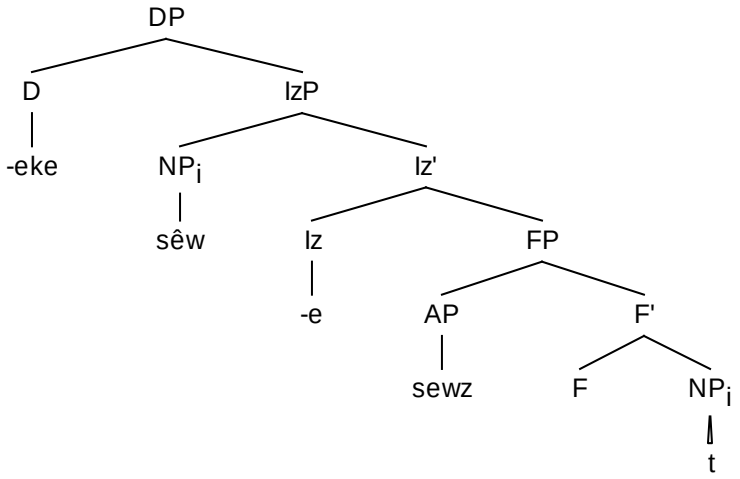
a. sêw-e sewz-eke
   apple-IZ green-DEF
   'the green apple'

[32] For the sake of expository convenience, the nominal phrase is taken here to be the projection of a D category further above the Izafe domain. Further arguments supporting this assumption are provided in the following chapter (section 4.2), where the syntactic role played by the category D within the nominal phrase together with the notion of (in)definiteness is elaborated.

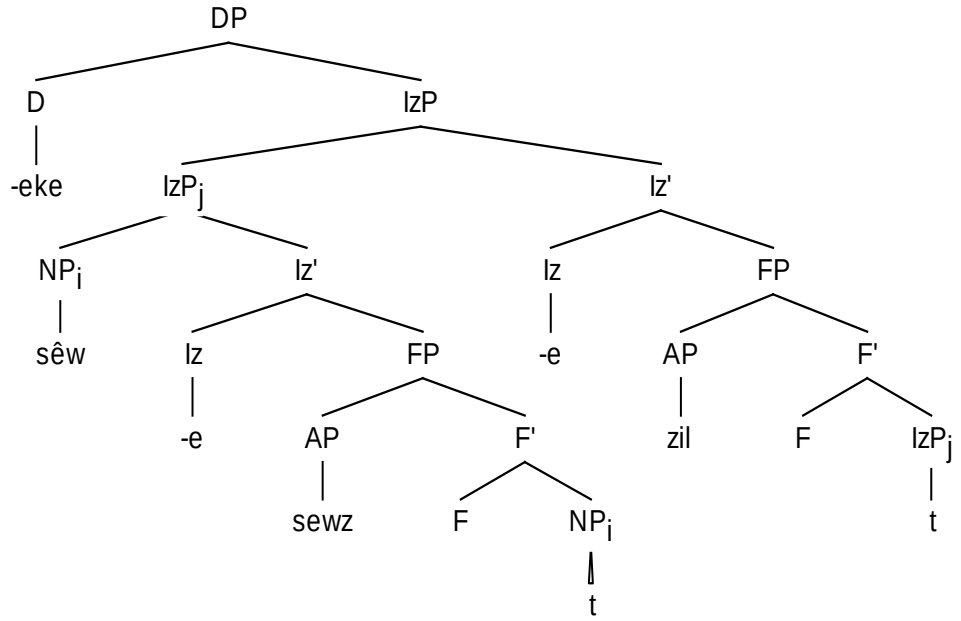
b. sêw-e sewz-e zıl-eke
apple-IZ green-IZ big-DEF
'the big green apple'

c. ew sêw-e sewz-e zıl-e
that apple-IZ green-IZ big-DEF
'that big green apple'

(21)



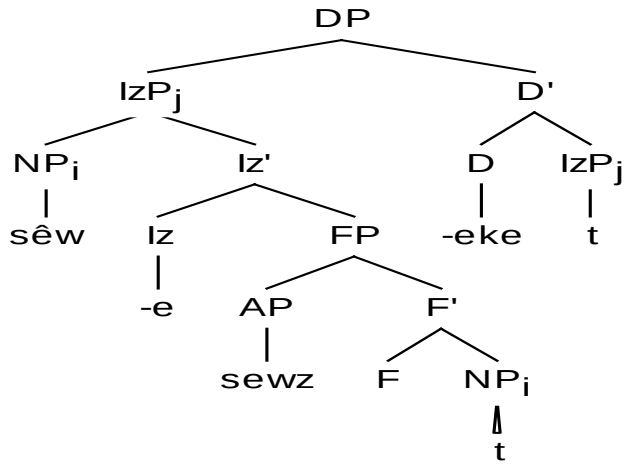
(22)



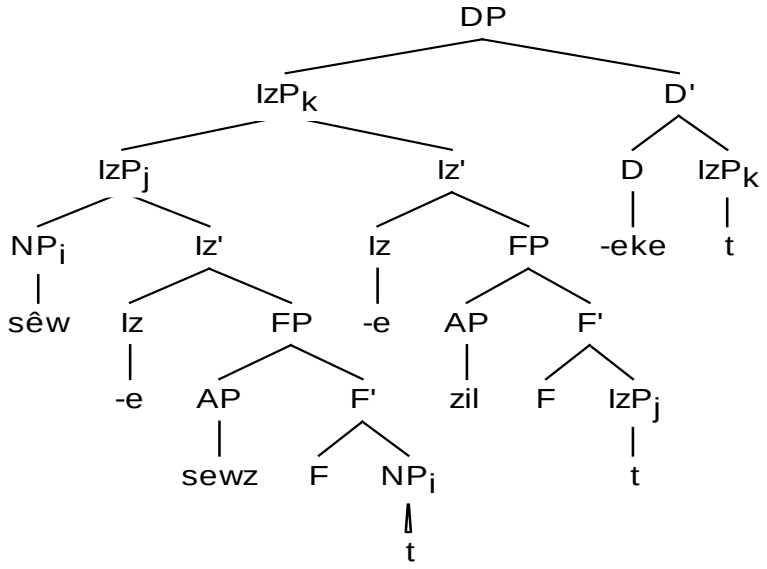
I assume that there is a requirement for the DP in CK that its specifier invariably hosts an NP or a category containing it. Thus, as a result of the agreement in definiteness between Izafe and D (further investigated below (3.3)), the latter is assumed to hold an EPP feature attracting the

Izafe projection to its specifier.[33] Thus, the pied-piping movement carries on such that D attracts the IzP, which contains the NP, to its specifier.[34] The derivation in (21) and (22), then, carries on as shown in (23) and (24), respectively.

(23)



(24)



It is also argued in the following chapter that only when the agreement between D and the Izafe occurs is the NP accompanied by Izafe and other extended nominal projections while raising to Spec DP. When no such agreement takes place, only the NP moves to Spec DP and the roll-up movement pattern would no longer be a requisite.

[33] Following Chomsky (2000, 2001), if movement is always triggered by some feature, the D head of the DP must have an EPP feature triggering movement of the NP complement or any other category it contains to its left, following agreement of Izafe with D in DEF feature, a topic which is addressed in the following chapter.

[34] The fact that adjectival modifiers are all located to the left of the definite article constitutes empirical evidence against the head-movement assumption of the noun up to the head D as a case of leftward adjunction.

In addition, CK exhibits a free ordering of adjectives within its nominal phrase. Unlike languages like English, for instance, there is no restriction on the way attributive adjectives are sequenced in the nominal phrase. Consider the examples below.

(25)

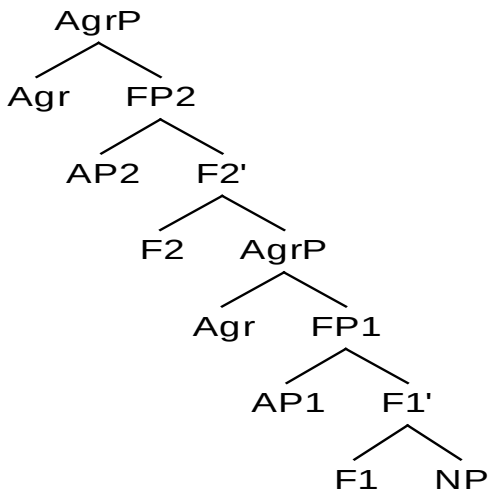
a. sêw-e zıl-e sewz-eke
apple-IZ big-IZ green-DEF
'the big green apple'

b. sêw-e sewz-e zıl-eke
apple-IZ green-IZ big-DEF
'the big green apple' ('?the green big apple')

Given these examples, no obvious contrast seems to exist between (25a and b), while, as shown by the question mark in the bracketed English translation (25b), the sequence of the adjectives *the green big apple* is odd when used as a default (unmarked) order. Inspired by a suggestion made by Holmberg (personal communication, April 16, 2016), I assume that this lack of a rigid DP-internal adjective ordering is related to the way the nominal phrase is derived, with Izafe playing a crucial role in this regard. Various classes of adjectives are distinguished across languages based on their distinctive features including size, age, colour, nationality, etc. In this respect, the proposal put forward by Cinque (2005, 2010) is that adjectives (APs) merge in order of their distinctive features in the Spec of dedicated functional categories. Each feature is held by a relevant functional head F in a rigid order such that the head, for instance, with the feature [size] licenses an adjective such as *big* in its specifier. Likewise, based on the claim made by Cinque (1994) and developed later by Lienzlinger (2005) and Scott (2002, 2003), adjective ordering in languages with a strict ordering pattern such as English is the result of selection such that an adjective with some specific property selects one with a different property. For instance, an adjective of size (such as *big*) can select a nominal phrase with an adjective pertaining to age, but not the other way round. An adjective denoting age cannot select an adjective of size (*? *a young big elephant*), but can select an adjective of colour (*a young grey elephant*) and so forth. Consider the schema below proposed by Cinque (2005, 2010), which represents the core structure.[35]

[35] It should be pointed out that Cinque (2010) makes a different analysis from that of Cinque (2005), in which he claims that putative APs in some languages are reduced relative clauses. Accordingly, such APs which are considered indirect source of modification behave differently from direct modification APs which are strictly ordered.

(26)



Note that Cinque postulates an abstract Agr-head on top of every FP in the languages he discusses, corresponding, as it looks, to Izafe in CK. Cinque's proposal on the adjective ordering selectional restriction is roughly as follows. Assuming that the lower functional head F1 in (26) holds the syntactic feature of colour (with a colour adjective such as *green* in its Spec), this functional head is then accessible (hence, is visible) for selection by the higher F2 head, if it bears for example the feature [size]. The process recurs upon merging further adjectives. This proposal seems to work for English and other languages with a strict unmarked adjective ordering, but does not work for CK, where the order of adjectives is unrestricted. Note that the AgrP intervening between the selecting F and the selected F does not interfere with the selection, in the languages with strict AP order. Possibly, this is because the Agr head is purely abstract, not even containing any phonological features. That is, as long as the functional Agr head is not morphologically realized, it does not block selection of the lower adjective by a higher one; hence, the ordering is restricted. However, in Kurdish where the Agr head is morphologically realized by Izafe, it is visible to the syntactic operations, hence blocks selection of an adjective with a specific syntactic feature by a higher adjective. The consequence is that the merged adjectives have free internal ordering. Based on this, I would argue that structures with multiple adjectives are subject to parametric variation, such that only languages with a morphologically empty functional Agr head, including English, can have a restriction on adjective ordering. By contrast, languages like Kurdish that have the Agr head spelt out are characterized by a free adjective ordering.

Summing up, in this section I proposed a pied-piping movement analysis to account for the derivation of the AP Izafe construction. I argued that Izafe triggers movement of NP to the left of AP, and also marks a syntactic feature (definiteness). The following section focusses on the

analysis of NP Izafe, raising a rather different proposal from the one put forward above for the AP Izafe, as far as the derivation is concerned.

3.2.2 NP Izafe: a non-roll-up movement analysis

On the basis of empirical and cross-linguistic evidence shown previously, the NP Izafe is argued to be a distinct element from the AP Izafe. It was already demonstrated that the NP Izafe always precedes a DP to which it assigns Case, and unlike AP Izafe never exhibits agreement with D in definiteness (Consider the examples in 27). This section explains this discrepancy displayed by the NP Izafe construction, compared to the AP Izafe, shedding light on its derivation in the nominal phrase.

(27)

a. esp-i Azad-i[36]
   horse-IZ Azad-CASE
   'Azad's horse'

b. esp-i pyaw-eke-i
   horse-IZ man-DEF-CASE
   'the man's horse'

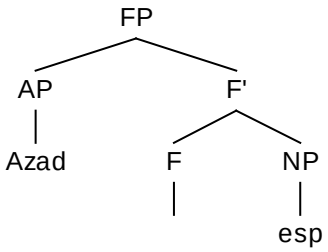
These examples show that the NP Izafe can be followed by a fully-fledged DP with D realized by the definite article, unlike the AP Izafe which always precedes an AP. Here, the whole Izafe construction is descriptively a DP projection with a second DP embedded in it.

Taking (27a) first, the derivation is postulated to be as follows. Given the standard assumption that proper names are typically DPs (see, for instance, Longobardi 1994; Longobardi 2005, cited in Ghomeshi and Massam 2005; Roberts 2011: 29), the name *Azad* is a DP which serves a similar function to an AP, modifying the noun *esp* 'horse'.[37] This DP is assumed to merge, as an already fully-derived construction, with a functional category (F) above the NP *esp* 'horse', in the same fashion as the AP discussed above for the AP Izafe.

[36] It should be noted that the Case feature assigned to the DP by Izafe is not accounted for in this section. This oblique Case, which is assumed to be realized as a result of agreement between Izafe and the DP, is further investigated in 3.3.2 further below.

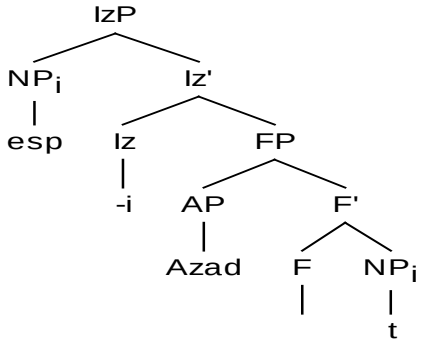
[37] Although the proper name *Azad* overtly looks like a bare noun, it is a referring expression with the same syntactic distribution as a full DP. Likewise, the fact that this name is readily replaced by (or coordinated with) a DP such as *pyaw-eke* (man-DEF) 'the man' provides empirical evidence in support of its DP status, further confirming the reasoning.

(28)



Similar to the derivation of the AP Izafe construction, a functional Izafe category merges above the FP projection, before the NP *esp* 'horse' moves up to its specifier as represented below.

(29)



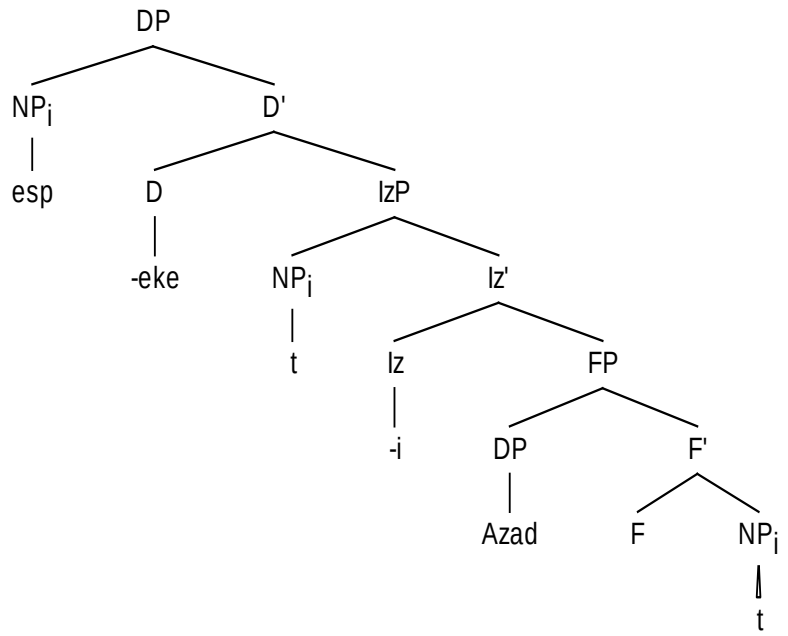
The functional category F is assumed to bear a POSS feature where the possessive interpretation comes from. Following Atlamaz (2016: 26), DP-internal modifiers have different domains where they are introduced by various dedicated F heads. Thus, when the NP is simultaneously modified by an AP and a possessor DP, the F head introducing the AP must carry a specific feature pertaining to the adjective and the F with which the possessor merges holds a POSS feature. As for rigidity in the order between possessor and AP modifiers, CK allows a single sequence where APs merge with its relevant F before the possessor. In the previous section, I demonstrated that multiple adjective modifiers in CK are not ordered according to selection, hence have free ordering in an extended nominal projection. However, CK seems to distinguish the feature POSS from other adjectival features such that a cartographic array of the two functional heads is assumed to exist, with restricted ordering between them; further details will be provided shortly.

The nominal projection in (29) is already regarded as definite based on the fact that it is a possessive construction, describing a horse possessed by somebody (Azad) (see Karimi 2007: 2169). However, the referent can be further specified as a horse which is familiar to both the speaker and the addressee via the definite marker *–eke* as a case of double definiteness, as shown below.

(30) esp-eke-i Azad-i
horse-DEF-IZ Azad-CASE
'Azad's horse', literally, 'the horse of Azad's'

Along the lines of Roberts (2003), the discourse referent of the nominal phrase in (30) must be Strongly Familiar, or is Discourse Old in Prince's (1992) terms. It is plausibly this strong familiarity that makes such nominal constructions serve a name-like function (see, for instance, Kester 1996 and Platzack 2000 on Swedish). As is illustrated in the following chapter, *-eke* marks both uniqueness and specificity, the two component features subsumed under definiteness (Enç 1991; Heim 1982; Lyons 1999). Thus, holding an EPP feature, when D realized by *–eke* merges above IzP, movement of the NP *esp* 'horse' proceeds, landing finally at Spec DP and yielding the correct surface word order, as expected.

(31)



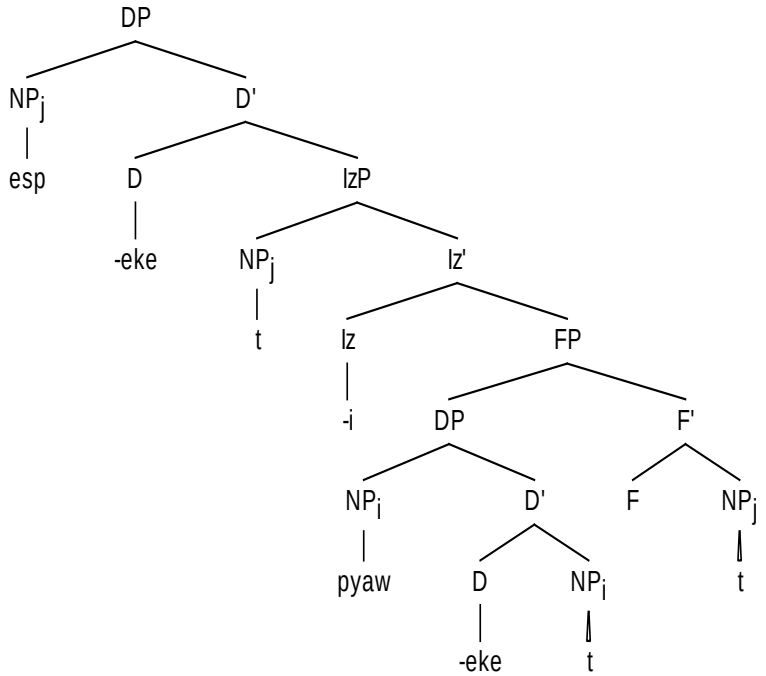
Notice that unlike the derivation of the nominal phrase with AP Izafe proposed in the previous section (3.2.1), roll-up movement of the construction to Spec DP is not attested. The NP *esp* 'horse' first moves to Spec IzP and then further up to Spec DP. The reason why the Izafe projection cannot raise as a whole to Spec DP (as was the case with the AP Izafe) is most plausibly due to lack of agreement the Izafe shows in definiteness with D. That is, the roll-up movement of IzP to Spec DP is attested only when Izafe establishes Agree with D, where the latter with an EPP feature attracts the Izafe projection with which it agrees, a topic further examined in the agreement section 3.3.

The question arising at this point is why can the proper noun *Azad* not raise instead of the noun *esp* 'horse' as the former is in a locally closer domain to the targeted specifier than the latter. However, apart from the ill-formed linearized morpheme order which would result from this movement, the operation violates the basic rule put forward in the analysis (3.2.1) according to which the element raising to the Spec IzP or Spec DP must be the NP with which Izafe agrees in phi-features. Also, the assumption that the NP rather than the possessor DP is raised is further borne out if the proper noun *Azad* (in 30) is replaced by a full DP as follows.

(32) esp-eke-i pyaw-eke-i
horse-DEF-IZ man-DEF-CASE
'the man's horse' (both the man and the horse are familiar to the interlocutors)

Given that a postnominal modifying DP such as *pyaw-eke* (man-DEF) 'the man' merges, similarly to APs, in the specifier of a dedicated functional category (FP), the derivation starts by the NP *esp* 'horse' merging first with F (see 33). This is followed by merger of the possessor DP in Spec FP. Next, the Izafe and D categories merge, successively, further above. So, the derivation carries on as shown below.[38]

(33)



[38] As represented in (33), the DP *pyaw-eke* (man-DEF) 'the man' has gone through its normal derivational processes before it finally merges as a single maximal projection in Spec FP. Here, if the noun *pyaw* 'man' is extended by adding more DP or AP modifiers, all the derivational steps are completed before this whole extended construction merges (above NP) with F as a DP which modifies the noun *esp* 'horse'.

According to the analysis, it is the NP *esp* 'horse' which must move up not the DP immediately above it. Still, in light of this structure, one might also speculate why the NP *pyaw* 'man' in the Spec FP is not raised. However, the restriction on raising this NP is justified by three pieces of evidence: first, if this NP moves alone, the definite article *–eke* is stranded resulting in an ungrammatical construction, since the article is an enclitic and always needs a host to attach to. Secondly, it is well-known ever since Ross (1967) that specifiers are islands (the Left Branch Condition in Ross 1967). The DP in (33) is a specifier, hence movement of any component of it is ruled out (or is at least more restricted than movement out of a complement) (see Chomsky 2005). Thirdly, movement out of DP is highly restricted (see Bach and Horn 1976: 277-278; Corver 1990; Davies and Dubinsky 2003: 5; Lohndal 2014; Huang 1982, cited in Radford 2006: 161; Ross 1986: 127; Sedrins 2015; Ticio 2003).

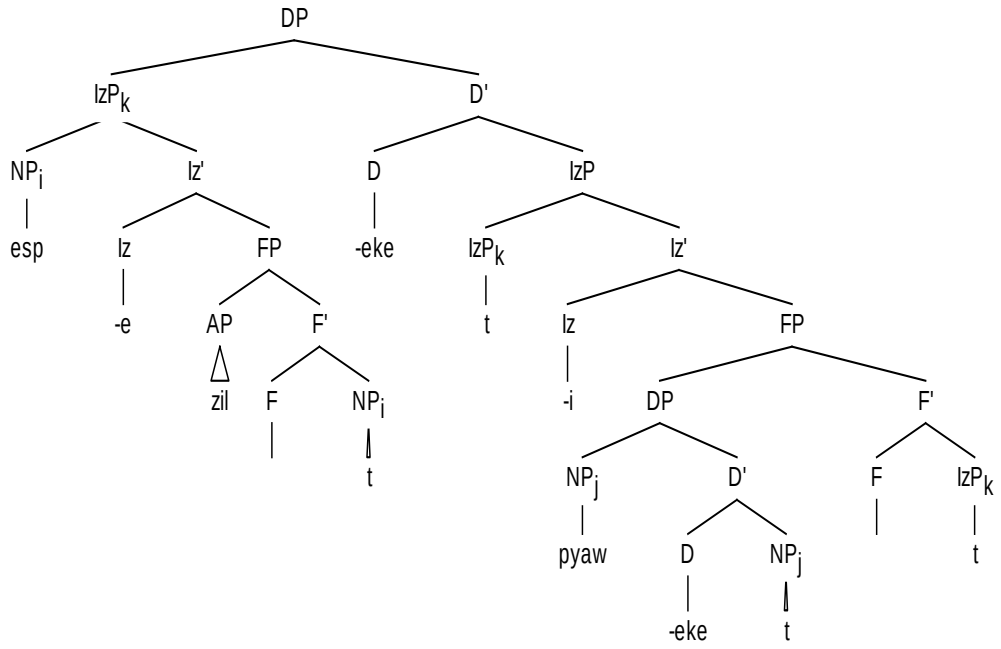
Furthermore, the NP *esp* 'horse' in (33) can be extended by a postnominal adjective modifier (see 34). The derivation of such a construction seems to be more problematic, as it involves both AP and NP Izafe constructions. The former (which is realized as *–e*) introduces a postnominal adjective *zıl* 'big' and agrees in definiteness with the definite article *–eke*, while the latter is followed by a DP modifier *pyaw-eke* (man-DEF) 'the man' and is spelled out as *-i*.

(34) esp-e zıl-eke-i pyaw-eke-i
horse-IZ big-DEF-IZ man-DEF-CASE
'the man's big horse', literally, 'the big horse of the man's'

Here is an account of the derivation: As is shown in (35), the NP *esp* 'horse' is argued to merge first with the functional category F, followed by merger of the AP *zıl* 'big' in Spec FP and the AP Izafe category further above. The NP then moves to Spec Iz in the same fashion as argued for AP Izafe (3.2.1), deriving the construction *esp-i zıl* (horse-IZ big) 'big horse', and this whole construction subsequently merges with another empty functional head (F) to its left. Next, the possessor DP *pyaw-eke* (man-DEF) 'the man' merges with the new F head at its Spec-position. An NP Izafe then merges with FP, followed by movement of the AP IzP *esp-i zıl* (horse-IZ big) 'big horse' to the specifier of the NP Izafe above the possessor. Upon merging D with the NP Izafe, the AP Izafe establishes agreement with the c-commanding D (realized by *–eke*), before it is further raised to Spec DP (see 35). Based on the assumption made earlier that different types of modifiers merge with their relevant F heads in different domains, it appears that the AP modifiers merge before the possessor. That is, the domain for AP modifiers is structurally

lower, hence closer to the NP than the possessor modifying elements.[39] This seems to be the only way to account for the word order given in (34), especially in light of Kayne's (1994) antisymmetric approach. Likewise, considering the merge order of the adjective and possessor modifiers in relation to the noun, the analysis seems to be on the right track; modifying possessor DPs cross-linguistically merge after, hence higher than, modifying adjectives (APs) (see, for instance, Atlamaz 2016; Kahnemuyipour 2006; Shlonsky 2004, 2012; Sichel 2002).

(35)



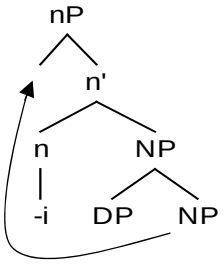
Notice that whenever the modifier merging in a Spec FP above the noun is a DP, rather than an AP, an NP Izafe merges above it, which does not establish agreement with D in DEF feature. As is argued in the following sections, lack of this agreement results in the pied-piping movement to Spec DP to not occur. Thus, the newly merged possessor DP remains in situ, and the already pied-piped construction (which is AP IzP in this case) keeps ascending without rolling the possessor DP up to Spec DP.

As touched upon in the literature review section of the previous chapter (2.6), the only theoretical analysis addressing Izafe in CK is Karimi (2007), which examines a number of issues within the nominal phrase. These include a diachronic investigation of Izafe (drawing

[39] A note on the Kurmanji dialect of Kurdish: as is shown in the structure (35), while the surface DP-internal word order, in CK, between an adjective and a possessor in relation to the noun is NP>AP>Possessor, in Kurmanji the order is NP>Possessor>AP. So, assuming that AP modifiers merge before the DP possessor, only the NP moves up through all IzP specifiers. The derivation of a Kurmanji nominal phrase (DP) does not involve a roll-up movement of AP; rather, the NP is raised to the exclusion of any other constituent on its way to Spec DP (see Atlamaz 2016, for further details on Kurmanji Izafe constructions).

mainly on Old Persian data), the functions served by Izafe and its role in the derivation of the nominal phrase. According to the analysis, Izafe heads a functional category marking a predication relation between a noun and a postnominal modifier. This work has undoubtedly made a significant contribution to the analysis of the CK nominal phrase in general and to the Izafe construction in particular, especially the well-established arguments it presents in tracing the origin of Izafe and its headedness status. However, the analysis suffers from some drawbacks, mostly pertaining to the structural derivation of the NP Izafe in question. It is true that Karimi has distinguished between two types of modified nominal constructions (labelled predicate construction and possessive construction), depending on whether the postnominal modifier is an adjective or a possessor. However, his structural analysis does not provide a satisfactory account of the NP Izafe category as far as its derivation is concerned. Given the structural representations provided by Karimi (2007) (which is shown in 36), the DP possessor merges with the nominal projection as an adjunct, followed by movement of the NP as follows.

(36)



I have already provided arguments (section 3.2.1) that neither AP nor DP postnominal modifiers accompanying an NP can be treated as adjuncts in CK, a claim invalidating Karimi's (2007) analysis. Furthermore, Karimi adopts right branching merger of syntactic trees and Kayne's (1994) leftward movement of constituents. However, the LCA does not allow the kind of NP movement attested in the analysis (see 36). A phrase with a constituent adjoined to it cannot move stranding the adjunct, since it is not a (complete) category, but a segment of a category (see Kayne 1994: 17 for further details). Karimi's analysis mostly addresses DPs with no definite article on the possessum as in (37a). Cases like (37b), though, pose a considerable difficulty for Karimi's analysis, where the nominal phrase as a whole involves the projection of two DPs.

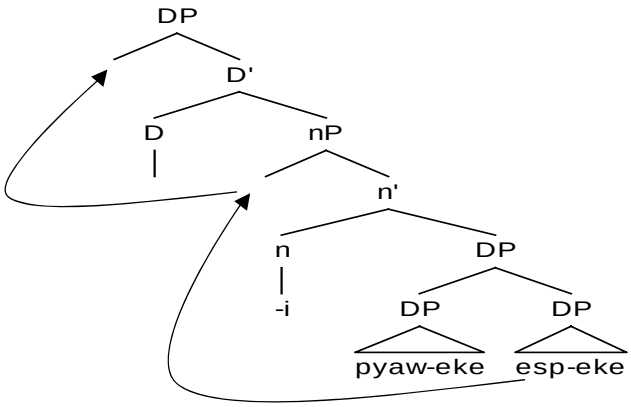
(37)

a. esp-i pyaw-eke-i
horse-IZ man-DEF-CASE
'the man's horse'

b. esp-eke-i pyaw-eke-i
horse-DEF-IZ man-DEF-CASE
'The man's horse', literally, 'the horse of the man's'

If Karimi (2007) adopts right branching merger of syntactic trees, in light of his structure given in (36) the possessum DP *esp-eke* (horse-DEF) 'the horse' must adjoin to the right of the possessor DP modifier *pyaw-eke* (man-DEF) 'the man', as shown below.

(38)



However, this time Karimi (2007: 2174) has adopted a left branching merger of the possessum, where he has switched the structural position of the moving DP (the possessum) from the right to the left of the structure. Also, while approaching the problem posed by counterexamples like (37b), it remains unclear why he has treated the possessor DP modifier as an NP while it has been a DP throughout the analysis. [40]

Summarizing, I demonstrated that the NP Izafe should be given a distinct treatment from the AP Izafe. The difference is reflected in its function and the derivation of the nominal phrase on the whole. Unlike in postnominal AP modifiers, categories above the NP Izafe does not take part in the movement of the NP to Spec DP. That is, the NP which has already crossed the DP modifier lands in Spec IzP but does not pied-pipe the categories it crosses while further raising to Spec DP. I have also alluded to the contention that agreement within the CK nominal phrase has a considerable bearing on the difference between the two types of Izafe and the syntactic derivation of their co-occurring projections. I have pointed out that the NP Izafe does not exhibit agreement with D, while the AP Izafe does. By contrast, the NP Izafe assigns Case to, hence establishes agreement in Case feature, with the DP in its c-command domain, whereas the AP Izafe does not. Thus, the syntax of agreement shown by the AP and NP Izafe morphemes in

[40] In fact, in the residue section of his analysis Karimi (2007: 2174) alludes to such counterevidence to his proposal, and he provides a tentative solution, where he treats the (proper name) modifier as an NP, while this same modifier is a DP throughout his analysis.

both definiteness and Case features is worth some investigation. The following section, then, investigates this issue.

3.3 Agreement within the nominal phrase

It was previously demonstrated that a major difference between the AP Izafe and NP Izafe is related to their agreement properties. The former agrees with D in definiteness and is realized as either *–e* or *–i*, depending on whether the construction is definite or not. By contrast, the NP Izafe is not affected by the definiteness of the nominal phrase. Likewise, while the NP Izafe assigns Case to, and agrees in Case feature with the DP modifier it c-commands, the AP Izafe cannot assign such Case to the AP following it. This section, thus, examines the agreement phenomenon which is considered an intriguing property of Izafe in CK. Section 3.3.1, first, addresses agreement of the AP Izafe with D in DEF. I will provide empirical evidence that such agreement occurs within the syntactic component in the derivation. Agreement in Case between the NP Izafe and the DP it c-commands is subsequently investigated (section 3.3.2). Prior to embarking on the discussion, an account should be given of Chomsky's (2000, 2001) agreement mechanism adopted in the current analysis.

- **Operation Agree (Chomsky 2000, 2001)**
  (i) An unvalued feature on a probe searches for a local c-commanded goal (within its domain) with a matching feature to establish Agree with.
  (ii) If the feature on the goal is valued, it can give the value to the probe.

- **Bidirectionality in feature valuation and interpretability (Chomsky 2001, 2007)**
  (i) Interpretable features are valued.
  (ii) Uninterpretable features are unvalued.
  (iii) All uninterpretable features must be valued and then deleted.

Uninterpretable features are, for example, structural Case on DPs and nominal agreement features on verbs and adjectives; these are features which do not affect the semantic interpretation of the categories hosting them (see Chomsky 1995: 277-78 and Radford 2006: 184, for the distinction between interpretable and uninterpretable features). Although these assumptions were originally formulated with a view to agreement operations occurring in the clausal domain, they can still be observed for agreement within the nominal phrase. According to Baker (2008), Carstens (2001, 2010 and 2011), Danon (2011) and Mallen (1997), nominal concord is established via the same syntactic mechanism as agreement in the clausal domain. So, a unified account of them is both plausible and desirable.

3.3.1 Agreement of AP Izafe in DEF feature

It should be pointed out that Izafe shows syntactic agreement in number, gender and definiteness features with the noun in all the three Kurdish dialects: Hawrami, Kurmanji and Zazaki (See, for instance, Atlamaz 2016; Franco *et al*. 2015; Holmberg and Odden 2004, 2008; Larson and Yamakido 2006; Samvelian 2007, 2008; Schroeder 1999 (cited in Strunk 2005: 3); Toosarvandani and Van Urk 2012). However, Izafe in CK is attested to have historically lost agreement in number and gender features, and has only kept its agreement pattern in definiteness.[41] According to Barwise and Cooper (1981), Diesing (1992) and Keenan and Stavi (1994), definiteness is regarded as an interpretable feature on D realized by the definite article. This is based on the contention that the category D determines whether a nominal phrase is interpreted as definite or indefinite. As already pointed out, AP Izafe in CK morphologically exhibits an agreement relation with D (the definite marker). The examples below illustrate this agreement phenomenon.

(39)

a. seg-i zıl
   dog-IZ big
   'big dogs'

b. seg-êk-i zıl
   dog-INDEF-IZ big
   'a big dog'

c. seg-e zıl-eke
   dog-IZ big-DEF
   'the big dog'

d. ew seg-e zıl-e
   that dog-IZ big-DEF
   'that big dog'

[41] Note that cases of agreement in gender are still found in a few CK varieties including Pizhdar and Mukryan, further supporting the assumption that Izafe in this dialect must have once exhibited agreement in features other than definiteness (see examples 19a, b, c in the previous chapter). However, most of the features on the morpheme have diachronically been lost and have all reduced to definiteness feature in the mainstream CK dialect. Investigating the issue of feature loss on Izafe is far beyond the scope of this work and needs special research.

Accordingly, Izafe is realized as *–i* whenever the nominal phrase is generic (39a) or indefinite (39b). Conversely, if either of the definite articles *–eke* or *–e* is present, Izafe changes form from *–i* to *–e*, marking agreement in definiteness with D (39c, d). An interesting question arising here is: what evidence is available that this agreement occurs within the syntactic component rather than, for instance, at the ensuing PF level. One might additionally speculate that the shift in the phonetic form of Izafe relates to phonological operations such as vowel harmony. Under this assumption, the Izafe is spelled out as *–e* due to agreement in pronunciation (i.e. harmony) with *–eke* or *–e*, as it takes the same rhyme as the definite article(s).[42] A number of arguments are in order against such assumptions, supporting the contention that Izafe bears definiteness feature and establishes a syntactic agreement with D.

The first argument is based on a DP type that consists of a proper name and an adjective, which usually modifies it in a pejorative fashion, with Izafe appearing between them.

(40)

a. Azad-e řeŝ
   Azad-IZ black
   'Azad the black'

b. Newzad-e ĉawĉınok
   Nawzad-IZ greedy
   'Nawzad the greedy'

Being prototypical referring expressions, proper names are inherently definite in which the reference is familiar to the interlocutors. Hence, Izafe is crucially realized as *–e* despite the lack of a definite marker in the construction, suggesting that the agreement Izafe shows in definiteness is syntactic, and that phonology is rather irrelevant to the phenomenon. Similar evidence is found with animal names that constitute the head of a nominal phrase modified by an adjective (41b, c).

[42] Vowel harmony is a characteristics of certain languages including Turkish, Kyrgyz and Azerbaijani. Descriptively, it is a kind of long-distance assimilation phonological process wherein the same vowel sound repeats itself either within the same word or sometimes across larger boundaries such as words and phrases (see, for example, Khalilzadeh 2010, 2013; Polgardi 1999). In this respect, Kurdish, to the best of my knowledge, has never been argued to display any sort of vowel harmony.

(41)

a. meř-êk-i zerd
sheep-INDEF-IZ yellow
'a yellow sheep

b. meř-e zerd[43]
sheep-IZ yellow
'the yellow sheep'/ 'the sheep which is yellow'

c. esp-e řeŝ
horse-IZ black
'the black horse'/ 'the horse which is black'

There is another type of nominal phrase composed of a vocative element and a proper name with the definite Izafe '*-e*' between them. These expressions are used either as vocative constructions while calling somebody's name or as nicknames when referring to them.

(42)

a. pur-e mıryem
aunt-IZ Maryam
'aunt Maryam'

b. mam-e Seaid
uncle-IZ Saed
'uncle Saed'

Notice that Izafe is spelled out as *–e* due to the fact that the expressions refer to specific (definite) referents. The reasoning is that the notion of definiteness has induced the agreement on Izafe, and has, in turn, resulted in the morpheme appearing as *–e*, further supporting the proposed assumption that the agreement on Izafe is syntactic.

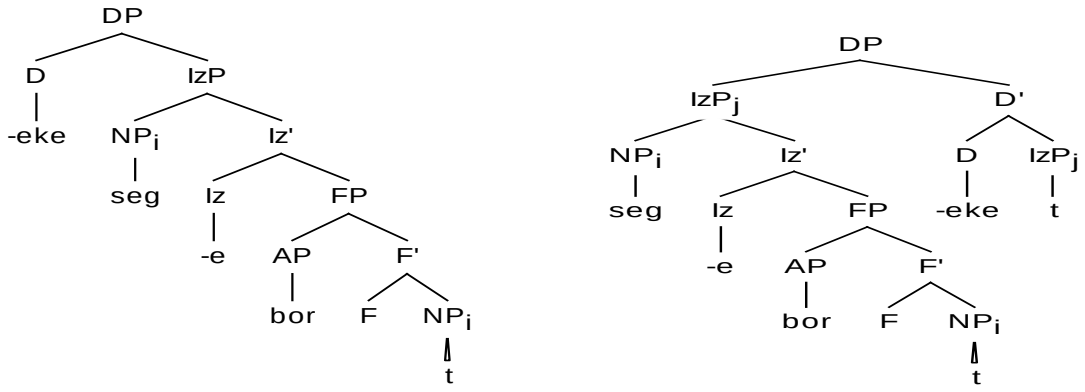
Back to the agreement process, observing the derivation I have adopted for the analysis above, but skipping some steps, the example in (43) is derived as shown in (44a, b).

[43] It should be noted that examples like (41b, c) are used only when there is one and only one entity indicated by the reference; the nouns *meř* 'sheep' and *esp* 'horse' are used similarly to the proper names given in (40) further above.

(43) seg-e bor-eke
dog-IZ grey-DEF
'the grey dog'

(44)

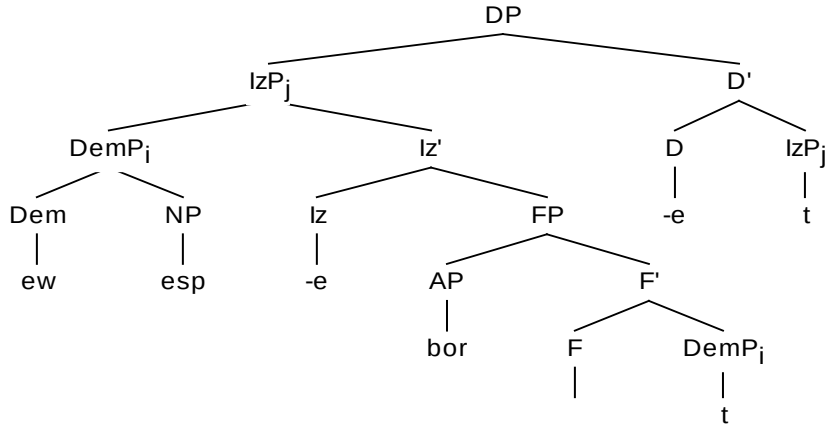
a. b.



Note that upon merging the category D above IzP (44a), Izafe changes its phonetic form from *–i* to *–e*, respecting the agreement. This type of agreement also occurs when D hosts the other marker of definiteness *–e* that correlates with demonstratives. Consider the example below and its structural representation following it. [44]

(45) ew esp-e bor-e
that horse-IZ grey-DEF
'that grey horse'

(46)



[44] The structural derivation of demonstratives is offered here in correlation with the co-occurring definite marker and the agreement it triggers with the Izafe construction. Demonstrative elements and the notion of definiteness they encode is further elaborated in the following chapter.

The question here concerns the syntax of this agreement: how it occurs and what syntactic mechanism is enforced to establish the agreement relation. As just indicated above, the current analysis adopts Chomsky's (2000, 2001, 2004) probe/goal agreement, assuming that an uninterpretable feature enters the syntax unvalued; so, it must receive the value in the course of the derivation by agreement with a matching interpretable feature which is valued. According to the proposal, a category with an unvalued feature looks for a goal in its c-command domain with the same feature, but valued, so that the latter values the feature of the category in question. As a functional category, the AP Izafe is assumed to enter the derivation from the lexicon carrying [DEF] as an uninterpretable feature which is unvalued, since this feature on the Izafe does not provide any semantic information to the nominal phrase. A licit syntactic structure, then, is one that includes a functional category bearing a valued [DEF] feature so that it will give the same value to Izafe. The category D in the structure is the source of referential, hence definiteness interpretation to the whole nominal construction. When realized by the definite article, D holds [+DEF] which is simultaneously interpretable and inherently valued. Along the lines of Chomsky (2000), only unvalued features may probe. Accordingly, Izafe with an unvalued DEF feature functions as a probe searching for a goal, where the right target carrying a matching valued feature is a D category realized by a definite article.[45]

The current analysis is consistent with Chomsky's (2000, 2001) model of Agree with regard to the bi-conditional relation between the interpretability of a feature and its value according to which if a feature is interpretable it is valued, and vice-versa. However, in view of the structure given above (see 44a) the agreement is at odds with Chomsky regarding the c-command relation between the probe and the goal according to which the former must c-command the latter. I have already assumed that Izafe is the probe and D is the goal (44a); this being the case, then it is the goal that c-commands the probe not the other way round, suggesting that the agreement process occurs upwards as far as the probing direction is concerned. That is, the probe/goal agreement within the CK nominal phrase between Izafe and the definite article is a mirror image of, hence the opposite of what Chomsky has proposed concerning such a structural c-command relation.

An upward agreement relation, where a probe is c-commanded by a goal instead of c-commanding it, is cross-linguistically attested. Contra Chomsky (2000, 2001), Bošković (2007)

[45] It should be pointed out that [±DEF] is considered by some scholars as a nominal phi-feature within the nominal phrase in a similar fashion as person, number and tense in the verbal domain. That is, the feature [±DEF] is included in the bundle of DP-internal agreement features such as number, case and gender in languages like Standard Arabic (see Shlonsky 2004; Siloni 1990, 1997) or Balkan languages other than Greek (see Dimitrova-Vulchanova and Giusti 1998).

and Epstein and Seely (2006), it is argued that the directionality of Agree is not so rigid and is plausibly more flexible than was previously attested (see Adger 2003; Baker 2008; Béjar and Rezac 2009; Carstens 2016; Wurmbrand 2012; Zeijlstra 2012). In fact, Wurmbrand (2012) and Zeijlstra (2012) have argued that the operation Agree is invariably upwards with the goal c-commanding the probe instead of being c-commanded by it. Baker (2008), on the other hand, proposes that the operation Agree can proceed both upwards and downwards, assuming that this directionality in agreement is a property liable to parametric variation. In view of this, Toosarvandani and Van Urk (2012) argue that nominal concord on Izafe in the Zazaki dialect of Kurdish is bidirectional, such that the agreement involving number, gender and definiteness features occurs upwards, while agreement involving Case is established downwards.

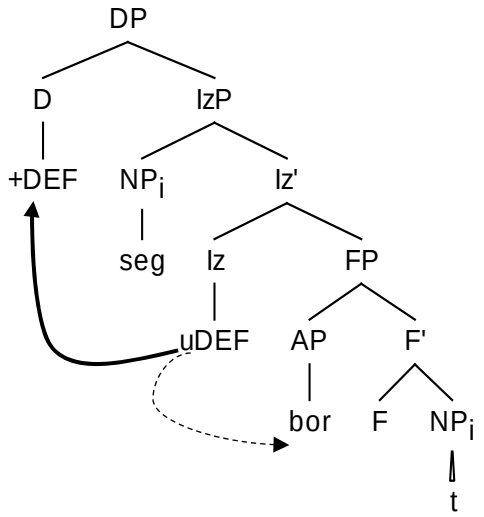
Baker's (2008) proposal, according to which agreement occurs either downwards or upwards, is consistent with nominal concord in the CK nominal phrase. This is mainly because: on the one hand, the agreement established between the category D and the AP Izafe in DEF feature occurs upwards (in section 3.3.2 I also argue that a similar upward agreement relation in Case feature is established between Izafe and a c-commanded DP). On the other hand, the unvalued EPP feature on the Izafe head (as well as on D) looks downwards and is satisfied by attracting the NP the Izafe category c-commands to Spec Izafe. I have already demonstrated that the unvalued EPP feature on Izafe looks downwards to its c-command domain where it raises the NP to Spec Izafe (see 3.2.1). Accordingly, the EPP as an unvalued feature c-commands the category it attracts (the NP) in the structure, suggesting that the probing direction is downwards. With this in hand, the agreement process within the CK nominal phrase should be in line with Baker (2008) that the direction of agreement is subject to parametric variation where the probe/goal agreement operation can occur either upwards or downwards.

Thus, my assumption is that a potential probe within the nominal phrase first searches for a goal in its c-command where a successful agreement operation depends merely on the availability of an appropriate goal with the same feature as the probe, but valued. However, lack of such a goal in the c-command domain of the probe leads the latter to reversing the search this time upwards to a position c-commanding it. This is what I assume to be the agreement operation occurring between Izafe and the category D in the CK nominal phrase. As pointed out further above, the Izafe category is assumed to be the probe with an unvalued DEF feature, while the category D realized by the definite article is the goal.[46] Observing the structure in (44a, repeated

[46] For an analysis of a rather different unvalued D feature on the functional category of tense (T) in the clausal domain, see Holmberg (2005, 2010), Holmberg and Roberts (2013) and Roberts (2007).

below as 47 with some modification), it seems that the probe-goal agreement between Izafe and D (realized by–*eke*) is a mirror image of, hence the opposite of Chomsky (2000, 2001) concerning the c-command relation. Thus, when merged as a functional category, Izafe is assumed first to probe downwards for a goal, as denoted by the dotted arrow in (47). Since neither the AP nor the NP below it holds a DEF feature, Izafe fails to find a goal with a matching feature in its c-command, hence, the Agree relation is not achieved. However, when the D (with the definite value) is merged, the feature then becomes available for Agree. The Izafe then reveres its search (see the black arrow) and this time looks upward for (and finds) the goal with which it establishes the agreement.[47]

(47)

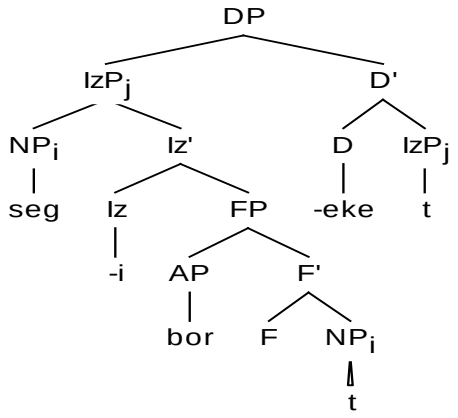


Merger of the definite article at D and the ensuing valuation of the same feature on the Izafe category ensure that the whole nominal phrase is interpreted in the discourse as definite and results in Izafe getting realized as *-e* (see 44a). So, the derivation proceeds with IzP moving and ending up at Spec DP (44b). Subsequently, following Chomsky's (2000, 2001, 2007) proposal that interface requirements require the disposal of all the uninterpretable features at LF, the uninterpretable DEF feature on Izafe is deleted in the derivation of LF, but is spelled out as -e at PF, and the derivation converges. The question arising here is: why can Izafe as a probe not establish Agree with D after (not before) the whole IzP later moves to Spec DP, in which case this shift in the direction of probe/goal Agree relation would not occur? This could even be seen as the trigger of the movement (see Chomsky 1995, 2000 and 2001). In relation to this,

[47] This agreement Izafe (Iz) exhibits in definiteness is in line with Chomsky (1995, and subsequent work) according to which agreement heads do not independently form syntactic categories of their own. Hypothetically, they are parasitic on other head positions (features). In other words, they are invariably associated with heads bearing other features which are morphologically realized (see also Holmberg and Roberts 2013).

Bošković (2007) and Pesetsky and Torrego (2004) argue that when a probe with an unvalued feature is c-commanded by a goal with a matching valued feature, this may trigger movement of the probe or a constituent containing it; this movement must target a position where the probe c-commands the goal and establishes agreement with it. However, upon closely observing the structure in (48), where the IzP as a probe has moved up to Spec DP, it follows that the proposal in question does not work for the CK Izafe construction.

(48)



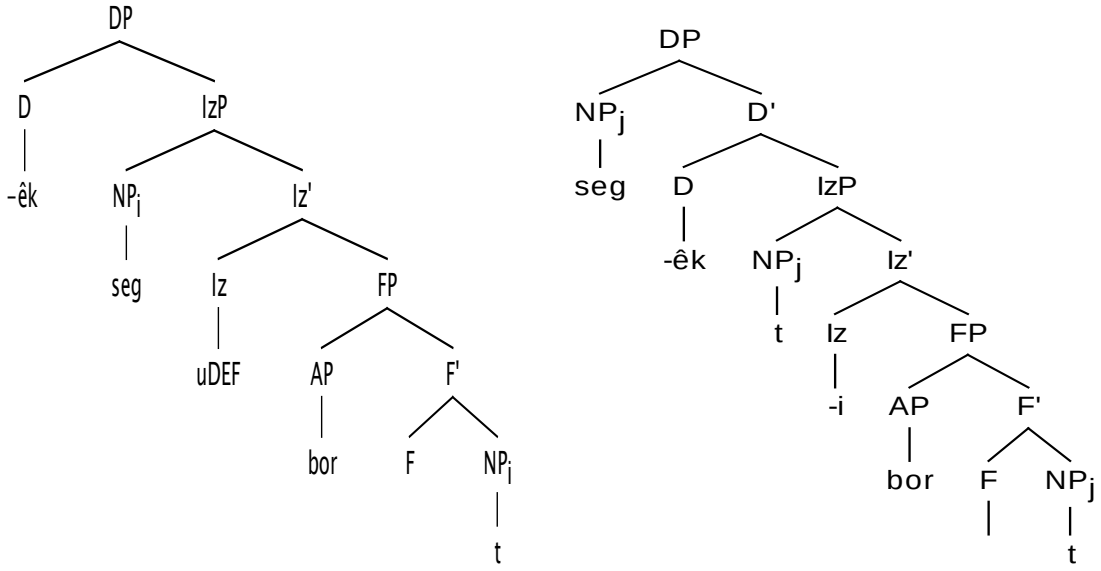
Given this structure, the agreement on Izafe cannot be established after IzP is raised to Spec DP due to the c-command relation, an essential and widely-supported principle that plays a key role in syntactic operations, especially Agree. Cross-linguistically, agreement does not depend on any other structural relation as heavily as it does on c-command. After the movement, the unvalued DEF feature on Izafe cannot c-command the goal (the D) as it is buried (embedded) inside the IzP, hence, the agreement between the two categories fails to obtain, causing the derivation to crash at LF, on account of containing an unvalued feature. This further suggests that this agreement operation must occur before movement of the IzP to Spec DP on c-command grounds. Otherwise, the result would be an ungrammatical construction shown below, where the Izafe does not exhibit agreement and is therefore wrongly spelled out as *–i*.

(49) *seg-i bor-eke
dog-IZ grey-DEF
intended meaning: 'the grey dog'

As regards agreement of Izafe in non-definite constructions, I argue that Izafe does not establish Agree with D except when D is definite. When the category D is realized by the indefinite article *–êk* (50a) or is null as in generic constructions, the result is that the unvalued DEF feature on Izafe is valued by default, gets deleted and is realized as *–i* at PF after the NP *seg* 'dog'

moves to Spec DP (see the structure in 50b and the construction in 51).[48] Thus, Izafe is realized either as *–e* when it establishes Agree with D realized by the definite article, or as *–i* (by default) elsewhere in indefinite or generic constructions.

(50) a. b.



(51) seg-êk-i bor
dog-INDEF-IZ grey
'a grey dog'

Keeping in line with Carstens (2000:330) that agreement within the nominal phrase (she calls it nominal concord) generally generates multiple instances of the same feature, it is argued that the AP Izafe exhibits agreement in definiteness as many times as it recurs in the structure. Thus, when the noun *seg* 'dog' in (43), repeated below as (52a) is modified by more adjectives as in (52b), more Izafe categories are required to project, and, consequently, all Izafe occurrences need to agree with D in definiteness.

(52)

a. seg-e bor-eke
dog-IZ grey-DEF
'the grey dog'

[48] The reason why the NP in (50b) cannot pick up other constituents (such as the IzP and AP) with it to Spec DP in the same fashion as attested for definite DPs is plausibly due to lack of agreement in DEF feature between Izafe and D, which would, otherwise, force IzP and all the categories it contains to move to Spec DP. The topic is further investigated in the following chapter.

b. seg-e bor-e zıl-eke
dog-IZ grey-IZ big-DEF
'the big grey dog'

One objection to this analysis in the face of (52b) concerns the number of DEF features on each Izafe category on the one hand and the correspondent feature on the category D, on the other. Notice that there are two instances of Izafe (each with a DEF feature to be valued), whereas there is a single DEF feature valued on D. Syntactic agreement is standardly assumed to occur between two categories: one with an unvalued feature and the other holding the same feature valued. So, if the agreement in question involves the valuation of a feature on a given category by a second category with a matching valued feature, the single DEF feature on D could not give value to both Izafe elements. Likewise, if agreement is established between the category D and only one of the two Izafe elements, the DEF feature on the other Izafe category would remain unvalued, and be realized as *–i* (53a or b), resulting in an ungrammatical construction.

(53)

a. *seg-e bor-i zıl-eke
dog-IZ grey-IZ big-DEF
intended meaning: 'the big grey dog'

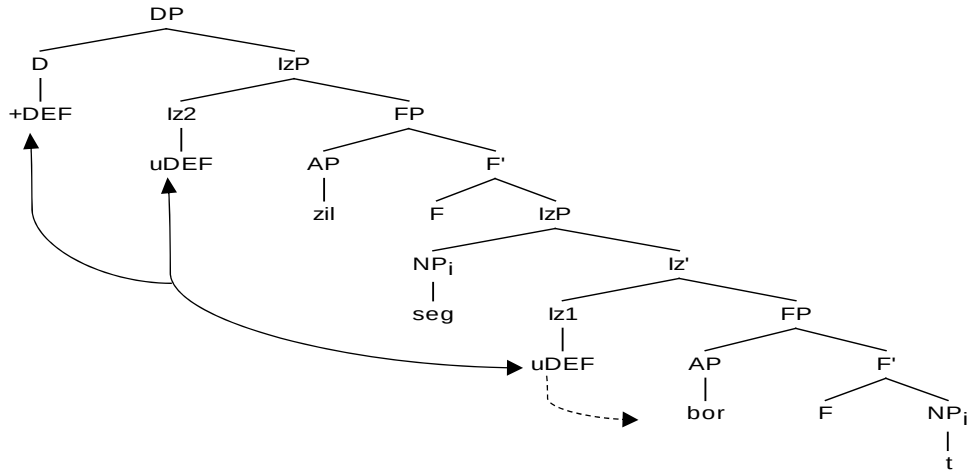
b. *seg-i bor-e zıl-eke
dog-IZ grey-IZ big-DEF
intended meaning: 'the big grey dog'

However, this problem can be solved if agreement is viewed as a feature sharing operation, a seminal proposal formulated by Pesetsky and Torrego (2007: 268). The feature sharing hypothesis roughly states: when a probe with an unvalued feature searches for a matching valued feature, and finds another node with the same feature also unvalued, an agreement between these two occurrences of the same feature is established. This agreement combines two instances of a single feature, which are suffering from lack of a value.[49] The probe keeps searching, and as soon as it finds a category with a matching valued feature, the unvalued features on both nodes will immediately be valued. Pesetsky and Torrego are not the first to

[49] It should be pointed out that Pesetsky and Torrego's (2007) analysis addresses downward agreement relations within a clause where the probe searches for a goal in its c-command domain. Thus, although the present analysis examines nominal concord with an upward direction of agreement, Pesetsky and Torrego's proposal can still be extended to it. See also González-Rivera and Delicado-Cantero (2011) for an account of definiteness feature sharing process within the Spanish nominal phrase.

advance the concept of feature sharing in agreement operations; the contention has been proposed earlier in the Minimalist Program (see Brody 1997: 158–159; Frampton and Gutmann 2000; Frampton *et al*. 2000, cited in Pesetsky and Torrego's 2007: 268).[50] In a structure with two Izafe categories (54), the lower Izafe category (labelled Iz1) with an unvalued DEF feature is merged first, and is therefore the first to probe for a valued DEF feature, by the principle that operations occur as soon as they can (Pesetsky's (1989) Earliness Principle). As shown above, Iz1 with an unvalued DEF feature first probes downwards to its c-command domain where the search fails due to lack of a matching valued feature, hence, probing direction is reversed. When Iz2 is merged, a connection is established between the DEF properties of these two categories such that they have now set up a link, sharing the same unvalued feature as indicated by the two-head arrow in (54). Further, the operation allows the valuation of DEF on either of the Izafe heads to be delayed until a higher head is merged which carries a valued DEF feature.

(54)



The probe, which is now a chain containing both Iz1 and Iz2, carries on its search upwards and finds the category D holding a DEF feature valued with which the operation Agree is accomplished. Since the DEF feature on Iz1 has already agreed (hence, formed a link) with its matching counterpart (Iz2), the agreement in question between Iz1 and D automatically brings about the concomitant valuation of the feature on Iz2 as well, because the two are now instances of the same feature.[51] The essential point regarding the structure is that one instance of the DEF

[50] A similar proposal of feature sharing is put forth by Frampton and Gutmann (2000) roughly claiming that two nodes (n1 and n2, for instance) both bearing the same unvalued feature can enter an agreement relation that will have the effect of joining them to each other. An agreement subsequently obtaining between n2 and a third node (n3) that holds a matching valued feature, values not only the feature on n2, but also the one on n1.

[51] Danon (2008) also adopts Pesetsky and Torrego's (2007) notion of feature sharing to account for (and replace) the definiteness spreading phenomenon within the construct state nominal phrases in Hebrew.

feature on Izafe is valued indirectly, taking the standard assumption that feature sharing is a transitive relation. The desired consequence here is that after the DEF feature is valued on both Izafe categories, they are both spelled out as *–e*, as they should be, and the derivation proceeds.[52]

Recapitulating, I argue that agreement is established between the AP Izafe and D in CK. I have offered empirical evidence that the agreement is purely syntactic and must occur within the syntactic derivation prior to the PF level. As far as the interpretability of DEF feature and its valuation is concerned, I claim that the analysis abides by Chomsky's (2000, 2001) probe/goal operation Agree, such that interpretable features are inherently valued and uninterpretable features are unvalued. However, as regards the c-command relationship between the probe and the goal, I argue that the CK nominal phrase is in line with Baker (2008) according to which probe/goal Agree operations can occur either downwards or upwards. While, the unvalued EPP feature on Izafe looks downwards and is satisfied by movement of the NP it c-commands to a position above it, respecting Chomsky (2000, 2001), I argue that the agreement between Izafe and the category D militates against Chomsky (2000, 2001) in the sense that it is established upwards with the probe (Izafe) being c-commanded by the goal instead of c-commanding it. I also demonstrate that when there is more than one probe with an unvalued DEF feature, but only a single goal with the same feature valued on it, a feature sharing agreement obtains first between the two unvalued features. The probe, then, keeps searching upwards; upon finding the goal (D) with a matching valued feature, the two unvalued features on the two Izafe categories will be instantly valued, and the derivation proceeds. Finally, as pointed out above, the NP Izafe is also assumed to bear a Case feature, which establishes agreement with a DP it c-commands on which the Case is morphologically realized. The following section, then, addresses the agreement in Case between NP Izafe and the DP it c-commands.

3.3.2 Agreement between NP Izafe and DP in Case feature

This section investigates the agreement associated with Case assignment between the NP Izafe and the DP it precedes. As pointed out above, the NP Izafe is different from the AP Izafe in that it always introduces a DP modifier which is morphologically marked by the suffix *–i* for oblique

[52] In Chomsky's (2000, 2001) theory it is crucial that the goal should also have an unvalued feature, in addition to the valued feature which is copied by the probe. The unvalued feature is required to make the goal 'active' (the so-called activity condition), hence visible to the probe. Thereafter, the goal is not available for any further agreement relations; it is 'deactivated'. The current analysis in which the goal (D) can give DEF feature value to more than one Izafe probe challenges Chomsky's activity condition. The goal would, otherwise, get deactivated after valuing a single Izafe probe, resulting, wrongly, in the other Izafe instances to remain unvalued and the derivation to crash. For more objection against Chomsky's (2000, 2001) activity condition, see Bobaljik (2008), Carstens (2016), Koppen (2005), Levin and Preminger (2015) and Preminger (2011).

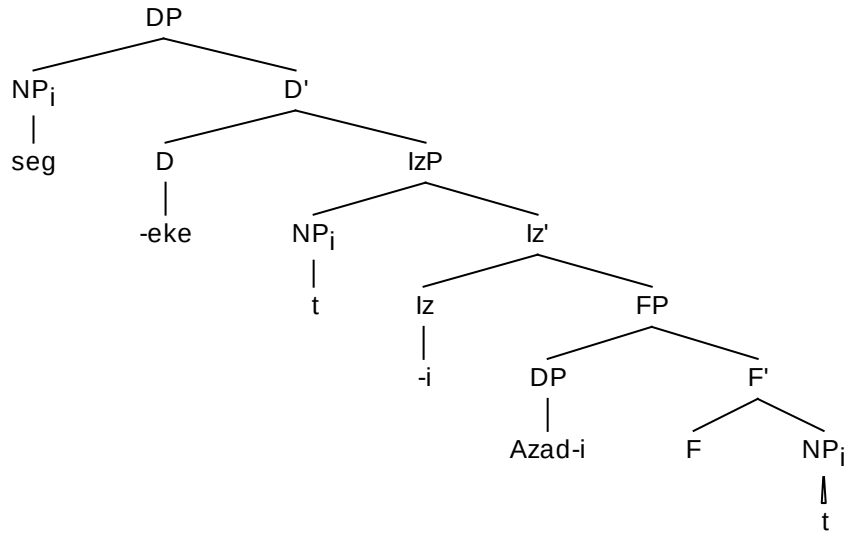
Case. Consider the following examples and the structure in (56) representing the construction in (55a).

(55)

a. seg-eke-i Azad-i[53]
dog-DEF-IZ Azad-CASE
'Azad's dog'

b. seg-i pyaw-eke-i
dog-IZ man-DEF-CASE
'the man's dog

(56)

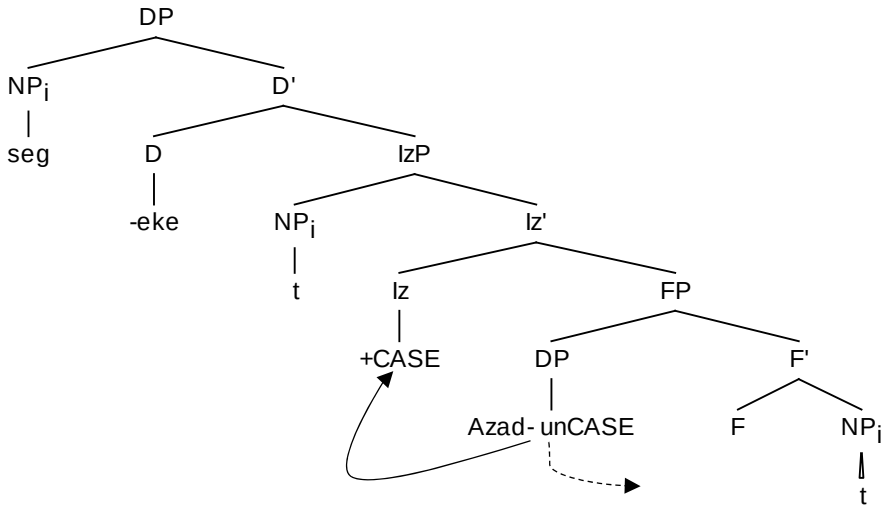


Here, the Izafe category is assumed to be responsible for assigning Case to the DP it c-commands. This is in line with Kayne (1994: 85-6) who proposes a similar account of *of* in English, an analysis which is also adopted by Holmberg and Odden (2004) for this type of Izafe in Hawrami, as well as by Toosarvandani and Van Urk (2012) for Zazaki. Adopting Chomsky's (1995: ch. 4, 2000, 2001) mechanism of Case assignment, structural Case is a feature valued on the Case-assigning category, but unvalued on the Case assignee. In addition, the Case feature is taken to be uninterpretable as it does not have any semantic content on either category, hence is considered to be a purely syntactic phenomenon (see Chomsky 1995: ch. 4, 2000, 2001). Thus, the NP Izafe is assumed to hold the valued Case feature, while the DP which is

[53] It is worth mentioning that the kind of oblique Case in question is not realized in all varieties of CK; the Case morphology has already eroded in some CK varieties including Sulaimanyah and Garmyan varieties (see, also, Holmberg and Odden 2008: 11 for a similar kind of oblique Case in Hawrami).

c-commanded by Izafe and is morphologically marked for Case, bears the Case feature unvalued. In light of the proposal raised above concerning the probing fashion, the unvalued Case feature on the DP is assumed to probe downwards first to its c-command to find a goal with a matching valued Case feature. Failing to find such a feature downstairs, though (see the structure in 57), the probe switches its search direction this time upwards to its c-commanding domain where it finds the goal, *Iz*, with a matching valued feature. Thus, the two categories establish Agree, resulting in the Case feature getting valued and realized by the suffix *–i* on the goal (the DP). I have already demonstrated that the unvalued EPP feature on Izafe looks downwards and is satisfied by moving the NP (or a category containing) in its c-command. With this in mind, the current analysis regarding agreement in Case feature is compatible with the hypothesis that the direction of nominal concord within the CK nominal phrase is bidirectional, occurring either upwards or downwards depending mainly on the availability of a matching valued feature (see Baker 2008).

(57)



This structure was previously proposed (section 3.2.2) to account for the derivation of the NP Izafe. As argued above, the NP *seg* 'dog' moves up to Spec IzP first and then further up to Spec DP. Notice that the second movement operation from Spec IzP to Spec DP does not involve pied-piping the other categories the NP has crossed en route, as was the case with the derivation of the AP Izafe. This difference between AP and NP Izafe can plausibly be attributed to agreement. Recall that in the case of AP Izafe, the Izafe head agrees with D in definiteness. That Agree relation between AP Izafe and D entails that the IzP has priority for movement to Spec DP (the EPP-feature on D will attract the category that it agrees with, if there is one;

Chomsky 1995: ch. 4). In (57), where there is no Agree relation between D and Izafe, D attracts the subjacent NP alone.

To sum up the main points of this section, I argued that the NP Izafe assigns oblique Case to a c-commanded DP in the sense of Chomsky's (2000, 2001) probe/goal agreement. The functional category *Iz* is argued to bear a Case feature which is valued, while the c-commanded DP carries the same feature, but unvalued. In light of the structure in (57), the operation agreement in Case occurs between the category *Iz* and the DP within its c-command where Case on the latter is valued by the *Iz* head. In this respect, I argued that the agreement is established upwards (after failing to be established downwards) in a similar pattern as attested for the AP Izafe in DEF feature (3.3.1). This lends additional support to the assumption that the direction of nominal concord in CK is either upward or downward along the lines of Baker (2008). Finally, I explained that the NP Izafe projection (IzP) cannot be pied-piped up to spec DP along the NP after the latter moves up past the IzP and other categories contained in it. As a result, the category D attracts only the NP but leaves the IzP in situ. This is plausibly because the NP Izafe does not establish agreement with D in definiteness, unlike the AP Izafe. In other words, since the DEF feature on D does not agree with the Izafe projection (IzP) that contains NP, then the NP moves up alone and the roll-up movement pattern exhibited by the AP Izafe does not occur.

3.4 Concluding remarks

In this chapter, I examined the syntax of Izafe construction in CK, focussing on its derivation within the nominal phrase. Two types of Izafe are attested in CK: AP and NP Izafe. The nominal phrase with an AP Izafe is derived by a roll-up movement of the NP and all other c-commanding categories it passes while moving upwards. By contrast, the NP Izafe construction is derived by NP moving alone from its base merge position up to Spec DP without pied-piping any c-commanding categories included in its extended projections.

I also claimed that Izafe holds agreement features, where the AP Izafe has a DEF feature and the NP Izafe has a Case feature as it assigns oblique Case to a DP it c-commands. In this respect, I demonstrated that agreement in the nominal phrase is particularly intriguing. The contention regarding agreement on Izafe is as follows. The AP Izafe has a DEF feature which is both uninterpretable and unvalued (uDEF feature). It establishes Agree with the c-commanding category D realized by the definite article, carrying the same DEF feature which is both interpretable and valued. The result is that the DEF feature on Izafe is valued and the category is realized as *–e*, respecting the agreement. However, when D is realized by the indefinite

marker -*êk* (or is null in generic constructions), the DEF feature on Izafe is valued by default and is spelled out as *–i*. I also argued that the NP Izafe as a Case-assigning category holds a valued Case feature and agrees with a DP in its c-command, holding the same feature, but unvalued. Consequently, the Izafe category values the Case feature on the DP in question and the derivation proceeds.

I also proposed that the two types of Izafe construction is derived differently most plausibly due to agreement in DEF on the Izafe category. That is, since the AP Izafe agrees in DEF feature with D c-commanding it, the D category attracts the IzP and whatever categories it contains to Spec DP. However, due to lack of agreement in DEF between D and the NP Izafe, the former fails to raise the IzP (and other categories it contains) to its Spec. Consequently, the NP is moved to Spec DP alone, and the roll-up movement will not be an option.

As for the directionality of agreement, I claimed that both Izafe types establish upward agreement relation according to which it is the goal that c-commands the probe, not the other way round. The AP Izafe category is a probe with an unvalued DEF feature, which first searches downwards for a goal carrying the matching valued feature. However, since it cannot find such a feature in its c-command, Izafe reverses probing upwards to its c-commanding domain where it establishes Agree with the goal (D with a valued DEF feature). Likewise, the DP modifier c-commanded by the NP Izafe carries a Case feature which is unvalued and probes upwards for a goal in its c-commanding domain, after failing to find the goal in searching downwards in its c-command domain. As soon as the NP probe finds the NP Izafe head with a matching but valued Case feature, upward agreement between the two categories is established leading to the unvalued Case feature on the DP getting valued, and the derivation can carry on.

In the end, it is already observed that two definite articles occur in CK *–eke* and *–e* both establishing agreement in DEF feature with the AP Izafe category. While the former is considered the primary definite article, the latter is assumed to be secondary marker of definiteness as it always occurs with the demonstrative elements. One could ask: should the enclitic *–e* be treated as a definite marker? If it is, is there any syntactic difference between these two markers of definiteness, and are they both spelt out by the same functional category? Assuming, prima facie, that they don't, does this discrepancy lead to differences in their interpretation? In other words, how could definiteness in CK be brought about in view of two definite articles? Further, in the absence of either of these two articles, is the nominal phrase in CK interpreted as indefinite or generic? Does the inflectional element *–êk* function as an indefinite marker or it is just a suffix which is diachronically grammaticalized from the numeral

yêk ‘one’ to mark singularity as claimed by Lyons (1999: 95)? In the following chapter, I will investigate all these questions and try to find appropriate answers to them.

Part II. Definiteness, Number and Quantification

Chapter 4. The Structure and Realization of (In)definiteness in CK

4.1 Introduction

This chapter investigates the syntax of definite and indefinite DPs in CK, illustrating how a DP is identified as definite or indefinite, what category determines such identification and where these categories are generated. I show that the CK nominal phrase is principally a projection of the functional category D (Following Abney 1987). However, along the lines of Giusti (1992, 1997), Lyons (1999) and Szabolcsi (1994), I argue that this D head pertains exclusively to the definite or indefinite articles, and cannot host other determiners such as quantifiers and demonstrative articles.[54]

Based on the DP-internal word order, I will examine the hierarchical relation between the noun and the (in)definite markers. Observing the non-lexicalist theory, the category D in CK is argued to merge above the nominal projection (NP) in the structure, but ends up below it after NP moves to a position above it. In this respect, if movement is always triggered by some feature (Biberauer *et al*. 2014; Chomsky 2000, 2001, 2008), I argue that the category D carries an EPP feature, triggering movement of NP or a projection containing it to a higher position where it asymmetrically c-commands the head. Thus, the derivation of a definite or indefinite DP in CK converges only when the relevant NP remerges with D in Spec DP.

As regards the discourse-related categories, I demonstrate that definiteness is realized by two distinct definite markers, *-eke* and *-e*. For reasons that will become clear later on (4.5.2), I call *-eke* the primary definite article, while *–e* (which invariably co-occurs with demonstratives) is labelled the secondary definite article. Having different distributions in relation to the plural marker *-an,* and the definiteness-related features each element carries, the proposal I formulate is that the two definite markers are realized by two structurally distinct D categories. In this connection, I will claim that two DP layers project above NP with the lower D realizing the main definite article *–eke*, and the higher D spelling out the secondary definite marker *–e*, as well as the single indefinite article *–êk*.

The chapter is organized as follows. Section 4.2 presents some cross-linguistic theoretical background on the nominal phrase and its treatment as DP. It also provides the main

[54] Two parts of this chapter were presented at two international conferences: (i) Titled 'Two DP Layers within the Central Kurdish Noun Phrase' presented at the 1st North American Conference in Iranian Linguistics (April 2017, Stony Brook University/ New York). (ii) Titled 'Definiteness, Specificity and DP Shells in Central Kurdish', presented at the 40th Annual Meeting of the DGFS (Deutsche Gesellschaft Fur Sprachwissenschaft (March 2018, University of Stuttgart/ Germany).

assumptions regarding DP-internal functional categories related to (in)definiteness and the functions they serve in CK. Section 4.3 documents the essential data investigated and the questions to be tackled in subsequent analyses. Section 4.4 investigates the syntactic status of *–e*, providing empirical evidence that the inflection is a marker of definiteness. In 4.5, the structure of definite DPs is explored, where mention is made of two DP layers projected by the two definite markers *–eke* and *-e.* An account is given, in the same section, of number as a functional category, whose occurrence has a considerable impact on the emergence of the two DP levels. In 4.6, I examine indefinite DPs, addressing the derivation and interpretation of such projections. Section 4.7 concludes.

4.2 From NP to DP: theoretical background and basic assumptions

Within the framework of Generative Grammar, a nominal phrase was first considered to be the projection of the head noun, whereas other accompanying elements such as articles, determiners and adjectives were modifying elements occupying the specifier position of the noun (see Jackendoff 1977). This assumption was first opposed by Brame (1981, 1982) and subsequently by Szabolcsi (1983) and Abney (1986), who claimed that the head of a nominal phrase could be a determiner rather than a noun. This hypothesis was then followed by the seminal contribution of Abney (1987) who, drawing an analogy between a nominal phrases and a clause, developed a DP analysis of nominal constructions according to which a nominal phrase is headed by a functional category D with NP as its complement.[55] In light of the DP Hypothesis and the great importance given to functional categories in explaining syntactic relations, it is assumed that any lexical or inflectional category that has a grammatical function and provides additional semantic content to the structure is the head of a maximal projection (see, for instance, Chomsky 1995; Fukui 1986; Giusti 2005; Hudson 1989; Ouhalla 1991; Szabolcsi 1994).

As regards the role of such functional heads in characterizing the accompanying NP, it is postulated that a nominal phrase is considered an argument if and only if it is introduced by a D category. In other words, only DPs can function as arguments, and it is the presence of a

[55] On the clausal level, Pollock (1989) argued for the existence of more functional categories above the VP including AgrP and NegP, and the ensuing verb-raising analysis to account for the word order differences between English and French within the clause. This further led to a reanalysis of the nominal phrase as well, where the NP came to be viewed as dominated by several functional projections with accommodating positions to which both heads and phrasal categories can move. Thus, following Abney's (1987) DP hypothesis, Ritter (1991, 1992) also argued for the functional projection of plural morphology, number marking more generally, between the NP and DP, a topic further elaborated in the next chapter. See also Salzmann (2018) who, based on the notion of a headedness property and DP-internal agreement in Bosnian, Croatian and Serbian, provides a strong argument in favour of the DP hypothesis.

functional D head that licenses the whole nominal construction and instantiates argumenthood. Accordingly, any nominal argument position in the sentence is arguably saturated by DP, not NP (see Borer 2005; Giusti 2005; Longobardi 1994, 2001; Stowell 1989; Szabolcsi 1994).

All these assumptions lend further support to the DP account of the nominal phrase. Relevant to the discussions in this chapter, though, are the functional categories pertaining to definiteness and indefiniteness, two hotly-debated morphosyntactic notions that have drawn much attention in the recent literature on syntax. The principal aim of these works is to address how nominal projections are cross-linguistically characterized as definite or indefinite. Some languages including English, French and German employ free morphemes to render the DP definite or indefinite, while others, under which CK is classified, make use of inflectional elements, such as Norwegian, Danish and Icelandic (see Gil 1987; Julien 2002a, 2005). Thus, the presence of inflectional elements to express (in)definiteness in CK further instantiates the assumption that its nominal phrase should be the projection of the category D. This is because, apart from their morphological realization, the inflections provide additional contextual meaning to the nominal phrase, rendering it (in)definite. As noted above, although the CK nominal phrase is argued to be the projection of a functional category D, this category only realizes (in)definite markers and cannot realize other articles such as quantifiers and demonstratives.

In their research on Hawrami, Holmberg and Odden (2004, 2008) take the inflection *-eke* as the head of DP. This contention is extended to the current analysis where the inflectional element *-eke* serves the same function, marking definiteness. Thus, it is posited that the nominal phrase in CK is headed by a functional D category realized by *–eke,* which links the nominal predicate to the context or previous discourse. The inflection *–e*, which co-occurs with demonstratives, is also argued to be a marker of definiteness, realized by the category D. In this respect, I will propose that two DP layers project in CK. While the main definite marker *–eke* is argued to project a DP above a relevant NP, the secondary definite marker *-e* and the indefinite marker *-êk* are attested to head a separate DP projection further above the DP realized by *-eke*.

In his analysis of the Izafe construction in CK, Karimi (2007) offers a brief analysis of definite DPs, postulating that a functional head D projects a DP realized by *-eke*. However, he leaves several questions unanswered regarding other markers of definiteness and indefiniteness, realized by *–e* and *–êk*, respectively. So, the question of where these articles are spelled out and whether they are all realized by the same or distinct D positions are yet to be answered. This chapter, then, provides an appropriate analysis regarding the realization of (in)definite markers, their merger position, and their role in deriving the DP projection.

4.3 The data

A nominal phrase in CK is interpreted as definite when it contains the definite marker *–eke*, but as indefinite when it contains *–êk.* The term definite is used here to characterize a noun which denotes an entity already established in the context where the interlocutors necessarily share some knowledge about it (see Aboh 2004a; Campbell 1996; Diesing 1992; Enç 1991; Heim 1982; Ihsane and Puskas 2001; Kamp 1981; Lyons 1999; Pesetsky 1987). However, when the noun is in its bare form, it is interpreted as generic. Further, the inflection *–e* co-occurring with demonstratives also attaches to the end of the nominal phrase, marking definiteness, a topic further elaborated below. Thus, apart from the plural marker *–an,* which is brought into the discussion whenever required, three functional inflectional elements are addressed in this chapter: the two definite markers *-eke* and *-e,* and the single indefinite marker *-êk*.

As far as its nominal phrase is concerned, CK has copious morphological constructions; a single noun can lend itself to hosting various inflectional categories. Each of these inflections serves a specific grammatical function and provides a particular semantic reading to the nominal phrase. The inflections include, among others, the indefinite suffix *-êk* (1b) and the definite marker *-eke* (1c). Consider the examples below:

(1)

a. Saman sêw dexɪw-at
   Saman apple eat.PRS-3SG
   'Saman eats apples' (generic reading)

b. Saman sêw-êk dexɪw-at
   Saman apple-INDEF eat.PRS-3SG
   'Saman eats an apple'

c. Saman sêw-eke dexɪw-at
   Saman apple-DEF eate.PRS-3SG
   'Saman eats the apple'

The noun *sêw* 'apple' in its bare form (1a) has a generic reading, while in (1b), where it is provided with *-êk*, it is interpreted as indefinite. The same noun in (1c), which is provided with the definite marker *-eke,* has a definite interpretation.

In addition, the element '*-an'* marks plurality in CK. This inflection follows a generic noun in its bare form (2a), or the definite marker *-eke* when the nominal phrase is definite (2b).

(2)

a. pyaw-an
   man-PL
   'men'

b. sêw-ek-an[56]
   apple-DEF-PL
   'the apples'

Likewise, it should come as a surprise that an indefinite noun can be accompanied by the plural number marker *-an*, a case which is, to the best of my knowledge, rarely attested cross-linguistically. In (3), the noun *kes* 'person' has both the plural marker *-an* and the indefinite morpheme *-êk,* suffixed to it.

(3) kes-an-êk he-n zor hel perıst-ın
person-PL-INDEF have.PRS-3PL very opportunity worshipper-3PL
'There are (some) people who are very opportunist.'

In addition, there are two demonstrative articles in CK which have a significant bearing on definiteness effects: the proximal *em* 'this' and the distal *ew* 'that'. These demonstratives always precede the noun, and they are obligatorily accompanied by a postnominal enclitic element '*–e'* attaching to the noun (4a, b) or to the end of a postnominal modifier (4c):

(4)

a. em sêw-e
   this apple-DEF
   'this apple'

b. ew sêw-an-e
   that apple-PL-DEF
   'those apples'

c. ew sêw-e sewz-an-e
   that apple-IZ green-PL-DEF
   'those green apples'

[56] A detailed account of number, together with quantification, is presented in chapter five.

When the nominal phrase undergoes ellipsis (see 5a), the enclitic *-e* must appear contiguously with the demonstrative, where the construction is used as a pronominal argument. Additionally, plural demonstratives occur only when they are used pronominally (5b).

(5)

a. Saman em-e dexɪw-at
Saman this-DEF eat.PRS-3SG
'Saman eats this.'

b. Saman ew-an-e dexɪw-at
Saman that-PL-DEF eat.PRS-3SG
'Saman eats those.'

Moreover, demonstratives are in complementary distribution with the definite marker *–eke*. In relation to this, one might consider the example below as counterevidence to this assumption, where, at face value, the demonstrative article and *–eke* co-occur, with the latter attaching to the former.

(6) ew-eke-i ke
that-DEF-IZ other
'the other one'

However, I argue that the morpheme *–eke* here is a combination of the numeral y*ek* 'one' and the definite marker *–e*. As is further explained from the English translation, the construction must have derived from that in (7), where the numeral is treated as a noun and is interpreted as *person* or *somebody*. This is further illustrated considering the fact that demonstratives in CK are always followed by a noun to which the co-occurring definite marker *–e* is attached as given below (see also the examples in 4).

(7) ew yek-e-i ke
that one-DEF-IZ other
'the other one'

In light of these data, a number of questions arise as to how an (in)definite DP is derived and what problems might ensue. The first question is whether the morpheme *-e*, for instance, in (4a, b, c) is indeed a definite marker. If it is, does it serve the same grammatical function as the main definite marker *-eke*? Also, are the (in)definite markers all realized by the same D position in the derivation? Considering the morpheme order in the DP, the answer appears to be negative.

For instance, the two definite markers *-eke* and *-e* occur on different sides of the number marking, as shown below.

(8)

a. sêw-e sewz-ek-an
apple-IZ green-DEF-PL
'the green apples'

b. ew sêw-e sewz-an-e
that green-IZ apple-PL-DEF
'those green apples'

Given the distinct positions of the two definite markers in (8a and b), it is likely, then, that CK has two DP layers with two structurally different D positions. However, this assumption still raises more questions; for instance, why the two definite markers *-eke* and *-e* are spelt out by different D categories in the structure. Does this indicate a difference between the featural make-up of the two D categories such that one D position (realized, for instance, by *–e*) bears some feature not shared by the other D position (where *–eke* is spelled out)? Likewise, which of the two D categories might realize the indefinite marker *-êk*? The following sections, thus, address these questions.

4.4 The syntax of definiteness and the status of -e

Chomsky *et al.* (2002: 113-114) argue that the semantics of linguistic expressions appears to be divided into two components: the part that relates to thematic relations including patient, goal, experiencer, etc., and the one that has to do with the discourse such as new and old information, definiteness, topic, and so forth. According to Chomsky *et al*., thematic positions are structurally marked by pure Merge as in English and Chinese or via adpositions or inherent Case as in Sanskrit, Latin and Japanese. On the other hand, definiteness or specificity as a discourse-related semantic aspect is marked through Case as in Persian and Finnish, through Aspect (Russian), via syntactic position (Chinese) or sometimes via articles as in English and Swedish (see, also, Van Gelderen 2007: 276). Central Kurdish, in which the discourse-related reading of (in)definiteness is marked by overtly realized morphological elements, falls within the latter group.

A nominal phrase in CK is interpreted as definite when it is provided with the definite enclitic *-eke*, or when it occurs with the demonstratives *em* 'this' or *ew* 'that', which are obligatorily accompanied by the postnominal enclitic *-e*. It is not straightforward to determine the syntactic

role of *-e* in the demonstrative construction. In particular, it is not obvious whether this postnominal enclitic merely forms part of the prenominal demonstrative morpheme, together encoding the definite and deictic features, or it has an independent function in the DP. In what follows I will give an account of the status of the enclitic *-e*.

As the inflection *–e* always co-occurs with demonstratives, it has often been described in the literature as part of the demonstrative construction. Fattah (1997: 181), Öpengin (2013: 107) and Windfur (2009: 612) describe demonstratives as discontinuous constituents sandwiching the nominal phrase; i.e., the two elements in the construction have the same single role, together providing definiteness and referentiality to the nominal phrase. However, the evidence documented below seriously challenges this treatment of demonstratives. I argue that if mono-morphemic demonstratives across languages render their relevant nominal phrase both deictically referential and definite, CK bimorphemic demonstratives carry the two component features on separate heads; the pre-posed part of the demonstrative *em* 'this' or *ew* 'that' is argued to be the deictic expression marking distance or proximity, whereas the postposed enclitic *-e* marks definiteness. Several arguments are in order supporting this hypothesis.

First, a noun can take the suffix *-e* without the demonstrative morpheme being present. When it is used in a narrative, the postnominal enclitic functions as a definite article in a similar fashion as the main definiteness marker *-eke*. It attaches to an anaphoric noun that is previously introduced in the discourse, look at the following example.

(9) žın-êk ře-y de-kırd berew ême legeł du
woman-INDEF way-3SG PROG-make.PST towards us with two
mındał-eke-i, **žın-e** hawar-i de-kırd bo yarmeti
child-DEF-3SG woman-DEF shout-3SG PROG-make.PST for help
'A woman was running towards us with her two children; the woman was calling for help.'

Additional evidence supporting the inflection *-e* as an exponent of definiteness comes from the interrogative quantifiers *kam* 'which' and *ĉı* 'what'. The determiners *which* and *what* are cross-linguistically distinguished by their interpretation with respect to definiteness; while the former marks definiteness, the latter indefiniteness (see Gebhardt 2009; Pesetsky 1987, 2000). *Which* is invariably used to choose from a set of specific entities familiar to both the speaker and hearer. Hence, it occurs with nouns that encode definite reading. By contrast, *what* is used to select from a set of unspecific entities in the universe of discourse, rendering the nominal phrase

indefinite. Strikingly, in CK *kam* 'which' as a prenominal determiner always requires the presence of the enclitic *-e* on the noun (10a). Likewise, *ĉɪ* 'what' requires the indefinite marker *-êk* on the noun as expected, rendering the whole projection indefinite (10b).

(10)

a. kam sêw-e?
   which apple-DEF
   'which apple?'

b. ĉɪ sêw-êk?
   what apple-INDEF
   'what apple?'

Moreover, the enclitic *–e* is retained even when the noun undergoes ellipsis, where the interrogative element and *–e* together function as a pronominal argument:

(11) kam-e?[57]
   which-DEF
   'which one?'

Cross-linguistically, demonstratives are inherently definite (see Lyons 1999: 150). In view of this, my proposal here is that the kind of definiteness reading that demonstratives in CK ascribe to the nominal phrase they are contained in is realized by the enclitic *–e*. Similarly to (11), *–e* is obligatorily required in the construction if the demonstrative article is used pronominally when the noun is dropped (12b).[58]

(12)

a. ew sêw-e
   that apple-DEF
   'that apple'

[57] The expression given below (i) is also used instead of *kam-e* in (11). Crucially, the definite marker *–e* is still realized, where it is preceded by the glottal sound /h/ functioning as an onset, since CK does not allow onsetless syllables.

(i) kê-he
   who-DEF
   'which one?'

[58] Mackenzie (1961: 51) has identified the particle *–e* as a marker of definiteness. However, since his investigation does not target the nominal phrase, he has not provided any evidence to support his claim, hence has not confirmed his assumption.

b. ew-e[59]
that-DEF
'that'

One compelling piece of evidence that *–e* marks definiteness is that the two demonstratives can sometimes occur without *–e*, where the nominal phrase is devoid of any sense of definiteness or specificity.

(13)

a. swałker-eke degeř-êt le em mał(*-e) bo ew mał(*-e).
beggar-DEF roam.PRS-3SG from this house to that house
'The beggar goes from one house to another.'

b. pepule defř-êt le em guł(*-e) bo ew guł(*-e).
butterfly fly. PRS-3SG from this flower to that flower
'Butterflies flutter about among flowers.'

These two examples are particularly interesting. Note that the enclitic *–e* does not occur on the relevant nouns despite the presence of the demonstrative morpheme in front of them. In (13a), for instance, no definite or specific house is intended. The speaker does not refer to any specific house while a non-specific deictic reading is still maintained. The same holds of (13b). This is crucial evidence empirically supporting the hypothesis that the enclitic *-e* encodes definiteness. Simultaneously, it poses a serious challenge to Lyons' (1999) claim that demonstratives cross-linguistically encode the semantic content of identifiability, the notion which underlies definiteness. Hence, the examples in (13) in their very essence suggest that unless it is accompanied by the enclitic marker *-e*, the two demonstratives in CK are not endowed with any interpretive content of definiteness.

Further evidence associating the enclitic *–e* with definiteness comes from the quantifier *her* 'any/each', which can function as both a definite and indefinite determiner, corresponding to *each* and *any* in English. The latter two elements are standardly distinguished by their definite

[59] It is argued that demonstratives across languages are historically originated from either the definite article or the third person pronoun (see Rijkhoff 2002: 174). This assumption seems to apply properly to the bimorphemic demonstrative construction *ew-e* 'that' which is the single deictic element in most Kurdish varieties; crucially, the demonstrative consists of the third person singular pronoun *ew* 'he/she' and the definite marker *–e*, amply satisfying the hypothesis. For an opposite analysis proposing the grammaticalization of demonstratives into both definiteness markers and pronouns see Alexiadou *et al*. (2007: 96 and the references therein), Givon (1984, cited in Diessel 1999: 21) and Lyons (1999).

and indefinite characteristics; *each* encodes definiteness or specificity while *any* expresses indefiniteness (Beghelli and Stowell 1997; Giannakidou 1998, 1999, 2004; Vendler 1962: 157-159). As a determiner, *her* in CK is used to impart both types of reading where the sense of definiteness is contingent on the presence of the enclitic *–e* attaching to the co-occurring noun (14a), and the indefinite reading is brought about by the indefinite suffixal element *-êk* on the noun (14b):

(14)

a. ba her kes-e-w sêw-êk ber-êt.
   let each person-DEF-LNK apple-INDEF take.SUBJU-3SG
   'Let each person take an apple.' (Members of a specific group are intended.)

b. her kes-êk hat bo êre yarmeti bı-de
   any person-INDEF come.PST to here help IMP-give.1SG
   'Help any person (anybody) who comes here.' (Anybody in the universe of discourse is intended with no specific person or group in mind.)

In addition, following Lyons (1999: 152), vocatives are mainly considered definite as the speaker refers to a specific referent. Thus, the prediction of the enclitic *–e* marking definiteness is further supported. In this connection, most vocatives in CK involve the referent taking the morpheme *–e* as a suffix, while others involve the main definite marker *-eke*. One could take these two enclitic elements as vocative markers; however, they can still denote specificity, hence give the referent a definite reading (see also Szabolcsi 1994: 2015-216 for vocatives and definite articles). Consider the examples below.

(15)

a. žın-eke
   Woman-VOC
   'you, my wife'

b. kuř-in-e[60]
   boy-PL-VOC
   'you, boys'

[60] Notice that the plural morpheme is unexpectedly realized as *–in* not as the default form *–an* which is the PF form of plural morphology throughout the language. This is possibly so in order to avoid confusion (at LF) of this nominal phrase with a similar construction such as *kuř-an-e* (boy-PL-LIKE/ literally, like that of boys) 'boyish', which is very productive.

c. bab-e[61]
father-VOC
'you, daddy'

As mentioned in the previous chapter (3.3.1), Izafe shows agreement in definiteness with *–e* in the same fashion as it does with the main definite marker *–eke*. Note that Izafe in (16c) is realized as *–e* identically to that in (16b), marking agreement in definiteness with the definite marker. This lends further support to the current assumption that the enclitic *–e* is a marker of definiteness, similarly to *–eke*.

(16)

a. esp-êk-i zıl
horse-INDEF-IZ big
'a big horse'

b. esp-**e** zıl-eke
horse-IZ big-DEF
'the big horse'

c. ew esp-**e** zıl-e
that horse-IZ big-DEF
'that big horse'

Finally, cross-linguistic evidence in favour of this co-occurrence of demonstratives and a marker of definiteness is found in a number of languages including Romanian, Macedonian, Hungarian, Bulgarian and Greek.

(17)

a. toj čovek-**ot** Macedonian
this man-the
'this man' Giusti (1992: 7)

[61] According to Julien (2003: 238, 2005), Norwegian and Swedish have similar vocative constructions consisting of a referent and an inflectional marker of specificity. The following Swedish example is given by Kester (1996, cited by Julian 2005: 39), illustrating the situation.

(i) Polis-en!
Police-DEF
'you, policeman/policewoman!'

b. tazi kniga-**ta** colloquial Bulgarian
this book-the
'this book' Dost and Gribanova (2006: 133)

c. aftos o andras Greek
this **the** man
'this man' Panagiotidis (2000: 718)

Given all these arguments, I can then claim that the enclitic element *-e* is a mrker of definiteness, and is treated in the remainder of this chapter (and beyond) as a definite marker realizing a DP projection.[62]

Thus, while the postnominal element *–e* marks the definiteness part of the demomnstrative construction, the prenominal demonstrative article ecodes the single deictic feature of either proximity or distance, depending on which of the two demonstratives is employed. In light of this proposal, I would assume that the prenominal demonstratives in CK do not belong to the group of elements called familiar demonstratives (see Bošković 2016; Partee's 2006). According to Partee, such demonstrative articles encode some presumption of familiarity in which the noun co-occurring with the demonstaritive is understood as familiar to the interlocutors. Therefore, while it is true that a nominal phrase containing a demonstrative element is interpreted as definite in CK, I argue that the definiteness reading comes from the presence of the postnominal enclitic *–e*, and only the deictic (locative) meaning is encoded by the prenominal demonstrative morpheme.

4.5 The structure of definite DP

In this section, I explore the structure and derivation of definite DPs. I propose the occurrence of two distinct DP layers above the nominal projection (NP), based on the features the D categories bear and the structural location of number as a functional category (Num). Recall

[62] The same morpheme, *-e*, occurs in colloquial Persian where it is characterized either as a marker of definiteness (Ghomeshi 1996; Moinzadeh 2001; Samiian 1983) or specificity (S. Karimi 1989). Since the two languages are structurally similar and share the same ancestor, both falling under the Iranian language family, the enclitic *–e* in CK might be a diachronic relic of the present day Persian definite marker *–e*. Should this be so, it would further instantiate the contention that *-e* in CK is the realization of the same feature. Consider the example below from Persian:

(i) pasar-e
boy-DEF
'the boy' (Moinzadeh 2001: 56)

from (4.3) that CK employs two markers of definiteness *–eke* and *–e*, with the former preceding the number marker *–an* (18a, b) and the latter following it (18c, d).

(18)

a. esp-ek-an
   horse-DEF-PL
   'the horses'

b. esp-e zıl-ek-an
   horse-IZ big-DEF-PL
   'the big horses'

c. ew esp-an-e
   that horse-PL-DEF
   'those horses'

d. ew esp-e zıl-an-e
   that horse-IZ big-PL-DEF
   'those big horses'

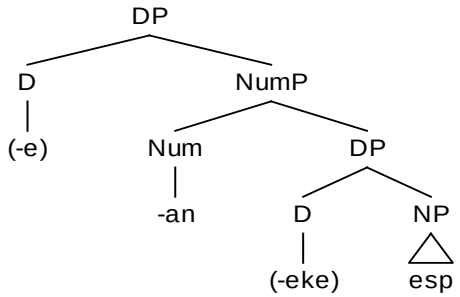
In order for the two-DP-layer hypothesis to make sense at this point, an intermediate functional projection has to be postulated between the category D and NP along the lines of Alexiadou (2001), Borer (2005), Haegeman (1993), Ritter (1992, 1995), Rouveret (1991), Siloni (1997) and Vangsnes (2001). There is extensive research arguing that number constitutes this functional category, where NumP represents grammatical number interpreted as either singular or plural (see Delfitto and Schroten 1991; Ritter 1991, 1992, 1995; Rouveret 1991, inter alia). The pluralization process is cross-linguistically attested to be the result of the plural marker merging as a functional category above NP, selecting this nominal projection as complement. Along this line of reasoning the CK plural morphology marked by *–an* is postulated to be a functional category projecting a phrase within the nominal phrase.

The distribution of this number projection has a considerable bearing on motivating two DP layers in CK, since while the primary definite marker *–eke* precedes the number marking *-an*, the secondary definite enclitic *–e* follows it (see the examples in 18).[63] Assuming the projection

[63] The current analysis abstains from further elaborating the issue of number until chapter five. For the current analysis, suffice it to assume the existence of Num as a DP-internal intermediate functional projection to illustrate the structural distinction between two DP levels, thus, keeping the main discussion on the topic to the following chapter.

of number as a functional category within the nominal phrase, I propose the projection of two DP layers: one above and the other below the number projection (NumP). The following section (4.5.1) is, thus, focused on a definite DP realized by the main definite marker -*eke*. On the other hand, 4.5.2 examines a definite DP spelt out by the enclitic *–e*, with the two co-occurring demonstratives projecting a demonstrative phrase (DemP) below it. This latter DP layer is higher than the one realized by *–eke,* hence is referred to in the analysis as *the higher DP,* while the DP realized by *–eke* is labelled *the lower DP* with which the analysis below will first begin. A tentative structure is given in (19), demonstrating what the representation plausibly looks like, where the two DP layers are shown with the projection of number (NumP) intermediate between them.[64]

(19)



4.5.1 Definiteness and the lower DP

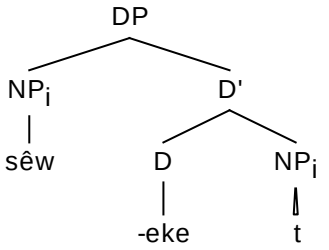
The current analysis abstracts away from most of the details regarding the way a nominal phrase is derived, as the issue has already been elaborated in the previous chapter. The analysis that follows, then, depends on the same reasoning and assumptions outlined previously.

Recall that this project adopts a non-lexical approach to morphology. Accordingly, when a noun is spelled out with inflectional morphemes following it, this noun is assumed to be base-generated below these inflections. The fact that the noun appears in front of the inflection after spell-out is the result of movement of the noun to a position above the inflection, ending up to its left. Thus, assuming Chomsky's (1995, and subsequent work) Minimalist derivational approach, the nominal construction in (20) is derived as shown in (21).

(20) sêw-eke
apple-DEF
'the apple'

[64] It should be noted that the two definite markers are mutually exclusive; that they are both shown in the structure in (19) is just to illustrate where the categories lie.

(21)



In this structure, the NP *sêw* 'apple' first merges with the functional category D realized by the definite article *–eke*, followed by movement of NP to Spec DP. One might presume that this DP projection could be derived via head movement of the noun adjoining to the D head on its left. The head-movement operation seems to bring about the same result and might be more felicitous considering the economy of derivation. However, if we extend the nominal phrase by postnominal modifiers, this assumption appears to be invalid due to certain restrictions on head movement, a point I will return to below. Further, it should be mentioned that the notion of two DP layers, where *–eke* is argued to project the lower DP, is further revealed in subsequent sections based on the structural dichotomy between *–eke* and other functional heads such as *–e* and *–an.*

The structure in (21) derives a head-final DP. This respects Kayne's (1994: 47-48) LCA principle according to which a phrase with a head-final order must be derived by raising the complement to a position where it asymmetrically c-commands the head. Motivation for movement of the NP to the left periphery of the DP in (21) is that the category D in CK holds an EPP feature, attracting NP or a category containing it to Spec DP. The contention that a purely syntactic feature triggers movement is widely attested in recent and current literature (see Biberauer *et al*. 2014; Chomsky 2000, 2001, 2008; Müller and Sternefeld 1993; Pesetsky and Torrego 2000; Roberts and Roussou 2003). Crucial to our discussion among them is Biberauer *et al*. (2014) who propose a type of phrasal movement which they call *linearization movement*. Capitalizing on the LCA, they convincingly argue that the head of a head-final construction bears a movement-triggering feature whose sole function is to move the sister of the head to the specifier of that head, for linearization purposes.[65]

[65] See Karimi's (2007: 2165) argument for an EPP feature on D within the CK DP, who (based on Szabolcsi 1994) draws a parallel between the EPP feature on T in the clausal domain and that on D in the nominal domain. Roberts (2011: 15-16) also argues for the existence of an EPP feature on the category D, as a movement-triggering feature whose presence or absence on D is subject to parametric variation, either attracting the nominal projection to Spec DP or not.

As I showed in the previous chapter, a noun accompanied by a postnominal modifier requires the presence of Izafe, which is realized by a functional category above NP and AP. Below are two examples (22a, b) followed by their structural representations (23a, b, respectively), reminding the reader of the general structure adopted in the analysis.

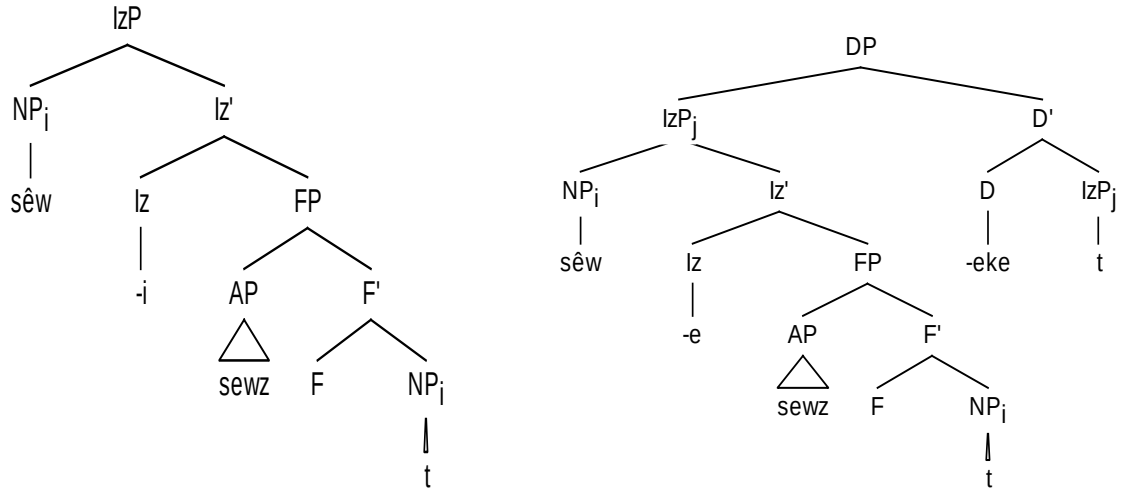
(22)

a. sêw-i sewz
apple-IZ green
'green apples'

b. sêw-e sewz-eke
apple-IZ green-DEF
'the green apple'

(23)

a. b.



The current chapter is mainly concerned with the functional category D and less with other projections. Izafe construction and adjectives are, then, raised again for two reasons. First, we need to find out where other categories fall in the DP structure. Secondly and more importantly, the way these constructions are derived further supports the assumption that a definite construction in CK is derived by phrasal movement, rather than head movement.

As formulated in the previous chapter, an agreement process is established between Izafe and D in definiteness. The IzP then moves to the DP's left periphery along with all other constituents in a roll-up fashion, respecting the EPP feature on D (see 23b). I have proposed that the pied-piping movement is a by-product of the agreement between Iz and D. This internal remerge of

the nominal construction leads the derivation to converge, where the definite article is provided with a host to attach to, and the result is a well-formed definite DP.

In relation to the movement pattern, there is a large body of work claiming that definiteness interpretation results from N-to-D head movement (see Den Dikken 2007; Embick and Noyer 2001; Longobardi 1994; Pereltsvaig 2006). Against these proposals, though, I will argue that head movement operation fails to account for the derivation of CK definite (and indefinite) nominal phrases. As seen in the structure (23b), the noun does not head-move to adjoin to *–eke* at D. While the type of movement in question leads to generating an ill-formed word order, the operation also violates the Head Movement Constraint (HMC) or the locality restriction on head movement (Travis 1984: 131). The HMC roughly states that a head cannot move up and adjoin to a higher head if an intervening c-commanding head position is realized, since the raising head cannot skip the intervening head. In (23b), the Izafe would block movement of the noun as head to the category D above it, indicating that a nominal phrase must be derived via phrasal not head movement.

The fact that the construction (22a), further above, can readily function as an argument, occupying a subject or an object position (24a, b), suggests that it falls under a DP projection with a null D category.

(24)

a. **sêw-i** **sewz** bazař-i dagirkırd-uwa
apple-IZ green market-3rd SG dominate-PRF
'Green apples have dominated the market.' (DP functioning as a subject)

b. (mın) **sêw-i** **sewz** dexo-m
(I) apple-IZ green eat.PRS-1st SG
'I eat green apples' (DP functioning as object)

I would then assume that any nominal argument in CK falls within a DP projection and that the presence of a functional D category secures argumenthood. This is in line with Longobardi (1994) and Szabolcsi (1994: 214) who claim that the category D is always present above NP whenever the latter is an argument. That is, it is the category D which enables the nominal phrase to serve as an argument (also see Aboh and DeGraff 2014; Chierchia 1998a, b; Delsing 1993; Déprez 2005: 869-870; Dobrovie-Sorin *et al* 2006; Ghomeshi 2008; Munn and Schmitt 2005; Schmitt and Munn 2000). Also, according to Roberts (2011: 9), D is present in such cases (24a, b) even if it is not overtly realized. Moreover, given that the category D turns a nominal

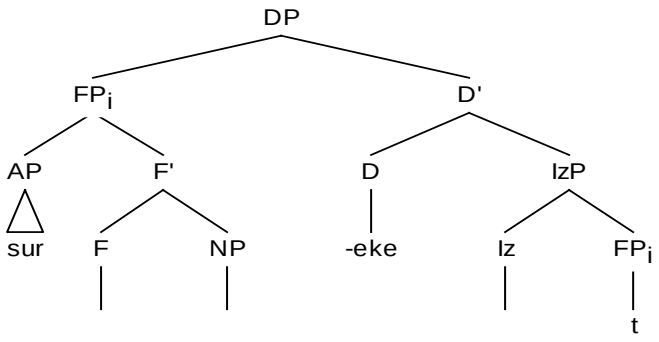
predicate into an argument, it is assumed that when the feature on D is [-DEF], it is realized as null yielding a generic interpretation. The case in question can be compared to the functional category of number, further investigated in chapter five, where the head (Num) is spelled out as null when the feature on it is [-PL], i.e., in singular nominal constructions (see Aboh 2004b: 89). Capitalizing on these arguments, I assume that the nominal arguments shown in bold (24a, b) are DP projections with null D, where the constructions are interpreted as generic. This assumption casts doubt on - and even disconfirms - Chierchia's (1998a) proposal that in languages with singular/ plural distinctions a bare singular noun can never show up in argument positions. For further details about genericity and generic nominal phrases see Chierchia (1998a), Dayal (2004) and Longobardi (1994). (See, also, Hamedani 2011, section 5.3, for a detailed analysis of nominal phrases with empty D, which receive generic interpretations).

The EPP feature on D can be satisfied provided that a phonologically realized nominal element remerges with D at Spec DP. Thus, when the NP within an extended nominal projection undergoes ellipsis, the remnant constituent moves to Spec DP and provides the definite marker *–eke* with a host. In (25), *–eke* is attached to the adjective *sur* 'red' with an elided NP.

(25) (mɪn) sêw-e sewz-eke-m xɪward, Azad-ish [**sur-eke**] DP.
(I) apple-IZ green-DEF-1SG eat.PST Azad-ADD red-DEF
'I ate the green apple and Azad the red one.'

The definiteness feature on the DP is gained via the enclitic *–eke* attaching to the adjective *sur* 'red'. This adjective serves to specify the reference of the DP provided that it is followed by the definite marker, holding the referential feature of the projection as a whole. The nominal phrase bracketed in (25), where NP has undergone ellipsis, is derived by movement of the FP containing the null NP, as represented below.

(26)



To recap the main points of this section, I argued that a DP encodes definiteness when its D head is realized by the definite article *–eke*. When D does not bear a DEF feature, though, it is

spelled out as null, and the nominal phrase is interpreted as generic. Based on assumptions on argumenthood, a modified nominal phrase can project a DP even if the category D is null.

4.5.2 Demonstratives and the higher DP

In the early generative approach, demonstratives were considered to share the same structural category as definite articles in spite of holding distinct semantic features. This was mostly based on data from languages such as English, Italian and French in which demonstratives are mutually exclusive with definite articles. Recent trends of research on the nominal phrase, though, propose that demonstratives and definite articles are spelled out in different categorial positions (Bernstein 1993, 1997; Biberauer *et al* 2014; Brugè 1996 and Campbell 1996, both cited in Panagiotidis 2000: 724-725; Cinque 2010; Cornilescu 1992; Giust 1991, 1997; Julien 2005). In addition, Alexiadou *et al*. (2007: 95-96) argue that demonstratives must not occupy the D position since they have a deictic feature (a distinct semantic value from that of definite markers) which is not shared with D. Along the same line of reasoning and based on the fact that CK demonstratives obligatorily co-occur with a marker of definiteness '*-e*', I will take demonstrative elements to be functional heads projecting their own phrase. This is so, because the functional head Dem does not bear the features associated with D and is simultaneously spelled out with it. I argue that the accompanying enclitic definite marker *-e* projects a separate phrase of its own (a DP).

Giusti (1997: 42) and Lyons (1999: 279) claim that demonstratives carry the feature [+DEM] encoding either proximity or distance. Drawing on the same contention, I will consider the two demonstratives *em* 'this' and *ew* 'that' to carry interpretable locative features for deixis. Such features are responsible for letting the hearer match the referent of the DP with an object in the discourse which is visible or identifiable.

As just pointed out, the demonstrative in CK is always accompanied by an enclitic definite marker '*–e*' following the noun. Given the basic assumption that a nominal projection with either of the two definite markers *–eke* and *-e* is derived via movement of NP to Spec DP, the nominal constructions in (27a, b) are derived as in (28a, b), respectively:

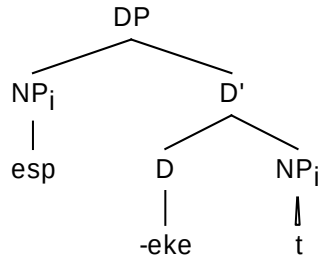
(27)

a. esp-eke
   horse-DEF
   'the horse'

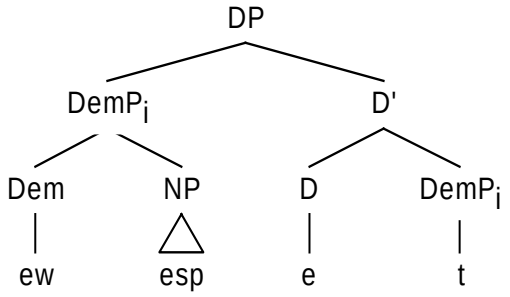
b. ew esp-e
that horse-DEF
'that horse'

(28)

a.



b.



According to the structure in (28b), after the NP *esp* 'horse' merges with the functional head Dem, a functional category D that carries an EPP feature merges with DemP. The next step to derive the order Demonstrative-NP-e is movement of the DemP containing the NP to Spec DP, satisfying the EPP feature on D. Given the prima facie structures in (28), the two definite markers *–eke* and *–e* would be generated in the same D position. However, based on the DP-internal linear order (see the examples in 29, also encountered previously), it turns out that the two definite markers are realized in distinct positions: while *-eke* precedes the plural marker *-an* (29a), *-e* follows it (29b).

(29)

a. sêw-ek-an
apple-DEF-PL
'the apples'

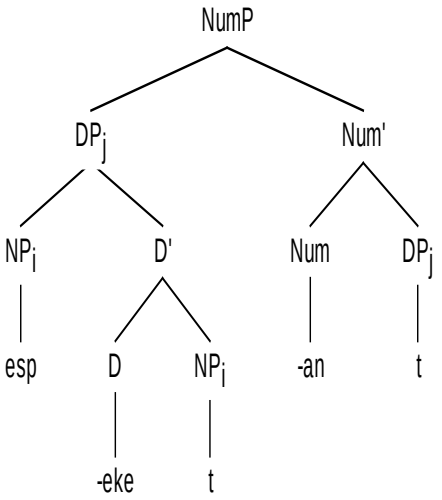
b. ew esp-an-e
that horse-PL-DEF
'those horses'

In view of such examples and as represented by the structures in (30), I propose that a functional category of number (Num) merges with the DP headed by *–eke* (30a). However, in (30b) the category D spelled out by *–e* apparently merges with the NumP. That is, this DP contains the NumP projection, unlike the DP realized by *–eke* (30a) which is contained by NumP. According to this analysis, these are two structurally different DP layers in the CK nominal phrase, with

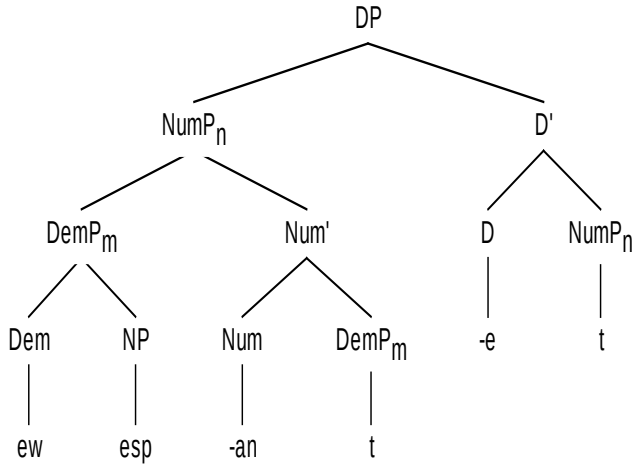
NumP intermediate between them. It could then be the difference in the structural derivation of these projections that yields two distinct surface linear orders of plural morphology and the two markers of definiteness.

(30)

a. The structure for (29a)



b. The structure for (29b)



The question arising is why the language should show this kind of discrepancy in terms of definiteness and its D projection, exhibiting two different D categories. Can this be attributed to the difference in the feature(s) borne by each functional category D? Thus, these two D positions should be further investigated through a closer examination of the definiteness reading imparted by each of the two D categories or the definite markers they realize.

A definite nominal phrase is uttered by the speaker when assuming that the hearer can uniquely identify the referent intended within a given context (Stroh-Wollin 2009: 10). Enç (1991) and Lyons (1999) characterize definiteness as the grammaticalization of specificity and uniqueness. Following Anderssen (2007: 255), I will hold uniqueness to be a referent which is familiar to both the speaker and the hearer, whereas specificity is assumed to indicate a referent familiar to the speaker, but not (necessarily) to the hearer. This amalgamation of uniqueness and specificity then makes up definiteness proper. Following Enç's (1991) hypothesis, it is widely assumed that specificity is directly correlated with definiteness. Drawing on Heim's (1982) theory of definiteness, Enç claims that all definite constructions are specific.

As for the two features subsumed under definiteness (uniqueness and specificity), I argue that *-eke* denotes definiteness proper (both uniqueness and specificity), while *–e* encodes specificity only. Consider the possessive constructions below.

(31)

a. bıra-y**eke**-m naw-i Saman-e.
brother-DEF-1SG name-3SG Saman-3SG.PRS
'My brother's name is Saman.'

b. ew bıra-y**e**-m naw-i Saman-e
that brother-DEF-1SG name-3SG Saman-3SG.PRS
'That brother of mine's name is Saman.'

Based on the DP *bıra-yeke-m* 'my brother' in (31a), the sentence entails that the speaker has only one brother who is Saman. So, the DP is interpreted as both unique and specific. However, *ew bıra-ye-m* 'that brother of mine' in (31b) encodes the reading that the speaker has other brother(s) than Saman, where the definite marker *–e* renders the DP specific but not unique. Accordingly, the category D realized by this enclitic bears one feature (out of the two features) subsumed under definiteness, which is that of specificity. This suggests that the D category spelled out as *–e* marks specificity only (see, especially, the examples in 13 above), unlike the one realized by *–eke* that encodes both specificity and uniqueness. This conclusion regarding the interpretation of *–e* is reminiscent of the Norwegian definite marker *–en*, which Julien (2005: 281) claims to denote specificity but not uniqueness in such possessive constructions (see a similar proposal advance by Anderson 2007). Accordingly, the two definite markers in CK do not have the same interpretation in their relevant DPs; the two D categories encode similar but not necessarily the same features.[66]

Digressing from the main issue, I will provide a short account of the notions of familiarity and specificity taken up in the paragraphs above. It has long been argued that definiteness entails the discourse-pragmatic characteristic of familiarity (see Fiengo 1987; Hedberg *et al.* 2009; Heim 1982, Kamp 1981, cited in Von Heusinger 2002: 252). Moreover, Christopherson (1939, cited in Lohrmann 2010: 16) and Hawkins (1978) propose the Familiarity Hypothesis according to which familiarity is an aspect of definiteness in which the entity expressed by the definite nominal phrase is familiar to both the speaker and hearer. That is, the interlocutors are aware of, hence share mutual knowledge of, the entity referred to. On the other hand, specificity characterizes a noun for which the speaker has got an individual entity in mind as its referent; however, the hearer might not necessarily share previous knowledge of this referent with the

[66] For the hypothesis that demonstrative constructions provide only specificity reading not definiteness, see also Farkas (2002), Partee (2006) and Kim (2001, 2004). Also, see Von Heusinger (2002) for a detailed account of the difference and correlation between definiteness and specificity.

speaker (see, Fodor and Sag 1982; Gebhardt 2009: 26; Geist 2008; Heim 1982; Ioup 1977; Von Heusinger 2002).

Returning to the topic, crucial evidence that *–e* marks specificity in CK is found in constructions such as that given in (32b), where the enclitic amply picks a specific referent. (32a) further illustrates the question.

(32)

a. wɪłax-i berɪz
animal-IZ tall
'tall animals'

b. wɪłax-e berz-e
animal-IZ tall-DEF
'horse', literally, 'the tall animal'

The noun *wɪłax-i berz* 'tall animals' in (32a) is generic, referring to any kind of animal which is tall, including cows in some varieties of CK. By contrast, *wɪłax-e berz-e* 'literally, the tall animal' in (32b) denotes a single species of tall animal which is the horse. The enclitic *–e* only serves to denote a specific referent, a specific type of tall animals in the case in question. Further, no feature of uniqueness or familiarity is encoded in such constructions; the entity referred to here is never familiar to the interlocutors in their discourse context. This provides additional evidence that *–e* is not the spell-out of the same syntactic feature(s) as *–eke* which encodes both specificity and uniqueness.

Moreover, the element *–e* is productively used in CK in the morphology domain where it encodes specificity. The inflection is attached to the end of simple or compound words to denote a specific entity and distinguish it from others in the universe of discourse. So, a word carrying *–e* is interpreted as a specific kind which is different from the reading inferred from the same word without *–e*. Consider the following examples and the interpretation of the words with and without the suffix *–e.*

(33)

a. sed sed-e
hundred hundred-SPEC
'a hundred' 'century' (denoting a specific period of time)

b. duan duan-e
two two-SPEC
'two' 'twin'

c. kerwêŝk kerwêŝk-e[67]
rabbit rabbit-SPEC
'rabbit' 'wave of grass or wheat in a field by a wind blowing across, which looks like movement of a group of rabbits running'

d. ĥewt ĥeft-e
seven seven-SPEC
'seven' 'week'

e. bɪn dest bɪn dest-e
under hand under hand-SPEC
'under one's hand' 'coin flipping, a game involving tossing a coin and covering it by hand'

Substantial cross-linguistic evidence is attested in the recent literature, supporting the current hypothesis regarding an independent marker for specificity. There are languages such as Turkish that morphologically mark specificity (see, for instance, Von Heusinger 2002: 258). Based on observations from a number of languages, Lyons (1999: 59) claims that articles that mark specificity rather than definiteness are rather widespread. Further, Pereira (2010) argues convincingly that the postnominal article *lá* in Brazilian Portuguese as in *essa mulher lá* (this woman the), literally, 'this woman there' is a DP-internal functional category marking specificity. A similar postnominal element (*la*) is also attested in Mauritian Creole which is postulated to head a functional projection labelled SP marking specificity (Guillemin 2007: 64, cited in Pereira 2010: 125). Also, drawing on data from Mavea, an endangered language spoken in Vanuatu, Guérin (2007) presents empirical evidence that the language displays different, morphologically realized articles to mark definiteness and specificity. Finally, surveying 85 languages, Rijkhoff (2002) explains the co-occurrence of demonstratives and definite articles in several languages including Abkhaz and Hungarian. Rijkhoff argues that the co-occurring articles are not associated with definiteness, but with specificity (see also Szabolcsi 1994: 220 for a similar contention).

[67] Note that Mohammed (2010: 52-53) mentions the morphological role of *–e* in forming new words in the CK morphology. He defines the inflection as a morpheme for denoting specific entities and distinguishing them from others, a semantic function similar (if not the same) as the one in question.

In regard to the analysis of two DP layers, one might speculate that the DP in CK splits into two or more functional projections similarly to Rizzi's (1997) split CP Hypothesis. Split DP has been argued for in the literature (Aboh 2004a; Ihsane and Puskás 2001; Laenzlinger 2005) in which the same definite marker at D decomposes into two or more heads each bearing a specific component feature of definiteness, including familiarity, specificity, uniqueness and referentiality. However, this analysis is not right for CK, since the two definite D categories spell out distinct elements and occur in different structural positions with the plural marker *–an* intermediate between them. Likewise, if DP splits into individual functional heads, we would expect each separate category to carry a single feature pertaining to definiteness. This prediction, though correct for the category realizing *-e*, is falsified by the D category spelled out by *–eke*, as it simultaneously marks the two features of specificity and uniqueness. Moreover, a split-DP analysis does not work for CK, since the two definite articles do not co-occur such that one article would realize a different definiteness feature from the other.

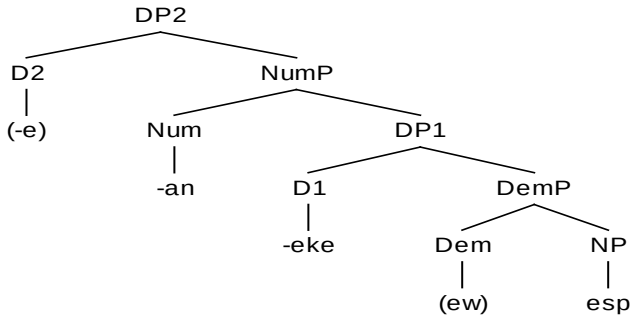
As for the structural location of demonstratives, it appears that they first merge somewhere below D. I have already argued that definiteness and deictic features associated with the CK bimorphemic demonstratives are realized on two separate categories (D and Dem). Given the structural analysis above, the demonstrative element is generated below the D category that spells out the enclitic definite marker *-e*. This analysis of the demonstratives regarding their first merge position tallies with a proposal developed by Guardiano (2010, cited in Roberts 2011:9; Biberauer *et al*. 2014), postulating the relation between demonstratives and articles. Guardiano claims that in languages with demonstratives and definite articles co-occurring, the demonstratives merge before, hence lower than, the articles; when the demonstrative shows up in a position higher than the article, it must have undergone movement to Spec DP (Also see Aboh 2004b: 87; Biberauer *et al*. 2014: 24; Brugè 2002; Giusti 2002; Grohmann and Panagiotidis 2005; Ihsane and Genoveva 2001: 45; Panagiotidis 2000; Rosen 2003; Shlonsky 2004). Based on the Welsh noun phrase word order, Cinque (1996: 454, fn. 16) also suggests that demonstratives (DemP) are universally low in the structure. Along these lines of reasoning, demonstratives in CK are, therefore, assumed to merge with NP before the Dem projection containing the NP moves and remerges with D in Spec DP.[68] It might be that in languages like Hungarian with the structure [DemP [DP [NumP NP]]] (Dem> D > Num> N) demonstratives

[68] Guardiano (2010, cited in Roberts 2011) and Alexiadou *et al.* (2007) go so far as to propose that there is only one structural position for demonstratives cross-linguistically and this position is relatively low in the nominal phrase. In some languages, including Hebrew, demonstrative elements stay in this low position even after spell-out, whereas in languages such as Greek and Spanish they are optionally raised to Spec DP. In other languages like English, Hungarian and Italian, movement of the demonstrative is compulsory (Roberts 2011: 10-11).

move alone to Spec DP (see Roberts 2011: 9-10). However, the demonstrative in CK is not raised to Spec DP alone, as this would yield a different word order (see 29b), but includes the NP; it is attracted as DemP to Spec DP thereby satisfying the EPP feature on D.

Summing up, this section has addressed demonstratives and the higher DP projection realized by the definiteness marker *-e*. It has already been demonstrated that the derivation of the CK nominal phrase involves two DP layers, with the projection of number (NumP) intermediate between them. While the lower D category is spelled out by *–eke*, the upper D is realized by *-e*. I argued that the lower D encodes definiteness proper entailing both specificity and uniqueness, while the higher D bears the single feature of specificity, hence the labels primary and secondary definite markers for *–eke* and *–e*, respectively. I have also argued that demonstratives are merged low in the structure with NP. Thus, all else being equal, the overall basic (first merge) structure of the two DP layers appears to be as shown in (34). (The lower DP is labelled DP1 and the higher DP2, for expository convenience).

(34) (the NP is *esp* 'horse')



If this analysis of two DP layers is on the right track, the question raised in chapter five as to why the DP in CK intriguingly falls within the scope of number (Num) and not the other way round will automatically be answered. I will provide the relevant details in the next chapter.

4.6 The syntax of indefiniteness

In this section, I will explore the structure and characteristics of the indefinite nominal phrase realized by *–êk*, examining the syntactic operations that lead to its derivation. The notion of indefiniteness and the way a nominal projection is interpreted as indefinite have been rather controversial in the literature. For some scholars, including Abney (1987), an indefinite article occupies the same structural position as the definite article. Other researchers such as Borer (2005), Gebhardt (2009), Lyons (1999), Paul (2008) and Rijkhoff (2002) consider indefinite articles to be cardinal elements occupying a position other than D. As illustrated below, this latter analysis does not apply to CK, rather, I will provide empirical evidence that the inflection *–êk* is spelt out by the category D.

The status of the indefinite marker *–êk* in CK is particularly intriguing, mostly due to its morphophonological similarity to the numeral *yêk* 'one'. Thus, prior to introducing the main analysis in 4.6.2, I should give an account of this inflectional element in terms of its morphosyntactic status. Section (4.6.1), then, addresses this issue.

4.6.1 Indefiniteness, singularity and the status of –êk

It should be observed that the suffix *–êk* is phonologically identical to the numeral *yêk* 'one'. The initial semivowel '*y'* that functions as an onset is a phonologically determined property: the language does not allow onsetless syllables. When an element begins with a vowel in the underlying (mental) structure, the phonology is called in, providing the element with a consonant in the initial position, which is usually /j/, /h/ or /ʔ/ (see Fattah 1997: 36).

Based on this similarity between the suffix *–êk* and the numeral *yêk* 'one' in CK, and similar evidence from some other languages, Lyons (1999: 95) argues that the article in these languages is not a bona fide marker of indefiniteness.[69] Rather, it is a diachronic remnant of (,hence has historically derived from) the numeral *yêk* '*one*' after it has undergone grammaticalization.[70] According to Lyons, the article functions as a quantifier denoting singularity and occupying a position below D where numerals or quantifiers are spelled out (for a similar contention regarding the numeral *one* and indefiniteness, see also Gebhardt 2009; Ghomeshi 2003; Paul 2008; Rijkhoff 2002: 192; Stavrou and Terzi 2009; Stroik 1994). It is diachronically plausible that *–êk* originates from the numeral *yêk* 'one'; however, the arguments provided below show that the inflection marks indefiniteness and renders the DP indefinite, not necessarily singular. I will also offer empirical and conceptual evidence rejecting the assumption that the article serves to function as a quantifier or is realized in the same structural location as quantifiers.

The first evidence to not take the inflection *–êk* as the realization of singularity (quantification) is drawn from plural constructions: an indefinite DP in CK can be accompanied by the plural marker *-an*. Consider the example below, repeated from (3).

[69] It should be noted that Lyons (1999) has used the term Kurdish as the source of his data, but not specified the dialect as Central Kurdish. However, since the phenomenon is very common in CK, I have presented the case as one from this dialect of Kurdish (CK).

[70] The term 'grammaticalization' is used here to characterize the process through which a given lexical item undergoes change of some category of meaning and starts to express some grammatical concept. The process mostly leads to change in the morphophonological aspect of the lexical element resulting usually in it being reduced into inflectional categories (affixes), or sometimes morphologically independent functional elements (see Hopper 1991, 1996; Hopper and Traugott 2003).

(35) kes-an-êk he-n zor hel perst-ın
person-PL-INDEF have.PRS-3PL very opportunity worshipper-3PL
'There are (some) people who are very opportunist.'

The noun *kes* 'person' has both a plural marker (*–an*) and an indefinite suffix (*-êk*) attached to it, where *-an* denotes plurality and *-êk* indefiniteness. This is evidence against the assumption that the inflection always marks singularity, but never indefiniteness.

Further evidence against Lyons (1999) concerns indefinite quantifiers. Lyons views the indefinite article as a marker of singularity occupying the same position as other numerals and quantifiers. However, CK displays constructions where *–êk* is completely compatible with cardinal numbers and plural quantifiers. An indefinite noun such as *kes* 'person' is obligatorily suffixed with the indefinite marker *-êk* when it is preceded by the indefinite plural quantifier *ĉend* 'several, (a) few' (36a). The noun can also be inflected with *–êk* when it is preceded by numerals other than *one* (36b), where it is used to express an approximate number.[71]

(36)

a. ĉend dız-êk wist-yan řake-n
some thief-INDEF want.PST-3PL run-3PL
'A few thieves wanted to run away.'

b. de kes-êk le řudaw-eke řızgar-yan bu
ten person-INDEF from accident-DEF free-3PL become.PST
'Around ten people survived the accident.'

Though preceded by plurality-denoting elements, the nouns *dız* 'thief' in (36a) and *kes* in (36b) take the indefinite marker *–êk*. This further corroborates the assumption that the morpheme *-êk* does not necessarily mark singular number, but possibly indefiniteness, and its compatibility with numerals and quantifiers then strongly suggests that they are not realized in the same syntactic category.

Furnished with all these arguments, the conclusion reached here is that the morpheme *–êk* in CK is a marker of indefiniteness. Based on empirical evidence showing that the suffix can co-occur with cardinal and quantificational elements, I also argue that *–êk* is realized at a structurally distinct position from that of numerals or quantifiers.

[71] See Kayne (2006, cited in Stavrou and Terzi 2009: 18) for a proposal regarding the use of some numerals that contribute to the interpretation of approximation.

4.6.2 The derivation of indefinite DP

This section deals with the indefinite DP and its derivation, investigating how a nominal phrase is interpreted as indefinite and where the indefinite article is spelled out. Drawing on the data examined through extending the nominal phrase, I will demonstrate that indefinite DPs, unlike their definite counterparts, are derived through raising NP to Spec DP, without pied-piping the categories it crosses.

As outlined previously, indefiniteness in CK is always realized by the inflection *-êk* attaching to the noun. An indefinite DP denotes a certain or a particular entity, or sometimes as one of a class of entities; i.e., it has either a specific reference (37b) or a non-specific reference (37a). Regarding the merge position where *-êk* is generated, I argue that the inflection is the syntactic realization of a D category as it can bear a referential index. When D is spelled out as *–êk*, the reference of the DP containing it is restricted to a single member of the set denoted by the noun hosting the indefinite marker.

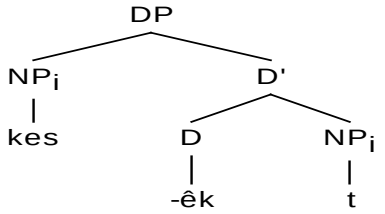
(37)

a. dız-**êk** pare-ke-i bırd-uwe w polis hewł
thief-INDEF money-DEF-3SG take-PRF and police attempt
dedat bızan-êt kêy-e.
give.PRS know-3SG who-PRS.3SG (non-specific)
'A thief has taken the money, and the police are trying to find out who s/he is.'

b. (mın) kes-**êk** denas-m (specific)
(I) person-INDEF know.PRS-1SG
'I know a person (someone).'

It was previously argued (4.5) that a definite DP realized by either of the two definite markers *–eke* or *–e* is derived by raising NP to Spec DP. Recall that in AP Izafe constructions this operation involves a roll-up movement of the NP plus, if available, other categories it crosses. Supposing that the indefinite article *–êk* is a functional category projecting a DP above NP, the category D, at face value, appears to undergo a similar derivation, merging with the NP before the latter moves to Spec DP. The nominal phrase *kes-êk* 'a person' in (37b) would then be derived as follows:

(38)



The NP moves up and remerges with D at its Spec, and the movement is triggered by a movement-triggering EPP feature on D along the lines of Biberauer *et al*. (2014). However, upon extending the data through adjective modifiers, the NP turns out not to pied-pipe the projections en route to Spec DP, an operation which is postulated to yield definite DPs in AP Izafe constructions. Below are examples of indefinite DPs (39a, d) accompanied (for explanatory convenience) by definite DPs (39b, c, e, f).

(39)

a. esp-**êk**-i zıl
horse-INDEF-IZ big
'a big horse'

b. esp-e zıl-**eke**
horse-IZ big-DEF
'the big horse'

c. ew esp-e zıl-**e**
that horse-IZ big-DEF
'that big horse'

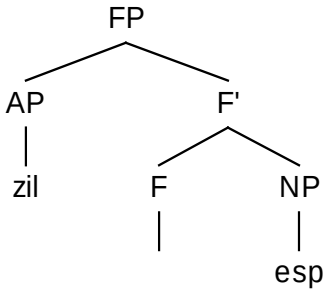
d. esp-**êk**-i zıl-i bor
horse-INDEF-IZ big-IZ grey
'a big grey horse'

e. esp-e zıl-e bor-**eke**
horse-IZ big-IZ grey-DEF
'the big grey horse'

f. ew esp-e zıl-e bor-**e**
that horse-IZ big-IZ grey-DEF
'that big grey horse'

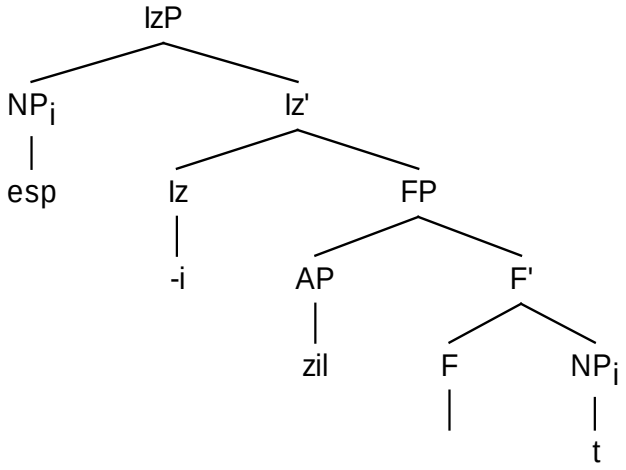
If definite DPs are derived via roll-up movement of NP and the categories it crosses to Spec DP, indefinite DPs must involve a different derivational process. Assuming a roll-up movement pattern for the derivation of the indefinite nominal phrase leads to an ill-formed word order. The indefinite nominal phrase in (39a) plausibly starts its derivation as follows. As shown in (40), the NP *esp* 'horse' first merges with an empty functional head (F) whose specifier houses the AP *zıl* 'big' merging next.

(40)



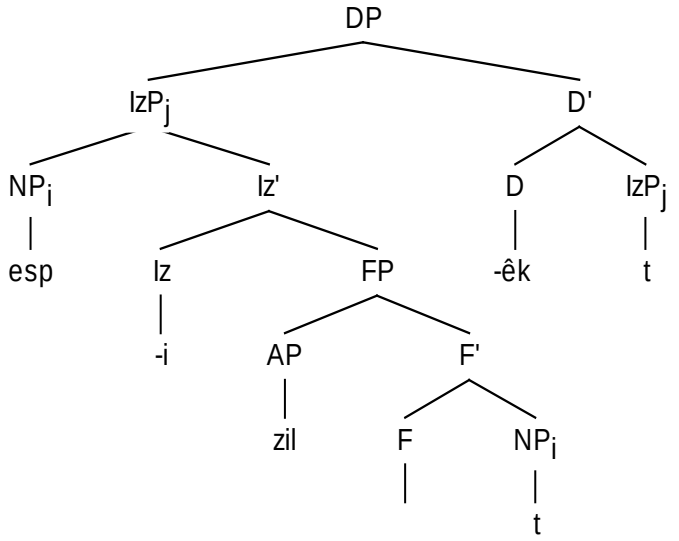
The AP Izafe category Iz is then merged with FP before the NP moves and remerges with it at Spec IzP.

(41)



Now, the functional category D realized by the indefinite marker *–êk* merges with the Izafe phrase (IzP). As just pointed out above, assuming a roll-up movement of all the lexical and functional categories including the NP to Spec DP (42) will produce an ungrammatical construction (43), hence is simply ruled out.

(42)



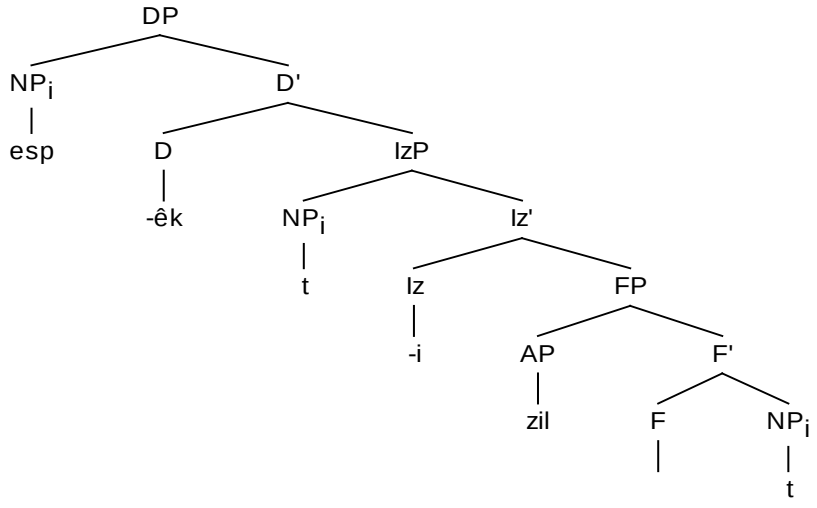
(43)

*esp-i	zıl-êk
horse-IZ	big-INDEF

intended meaning: ‘a big horse’

The derivation of indefinite DPs in AP Izafe constructions can, then, be made sense of by assuming (non-roll-up) movement of the NP alone, starting from its basic first merge position at the bottom to Spec DP via the Spec IzP, as shown below.

(44)



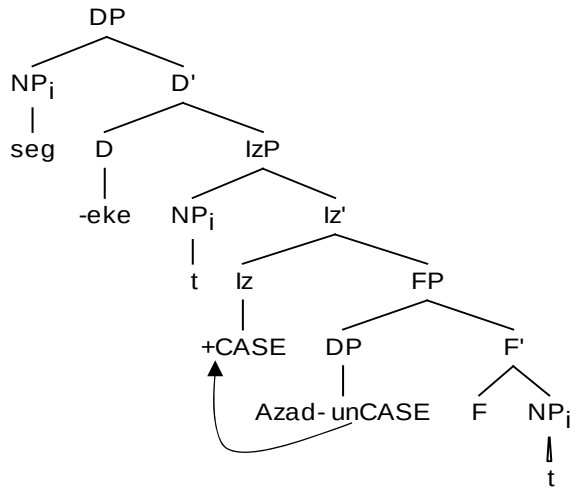
Given this structure, after the NP *esp* ‘horse’ is raised to Spec IzP, it keeps moving until it finally remerges with D before spell-out, deriving a correct word order and resulting in the derivation converging.

A question at this stage is how to explain this discrepancy in the derivation of definite and indefinite nominal phrases in AP Izafe constructions; i.e., why the NP in an indefinite nominal phrase cannot pied-pipe the functional categories contained on its way up to Spec DP, unlike the NP in definite constructions. I can put this inconsistency down to the feature makeup of the category D and/or the element it spells out. In chapter three (3.3.1) I alluded to the issue of why an indefinite NP is raised to Spec DP alone, and associated that case with agreement. This assumption seems both plausible and appropriate and is further corroborated here. As a principle, I argue that the agreement operation the AP Izafe category establishes with D (realized by the definite article) plays an essential role in triggering the roll-up movement operation. That is, after the category D bearing DEF and EPP features agrees with the Izafe construction, it attracts the Izafe projection containing the NP to Spec DP. The stipulation is twofold: this time the D does not only need to attract just a nominal projection alone to its Spec but any other categories with which it has set up agreement, as well (see a detailed account of the agreement in chapter three, 3.3.1). However, when the DP is realized by the indefinite marker *-êk* (44), the unvalued DEF feature on the Izafe (Iz) is valued by default (not via agreement with D), resulting in the Izafe category to be spelled out as *–i*. Consequently, the D satisfies its EPP feature by just moving the NP to its Spec without attracting the Izafe projection. Since the D category does not establish Agree in definiteness with the Izafe, it does not raise the IzP to Spec DP, as expected. The assumption is also in line with Chomsky (2000, 2001) according to which Agree is part of the operation Move. Here, the only operation required to achieve the construction in (44) is to remerge the NP with D realized by *–êk*, with no pied-piping.

This proposal seems equally applicable to the NP Izafe (3.3.2), where I argued that Izafe establishes an agreement in Case feature with a c-commanded DP, but not with a c-commanding D category realized by either definite markers *-eke* or *–e*. Below is an example (45) followed by the structural configuration in (46), both repeated from chapter three (3.3.2).

(45) seg-eke-i Azad-i
dog-DEF-IZ Azad-CASE
'Azad's dog'

(46)



As argued in chapter three (3.3.2), this lack of agreement between the NP Izafe and the definite marker is postulated to discourage a pied-piping movement operation which would raise the NP and other categories to Spec DP. Consequently, the NP moves up on its own (46), similarly to the indefinite DP in (44).

Based on the distribution of some elements inside the DP and the featural make-up of the two functional D categories, I have previously proposed that nominal projections in CK have two independent DP layers headed by the definite markers *–eke* and *-e*. With this in mind, a question emerging here is: which of the two D positions can host the indefinite marker *-êk*? Notice that unlike the English indefinite articles *a/an*, and as discussed above (4.6.1), *-êk* can sometimes co-occur with plural marking (47a). In addition, recall that a DP realized by the definite marker *-e* has a similar morpheme order as *-êk* with respect to number (47b), which is different from the DP headed by *–eke* (47c).

(47)

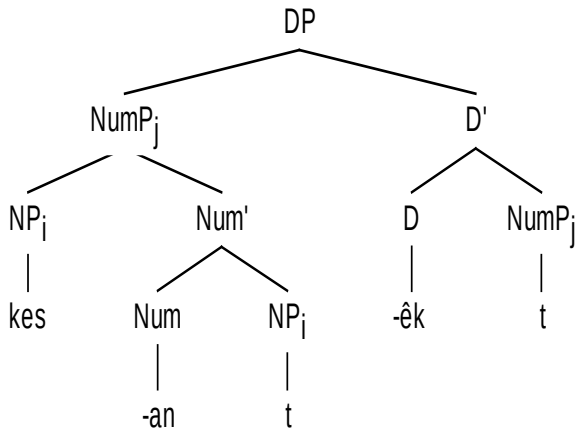
a. kes-an-êk
   person-PL-INDEF
   'people (of some kind)' or 'certain people'

b. ew kes-an-e
   that person-PL-DEF
   'those people'

c. kes-ek-an
   person-DEF-PL
   'the people'

Given its distribution with respect to both the plural marker *–an* and the noun *kes* 'person', *-êk* is assumed to merge with NumP in the same fashion as the definite marker *–e*. [72] That is, it heads a DP projection that contains NumP (48), rather than being contained by NumP as was the case with the lower DP realized by *–eke*.

(48)



The arguments I have already advanced to distinguish between the two types of definite DP can also be employed here to defend the assumption that the indefinite DP structurally resembles the higher DP which is realized by *-e.* Recall that the two definite markers *–eke* and *–e* have structural and some semantic differences. Based on the structure in (48), the indefinite marker *-êk* has the same structural position as the definite marker *-e*, both being realized by the category D under the higher DP layer, with NumP below them. This results in the two projections exhibiting some structural correspondences. First, the derivation of both projections complies with Rijkhoff's (2002) hypothesis stating that quantity-related functional categories such as number normally fall within the scope of DP, not the other way round. Secondly, I have previously raised the issue of specificity and uniqueness related to the two D positions (section 4.5.2). I argued that the higher D realized by *–e* carries a single feature of specificity. Based on the same reasoning, the functional D head spelled out by the indefinite marker *-êk* can bear specificity, similarly to *–e.*[73] Alternatively, unlike the main definite marker *–eke*, neither of them can impart a uniqueness feature (or familiarity) to the nominal phrase they are contained in. The following examples illustrate this point.

[72] Further evidence supporting the assumption that *–e* and *–êk* merge in the same category is drawn from the two DP-internal interrogative determiners *kam* 'which' and *ĉɪ* 'what'. They have similar distributions such that the former precedes a noun which, in turn, precedes *–e*, while the latter precedes a noun which directly precedes *–êk* (see the examples in 10, further above).

[73] See Von Heusinger (2002) for a detailed analysis of specificity feature associated with indefinite articles across languages.

(49)

a. bıra-y**êk**-ım naw-i Saman-e.
brother-INDEF-1SG name-3SG Saman-3SG.PRS
'A brother of mine's name is Saman.'

b. ew bıra-y**e**-m naw-i Saman-e
that brother-DEF-1SG name-3SG Saman-3SG.PRS
'That brother of mine's name is Saman'

c. bıra-y**eke**-m naw-i Saman-e.
brother-DEF-1SG name-3SG Saman-3SG.PRS
'My brother's name is Saman.'

So, the first two indefinite and definite DPs in (49a, b) realized by *–êk* and *–e*, respectively, are equally interpreted as specific but not unique; the proposition that the speaker has additional brothers is a simple and naturally invited inference, though it is not entailed or presupposed by either DPs. Conversely, the definite DP realized by *–eke* in (49c) offers the reading that the speaker has only one brother (Saman), while *–eke* provides a reading where the DP is interpreted as both unique and specific; the interlocutors can easily locate the referent, since it is unique (For a detailed analysis of the specificity feature in question, which is argued to be borne by both definite and indefinite markers, see González-Rivera and Delicado-Cantero 2011: 130; Lyons 1999; Villalba 2007:129; Von Heusinger 2002). This observation suggests that the category D spelled out by either of the two (in)definite markers *-êk* or *–e* is associated with specificity but not uniqueness.[74] This is in contrast to the D category realized by the main definite marker *-eke,* encoding both features of specificity and uniqueness. Note that Persian uses a similar indefinite marker realized as *–i* which is argued by S. Karimi (1990, 1996) to be a marker of specificity.

Summarizing, in this section I have examined the syntax of indefiniteness, focusing on the role and morphosyntactic status of the inflection *-êk* and how a nominal phrase containing it is syntactically derived. Providing empirical arguments, I demonstrated that *-êk* does mark indefiniteness and occupies a different position from that of numerals and quantifiers. As for the derivation, I have put forth a proposal according to which an indefinite DP is derived after

[74] See González-Rivera and Delicado-Cantero (2011: 130-131) for a similar analysis between definite and indefinite markers in terms of the individual features they hold, including specificity and unspecificity.

the NP rises to Spec DP alone, hence ruling out the roll-up movement pattern attested for the derivation of definite DPs in AP Izafe constructions.

4.7 Concluding remarks

In this chapter, I have investigated the syntax of definite and indefinite nominal phrases in which CK employs two definite articles '*–eke*, *–e*' and a single marker of indefiniteness '*-êk*'. I have paid special attention to the morphosyntactic status of the enclitic *–e*, co-occurring with demonstratives, where I have provided empirical evidence that it marks definiteness (specificity). Likewise, against some previous analyses, I have shown that the inflection *–êk* marks indefiniteness, and is a category different from numerals or quantifiers.

As far as the syntactic derivation is concerned, I have advanced a two-DP-layer proposal where two structurally different D categories project, bearing similar but not necessarily identical features. I demonstrated that there are both structural and semantic differences between both DP projections. The higher DP is the domain of a specificity feature when realized by the definite marker *-e*, but of an indefiniteness (specific or non-specific) feature when it is occupied by the indefinite marker *–êk.* On the other hand, being occupied by the main definite article *-eke*, the lower D position is the locus of fully-fledged definiteness, comprising both specificity and uniqueness.

As for the structure, I demonstrated that definite DPs marked by either of the definite articles (*-eke*, *-e*) are derived through roll-up movement of the NP contained from its first merge position below the category D up to the specifier position of the DP in AP Izafe constructions. I have also argued that the indefinite marker *–êk* merges in the same D position as the definite marker *-e,* in the higher DP domain. However, unlike the definite DPs, its derivation involves raising the NP to Spec DP alone, without pied-piping other categories below D.

I have also shown that the two bimorphemic demonstrative constructions in CK, *em…-e* 'this…-DEF' and *ew…-e* 'that….-DEF', hold two features: deixis, realized by either of the two prenominal demonstrative elements, and definiteness, marked by the accompanying postnominal definite marker *-e.* Thus, if monomorphemic demonstratives cross-linguistically encode both definiteness and locative (deictic) features, the two features are borne by separate functional categories in the bimorphemic demonstratives in CK. In light of this contention, referring to the two CK demonstrative elements *em* 'this' and *ew* 'that' as *analytic demonstratives* is strongly justifiable.

Chapter 5. Number and Quantification in CK

5.1 Introduction

This chapter investigates two interrelated topics: number, which addresses plural number marking, and quantification which investigates quantifying elements including both numerals and quantifiers.

As noted in the previous chapter (section 4.3), the plural marker *-an* exhibits intriguing morphosyntactic traits in CK. Morphologically, it resembles the two definite markers *–eke* and *–e*, behaving as an enclitic which attaches to the noun or to the end of strings of postnominal modifiers. Syntactically, *-an* displays an unexpected position in relation to the co-occurring definite marker *–eke*; contrary to some cross-linguistic data, the plural marker follows the definite marker which, in turn, attaches to the noun. Given the non-lexicalist approach and the bottom-up derivational theory, the closer a functional inflection to a given lexical head in the surface form, the lower in the hierarchical structure, and vice-versa. Based on the distribution of *–an* in relation to *–eke* and the lexical head noun, the projection hosting the plural number marking (NumP) seems to take scope over, hence be structurally higher than, the DP layer. This is a rather surprising phenomenon and, to the best of my knowledge, is rare cross-linguistically, since the scope relation between NumP and DP should be the other way round. In addition to unfavourable semantic consequences, this phenomenon appears to pose a serious morphosyntactic challenge to Baker's (1985, 1988) Mirror Principle, discussed below. Hence, the issue merits special investigation.

Quantifying elements form the second part of my investigation in this chapter. These include cardinal numerals and quantifiers such as *hemu* 'all' and *ĉend* '(a) few'. Quantifiers in CK have certain salient characteristics. Exhibiting definite and indefinite properties, two sets of quantifiers are distinguished which are argued to merge in structurally different positions: some above and others below the DP projection. As far as their morphology is concerned, indefinite quantifiers fall into different groups, leading them to occupy distinct structural positions and undergo different derivational operations. Some indefinite quantifiers are morphologically complex, consisting of a noun and the indefinite inflectional element *-êk* such as *hend-êk* (amount-INDEF) 'some'. My conjecture about these quantifiers is that they are derived from nouns following movement of NP to Spec DP. Since all quantifiers need to co-occur with a DP (either definite or indefinite), the constituent containing a quantifier is argued here to be an argument rather than a predicate, in the sense of Longobardi (1994) and Szabolcsi (1994), among others.

Questions of number and quantification are addressed separately in what follows. Section 5.2 provides the cross-linguistic theoretical background on the syntax of number, accompanied by some theoretical assumptions on number in CK. In 5.3, I offer a syntactic analysis of number as a functional projection (NumP) and its intriguing morphosyntactic structural relation to the DP projection. An account is given in the same section of some syntactic analyses including the Mirror Principle and syntactic/semantic scope within the nominal phrase. Section 5.4 provides the data on quantifying elements and, based on their morphosyntactic behaviour, two types of quantifiers are distinguished: definite and indefinite. In 5.5, I present some research background on the syntactic status of quantifiers across languages, followed by the theoretical assumptions to be used as a basis for subsequent analyses. The syntax of quantifiers and quantified nominal constructions are addressed in 5.6. Thus, 5.6.1 is focussed on the syntactic analysis of definite quantifiers, while 5.6.2 examines the syntax of indefinite quantifiers. Section 5.7 concludes the chapter.

5.2 Number: theoretical background and assumptions

It should be noted that throughout this chapter I use the term *number* to refer to the number morphology marked by *–an*. The label *numerals* or *cardinal numerals*, though, is used to refer to numerical expressions such as *du* 'two', *sê* 'three' and so forth.

In the early stages of Chomsky's syntactic theory, it was assumed that number was added to nouns in the lexicon with no separate projection, i.e., just as a feature [PL], assigned to nouns by a syntactic rule (Chomsky 1965). Following the current generative tradition, though, if DP is structurally parallel to CP where D is equivalent to C (Abney 1987; Kishimoto 2000; Szabolcsi 1994: 2016-2019), the existence of another intermediate functional projection equivalent to T (Infl) or Asp (Aspect) would conceptually be reasonable. There is, in fact, extensive research assuming DP-internal intermediate projections; thus, the existence of such functional categories is quite uncontroversial (see Borer 2005; Haegeman 1993; Hamedani 2011; Rouveret 1991; Szabolcsi 1994; Wiltschko 2008; Zamparelli 1998, 2000). In accordance with Ritter (1991, 1992, 1995), inter alia, I will term this functional head Num, assuming that it represents grammatical number interpreted as singular, dual, paucal or plural (see also Alexiadou 2001; Borer 2005; Cheng and Sybesma 1999; Delfitto and Schroten 1991; Gebhardt 2009; Kramer 2012; Li 1998; Munn and Schmitt 1999, 2005; Ritter 1991, 1992, 1993, 1995; Rouveret 1991; Vangsnes 2001).

Further, Deprez (2005) claims that in languages that mark plural morphology, number projects a phrase (NumP), while in languages with no number marking this projection of NumP is

optional. The pluralization process is, then, taken to be the result of the plural marker merging as a functional category above NP, selecting this nominal projection as its complement.

As far as CK is concerned, the number morphology is realized by *–an*, an enclitic that attaches to the end of the nominal phrase. I take the number marking to be a functional category (Num) that projects, heading the phrase NumP. The clearest evidence that number projects a phrase in CK is that it is morphologically realized and adds semantic content in the nominal phrase. Thus, the functional category bearing the feature [+PL] merges somewhere above NP, rendering the whole nominal construction plural. In light of these assumptions, the following section (5.3) addresses the syntax of number, where it is located and its structural relation with the DP projection.

5.3 The syntax of number in CK

This section investigates the syntax of number as a functional category with the main focus on plurality.[75] As outlined above, the plural marker *-an* is an enclitic attaching to the end of a bare noun (1a), a definite noun where *–an* follows the definite article (1b), or, in case of modification, to the end of strings of postnominal modifiers (1c, d).

(1)

a. pyaw-**an**
   man-PL
   'men'

b. pyaw-ek-**an**
   man-DEF-PL
   'the men'

c. pyaw-e pir-ek-**an**
   man-IZ old-DEF-PL
   'the old men'

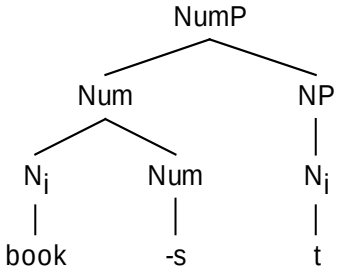
d. pyaw-e pir-e žir-ek-**an**
   man-IZ old-IZ wise-DEF-PL
   'the old wise men'

[75] This topic was presented at two international conferences under the title of 'The Noun Phrase in Central Kurdish: a Projection of D (DP) not Num (NumP)': (i) Linguistics and English Language Postgraduate Conference (May 2017, The University of Edinburgh, Scotland/ UK). (ii) Linguistics Association of Great Britain Annual Conference (September 2017, University of Kent/ UK).

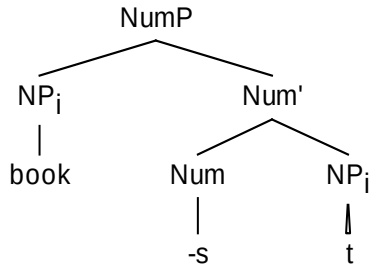
In the previous section, I referred to extensive literature in favour of number as a functional category (Num) that projects above NP within the nominal phrase. For instance, Hamedani (2011), Kishimoto (2000), Lyons (1995) and Wiltschko (2008) contend that number in English projects a phrase headed by the functional plural marker *-s*. This morpheme obviously appears as a suffix to the right of the noun. They argue that a plural noun such as *books* is derived by moving the noun *book* either as a head (2a) or as a phrase (2b) to the left of the functional head, as follows:

(2)

a.

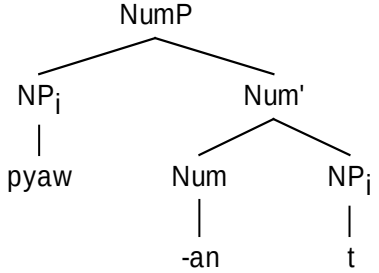


b.



In the previous chapter (4.5.1), I provided conceptual and empirical evidence that head movement fails to account for the derivation of the nominal phrase in CK, including the projections of Izafe and definiteness. On similar (actually the same) grounds, the claim here is that head movement does not work for the derivation of plural nominal projections, either. Thus the structure in (2a) is rejected for CK without discussion. Instead, I will adopt the same phrasal movement analysis (2b) which I have advanced in the previous chapters. Accordingly, as argued for in the derivation of (in)definite DPs, when functional categories such as *–an* (plurality) and *–eke* (definiteness) appear to the right side of the noun, it results from NP movement to the left of the functional element; it moves from one specifier to the next, pied-piping all the projections en route to its right. This is how the mirror-image or inverse constituent order within the nominal phrase can be accounted for. Thus, assuming the minimalist bottom-up derivational approach, the nominal phrase in (1a) is derived as follows:

(3)



The category of number (Num) merges with NP first. As mentioned in the previous chapter (4.5.1), the head of a head-final construction is argued to bear a movement-triggering feature with the function of moving the sister of the head to the specifier of that head, for linearization purposes (Biberauer *et al*. 2014). Also, since the functional element is an enclitic that phonologically requires a host, the noun *pyaw* 'man' moves as NP to Spec NumP, picking up the enclitic and providing it with a host. Now, if the nominal phrase in (1a) is made definite, both conceptual and theoretical problems will arise. The standard cross-linguistic observation is that the definite marker, if it is a suffix (or enclitic), appears on the right of the plural suffix (or enclitic) in the nominal phrase. That is, number should appear inside the definite marker, closer to the noun. This assumption does not apply to CK, though. In (3), for example, a D category realized by the definite marker *–eke* cannot simply merge with NumP followed by the roll-up movement of NumP to Spec DP, since this derives the ungrammatical morpheme order given in (4a). As is shown in (4b), repeated from (1b), the plural definite nominal construction exhibits an unusual morpheme order, where the definite marker precedes number marking. So, unlike the majority of languages, the nominal phrase in CK has the marker of definiteness closer to the noun than the number marking.

(4)

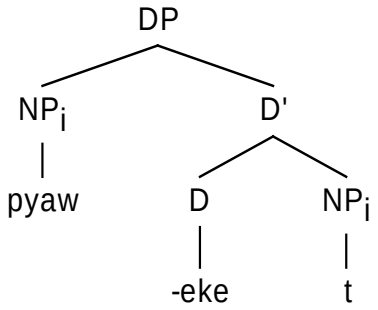
a. *pyaw-an-eke
   man-PL-DEF
   intended meaning: 'the men'

b. pyaw-ek-an
   man-DEF-PL
   'the men'

Ever since Baker (1985, 1988), it has been proposed that the order of inflections on a stem is immediately related to their first merge position; these inflections appear on the stem linearly in a reverse order to the way they merge in their syntactic structure as a result of movement, either head movement or phrasal movement, in a roll-up fashion (see Baker 1985, 1988; Julien 2002b; Rice 2000). Given the distribution of *–eke* and *–an* in relation to each other on the noun (see 4b), the question arising here is where number (NumP) is located in relation to D. Being a functional head, number is standardly considered as a syntactic category interpreted at the conceptual intentional level of the derivation. It signals individuation, marking the DP as either singular or plural. As a functional category, number occurs under a syntactic projection 'NumP'. Keeping to the bottom-up derivational analysis, the plural nominal construction in

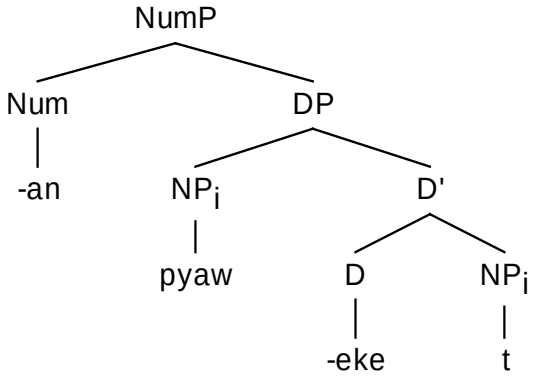
(4b) is, then, derived as follows. The functional category D merges with the NP *pyaw* 'man' to its right. As shown in (5), after merger of D, the NP moves to Spec DP, satisfying the EPP feature on D and finally providing *-eke* with a host.

(5)



The next step is merger with DP of the functional category Num realized by the plural marker *-an*.

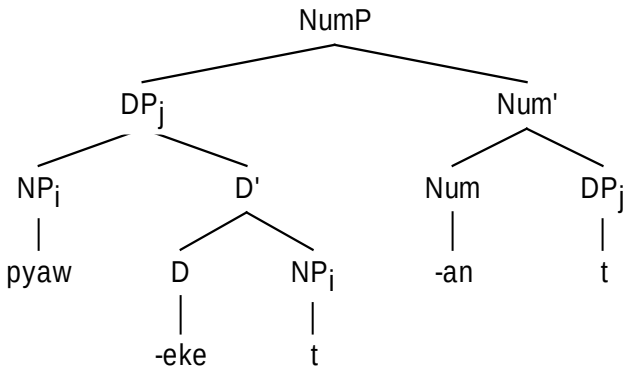
(6)



The nominal phrase in (4b) is a head-final construction with the D head *(-eke*) following the NP (*pyaw* 'man') and the Num head (*-an*) following the DP (*pyaw-eke* 'the man'). Thus, given the surface morpheme order, in light of Kayne's (1994) LCA, the DP complement of the Num head (*-an*) moves to a position asymmetrically c-commanding the relevant head. In order for this movement to occur, the DP complement moves to Spec NumP where it c-commands its trace. The NP moves in a pied-piping fashion to Spec NumP, thereby providing both markers of definiteness and Number with a host.[76] Based on this structure, the discourse-related category D merges before, hence lower than, Num, a rather intriguing result.

[76] As was first proposed by Kayne (1994: 52-53) and advocated by Biberauer *et al* (2014), phrases with a head-final order must be derived by roll-up movement: successive leftward movement of their relevant complements plus the projections which contain the moved complements.

(7)



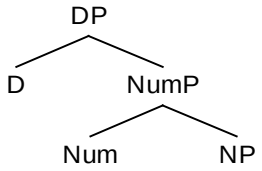
Given these structures (6, 7), and the linear order of the definite marker -*eke* in relation to the plural enclitic –*an* (4b), it appears that DP is within the scope of NumP (see especially the structure in 6). This provisional conclusion is both surprising and problematic and is, to the best of my knowledge, unprecedented in the literature. The peculiarity is two-fold: conceptual and theoretical, namely semantic and syntactic.

Semantically, the standard conceptual pattern in applying the processes of pluralization and familiarization (definiteness) is that the former precedes the latter, not the other way round. A plural marker normally has an individuating function, picking out individual instances of whatever the noun describes (see Corbett 2000; Grimm 2012). The definite marker, though, bears the grammatical referentiality of the nominal phrase as a whole regardless of whether it is singular or plural. Therefore, a plural countable noun is taken as a single unit or body while it is made definite, hence its number morphology (whether it is singular or plural) is not visible to the familiarization (definiteness) process. Accordingly, it is not individual definite entities which are pluralized; rather, it is a group of items (plural) which are made definite as a single entity. For instance, it is not the term *the book* which is targeted by pluralization to yield *the books*; to put it another way, it is not a group of individual definite *books* pluralized, but it is the plural noun *books* which is made definite (or familiarized to the addressee) to produce *the books*. This means that *the books* is not the plural form of *the book*, but of *books* to which *the* is then added to make it definite. Based on its derivation, though, the CK nominal phrase appears to oppose all these expectations, where the conceptually unattested order of processes occur between the markers of number and definiteness. A count noun seems to be pluralized after it is made definite. This is shown by the example in (4b), where the definite marker –*eke* appears closer to the noun than the plural number marker –*an*.

Theoretically, on the other hand, the consequence of this peculiarity in the position of number and definiteness in relation to NP is more visible and extensive. Given the relation between

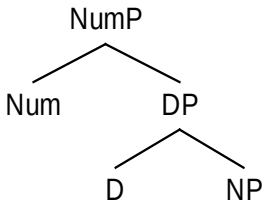
number and definiteness cross-linguistically, it is quite unusual for Num to c-command DP. The standard cross-linguistic structure is that DP normally closes the nominal projection, not number (NumP).[77] That is, number as a functional projection (NumP) falls within the scope of D, hence is structurally lower than the DP projection (see Aboh 2004a; Alexiado et al. 2007; Cinque 1996, 2005: 328; Coene and D'hulst 2003: 17; Giusti 1992; Julien 2005: 4; Matthewson 1998, 2001; Stavrou and Terzi 2009; Panagiotidis 2000: 727; Ritter 1991, 1992, 1995; Roberts 2011: 11; Svenonius 2008). Accordingly, the plausible hierarchy between D and Num is cross-linguistically DP > NumP > NP, suggesting that number is closer to the noun in the surface representation, hence is lower in the structure than the definite marker (D) as represented below.

(8) The standard structural hierarchical relation between D and Num above NP



However, the structure in the CK nominal phrase represented in (9) seems to militate against the universal structure in which DP is lower than NumP. In other words, DP falls within the scope of Num, leading to the nominal phrase being represented as a projection of number with NumP occupying the top of the nominal phrase.

(9)



Moreover, based on typological refinement of data from a wide range of languages, Rijkhoff (2002) claims that referentiality elements such as the definite marker takes scope over, hence is structurally higher than, quantity elements such as number. Observing this contention, Holmberg and Oden (2008) view Hawrami (another dialect of Kurdish) to pose a problem for Rijkhoff's generalization. In Hawrami, the plural marker *-an*, in the same way as CK, takes scope over the definite marker *-eke*. By analogy, their assumption is extended to this analysis on the grounds that CK behaves identically to Hawrami in this regard. The DP in CK falls

[77] This analysis applies only to languages in which the definite marker is morphologically realized hence, the D projects DP (For an analysis of languages lacking a DP projection in the nominal phrase, see Bošković 2004, 2005, 2016; Despić 2013; Marelj 2011; Progovac 1998; Talic 2014, 2015; Trenkic 2004; Zlatić 1997).

within the scope of Num, contrary to the cross-linguistic DP structure, hence casts doubt on Rijkhoff's claim as well.

The peculiarity in word order between D and Num in CK also poses a challenge for syntactic theory, specifically Baker's (1985, 1988) Mirror Principle which states: 'Morphological derivations must directly reflect syntactic derivations (and vice versa)'. According to the theory of generative syntax, universal uniformity between languages is due to the existence of semantic compositionality, which results from scopal relationships. Following Rice (2000), I will use the term scope in the sense that it involves semantic compositionality. For instance, given the three syntactic items X, Y and Z, X and Y combine to form a bigger syntactic object and the two then combine as a single unit with Z. Thus, the meaning encoded in Z is added to the meaning of X and Y as a single entity. This entails that the scopal relations among functional elements are structurally represented, where morphemes of wider scope c-command those with narrower scope (see Baker 1985, 1988; Marantz 1984).

Further, Baker's Mirror Principle draws a one-to-one correspondence relation between the internal structure of complex words, on the one hand, and that of phrases and sentences, on the other. According to the generalization, a word with functional heads attached to it as suffixes reflects, in a mirroring fashion, the syntactic structure derived by merging these heads.[78] So, the surface linear order of such suffixes is considered as the post-syntactic realization of their scopal relationships. A complex word is, then, syntactically derived via a given stem merging in a position lower than all the functional heads attaching to that stem in the construction. The functional heads c-command the stem and are hierarchically ordered based on their scope. In order to generate a correct linear morpheme order, the stem undergoes movement up to the left of each functional head, thereby picking it up and moving successively to the next c-commanding head. So, the order of suffixes on a stem is directly related to their basic structural position, so that the heads appear on the stem as suffixes linearly in a reverse order to the way they merge in their syntactic structure. That is, the order of functional morphemes mirrors the order of the syntactic operations (for more on Mirror Principle see Baker 1992, 1996; Brunson 1992; Jelinek and Willie 1996, all cited in Rice 2000: 24; Julien 2002b). Thus, for instance, in the clausal domain tense and aspect are two structural categories within the Tense Phrase (TP), which are both related to the temporal aspect of the event (see Julien 2002b, among many others). Tense modifies the temporal properties of the sentence, whereas aspect modifies the VP, more specifically the temporal structure of the event itself. Accordingly, tense has a wider

[78] On prefixes and the Mirror Principle, see Julien (2002b).

scope than aspect, a contention which should be reflected in the structure. That is, in languages with both tense and aspect realized by different elements, aspect should be structurally lower than tense, hence appear closer to the verb. Following Baker's Mirror Principle, then, the prediction is that in a language where tense and aspect are expressed by suffixal inflections, aspect should be closer to the verb than tense in the surface representation (V-Asp-Tns) (see also Holmberg and Roberts 2013). Extending this contention to the nominal domain, number should be closer to the noun in the surface form, because it is lower in the structure than the definite marker (D), having narrower scope than D.

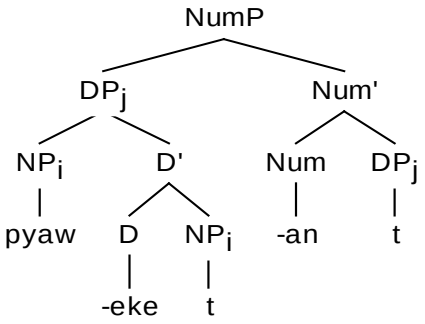
I want to digress slightly to note that Baker's (1985, 1988) proposal argues for a head-movement analysis to account for the structural derivation of complex words in the verbal (clausal) domain. However, the theory can also apply to complex words derived by phrasal movement. Not only that, based on a number of recent proposals, a lexical head inflected with functional elements in a head-final order is not derived via head movement but via phrasal movement which applies in a fashion resulting in the head-final order. That is, the lexical element starts from the bottom as a phrase picking up the suffixal inflections such that the lexical item appears as a head-final construction with all the inflections appearing to its right after spell-out (see Biberauer 2003; Biberauer *et al*. 2014; Holmberg 2000; Holmberg and Roberts 2013; Hróarsdóttir 2000; Jayaseelan 2010; Mahajan 2003). In addition, drawing on Holmberg (2000) and Kayne (1994), Julien 2002b argues that suffixation in head-initial constructions results from head-movement, whereas in head-final orders it is the outcome of phrasal movement.

Given these proposals, the question is: how to account for the interpretation of a nominal phrase that involves a DP with NumP occurring above it? Is CK really a counterexample to all the well-established proposals given above? I will argue that it is not. Under closer inspection, it emerges that a definite plural nominal projection realized by *-eke* still falls within the scope of DP if the two DP layer analysis is reconsidered. In other words, positing the existence of two DP layers within the nominal phrase (as claimed in the previous chapter), a higher functional D category still exists above NumP, though it is null when *–eke* is realized. In the previous chapter (4.5), I provided empirical evidence that the CK nominal phrase involves two structural DP levels with the functional projection of Number intermediate between them. Recall that the higher DP is spelt out by the definite marker *–e*, while the lower DP layer is realized by the

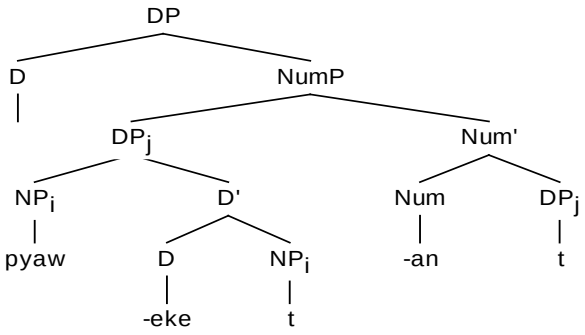
main definite article *–eke*. This means that the structure in (7), repeated below as (10a), should still have a DP above NumP, as shown in (10b).[79]

(10)

a.



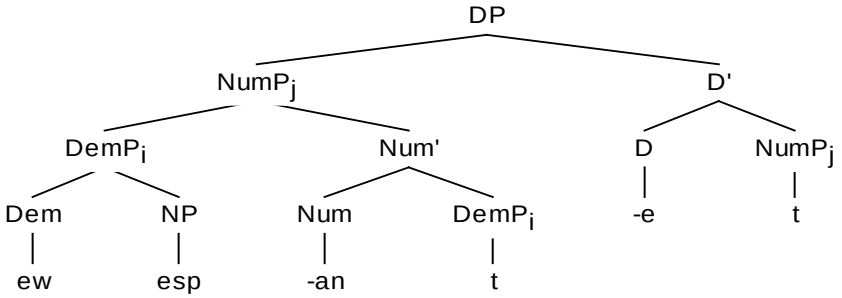
b.



If we posit two DP layers in the nominal phrase, where the DP realized by *–e* is above NumP, and the one spelt out by *–eke* is below it, the analysis represented by (10b) should be on the right path. As pointed out before (4.5), these two definite markers are in complementary distribution with each other. So, when the DP is realized by *–e*, the projection of number (NumP) falls in the scope of D, hence occurs below it, as expected. The example below and its structural representation in (12) is offered again for expository convenience, reminding the reader of the analysis argued for in chapter four.

(11) ew esp-an-e
that horse-PL-DEF
'those horses'

(12)



[79] The hypothesis that such nominal constructions should be a projection of D (DP) not Num (NumP) is plausibly related to the process of c-selection. It could be the case that in CK the functional category above the nominal phrase (being a preposition, a verb or a quantifier) is always subcategorized for a DP rather than NumP or NP. Two pieces of evidence support this assumption. First, in chapter four (4.5.1), based on Longobardi (1994) and Szabolcsi (1994), I argued that nominal constructions in argument positions are DP projections even in the absence of a (in)definite marker, where the D is null. Secondly, as I argue below (section 5.4), quantifiers in CK are always accompanied by (or select) a DP complement, rather than just an NP or NumP.

In (10b), the occurrence of *–eke* excludes the realization of the secondary definite marker *–e* in the higher D position. However, this higher D category could still project but remain unpronounced at spell-out for reasons which are shortly shown. This assumption that a null DP projection exists above NumP raises questions about the semantic-syntactic function of the empty D category. One might assume that it is this D bearing the interpretable DEF feature in the structure, whereas the lower D realized by *–eke* carries the uninterpretable DEF feature. That is, the higher null D (but not the lower spelled-out D) is the source of referentiality that provides the nominal phrase proper with the definiteness interpretation. Though looking attractive, this presumption does not hold for CK and is at odds with the analysis offered in the previous chapters. For instance, in chapter three (3.3.1), I argued that the DEF feature on D realized by *–eke* is interpretable and has a value. The D establishes an agreement relation in DEF with the Izafe category, resulting in valuing the uninterpretable DEF feature on Izafe by D. Likewise, in chapter four (4.5.2), I argued that the two D categories in the nominal phrase are not the locus of the same feature(s). I provided empirical evidence that the D realized by *–eke* bears the two sub-features entailed by definiteness (uniqueness and specificity) while the D spelled out by *–e* only carries specificity. These arguments invalidate the assumption that the lower D realized by *–eke* is uninterpretable.

However, the question why the higher D projects (but is not spelled out) when the lower D is morphologically realized by *–eke* in plural nominal constructions is yet to be answered. I propose that this D which holds a specificity feature serves to impart double definiteness (or double specificity), a phenomenon which I have already argued to exist in the CK nominal phrase. In chapter three (3.2.2), I touched upon the idea of double definiteness or double specificity which is quite productive in the language. I illustrated that a nominal phrase can be made definite twice: first by merging with D carrying a DEF feature and secondly by merging the derived DP with a possessive construction realized either by Izafe (13b) or by a pronominal enclitic (13c).

(13)

a. esp-i pyaw-eke-i
   horse-IZ man-DEF-CASE
   ‘the man’s horse’

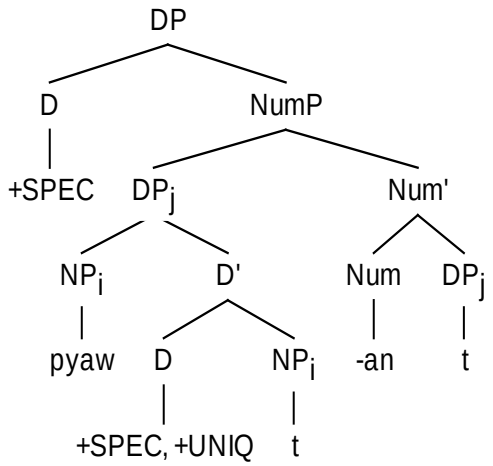
b. esp-eke-i pyaw-eke-i
   horse-DEF-IZ man-DEF-CASE
   ‘the man’s horse’, literally: ‘the horse of the man’s’

c. esp-eke-m
horse-DEF-1SG
'my horse', literally: 'the my horse'

In (13b, c), the noun *esp* 'horse' is definite even without the definite marker. However, *-eke* is added to the nominal phrase, most plausibly for reasons of further specifying and familiarizing the referent to the hearer. This suggests that double definiteness is available in CK, lending further support to the current assumption and making the occurrence of a null D above NumP justifiable. Note that double definiteness is attested across various languages including Arabic, Hebrew, Romanian and some Scandinavian languages (see Börjars 1994; Börjars and Harries 2008; Dahl 2004; Danon 2001, 2008; Giusti 1994; Julien 2002a, 2003, 2005; Strahan 2008; Wintner 2000).

A second question to be addressed is: why this higher D is not spelled out when the lower D which occurs below NumP is realized (by *–eke*). According to Holmberg and Roberts (2013), when two identical copies of a DEF-linked feature merge in two hierarchically different structural categories, only one copy is pronounced. In terms of which one of the two copies should be pronounced, they argue that the functional category which bears more sub-features (where the features together form a morphological unit) is the copy pronounced after spell-out. Crucially, this proposal seems to apply subtly to the structural analysis in question. As shown in (10b), repeated below as (14), it is the lower D which is spelled out as *–eke*. Recall that this D bears the two sub-features entailed by definiteness: specificity and uniqueness, whereas the higher D bears the single feature of specificity. Accordingly, it should be the lower D which forms the morphological unit, hence gets spelt out at PF.

(14)



Further cross-linguistic evidence in favour of why the higher D is not pronounced comes from a proposal by Benmamoun (2000) concerning the so-called Construct State (CS) construction in Arabic and Hebrew. A CS is a nominal phrase usually consisting of two nominal elements where only the second component carries a marker of definiteness.[80] Consider the following example.

(15) ktab l-weld Benmamoun (2000: 140)
book DEF-boy
'the boy's book'

Benmamoun claims that CSs contain two DPs: one above the projection of number (NumP) and the other (together with NP) below NumP in the structure. Using the example in (15), he contends that the noun *ktab* 'book' is an NP falling under a DP layer with a null D, while *l-weld* (DEF-boy) 'the boy' is the second DP with its D category spelled out as *l-*. Related to this is the empty D which need not be morphologically spelled out though it exists in the syntax; i.e., absence of an overt definiteness morpheme does not imply the absence of the feature DEF in syntax. According to Benmamoun, when two D features merge within a nominal phrase, only the lower D is pronounced, arguing that spelling out the lower D makes the realization of the higher D redundant. This proposal is also valid for the structure in (14) or (10b), where only the lower D is spelled out as *-eke*, and the higher D is left unpronounced.

Before closing the discussion, I touch upon two crosslinguistic cases related to the linear order between the definite marker and number morphology. It is interesting to notice that Bizkaian Basque and Gungbe are apparently similar to CK, with the definite article showing inside the number marking. I will address each of them separately, starting with Bizkaian Basque. According to Svenonius (2008: 19), Bizkaian Basque is a language that appears to have a plural marker outside the definite article as given below:

(16) (Hualde and Ortiz de Urbina 2003: 119-120)
a. gizon-a-k
man-DET.ABS-PL
'the men'

[80] For extensive details on CS nominals, see Borer (1988), Danon (2008), Heller (2002), Ouhalla (1991), Shlonsky (2004, 2012) and Siloni (1997, 2001).

b. lekuederr-a-k daude Bizkaia.loc
beautiful.place-DET.ABS-PL are in Bizkaia
'There are beautiful places in Bizkaia'

At face value, the data in (16) exhibit a similar case to CK with respect to the position of number and definite markers in relation to the noun. However, based on Hualde and Ortiz de Urbina (2003: 119-120) the so-called definite article *–a* is misleading and is of much broader use than the English definite article *the*. For instance, the inflection is not a purely independent definite article, but simultaneously a marker of absolutive Case, as well (see 16a, b). Also, the element does not always signal definiteness-related semantic effects, as it is sometimes attached to nouns even in existential contexts (see 16b). Besides, the inflection *-k* only looks like a plural marker in comparison with the absolutive singular noun suffixed with *-a*, but this relationship holds only in the absolutive Case. For example, with nouns in genitive and locative Case plurality is not marked by *–k*, suggesting that this inflection is not a bona fide plural marker, either. Thus, neither of the two Bizkaian Basque morphemes *–a* and *–k* meets the criteria for a definite and a plural marker, respectively, hence the case is not pertinent to the current analysis.

The second case is found in Gungbe, a language which uses free standing morphemes to mark both number (plurality) and definiteness. As is the case in CK, the order between number and definiteness on the noun is N–DEF–PL. Consider the following examples from Aboh (2004b: 77, 90).

(17)

a. távò lɔ́ lɛ́
table the PL
'the tables'

b. távò dàxó àtɔ̀n éhè lɔ́ lɛ́
table big three this the PL
'these three big tables'

According to Aboh, the surface form of the Gungbe nominal phrase is derived by roll-up phrasal movement of NP to a position before the definite and plural morphemes. The analysis therein is similar to the one under discussion as far as the roll-up movement is concerned. However, there are some problems the author has not successfully dealt with in his analysis. Aboh takes the DP projection to be at the top of the nominal phrase and NP at the bottom with NumP intermediate between them. Given his analysis, the projections of AP, CardP (for numerals),

and DemP merge above NP, but below DP and NumP in the universal base order 'Determiner <Number <Demonstrative <Numeral <Adjective <Noun'. For instance, in order to derive the nominal phrase in (17b), Aboh argues, NP starts its snowballing movement to the left of the adjective. The sequence Noun-Adjective then moves to the left of the numeral. The Noun-Adjective-Numeral chain is subsequently raised to the left of the demonstrative. Subsequently, the whole sequence Noun-Adjective-Numeral-Demonstrative moves cyclically to Spec NumP and Spec DP, successively. One noticeable problem with Aboh's derivational analysis concerns the penultimate and ultimate movement operations. The author seems to have avoided the problematic analysis where Num merges above D as the Gungbe data in (17) suggest. He has not explained why the pied-piping movement process proceeds up until Spec NumP where this projection is not picked up like other lower categories (but crossed over), and the big chunk of projections that contain NP finally moves to Spec DP. It is not clear why NP pied-pipes all the functional and lexical categories it crosses below NumP but leaves the plural number morpheme behind. Based on the Gungbe data, the structure of the DP should be the same as CK with respect to the structural location of NumP and DP, with the former entering the derivation later than, hence above, the latter. The roll-up movement would then carry on, picking up DP and raising to Spec NumP as the final destination for the movement, a fact that Aboh has bypassed in his analysis. The question of why DP in Gungbe falls structurally below NumP, though, needs a special investigation which is beyond the scope of this research.

Recapping the main points of this section, I presented some data explaining the structural location of number morphology '*-an*' and the definite marker '*–eke*', based on their distribution. At face value, it seems that the nominal phrase in CK runs counter to some theoretical analyses (Rijkhoff 2002; Ritter 1991, 1992), where the definite marker appears closer to the noun, hence structurally lower than the plural marker. In light of the syntactic derivational analysis adopted in the research, though, the state of affairs in the nominal phrase appears to be well established and the rather unconventional surface form can be derivationally accounted for. Following the two DP layer analysis, a null DP level is argued to project above NumP in a definite plural nominal phrase even when the DP realized by *–eke* projects below it. Thus, the ultimate projection within the nominal phrase is DP rather than NumP, as expected. As for the function it serves, the higher null D is argued to impart double definiteness or double specificity, a phenomenon which is already posited in CK. I have also briefly considered two crosslinguistic cases from Bizkaian Basque and Gunbge which are similar to CK in terms of the relation between number and definite markers on the noun. Bizkaian Basque is assumed to have spurious definite and plural markers, unlike CK, where both *–eke* and *–an* clearly mark

definiteness and plurality, respectively. Gungbe, on the other hand, is argued to have received an inconsistent analysis; Aboh's (2004b) derivational account of Gungbe encounters theoretical problems and the issue needs further scrutiny.

5.4 Quantifiers: distribution and classification

CK has various morphosyntactically distinct quantifiers. Several distinctions can be drawn among quantifying elements in terms of their semantic and syntactic properties. However, since the current study investigates the nominal phrase from a syntactic perspective, it abstracts away from semantic-based divisions of quantifiers into generalized and existential (see Kamp 1981; Lindström 1966; Väänänen 2002; Van Benthem 1984). Instead, I examine the syntax of these elements with a main focus on their morphology, syntax and the role they play in deriving quantified nominal projections. The syntactic behaviour of CK quantifiers can be captured by identifying two major classes: definite and indefinite quantifiers. This classification is mostly based on insights from a large body of crosslinguistic work which divides quantifying expressions into strong and weak quantifiers (see Barwise and Cooper 1981; Borer 2005; Gebhardt 2009; Giusti 1991, 1997; Giusti and Dimitrova-Vulchanova 1996; Julien 2005; Shlonsky 1991; Vangsnes 1999, 2001; Zamparelli 2000).

Given that some quantifiers in CK are invariably used with definite nominal phrases, I will label them definite quantifiers. Consider the examples below.

(18)

a. hemu esp-ek-an
   all horse-DEF-PL
   'all the horses'

b. her de esp-ek-an
   all ten horse-DEF-PL
   'all the ten horses'

c. her esp-e-w hi kes-êk-e
   each horse-DEF-LNK belong to person-INDEF-3SG.PRS
   'Each horse belongs to somebody.'

d. her yek-e-yan
   each one-DEF-3PL
   'each (one) of them'

In these examples, *hemu* 'all' (18a) and *her* 'all' (18b) precede a definite nominal phrase carrying the primary definite marker *–eke*, while *her* 'each' in (18c, d) is followed by a DP which is inflected with the secondary definite marker *–e*. Recall from the previous chapter (4.4) that *her* 'each' is used in CK as a definite quantifier when it precedes a definite nominal phrase realized by *–e*, but as an indefinite quantifier when the nominal phrase is inflected with the indefinite marker *-êk*. Notice that the quantifier interpreted as 'all' is realized by two morphologically different forms *hemu* and *her* (18a, b, successively). I argue that these two elements are located in the same categorial position; however, the fact that they are spelled out differently relates to some co-occurring categories, a topic further investigated in (5.6.2).

The position of demonstratives in relation to the quantifier *hemu* 'all' is particularly intriguing and will reveal interesting phenomena. The two demonstrative determiners in CK, *em* 'this' and *ew* 'that', can either precede the quantifier (19a) or follow it (19b) in a definite nominal construction.

(19)

a. hemu ew esp-an-e
   all that horse-PL-DEF
   'all those horses'

b. ew hemu esp-an-e
   that many horse-PL-DEF
   'those many horses'

Notice that the same quantifier '*hemu*' encodes two different readings, depending on where it appears; it is interpreted as 'all' when it precedes the demonstrative but as 'many' if it follows it.[81] The question arising at this point is: should the difference in meaning between the two homophonous forms result from the difference in the structural categories where they are realized? This is further discussed in (5.6.1).

Turning to indefinite quantifying elements, I demonstrate that CK employs several morphologically simple and complex forms as indefinite quantifiers. Thus, simplex quantifiers include *ĉend* '(a) few' (20a), *hemu* 'every' (20b), *hiĉ* 'no' (20c), *her* 'any' (20d) and cardinal numerals such as *du* 'two' (20e) or *de* 'ten' (20f).

[81] In linguistics, this phenomenon is known as syncretism, where two or more distinct morpho-syntactic forms of a word are identical in form but not necessarily in function or meaning (see Baerman *et al*. 2005).

(20)

a. ĉend esp-êk
(a) few horse-INDEF
'(a) few horses'

b. hemu esp-êk
every horse-INDEF
'every horse'

c. hiĉ esp-êk
no horse-INDEF
'no horse(s)'

d. her esp-êk
any horse-INDEF
'any horse(s)

e. du esp[82]
two horse
'two horses'

f. de esp-êk
ten horse-INDEF
'approximately, ten horses'

As shown in these examples, the quantifiers precede a nominal phrase which carries the indefinite suffix *-êk*. In the last two examples (20e, f), which involve numerals, only (20f) contains the indefinite marker. This does not mean that (20e) is not indefinite, as is clear from the interpretation. Though the indefiniteness is not morphologically realized by *–êk,* the nominal construction is still assumed to be indefinite by default. Further, notice that the plural number marker *–an* does not appear on the noun in (20e) though it is preceded by the numeral *two*. However, I can argue that the feature [+PL] is still there and NumP still projects though the category Num is not morphologically realized. There is plenty of evidence supporting this assumption: first, a verb following the subject *du esp* (two horse) 'two horses' show agreement

[82] It should be noted that the current analysis deals only with simple numerals in the form of those in (20e, f) and does not address complex numerals such as *bist u du* (twenty and two) 'twenty two'. Such morphologically complex numerals are assumed to be syntactically different from simplex numerals, hence require special research (for more details on cardinal numerals, see Stavrou and Terzi 2009).

in number with this construction (21a). Secondly, in several CK varieties, such as Pizhdar, the plural marker *–an* shows on the noun when the latter is preceded by a numeral above *one*, as shown in (21b). Thirdly and more importantly, the plural marker is realized when the noun undergoes ellipsis, as shown in (21c):

(21)

a. du miwan geiŝt-ın
   two guest arrive.PST-3PL
   'Two guests arrived.'

b. du esp-an dekř-ım
   two horse-PL buy.PRS-1SG
   'I will buy two horses.'

c. du-an dekř-ım
   two-PL buy.PRS-1SG
   'I will buy two.'

While most quantifiers in CK are morphologically simple, there are a few complex expressions that quantify over the noun. These consist of a nominal expression inflected with the indefinite marker '*-êk*', where the inflected form precedes the quantified noun which is the head or principal element in the nominal phrase.

(22)

a. hend-êk nan
   some-INDEF bread
   'some bread'

b. toz-êk ŝir
   dust-INDEF milk
   '(a) little milk'

c. next-êk xıwê
   some-INDEF salt
   'some salt'

d. bıř-êk pare
amount-INDEF money
'some money', literally: 'an amount of money'

Comparing the examples in (20) and (22), it turns out that the quantifiers in both sets require the indefinite marker *-êk* in the nominal phrase. The difference between them, though, appears to be in the position of *–êk*. It either attaches to the quantified noun or the quantifying expression itself where the inflection contributes to the morphological realization of the quantifier. Thus, while the quantifiers in (22) are directly provided with the indefinite marker *-êk*, those in (20) precede the noun to which the indefinite marker *–êk* is attached.

Generalizing over definite and indefinite quantifiers, it appears that quantifying elements in CK need to be accompanied by a definite or indefinite DP. Throughout this work I argued that *-eke* and *-e* mark definiteness, while *-êk* is the syntactic realization of indefiniteness; these (in)definite articles are spelled out in the category D. Thus, if the morphological realization of D is an indication of argumenthood (along the lines of Longobardi 1994 and Szabolcsi 1994), one could argue that quantifiers in CK invariably take an argument DP (not just a predicate NP) as their complement (see also Matthewson 2001).

Moreover, there are two vague quantifiers which share morphological properties with adjectives and need special treatment: *zor* 'much, many' and *kem* 'little, few'. In the same fashion as typical adjectives, these two quantifiers take the comparative and superlative suffixes as shown in (23). This is largely impossible with other cardinal or quantifying elements.

(23)

a. sard-tır(-in)
cold-COMP(-SUP)
'colder, (coldest)'

b. kem-tır(-in)
little/few-COMP(-SUP)
'less, fewer (least, fewest)'

c. zor-tır(-in)
much/many-COMP(-SUP)
'more (most)'

Further evidence supporting their adjective-like traits is that the two quantifiers can be coordinated with simple adjectives, while numerals or other cardinal elements cannot. Given that constituents (conjuncts) on both sides of a coordinating conjunction are of the same categorial status, the two quantifiers in question should be syntactically adjectival (24a, b), unlike normal quantifiers and numerals which cannot be coordinated with adjectives (24c).

(24)

a. em aw-e kem u pis-e
this water-IZ little and dirty-DEF
'this scant (and) dirty water'

b. řudaw-i zor u naxoŝ
event-IZ many and terrible
'countless (and) terrible events'

c. *řudaw-i de/hemu u naxoŝ
event-IZ ten/all and terrible
'*ten/all and terrible events'

Likewise, the two quantifiers exhibit intriguing properties as far as their co-occurrence with the noun is concerned. They can either precede or follow the noun, but with a difference in the surface form of the nominal phrase. Below are illustrative examples.

(25)

a. kem mamosta heye muĉe wergrêt
few teacher exist.PRS salary receive
'There are few teachers who receive a salary.'

b. mamosta(-*yêk*)-i kem heye ke muĉe wergrêt
teacher-(INDEF)-IZ few exist.PRS who salary receive
'There are few teachers who receive a salary.'

c. zor aw heye ke sazgar-e
much water exist.PRS which fresh-3SG.PRS
'There is a lot of water which is fresh.'

d. aw-(êk)-i zor le gom-eke-da heye
water-(INDEF)-IZ much in pond-DEF-CASE exist.PRS
'There is a lot of water in the pond.'

As shown in these examples, when either quantifier *kem* 'little, few' or *zor* 'much, many' follows the noun, the latter needs an Izafe morpheme attaching to it (25b, d). Conversely, Izafe does not appear after the noun if the quantifier precedes it (25a, c). This is reminiscent of (and provides further support for) the conjecture defended in chapter two (2.7) regarding word order and the occurrence of Izafe. I argued that Izafe in CK occurs to trigger movement of NP to a position before the co-occurring modifier. The two quantifiers in (25) offer more evidence in support of this contention and are simultaneously proved to be adjectival elements.

Crucial to the contention that these two quantifiers are adjectives is the agreement the co-occurring Izafe exhibits in definiteness with the definite marker *–eke* or *-e*, in the same pattern as for a normal AP Izafe enclitic. Consider these examples.

(26)

a. îir-e sard-eke
milk-IZ(**DEF**) cold-DEF
'the cold milk'

b. em îir-e kem-e
this milk-IZ(**DEF**) little-DEF
'this little amount of milk'

c. aw-e zor-e sazgar-eke
water-IZ(**DEF**) much-IZ(**DEF**) fresh-DEF
'the big amount of fresh water'

Recall from the previous chapters that AP Izafe (the Izafe that links a noun to a following adjective) shows agreement in DEF feature with the definite markers *–eke* and *–e* (see (26a). The Izafe is realized as *–i* in non-definite DPs but as *–e* in definite DPs. Observing the examples in (26b, c), it follows that the Izafe linking the noun to either quantifiers *kem* 'little' (26b) or *zor* 'much' (26c) agrees with the definite markers *–eke* and *–e*, respectively. This (and other arguments given above) offers solid evidence that the two quantifiers in question are adjectives.

Note also that the quantifier *zor* 'much, many' should not be confused with the homophonous degree modifier *zor* 'very'. The latter always precedes adjectives (27a), whereas the former precedes nouns (27b).

(27)

a. zor sard
very cold
'very cold'

b. zor kes
many person
'many people'

In fact, *zor* 'very' can co-occur with the homophonous quantifying element *zor* 'much, many' (28b), where each serves a different function: one a degree modifier and the other a quantifier; it can also occur with the quantifier *kem* 'little/few' (28a). Consider these examples.

(28)

a. zor kem
very little, few
'very little, very few'

b. zor zor
very much, many
'very much, very many'

This provides yet another piece of evidence that the two quantifiers *zor* 'much, many' and *kem* 'little, few' are adjectives by category and by function, as well.

Summing up this section, I have shown that distributional and morphosyntactic differences occur between definite and indefinite quantifiers, on the one hand, as well as simple and complex indefinite quantifiers, on the other. A number of central questions emerge here concerning quantifiers. The first question concerning the two instances of *hemu* 'all, many' is: why do two homophonous (but semantically different) forms appear in two different positions in relation to the demonstratives? What also needs to be addressed is why two different forms (*hemu*, *her*) are used in the same position to encode the meaning of the quantifier *all*. The relation between definite and indefinite quantifiers in terms of whether they are all merged with the same category is a further question. The third question pertains to indefinite quantifiers and

their morphosyntactic behaviour. The analysis should also consider how a quantified nominal phrase with simple quantifiers is syntactically derived? And what derivational processes, if any, lead to the realizations of two morphologically distinct types of indefinite quantifiers (simple and complex)? The final question relates to the two adjectival quantifiers *kem* 'little, few' and *zor* 'much, many', with regard to their distribution and their role in the derivation of a quantified nominal phrase. Before addressing these questions, though, the following section provides some research background on quantifiers across languages, supplemented with the theoretical assumptions made for the current analysis.

5.5 Quantifiers: research background and basic assumptions

In the last three decades, since Abney (1987), the syntactic structure associated with functional projections between NP and DP has been a hotly debated issue. A number of such intermediate projections are distinguished in the hierarchy of the nominal phrase above NP. Apart from the projection of number (NumP), discussed above, these mainly include phrases spelling out quantification (quantifier phrase, QP) and cardinality (cardinal number phrase, Card P). Each of these functional categories encodes some feature(s), hence corresponds to a particular semantic aspect of the nominal phrase (see Abney 1987; Cheng and Sybesma 1999; Giusti 1993; Ritter 1991, 1992, 1995; Shlonsky 1991, 2004; Sportiche 1988; Szabolcsi 1994).

As for quantifying elements, several proposals have been made in the literature to account for their morphosyntactic behaviour. Following Szabolcsi (1987), Abney (1987) claims that quantifiers function as modifiers of the noun. Observing examples such as (29), Abney maintains that quantifiers behave as a specific type of adjective which occupies the Spec NP in the nominal phrase.

(29)

a. the many horses
b. many horses

A second hypothesis is advanced by Sportiche (1988), who investigates floating quantifiers using a pre-DP framework in which determiners such as definite articles occupy the Spec NP position. Sportiche considers quantifiers as elements adjoining to the NP, where they can appear in a floating position in relation to the noun. That is, the nominal projection (NP) containing the noun (possibly with the definite article in its Spec) moves up to a specifier position above, leaving the quantifier in its base position.

Reformulating Sportiche's (1988) hypothesis while investigating Hebrew within a DP framework, Shlonsky (1991) considers quantifiers as heads of a quantified nominal construction. Shlonsky claims that quantifiers head projections of their own in the nominal phrase, taking the DP or NP as their complement. According to Shlonsky, since universal quantifiers head a phrase (QP), the floating quantifier construction results from the DP subject having moved up, leaving the quantifier in situ after spell-out. That is, the DP subject first merges as the complement of the quantifier before it is raised to Spec QP and then to higher specifier positions, giving rise to the construction with the quantifier floating.

Taking an intermediate approach, Giusti (1991) argues that depending on their type, quantifiers can be either heads of a maximal projection (QP) or modifiers which appear in a specifier position. According to Giusti, any quantifier that precedes the noun in the surface form can be the head of a quantified nominal construction; however, when a quantifier is preceded by a determiner such as a definite marker (see 29a), the quantifier corresponds to an adjective (AP), hence functions as a modifier of the nominal phrase. Giusti further argues that since not all quantifiers can appear in a post-determiner (adjectival) position, those that can must be particularly marked as adjectives in the lexicon.

In light of these proposals and the evidence shown by the CK data above, the current analysis considers quantifiers as functional heads that enter the derivation, taking DP or NP as their complement. This is a widely supported proposal in the recent and current syntactic research (see Aboh 2004b; Gebhardt 2009; Giusti 1991; Giusti and Dimitrova-Vulchanova 1996; Shlonsky 1991). As has already been touched upon, this thesis assumes that functional features in CK project within the nominal phrase. The idea that quantifiers are functional heads is based on the criteria used to identify functional elements and distinguish them from other linguistic items. For instance, quantifiers are limited in number and, as a closed class of items, resist being added to. Also, their semantic contribution is functional; unlike lexical items their role is to regulate or contribute to the interpretation of their complement. That is, they mark grammatical (relational) features, hence cannot pick out or identify a specific class of objects themselves (for the identification criteria of functional items, see Abney 1987: 43-44).

However, the assumption regarding quantifiers being functional heads that project excludes the two adjectival quantifiers *kem* 'little, few' and *zor* 'much, many'. Since these quantifying expressions behave precisely as adjectives, I will rely on Cinque's (2010) hypothesis concerning the merger position of adjectives in the nominal phrase. I will, therefore, assume that the two quantifiers merge as AP in the specifier of an empty functional category above NP,

in the same fashion as normal adjectives (see 5.6.2). The following section (5.6) addresses the derivation of quantified nominal constructions in CK with the main focus on the syntax of definite and indefinite quantifiers. This includes their structural categories and the syntactic processes they undergo in deriving quantified nominal constructions.

5.6 The syntactic analysis of quantifiers in CK

This section investigates the syntax of quantifiers. The structure I will use to account for the data is the extended quantified DP with multiple functional projections between NP at the bottom and DP higher up in the structure, based on some proposals advanced in the literature (Abney 1987; Aboh 2004b; Gebhardt 2009; Julien 2002a, 2005; Ritter 1991, 1992, 1995; Shlonsky 1991, 2004, 2012; Siloni 1997; Zamparelli 1998, inter alia). However, in view of the data presented above (5.4) and as it further turns out below, quantifiers in CK cannot all be accommodated under a single projection (QP). The fact that some quantifiers can feasibly appear with others empirically supports the assumption that two separate projections arise in the nominal phrase, where the two co-occurring quantifiers are spelled out. Relating to this, I will use *CardP* to label a projection below DP which pertains to the base generation of cardinal numerals and also some indefinite quantifiers. The label *QP* (quantifier phrase) is, then, retained for a projection above DP, where definite quantifiers are realized. A number of similar proposals have thus far been put forward in the literature, supporting the claim that two separate projections exist to host quantifiers: one above and the other below DP (see, among others, Giusti 1991, 1997; Giusti and Dimitrova-Vulchanova 1996; Shlonsky 1991; Siguroðsson 1993; Vangsnes 1999, 2001; Zamparelli 2000).[83] The thrust of these analyses is that strong (universal) quantifiers such as *all* and *each* head a QP above the DP layer while weak (existential) quantifiers like *some* and *many* fall under a CardP below DP.

Based on the properties exhibited by definite and indefinite quantifiers, the analysis below addresses these two quantifier classes separately. Thus, (5.6.1) investigates the syntax of definite quantifiers as to their position of merger and their role in the derivation of a quantified nominal construction. This is followed in (5.6.2) by a syntactic analysis of indefinite quantifiers including numerical expressions.

[83] Based on their semantics and surface form, strong (definite) quantifiers such as *all* and weak (indefinite) quantifiers like *some* have long been argued to exhibit distributional and structural differences (see Bowers 1975; Jackendoff 1977; Milsark 1979, cited in Gebhardt 2009).

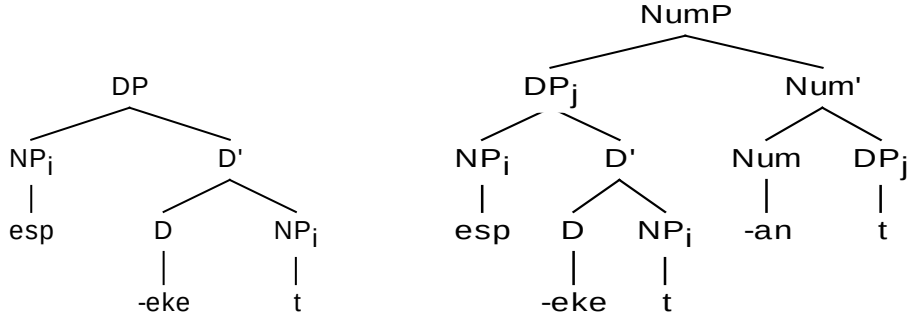
5.6.1 The syntax of definite quantifiers

In this section, I offer a syntactic analysis of definite quantifiers, investigating their functional structural category within the nominal phrase. The question of why all quantifiers in CK do not have the same categorial status, hence are not realized under a single projection, is also addressed. This latter assumption is principally based on the observation that not all these quantifiers are in complementary distribution with each other; some of them can readily co-occur, as we will see. The quantifiers being scrutinized in this section include *hemu*/*her* 'all' and the homophonous form *her* 'each'. For reasons of exposition as to where these projections are located, examples will also be provided containing demonstratives, indefinite quantifiers and definite markers. First, consider the example below.

(30) hemu esp-ek-an
all horse-DEF-PL
'all the horses'

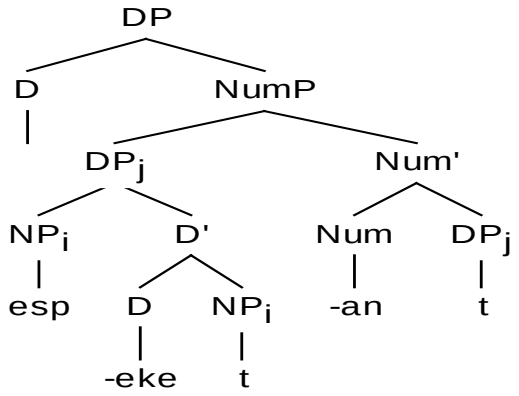
Along the same line of reasoning as Shlonsky 2004 (for Hebrew), I propose that all pre-nominal modifiers in CK including demonstratives, numerals and various quantifiers are functional heads merging above NP. Likewise, I argue that the three definite quantifiers head a separate projection (QP) above the DP level, leaving the CardP below the DP for other cardinal/quantifying elements (for an analysis of two separate projections for quantifiers, see also Cinque 2005; Giusti 1991; Giusti and Dimitrova-Vulchanova 1996; Shlonsky 1991, 2004; Sigurthsson 1993; Zamparelli 2000). Accordingly, the quantified nominal construction in (30) is derived as follows. Repeating the derivational steps of a definite DP, the NP realized by the noun *esp* 'horse' first merges with D spelling out *–eke*, before it moves to Spec DP (31a). This is followed by merger of the number marking at Num above DP, where the phrasal movement carries on, resulting in movement of DP to Spec NumP, (31b).

(31) a. b.



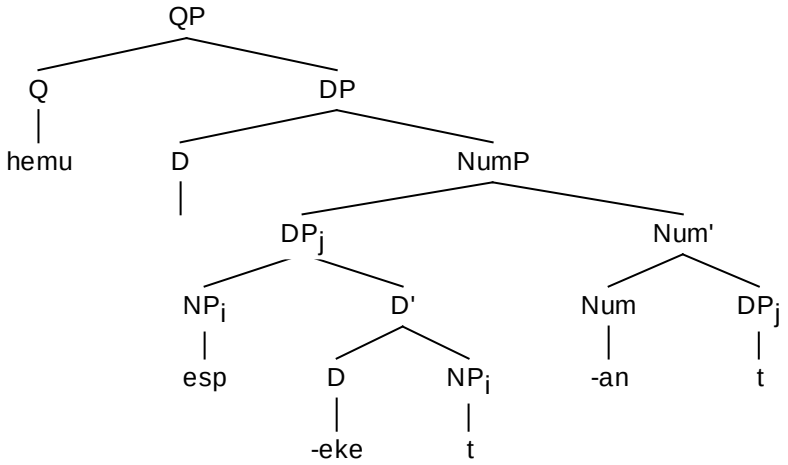
Based on the assumption raised in the previous section (5.3) that NumP must fall within the scope of DP, the structure in (31b) should be under a null DP projection, as shown below.

(32)



At this stage, the functional category Q realizing the quantifier *hemu* 'all' merges with DP to its left.

(33)



In the clausal domain, the quantifier *hemu* 'all' can be productively floated, i.e. stranded, where it follows the DP and VP (34b). In (34a), the subject DP *esp-eke-an* (horse-DEF-PL) 'the horses' is realized in its base position as complement of the quantifier.

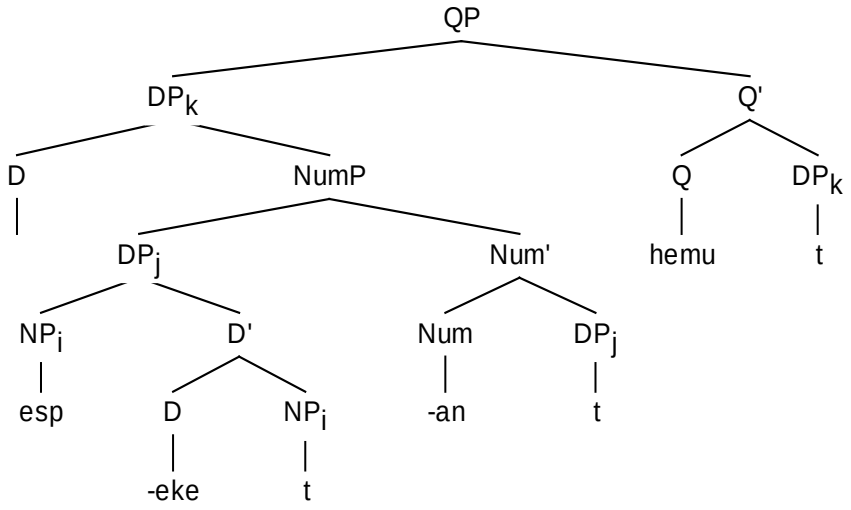
(34)

a. hemu esp-ek-an řoiŝt-ın
   all horse-DEF-PL go.PST-3PL
   'All the horses went.'

b. esp-ek-an řoiŝt-ın hemu-yan
horse-DEF-PL go.PST-3PL all-3PL
'The horses went all.'

It is far beyond the scope of this study to examine the structural derivation of verbal constructions which contain quantified nominal constituents. At face value, though, the DP *esp-eke-an* 'the horses' in (34b) seems to have merged with the quantifier *hemu* 'all' before raising to a position above the VP (possibly Spec TP), as shown in (34a). So, it is movement of the subject DP, I assume, which has left the quantifier stranded below. The pronominal clitic *–yan* attaching to the quantifier in (34b) provides empirical evidence for the DP movement based on some proposals regarding resumptive pronouns (see Shlonsky 1991, among others).[84] That is, the DP has raised from its first merge position as complement of the quantifier, leaving a copy behind which is morphologically realized as *–yan* '3PL'. Accordingly, the quantified DP in (34b) is assumed to have undergone a similar derivation to that in (33), where movement of the DP carries on to Spec QP, as shown below.

(35)



This analysis is in line with Shlonsky (1991, 2004), according to which definite quantifiers (Q) merge as a functional head with the DP, before the latter moves to Spec QP. As suggested by the example in (34b), Spec QP here is not the target of this movement, hence is not the destination for the DP. Rather, the DP uses this Spec position as a crossing or landing site (possibly for locality principle and/ or subjaceny reasons), from where it later moves to a higher Spec position above the VP. Therefore, the quantifier seems to play no role in triggering this

[84] A resumptive pronoun is usually a personal pronoun or a pronominal clitic which appears in a relative clause or other constructions to indicate the resumption or reinstatement of reference to an antecedent (see Beltrama 2013; McKee and McDaniel 2001; Sharvit 1999, among others).

movement; rather the TP or CP projection is a more plausible candidate as the trigger for the movement, a topic which requires more research.

The second definite quantifier is *her* 'all', which is used in certain circumstances in place of the main quantifier *hemu* 'all'. In order to determine the syntactic role of this quantifier concerning where and under what circumstance it is spelled out, I will provide an account of demonstratives and some indefinite cardinal elements. As mentioned above (section 5.4), demonstratives in CK can either precede or follow *hemu* 'Q', depending on which reading is intended by the speaker.

(36)

a. hemu ew esp-an-e
   all that horse-PL-DEF
   'all those horses'

b. ew hemu esp-an-e
   that many horse-PL-DEF
   'those many horses'

Given these examples, *hemu* 'Q' encodes two different readings, based on where it appears. The quantifier is interpreted as *all* when it precedes the demonstrative (36a), but as *many* when it follows it (36b). As postulated above, the fact that some quantifiers can readily co-occur implies that they head different functional projections within the nominal phrase. Consider these examples.

(37)

a. ew de esp-an-e
   that ten horse-PL-DEF
   'those ten horses'

b. ew hemu esp-an-e
   that many horse-PL-DEF
   'those many horses'

These examples provide intriguing properties of quantifying elements. The quantifier *hemu* 'many' appears in the same position as numerals, and is mutually exclusive with it, suggesting that both have the same category and merge in the same structural position. At this point,

consider the position of *her* 'all' in relation to the quantifier *hemu* 'many' (38b) and the numeral *de* 'ten (38a).[85]

(38)

a. **her** de esp-ek-an
all ten horse-DEF-PL
'all the ten horses'

b. **her** hemu esp-ek-an
all many horse-DEF-PL
'all the many horses'

Observing both sets of examples in (37) and (38), I argue that *her* 'all' is used if and only if it is followed by a numeral or the quantifier *hemu* 'many'. That is, CK mainly uses *hemu* as a definite (universal) quantifier to mean *all* when it is not accompanied by other cardinal elements. By contrast, the language makes use of *her* 'all' in the same position when it precedes a numeral or the quantifier *hemu* 'many'. I propose that the functional category (Q), where *hemu/her* 'all' is realized, holds the same semantic and syntactic feature; however, CK uses the phonologically different form *her* 'all' in this circumstance as a strategy to avoid interpretational confusion (at LF) with the other homophonous quantifier *hemu* 'many'. This is further confirmed by the ungrammaticality of the following example in which the two homophonous forms are mutually exclusive.

(39) *hemu hemu esp-ek-an
all many horse-DEF-PL
intended meaning: 'all the many horses'

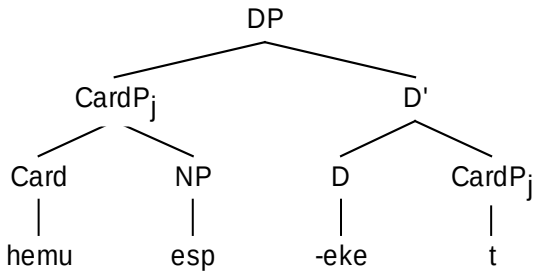
As far as the derivation is concerned, the construction in (38b) is derived as follows. I argue that the quantifier *hemu* 'many' spells out the functional category *Card* (cardinality) in the same pattern as cardinal numerals and other indefinite quantifiers (see section 5.6.2 below for further details). As shown in (40), *hemu* 'many' first merges as *Card* with NP to its right, followed by merger of *–eke* at D with CardP before the latter moves to Spec DP

[85] Notice that the term *her-du* (all-two) is used in CK as a monomorphemic word to mean (both) and invariably precedes definite DPs:

(i) her du kuř-ek-an
all two boy-DEF-PL
'both boys'

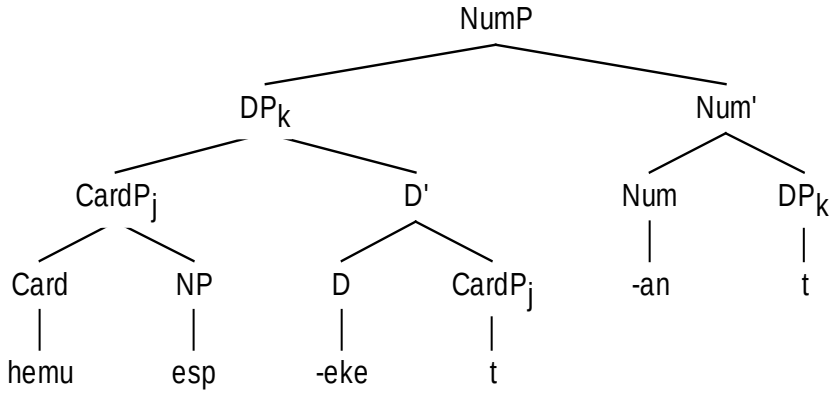
(ii) her du-k-yan
all two-DEF-3PL
'both of them'

(40)



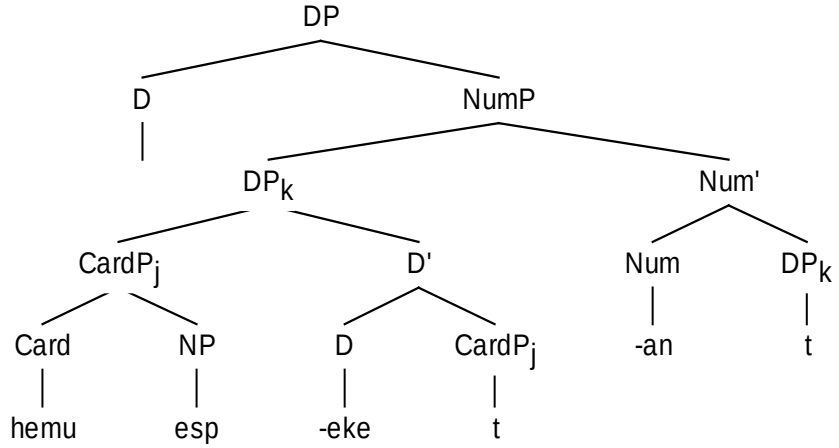
The next step is the functional category Num merging with DP followed by roll-up movement of DP to Spec NumP.

(41)



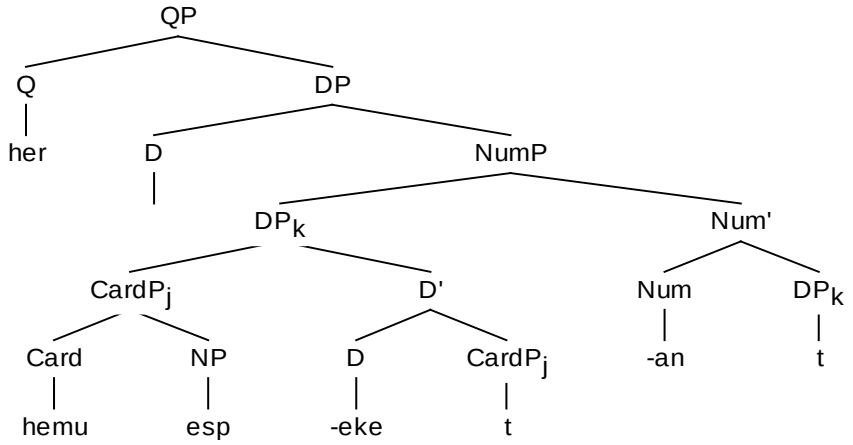
Here, taking into consideration the null DP, which is assumed to exist above NumP in CK (see 5.3), an empty D category then merges with NumP, projecting a DP, as shown below.

(42)



Now, the definite quantifier *her* 'all' merges with the DP bringing about the surface form in (38b).

(43)

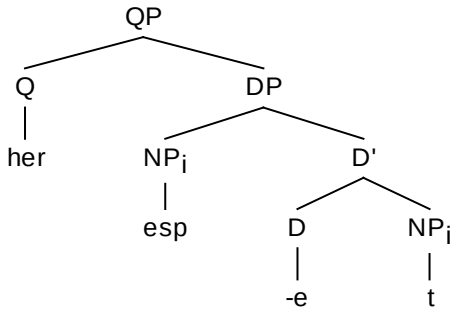


Apart from *hemu*/ *her* 'all', a third definite quantifier occurs in CK which is realized as *her* 'each'. As pointed out in (5.4), the difference between this quantifier and the other two relates to their co-occurrence with the definite marker. The quantifiers *hemu*/*her* 'all' appear with the main definite marker *–eke*, whereas *her* 'each' precedes a DP spelled out by the secondary definite marker *–e*.

(44) her esp-e-w hi kes-êk-e
each horse-DEF-LNK belong to person-INDEF-3SG.PRS
'Each horse belongs to somebody.'

Taking the definite marker *–e* as the realization of the higher DP projection, the quantified nominal construction *her esp-e* 'each horse' in (44) is assumed to undergo the following derivational operations. As shown in (45), the NP *esp* 'horse' first merges with *–e* before it moves to Spec DP. This operation is then followed by merger of *her* 'each' as a definite quantifier with the QP above it, deriving the correct word order.

(45)



Note that the quantifier is located above the DP-level in the same way as its counterpart(s) *hemu/her* 'all'.

Summing up, this section addressed the syntax of definite quantifiers (*hemu*/*her* 'all' and *her* 'each'), examining their role in the derivation of quantified nominal constructions. I argued that these quantifiers are located above the higher DP, with other quantifiers including numerals occurring below the lower DP. Likewise, I have claimed that the quantifier *her* 'all' is used in place of *hemu* 'all' when it is followed by a numeral or the quantifier *hemu* 'many'. In this respect, I demonstrated that CK uses this quantifier shift as a strategy to avoid a clash of the two homophonous quantifiers: *hemu* 'all' and *hemu* 'many'. These two elements are argued to be syntactically different, such that the former is a definite quantifier occurring above the higher DP, while the latter is an indefinite quantifier which is base-generated below the lower DP. Finally, the quantifier *her* 'each' always appears with the definite marker *–e*, unlike *hemu*/*her* 'all' which co-occurs with the main definite marker *–eke*. I have, thus, argued that all the three definite quantifiers are similar in that they merge with the higher D category. However, they differ in that the D with which *hemu*/*her* 'all' merges is null, while the D which *her* 'each' is merged with is morphologically realized by *–e*.

5.6.2 The syntax of indefinite quantifiers

In this section, I investigate the syntax of indefinite quantifiers, shedding light on their morphosyntactic characteristics and their structural representation. In (5.4), I offered an account of these quantifiers and the various forms they exhibit. Based on their morphological make-up, I distinguished between two groups of indefinite quantifiers: simple and complex. Both quantifier types require an indefinite nominal phrase in which the indefinite article *–êk* is realized as a suffix. However, this suffix does not necessarily attach to the same element in the quantified nominal construction; simplex quantifiers precede the noun to which the indefinite marker is attached. On the contrary, complex quantifiers themselves consist of a nominal element immediately followed by the suffix *–êk*, which precedes the quantified noun. Thus, it is the position of *–êk* which triggers the split between the two types of indefinite quantifiers. Starting with simple quantifiers, consider these examples.

(46)

a. hemu kes-êk
   every person-INDEF
   'every person, everybody'

b. ĉend kes-êk
   (a) few person-INDEF
   '(a) few people'

c. hiĉ kes-êk[86]
no person-INDEF
'no person, nobody'

The prenominal elements in (46) are examples of simple quantifiers, where they can precede a DP inflected with the indefinite marker *–êk*. I will take numerals also as simple indefinite quantifiers which precede a noun either with or without the indefinite marker *–êk*.

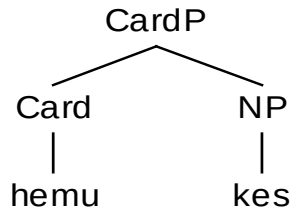
(47)

a. de kes–êk.
ten person-INDEF
'approximately, ten people'

b. de kes
ten person
'ten people'

The quantifying elements in (46) and (47) are in complementary distribution with each other, all preceding a noun which carries the indefinite marker *–êk*. Accordingly, they should merge in the same structural category. As pointed out above (5.5), indefinite quantifiers are postulated to be functional heads merging with NP or a projection containing it somewhere below DP. In light of this proposal, the quantified nominal constructions in (46) and (47) undergo the same derivational process, as follows. Taking (46a) as an example, the quantifier *hemu* 'every' is the head of a cardinal projection, merging with the noun (NP) *kes* 'person', as shown below.

(48)

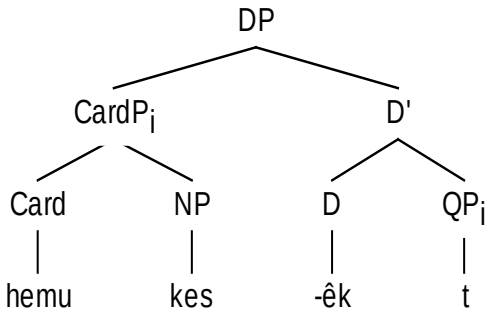


[86] There is also a determiner-like element (*weha* 'such') which encodes an indefinite demonstrative meaning and is, similarly to other simple indefinite quantifiers, followed by a noun carrying the indefinite suffix *–êk*.

- weha kes–êk
such person-INDEF
'such a person'

The next step is merger of the functional D category realized by the indefinite marker *–êk*. This operation is followed by movement of the whole quantifier projection (CardP) which contains the NP to Spec DP, thereby satisfying the EPP feature on D.

(49)



In chapter four (4.6.2), I argued that the indefinite marker *-êk* (together with the definite marker *–e*) is realized by the category D under the higher DP projection (not the lower DP). With this in mind, the structure in (49) seems to be on the right track, and the assumption that indefinite quantifiers merge below the DP level is further borne out. Undergoing the same derivational process, the constructions in (47) lend further support to the structure in (49). This is based on the contention that D as a discourse-related category scopes over the numeral, modifying it.

Turing to complex quantifiers, I have already argued that they, too, obligatorily need the indefinite suffix *–êk*. In this respect, the quantifying element is a nominal morpheme inflected with *–êk* which together quantify over a following noun. Thus, a morphologically complex construction makes up the quantifier and provides the quantificational reading, hence the label 'complex quantifier'. Consider these examples.

(50)

a. hend-êk kes
   amount-INDEF person
   'some people'

b. toz-êk aw
   dust-INDEF water
   'little water'

c. bıř-êk pare
   amount-êk money
   'some money', literally, 'an amount of money'

One might ask if the morpheme *hend* 'amount' in (50a) is really a noun defined by a nominal feature [+N]. There is empirical evidence supporting this assumption, though. Recall that demonstratives are always followed by a nominal element (noun) to which the definite enclitic *–e* is added.

(51) ew esp-e
that horse-DEF
'that horse'

Crucially, the morpheme *hend* 'amount' occurs in the same position as *esp* 'horse' in (51), confirming the nominal categorial status of the morpheme.

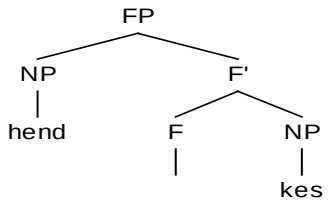
(52) ew hend-e
that amount-DEF
'that much'

This construction is very common among CK native speakers. It is used as an expression in which the initial /h/ in the second part is dropped, hence is taken as a single morpheme *ewende* 'that much'. Further, that the indefinite suffix *–êk* can readily attach to *hend* 'amount' (see 50a) strongly suggests that the element has a nominal feature, since this inflection is elsewhere always added to nouns.

Coming back to the analysis, the way these quantified nominal constructions are derived is particularly interesting. The mainstream Minimalist derivational analysis I assumed throughout this study is that in a modified nominal construction the NP containing the noun merges first with a second category at the bottom of the structure. When the noun in the (PF) surface representation appears with a functional inflectional element attaching to it as a suffix, the noun is assumed to have moved to a position above the inflection, ending up in front of it. The morphologically complex quantifying elements in question seem to provide the most salient evidence in support of this overt movement of NP. As I have just demonstrated, such quantifiers consist of a noun and the indefinite suffix *–êk*, together making up the construction which quantifies over the noun (see the examples in 50). These bimorphemic elements are indefinite quantifying determiners preceding the noun, hence function as prenominal modifiers in relation to this quantified noun. Accordingly, a quantified construction such as (50a), repeated below as (53), is derived as follows. The noun *kes* 'person', contained within the NP, is assumed to merge with an empty functional category (54) in the same fashion as I argued for Adjectival modifiers in an Izafe construction (see chapter three, 3.2).

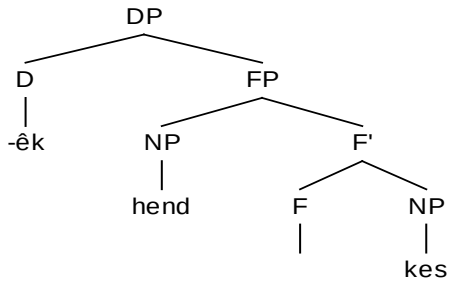
(53) hend-êk kes
amount-INDEF person
'some people'

(54)



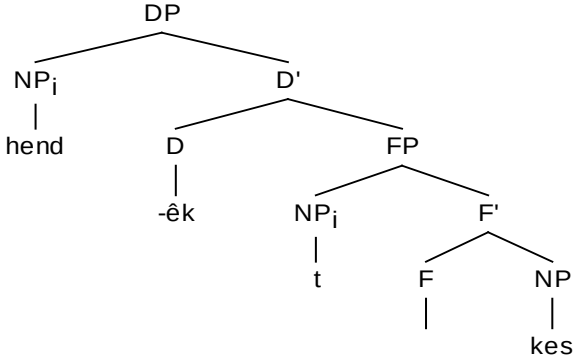
The next step is merger (with FP) of the functional category D realized by the indefinite marker *–êk*.

(55)



Based on the assumption that D in CK carries an EPP (movement-triggering) feature which needs to be satisfied, NP or a constituent containing it has to move now to Spec DP. In this respect, two nominal items have already merged below D, which are potential elements to move to Spec DP and satisfy the EPP feature on D. That is, since the two constituents are both NPs (holding a nominal feature), they are proper candidates which meet the requirement for movement to Spec DP. As for which NP is raised, locality principles dictate that since the higher NP *hend* 'amount' is structurally closer to D, it is the one that raises.

(56)



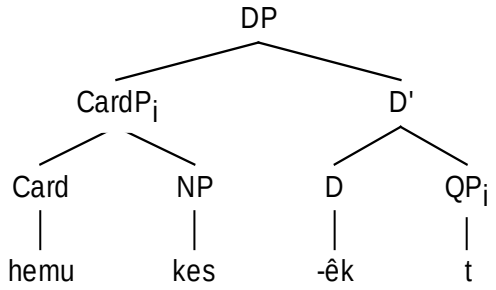
A well-established principle that ensures this is Relativized Minimality (Rizzi 1990, 2001):

(57) In a configuration ….X….Y….Z…. a structural relation cannot hold between X and Z if Y has the same features as Z, and Y c-commands Z but not X.

This principle rules out movement of the NP *kes* 'person' in (56) to Spec DP across the NP *hend* 'amount'. This is because *hend* 'amount' has the same feature as *kes* 'person' (both are nouns), hence is a more appropriate candidate for movement based on Relativized Minimality principle.

Going a little further back to the structure in (49) for simple quantifiers, repeated below as (58), one might ask why the element *hemu* 'every' does not move to Spec DP as the quantifier *hend* 'amount' does in (56).

(58)



In other words, why is (59) ungrammatical?

(59) *hemu-êk kes
every-INDEF person
intended meaning: 'every person, everybody'

The element *hemu* 'every' in (58) is a quantifier, hence cannot meet the requirement of having a nominal status to move up to Spec DP. A simple reason is that the quantifier is a head and as such cannot move to Spec DP. This is true of all the simple quantifiers such as *ĉend* '(a) few, *hiĉ* 'no' and also numerals. This is presupposing that the EPP feature of D can only be satisfied by moving a maximal nominal category.

Before ending this discussion, I will give an account of the two quantifying elements raised in sections (5.6) and further above: *kem* 'little, few' and *zor* 'much, many'. Recall that these are adjective quantifiers in the sense that they share the same properties as typical adjectives in CK. Based on the solid evidence considered above in this regard, I propose that the two quantifiers

are generated in the same structural position as APs. In chapter three (3.2.1), I argued that postnominal adjectives merge as AP in the specifier of an empty functional category above NP. The same proposal is extended here to capture the adjectival behaviour of the two quantifiers in question. Now, consider the examples below.

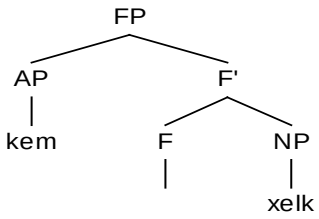
(60)

a. zor řudaw le nawĉ-eke řuded-n
many incident in area-DEF happen.PRS-3PL
'Many incidents happen in the area.'

b. xełk-êk-i kem le nawĉ-eke maw-n
people-INDEF-IZ few in area-DEF stay-PRS.3PL
'Few people are left in the area.'

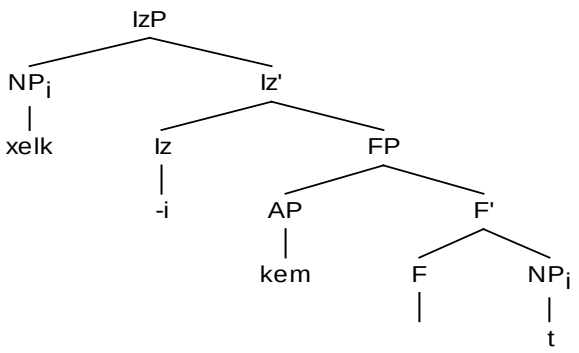
Note that the quantifiers can occur both before and after the noun. Only when it follows the noun does the Izafe element appear, a phenomenon reminding us of AP adjectival modifiers (AP) in chapter three (3.2.1). Starting with (60b), the quantified nominal construction *xełk-êk-i kem* 'few people', which involves the Izafe construction, is assumed to derive as follows. The NP *xełk* 'people' first merges with a null functional category (F) to its left followed by merger of the quantifier *kem* 'few' as AP in Spec FP.

(61)



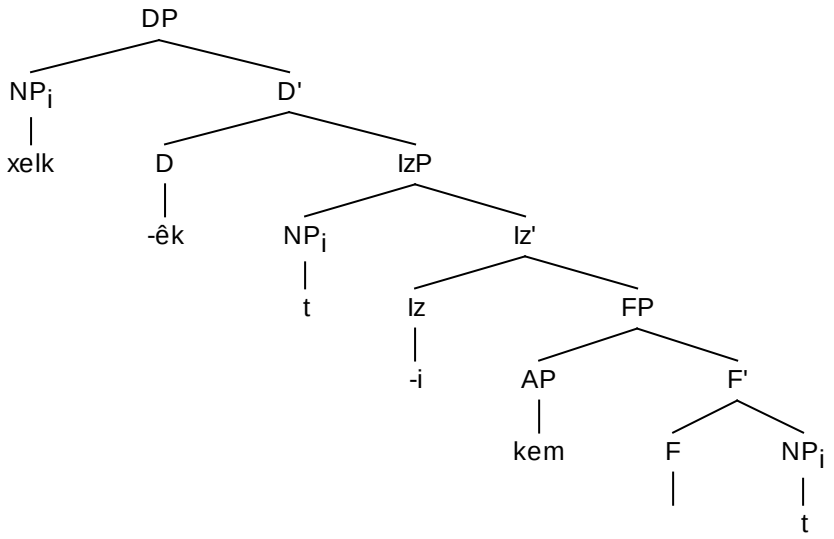
The Izafe category is then merged with FP further above, before the NP moves and remerges with the functional category *Iz* in its Spec.

(62)



The next step is the category D (spelled out by the indefinite marker *–êk*), merging with the Izafe projection (IzP). Movement of the NP containing the noun *xełk* 'people' proceeds upwards, ending up at Spec DP, as shown below.

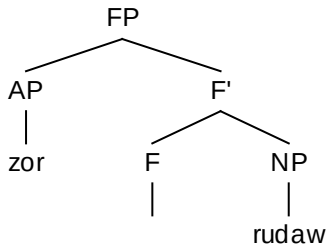
(63)



The reader is referred to chapter four (4.6.2) for discussion of why the roll-up movement pattern is not followed after the NP first moves to Spec IzP.

On the other hand, the construction *zor řudaw* 'many incidents' in (60a) is derived similarly to the one just mentioned. However, as represented in (64), no Izafe (Iz) with an EPP movement-triggering feature occurs, hence no movement of the NP upwards.

(64)



In sum, this section has offered an analysis of indefinite quantifiers as far as their syntactic structural derivation is concerned. I argued that the two types of indefinite quantifiers undergo distinct derivational operations in the quantified nominal construction. The analysis once again confirms the assumption that only NP or a projection containing it can move to Spec DP in CK. In relation to this, the NP which is contained in the simple indefinite quantifier phrase (QP) moves to Spec DP. Conversely, since complex quantifiers consist of a noun, they can move as NP to Spec DP, leaving the noun under the lower NP in situ. So, the nominal element in Spec

DP together with the indefinite marker forms the quantifying element. I also shed light on the two adjectival quantifiers *kem* 'little, few' and *zor* 'much, many'. Based on their adjective-like properties, I showed that these quantifiers merge as AP in the specifier of a null functional category above NP in the same pattern as normal modifying adjectives (AP).

5.7 Concluding remarks

In this chapter, I have investigated the syntax of number and quantification in CK. The former is concerned with the morphosyntactic realization of number (plurality), while the latter investigates various quantifying elements.

Based on its morphological realization, I argued that a functional category of number, spelled out by *–an*, projects within the nominal phrase. At face value, the structural location where this projection lies is above the DP level realized by the definite marker *-eke*. That is, the DP projection is c-commanded by, hence falls within the scope of number (Num). This conclusion seems surprising, and casts doubt on a number of widely supported proposals in the literature including, among others, Ritter (1991, 1992) and Rijkhoff (2002). The mainstream syntactic structure across languages is for NumP to be structurally lower than the DP level, unlike CK where this hierarchical relation appears to be the opposite of the universal hierarchy. However, based on the contention that two DP layers project in the CK nominal phrase, the NumP on top of the lower DP realized by *–eke* is argued to be under a higher null DP level, which is realized in some situations by the definite marker *–e*. In other words, while the D realized by *-eke* projects a DP within the scope of the functional projection of number, the two maximal projections still fall under the scope of a second DP projection, with D being null, meaning that the definite DP with *–eke* instantiates double definiteness.

Quantifiers make up the second part of the analysis I have examined in this chapter. Quantifying elements have various morphosyntactic properties in CK. They are classified into definite and indefinite quantifiers. I proposed an analysis where quantifiers enter the derivation as functional heads. This assumption, though, excludes complex quantifiers and the two adjectival quantifiers *kem* 'little, few' and *zor* 'much, many'. Complex quantifiers consist of elements which are inherently specified as nouns in the lexicon; likewise, the quantifiers *kem* 'little, few' and *zor* 'much, many' are inherently adjectives. Based on their distribution, I argued that definite quantifiers merge as functional heads on top of the DP structure providing closure of the nominal phrase. As for indefinite quantifiers which also include numerals, I divided them into simple and complex quantifiers, merging below the DP level. Simple quantifiers consist of a quantifying element followed by a noun which carries the indefinite marker *–êk*. However,

complex quantifiers are made of a noun inflected with the indefinite marker *–êk*, followed by the quantified noun. Being morphologically different, simple quantifiers are argued to merge below the DP projection, taking NP as their complement. However, complex quantifiers merge as NP in the specifier of a null functional category above NP; then they move to Spec DP, where together with the indefinite suffix *–êk* bring about the quantificational reading.

Finally, I argued that the two quantifiers *kem* 'little, few' and *zor* 'much, many' are adjectival by function, hence are treated similarly to normal adjectives. They merge as AP in the Spec of an empty functional category above NP, where they provide the nominal phrase with a quantificational reading.

Chapter 6. Conclusions and Suggestions for Further Research

6.1 Conclusions

In this thesis, I investigated the syntactic structure of DP in Central Kurdish. The essence of the discussions clustered around the functional categories within the nominal phrase, including the Izafe construction, definiteness marking, number morphology, demonstratives and quantifiers. I argued that a Minimalist bottom-up derivational theory secures the syntactic composition of NP with all lexical and functional categories, and also assures the semantic result brought about by the combination of such elements. In view of their distribution and relevant theoretical assumptions, I demonstrated where each functional category projects in relation to NP. In this respect, I have proposed various derivational movement operations of the noun to account for the word order and grammaticality of extended nominal constructions. I argued that a CK nominal phrase first starts with NP merging with another category in the bottom of the derivation. This NP is the engine of movement in the nominal phrase such that no DP-internal element can be raised which does not contain NP or a projection containing it.

Chapter one offered an introduction to the thesis. It first introduced the research questions, setting the scene for subsequent analysis chapters. This was followed by a brief background on Kurdish language and the dialect under study (Central Kurdish). An account was also given of some previous works, explaining their approach and the reason why they do not apply to the nominal phrase in CK. Chapter one also laid out the theoretical framework adopted in the thesis. In this respect, a number of theoretical assumptions were made regarding the DP-internal syntactic categories.

In chapter two, I provided a detailed account of Izafe construction, demonstrating its distribution, its morpho-phonological status and the forms this particle exhibits in Central Kurdish. In this respect, I argued for there being two types of Izafe: AP Izafe and NP Izafe. While the former always precedes an adjective modifier (AP), the latter normally introduces a nominal modifier or a DP. NP Izafe assigns Case to a following DP modifier but AP Izafe does not. Also, AP Izafe shows agreement in definiteness with D, while NP Izafe does not. So, unlike NP Izafe which invariably appears as *–i*, AP Izafe is spelled out as either *–i* or *–e*, which is determined by agreement with the DEF feature on the category D: the Izafe is realized as *-e* when D bears definiteness, but as *-i* otherwise. I argued that Izafe syntactically belongs to the postnominal modifier though it is phonologically cliticized to the element on its left. Further, I demonstrated that the presence of Izafe is a requirement of syntax, not semantics. The morpheme does not add any compositional meaning to the semantic relation between the two

juxtaposed constituents. Rather, it serves as a syntactic category in the structure. As a functional category, Izafe is also the locus of agreement features such that the AP Izafe bears DEF feature, whereas the NP Izafe holds Case feature, assigning Case to a following DP modifier. Moreover, chapter two also answers the question of why Izafe occurs. The discussion is partly in line with Kahnemuyipour (2014, 2016), proposing that there is a systematic correlation between the DP-internal word order and the occurrence of Izafe. I have provided empirical evidence that Izafe does not surface when some modifiers such as ordinal numerals precede the noun, but is obligatorily required if the modifier follows the noun. Thus, I argued that Izafe bears a movement-triggering feature to move the noun (NP) to a position above the modifier.

Chapter three offered a syntactic analysis of Izafe construction with the main focus on its functional projection. The analysis provided empirical evidence that postnominal modifiers in CK are non-projecting maximal constituents merging in specifier positions of functional categories. Based on the fact that two types of Izafe are attested in CK (AP and NP Izafe), I argued that these two Izafe elements undergo different syntactic derivations: the nominal phrase with an AP Izafe is derived following a roll-up movement of NP and all other c-commanding categories it passes to a position above the modifier. Conversely, a nominal phrase involving the NP Izafe is derived via raising NP from its base merge position upwards, without pied-piping any c-commanding category included en route.

In addition, I claimed that AP Izafe shows agreement in DEF feature. I showed empirical evidence that such agreement relation is purely syntactic and is established in the course of the derivation. As far as the interpretability of DEF feature and its valuation is concerned, the agreement conforms to Chomsky's (2000, 2001) probe/goal Operation Agree according to which a feature which is interpretable must be valued, whereas an uninterpretable feature does not have a value. So, the AP Izafe category (Iz) bears a DEF feature which is uninterpretable and unvalued, whereas the D category realized by the definite marker bears an interpretable DEF feature which is valued. Accordingly, the Izafe category is a probe, while D is the goal with which Izafe agrees. As regards the c-command relation between the probe and the goal, contra Chomsky (2000, 2001), the agreement relation is argued to occur upwards in accordance with Baker (2012). As a probe, Izafe is c-commanded by the category D which is the goal. Thus, Izafe first probes downwards for a goal in its c-command to agree with. However, since it cannot find one that carries matching valued features, it reverses the direction of the search and probes upwards to a c-commanding domain where it finds (and establishes Agree with) the goal (D), resulting in the DEF feature on it getting valued and the category realized as *–e*. However, when the category D does not carry a DEF feature, the DEF feature on *Iz* is valued

by default and Izafe is realized as *–i*. Furthermore, I demonstrated that when there is more than one Izafe probe with an unvalued DEF feature, but only a single goal (D) with the same feature valued, an agreement of feature sharing (Pesetsky and Torrego 2007) is established first between the two unvalued features on Izafe. The two features, then, probe upwards as a single instance of unvalued DEF and can have their feature valued by the matching feature on the goal (D) after the Operation Agree obtains.

On the other hand, I argued that NP Izafe also establishes Agree in Case feature (Chomsky 2000, 2001) with the DP it c-commands. The Case feature is valued on the NP Izafe category, but unvalued on the c-commanded DP, suggesting that this time Izafe is the goal and the DP is the probe. In a similar fashion as exhibited by AP Izafe, the direction of this agreement is upwards such that the probe (DP) first probes downwards searching for a goal with a matching valued feature. Failing to finding such a feature, the probe changes the direction of the search this time upwards to its c-commanding domain where it eventually finds and agrees with the goal (Iz), resulting in getting the Case feature on the probe (the DP) valued and realized as *–i*.

In chapter four, the structure of definite and indefinite DPs was explored. I showed that Central Kurdish employs the inflectional suffix *–êk* to mark indefiniteness and two enclitic elements, *–eke* and *–e*, to mark definiteness. I provided substantive evidence that *–e*, which co-occurs with demonstratives, marks definiteness, while the two demonstratives *em* 'this' and *ew* 'that' realize the deictic features of proximity and distance, respectively. Thus, while these two features are realized by the same element in languages like English, they are encoded by two distinct morphemes in Central Kurdish.

I claimed that two DP layers project within the nominal phrase, labelled *the higher DP* and *the lower DP*. While the former is realized by the inflection *–e*, the latter is spelled out by the main definite marker *–eke*, with the functional projection of number (NumP) intermediate between them. I argued that the lower D realized by *–eke* encodes definiteness proper entailing both specificity and uniqueness. On the other hand, the higher D spelled out by *–e* imparts only specificity, a feature subsumed under definiteness. As a result, I proposed the labels primary and secondary definite markers for *–eke* and *–e*, respectively.

In connection with indefiniteness, I provided evidence that *–êk* is the realization of indefiniteness, not just a grammaticalized correlate of the numeral *yêk* 'one' to mark singularity, as claimed by Lyons (1999). Thus, based on its co-occurrence with numerals and quantifiers, I argued that *–êk* is realized in a different functional category from that of such quantifying

elements. In the same way as the secondary definite marker *–e*, *–êk* is spelt out in the D position of the higher DP level. However, its derivation involves raising NP alone to Spec DP, without pied-piping the modifiers it passes, a movement pattern attested for the derivation of definite DPs in AP Izafe constructions.

As far as the notion of definiteness is concerned, then, the generalization to be drawn is as follows. While a definiteness reading is obtained in the mandatory presence of either definite markers '*-eke*' or '*–e*', and indefinite interpretation is imparted by the indefinite article '*–êk*', genericity is the elsewhere reading, where (in)definite features are unavailable and the nominal phrase is simply interpreted as generic.

Chapter five addressed two related issues: number and quantification. I argued that NumP projects as a functional category realized by the plural marker *-an*.

A plural nominal construction containing the definite marker *-eke* seems to be a projection of number (NumP) with DP below it. This assumption is at odds with several well-established proposals according to which DP takes scope over, hence is structurally higher than, number (NumP). However, considering the two DP-layer analysis, I argue that the structural relation between DP and NumP is normally established. I already proposed that two DP levels occur in two structurally distinct locations, with NumP intermediate between them. I demonstrated that the higher D is realized by *–e* whereas the lower D is spelled out by *–eke*. In light of this proposal, I assumed that the higher DP (above NumP) projects in plural constructions even when the lower DP spelt out by *–eke* projects below it, where the higher D is unpronounced in this case. As expected, then, the highest most projection is DP not NumP. The higher null D is assumed to provide double definiteness to the nominal phrase, a phenomenon which is rather common in CK.

In regard to quantifying elements, I divided them into several categories, depending on their morphosyntactic properties. I argued that quantifiers co-occur with DPs, where the D is predominantly realized by a marker of (in)definiteness. On this basis, I classified them into definite and indefinite quantifiers. Indefinite quantifiers, which always require the indefinite marker *–êk*, are further sub-divided into simple and complex quantifiers. I demonstrated that a simple quantifier precedes a noun which is suffixed with *–êk*. Complex quantifiers, on the other hand, consist of a noun suffixed with *–êk* which is followed by the quantified noun. Another set of quantifiers I distinguished contains *kem* '(a) few, little' and *zor* 'much, many'; these two

quantifiers share several properties with adjectives, hence are treated as AP modifiers in the syntactic analysis.

Providing empirical evidence, I demonstrated that some quantifiers are not mutually exclusive, suggesting that they are merged in distinct structural categories. Thus, definite quantifiers such as *hemu*, *her* 'all' and *her* 'each' merge with D on top of the nominal phrase above the DP layer. These quantifiers merge under a projection labelled QP, while indefinite quantifiers including numerals merge below DP under a projection of cardinal elements (CardP). I showed that *hemu* 'all' is replaced by *her* 'all' when the former is followed by numerals or the quantifier *hemu* 'many'. I argued that the language entertains this manoeuvring to avoid confusion at LF between the two homophonous forms *hemu* 'all' and *hemu* 'many'. Despite the semantic difference, these two homophonous quantifiers are argued to be syntactically different such that they spell out two distinct functional categories; *hemu* 'all' is realized under QP above the DP level, but *hemu* 'many' under CardP below DP.

In connection with the syntax of indefinite quantified nominal constructions, simple and complex indefinite quantifiers are argued to undergo different derivational processes. Simple quantifiers are base-generated in the functional category CardP, while complex quantifiers start as a noun from a specifier position above NP, where they move and end up in Spec DP before the indefinite article *–êk*. Thus, the nominal element in Spec DP together with *–êk* make up the complex quantifying construction which quantify over the noun.

Eventually, I gave an account of the two adjectival quantifiers *kem* 'little, few' and *zor* 'much, many', and argued that they are adjectival by category. They are APs merging in the specifier of a null functional category in the same fashion as a normal adjective (AP), which can either move or stay in situ.

6.2 Suggestions for further research

Some issues are still to be investigated, hence are left for further research. First, following my proposal on agreement of Izafe with D in definiteness, it would be interesting to investigate other Kurdish dialects and also other Izafe languages to find out if Izafe shows this agreement pattern in such languages.

Secondly, while I argued that *–eke* realizes DEF feature in the CK nominal phrase, one can still assume that this definite article is a bimorphemic element consisting of *–ek* and *–e*. I have already argued that *–e*, which co-occurs with demonstratives, is the realization of DEF in the higher D category. In this respect, one could amount to hypothesise that *–e* is the one and only

one marker of definiteness in CK. The primary definite article *–eke* could be a combination of the suffix *–êk*, which Lyons (1999) describes as a relic derivative of the numeral *yêk* 'one', and the definite marker *–e*.[87] This being so, the *–êk* part indicates singularity (possibly a classifier or individuating marker in the sense of Paul 2008) and the element *–e* encodes the definiteness feature. There are arguments supporting this contention; however, the topic requires a profound diachronic investigation of the suffix, and is left as a topic for future research.

Further study is also required to find out the syntactic relation between definiteness and tense in the nominal phrase. If it is true that the two functional categories T and D share some syntactic feature (see Holmberg and Roberts 2013; Lyons 1999: 45-46; Partee 1984), this is empirically instantiated in CK: there are constructions where these two functional categories are spelled out by the same morpheme.[88] Consider the two examples below.

(1)

a. ew esp-e zɪl-e
that horse-DEF big-3SG.PRS
'That horse is big.'

b. ew esp-e zɪl-e
that horse-IZ big-DEF
'that big horse'

Notice that these two constructions are phonologically the same, but syntactically quite different. While (1a) is a verbal clause or a sentence, (1b) is a nominal phrase. The present tense and definiteness markers are both pronounced the same as *–e*, and appear exactly in the same position in the construction. Where these two homophonous morphemes are merged in relation to each other, or whether the two categories are related, is also left for further research.

Finally, pronominal enclitic elements are used in CK to express possession. These attach to the noun or, in case of postnominal modifiers, to the end of the modifier(s). One intriguing property

[87] It should be noted that speakers of some Central Kurdish varieties and Kurdish dialects pronounce *–êk* as *–ek*, further supporting the assumption.

[88] The parallel drawn by Partee (1984) is not precisely between definiteness and tense, but between the (definite) pronouns and tense. She argues that the two are related in that: while a pronoun refers to a referent introduced in the previous discourse, or understood based on the context, tense can refer to an antecedent period of time or to an understood time (see also Lyons 1999: 46).

of such possessive inflectional pronouns is that they require the presence of the definite articles *–eke* or *–e*, appearing after them. Consider the following examples.

(2)

a. esp-eke-m
   horse-DEF-1SG
   'my horse'

b. esp-e zıl-eke-man
   horse-IZ big-DEF-1PL
   'our big horse'

c. ew esp-e zıl-an-e-tan
   that horse-IZ big-PL-DEF-2PL
   'those big horses of yours'

Given these examples, the fact that the possessive markers appear at the end of the nominal phrase, (even after the definite article), suggests that it is realized in a functional category above the DP projection. That is, the possessive phrase (PossP) should be located above the DP level. For reasons of space, such possessive constructions are not dealt with in this work, either, and is left open, pending further research.

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