AGREE AS A UNIDIRECTIONAL OPERATION:

EVIDENCE FROM LAZ

ÖMER FARUK DEMİROK

BOĞAZİÇİ UNIVERSITY

2013

AGREE AS A UNIDIRECTIONAL OPERATION:

EVIDENCE FROM LAZ

Thesis submitted to

Institute for Graduate Studies in the Social Sciences

in partial fulfillment of the requirements for the degree of

Master of Arts

in

Linguistics

by

Ömer Faruk Demirok

Boğaziçi University

2013

AGREE as a Unidirectional Operation:

Evidence from Laz

The thesis of Ömer Faruk Demirok
is approved by

Assist. Prof. Dr. Balkız Öztürk Başaran _____

(Thesis advisor)

Assist. Prof. Dr. Meltem Kelepir Wood _____

Assist. Prof. Dr. Serkan Şener _____

August

2013

Thesis Abstract

Ömer Faruk Demirok, "AGREE as a Unidirectional Operation: Evidence from Laz"

In this thesis, I describe and theoretically model the interaction of agreement and case systems of the Pazar dialect of Laz, with the aim of showing that the bidirectionality condition on the AGREE model (Chomsky, 2000, 2001) may not be tenable.

I first show that Pazar Laz exhibits an active case alignment system where the case marking makes direct reference to semantic roles of arguments, as opposed to their grammatical functions. As additional evidence, I discuss the case preservation phenomenon (in ECM construction) and argue that case marking in Pazar Laz is locally determined and inherent. The agreement phenomena in Pazar Laz, on the other hand, follow the basic syntactic locality (i.e. syntactic hierarchy) and thereby exhibit an accusative alignment, alluding to disjoint case and agreement systems. This finding contradicts the prediction of the bidirectionality condition in Chomsky (2000, 2001) according to which overt agreement induces agreement-dependent case-values. Therefore, I argue on the basis of empirical data that AGREE must be construed as a unidirectional operation that determines overt ϕ-agreement but not necessarily the case values of NPs that agree.

Besides the bidirectional approach to AGREE, I argue against the *defective intervention* hypothesis which stipulates that agreement visibility and intervention potential should be different parameters. This hypothesis acknowledges that a Goal can be independently [±visible] and [±intervener] to AGREE, predicting four different Goal types. That is, this bipartite system, in principle, also allows [+visible; – intervener] Goal type so as to derive the *defective intervention* by [–visible; +intervener] Goal type. Although there seem to be empirical data which support *defective intervention*, [+visible; –intervener] Goals are neither attested nor possible because a *visible* Goal must always be *intervener*, as ensured by the basic syntactic locality. Therefore, as an alternative that does not overgenerate or undergenerate, I attempt to unify visibility and intervention potential and to derive the agreement facts only via syntactic locality and phase-based derivation with no resort to *defective intervention*.

Lastly, I discuss an intricate case of realizational hierarchy in the agreement exponents. Providing a novel perspective, I argue against the well-acknowledged syntactic analyses exploiting Multiple Agree (Nevins, 2007) and Cyclic Agree (Béjar and Rezac, 2009). I show that syntactic approaches cannot account for the empirical data in its entirety or can only do so with several stipulations. I argue that post-syntactic analyses derive the data at hand with no extra machinery in syntax proper and therefore should be preferred over the syntactic analyses. As examples, I present three post-syntactic analyses: Distributed Morphology (Halle and Marantz, 1993, 1994), Cyclic Phrasal Lexicalization (Pantcheva, 2011) and Spanning (Svenonius, 2012).

Tez Özeti

Ömer Faruk Demirok, "Tek Yönlü bir İşlem Olarak UY (AGREE) Modeli: Lazca'dan Kanıt"

Bu tezde, UY (AGREE) Modeli'nin (Chomsky, 2000, 2001) çift-yönlülük ilkesinin savunulabilirliğine yönelik kuşkuları göstermek amacıyla, Lazca'nın Pazar lehçesinin uyum ve durum yükleme dizgelerinin etkileşimini tartışıp kuramsal örneklemesini yapıyorum.

Öncelikle Pazar Lazcası'nın durum eklerinin, ögelerin işlevi yerine anlamsal görevlerine ilişkin bilgi veren bir dizge olan akışkan durum yükleme dizimlemesi gösterdiğini tartışıyorum. Buna ek kanıt olarak, (KDDY yapılarında gözlenen) durum eki korunumunu gösterip Pazar Lazcası'nda durum eklerinin yerel olarak belirlendiği ve içkin olduğunu tartışıyorum. Pazar Lazcası'ndaki uyum dizgesi ise temel sözdizimsel yerellik ilkesini (başka bir deyişle sözdizimsel yakınlık) izliyor ve bu yüzden belirtme durumu yüklemesi içeren bir dizimleme gösteriyor ki bu da ayrışık durum ve uyum dizgelerini anıştırıyor. Bu bulgu, gözlenebilen uyum eklerinin durum ekleri ile eşzamanlı belirlediğini savunan Chomsky'nin (2000, 2001) önerdiği çift-yönlülük ilkesinin beklediği sonuçla çelişiyor. Bu nedenle, deneysel veri ışığında UY'un, gözlenebilen uyum eklerini belirlerken uyum gösteren AÖ'lerinin taşıdığı durum eklerini belirlemek zorunda olmadığı tek-yönlü bir işlem olarak yorumlanmasının gerekliliğini savunuyorum.

UY modeli bünyesindeki çift-yönlülük yaklaşımının yanında, uyum görünürlüğü ve (uyum) engelleme gücünün farklı değiştirgeler olmasını şart koşan *eksikli uyum engelleme* varsayımına da karşı çıkıyorum. Bu önerme bir Erek'in birbirinden bağımsız olarak [±görünür] and [±engeller] olabileceğini varsayarak dört farklı Erek türüne olanak veriyor. Başka bir deyiş ile, bu ikili dizge ilkesel olarak, [– görünür; + engeller] Erek türü ile *eksikli uyum engelleme*'yi üretebilmek için [+görünür; – engeller] Erek türüne de olanak sağlıyor. *Eksikli uyum engelleme* önermesini destekleyen deneysel veri olmasına rağmen, *görünür* olan bir Erek'in sözdizimsel yerellik ilkesi doğrultusunda her zaman *engeller* olması gerektiğinden [+görünür; – engeller] Erek türü ne dillerde görülüyor ne de görülmesi bekleniyor. Bu nedenle, gözlemlenen veriden fazlasını ya da azını üretebilen bir dizgenin yerine, görünürlük ve uyum engelleme gücünü birleştirip *eksikli uyum engelleme*'ye başvurmayan sadece sözdizimsel yerellik ve aşamalı dilbilgisel üretim ilkeleri ile uyum dizgelerine ilişkin gözlemlenebilen verileri üretmeye çalışıyorum.

Son olarak, uyum eklerinin belirlenmesinde gözlemlenen karmaşık bir sıralıdüzeni tartışıyorum. Yeni bir bakış geliştirerek, bu konuya ilişkin tanınmış sözdizimsel çözümlemeleri öneren Çoklu Uyum (Nevins, 2007) ve Devinimsel Uyum (Béjar ve Rezac, 2009) kuramlarına karşı çıkıyorum. Sözdizimsel yaklaşımların verinin tümünü açıklayabilir durumda olmadığını ya da ancak fazlaca ek varsayım ile açıklayabildiğini gösteriyorum. Sözdizim Sonrası çözümlemelerinin sözkonusu veriyi sözdizimsel üretim sırasında ek düzengeler kullanmadan üretebildiğini, bu sebeple de sözdizim sonrası çözümlemelere öncelik tanınmasının gerekliliğini savunuyorum. Örnek olarak üç farklı sözdizim sonrası çözümlemesi sunuyorum: Dağıtılmış Biçimbilgisi (Halle ve Marantz, 1993, 1994), Devinimsel Öbek Sözcükleştirme (Pantcheva, 2011) ve Kapsama (Svenonius, 2012).

ACKNOWLEDGMENTS

It has been an unusually stimulating experience for me to be involved in the journey of understanding a unique aspect of the astoundingly complex entity in the universe, the human brain. I am truly grateful to everyone and everything that made this possible for me.

I would like to express my sincere gratitude to my advisor Balkız Öztürk. She was the first person who made me truly love linguistics and always kept my interest in linguistics alive. She also encouraged me to scientifically embrace my linguistic heritage which is one of the hallmarks of my life and made this thesis possible in the first place. During my undergraduate and graduate years, her classes were always a source of joy for me and a strong motivation to start a day. She has always been enormously supportive and very kind towards me (and everyone else), for which a professional thank-you would never suffice. During my thesis study, she has been an excellent mentor, helping me focus and guiding me to ask the right questions and find the right answers. At times, I was depressed and quite overwhelmed due to the complexity of the data I attempted to deal with; however, she was always there for me when I felt hopeless. Were this not the case, I believe I would still be trying to narrow down my thesis topic. I cannot thank her enough for what she has done for me both professionally and personally.

My thesis committee members were extremely nice people, and not just because they approved my thesis. My special thanks go to Meltem Kelepir from whom I certainly learnt a lot during my undergraduate and graduate studies. If I had not had the scope class with her, I believe I would still be able to keep listening to people talking even if I discover that their grammar allows a strikingly different scope reading from mine. Joking apart, what I learnt in her class made one of the major of parts of this thesis possible. I am indebted to her for what she has done in my journey to become a linguist and a scientist. I hope to become as efficient as her in teaching linguistics some day. I also owe my thanks to Serkan Şener who accepted to read my thesis on short notice and provided me with really helpful feedback and insightful comments. I only got to meet him due to the thesis and I certainly look forward to working with him on some other project some day.

I would like to thank Markus Pöchtrager for being a great instructor and friend. Our trips to the land of Laz were what saved this thesis from being an ‘office fieldwork’ study. The perspective that I have gained in his classes and in our ‘professional’ chats was the first step to become not just someone who loves languages and linguistics but a scientist. My special thanks are for Aslı Göksel in whose morphology class I had the preliminary thoughts about this thesis. She has always been a great instructor and a friend whom I both love and respect. I learnt to question everything thanks to her. I also thank David Adger and Maria Polinsky for their insightful comments regarding my thesis in its early stages.

I would like to especially thank Didar Akar whom I truly love to work with and chat with. If I give up on theoretical linguistics some day, she is to be blamed. I am also indebted to my linguistics instructors Mine Nakipoğlu, Sumru Özsoy, Eser Taylan, Ann Denwood, and Yılmaz Kılıçaslan for the their personal and professional support and all they have done to make me who I am and teach me what I know today. I also need to thank my instructors Sibel Tatar, Senem Yıldız, Ayşe Gürel, and Belma Haznedar from my previous department. They have done a lot to encourage me to pursue my studies in linguistics and to gain a perspective in life.

The friend support behind this thesis is utterly immeasurable. I am truly thankful to my fellow, Yağmur Sağ. We shared our most depressing and pleasant moments together. We had endless discussions and consumed infinite amount of tea together. So as not to make her suffer more, I intentionally avoided directly discussing Laz data with her. Yet, our theoretical discussions with her on Turkish data helped me formulate some ideas about this thesis, as well. Our time together made the thesis writing process much more bearable. Thank you, Yağmur!
I cannot thank enough for the contribution of Isa Bayırlı to this thesis, another fellow linguist. I dared to discuss Laz data with him. His comments helped me shape my ideas. We also enjoyed learning about and discussing Nanosyntax, back then our 'star' theory. I still enjoy reading his papers and admire his work. I am sure he will be one of the well-acknowledged linguists in near future. Thank you Isa! The real discussions on Laz data were with my fellow linguist Hagen Blix whom I met at Boğaziçi in the field methods class on Laz. I cannot estimate the contribution of our discussions on Laz to this thesis. I also would like to thank other fellow linguists Bilge Palaz, Treysi Terziyan, and Aslı Özbek for the encouragement and friendly support they have provided me with. I will never forget our years together at Boğaziçi.

The pages would not suffice if I were to write all the support I got from my friends. I owe my thanks to my other linguist fellows Esra, Ömer, Songül, Emre, Derya, Faruk, Neşe, Özge, Nil, Feyza, Süleyman, Betül, Tacettin, Seda, Ümit, Şifa, Ayşen and non-linguist friends Adem, Melih, Çağlayan, Fethiye, Hikmet, Burcu, Emre, Tarkan, Seda. I also need to thank my office friends Özlem, Özge, Emek, Melis, Gamze, Cihan, and Nazım whom I love to work with. They are all great people. I also thank our department secretary Sema Yılgör for standing up with me and for her friendly support. Lastly, I also owe my thanks to our department head Cevza Sevgen for her support and encouragement. She is such a great person!

What made this thesis possible were the enormous data on Laz. I am indebted to Ismail Avcı-Bucaklişi for bearing up with my never-ending judgment questions. I believe he was the only person who could handle such a task and luckily I got to know him. I also thank Murat Ercan-Murğulişi and other anonymous Laz informants for their help and support. My heart is united with them in the hope of always seeing Laz being spoken.

The most supportive of all was my family. I thank my mother Ayşe Demirok and sister Zeynep Demirok, my cousins Uğur Ünver and Yusuf Demirok for all the support they have shown me. I dedicate this thesis to my father Naci Demirok who passed away just after I got accepted to the M.A. in linguistics at Boğaziçi.

CONTENTS

ABBREVIATIONS

ϕ	phi (person, number)
1/2/3	first/second/third person
ACC	accusative
APPL	applicative
C	complementizer
CAUS	causative
COP	copula
CP	complementizer phrase
DAT	dative
def	default
DM	Distributed Morphology
ECM	Exceptional Case Marking
ERG	ergative
G	Goal
IMPF	imperfective
LOC	locative
NEG	negative marker; negation
NML	nominalizer
NOM	nominative
NP	noun phrase
O	object
P	Probe
PASS	passive/derived unaccusative
PERF	perfect
PIC	phase impenetrability condition
PL	plural
PL	Pazar Laz
POS	possessive
PRES	present
pro	pronominal element
PRV	pre-root vowel
PST	past
PV	preverb
S	subject
SG	singular
T	tense head
TP	tense phrase
v	little verb head
VP	verb phrase
WCO	weak cross-over

CHAPTER 1

INTRODUCTION

1.1. The Aim of the Thesis

The aim of this thesis is to identify and theoretically model the intricate agreement system of Pazar Laz and its relationship with its case system. Chomsky (2000, 2001) proposes that AGREE induces a bidirectional checking-valuation which simultaneously establishes case and agreement. My aim in this thesis is to argue that this formulation of AGREE is not in line with empirical data from Pazar Laz, which suggest that case and agreement might as well be disjoint phenomena. Thus, I will argue on the basis of empirical data that AGREE might in fact be a unidirectional operation, i.e. determining the overt agreement but not necessarily the case value. A consequence of this approach to AGREE is that arguments that bear a locally assigned inherent case value may in principle be visible to AGREE.

Besides the bidirectional approach to AGREE, I will argue against the *defective intervention* hypothesis which stipulates that agreement visibility and intervention potential should be different parameters. This hypothesis acknowledges that a Goal can be independently [±visible] and [±intervener] to AGREE, predicting four different Goal types. That is, this bipartite system, in principle, also allows [+visible; – intervener] Goal type so as to derive the *defective intervention* by [–visible; +intervener] Goal type. Although there seem to be empirical data which support *defective intervention*, [+visible; –intervener] Goals are neither attested nor possible because a visible Goal must always be intervener, as ensured by the basic

syntactic locality. If one of the four predicted Goal types is not possible, then it can be argued that this bipartite system potentially overgenerates. Therefore, as an alternative, I will attempt to provide an analysis that does not sanction overgeneration but can also explain the cases for which *defective intervention* has been exploited. I aim to show that it is possible to unify visibility and intervention potential and to derive the agreement facts only via syntactic locality and phase-based derivation with no resort to *defective intervention*. Thus, I will be arguing that visible Goals are always interveners and invisible Goals are never interveners. In particular, I will make use of the notion of *phase* to be able to account for the *apparent* intervention of an invisible Goal.

Some of the key concepts, I have exploited in this work include the *agreement accessibility*, *syntactic locality*, *the nature of AGREE, the argument/thematic hierarchy*, *the case-agreement interaction*, *intervention and visibility*, *phase*, *the identity and the hierarchy of Probes*, and *the post-syntactic realization mechanisms*.

1.2. Demographic and Typological Background on Laz

Laz, which belongs to the South Caucasian[1] linguistic family together with Georgian, Mingrelian, Svan, is an endangered and understudied language spoken in the south-east shore of Black Sea in Turkey. The area covers in particular the regions Pazar

[1] The term Kartvelian is also used to refer to this linguistic family in the literature. Yet, this term reproduces the linguistic and political exclusion of other minority languages in the family (i.e. Laz, Mingrelian and Svan). All other languages in the family are unjustly called Kartvelian (i.e. means 'Georgian' in Georgian language). Thus, I will be using the politically impartial term, 'South Caucasian language family'.

(Atina), Fındıklı (Vits'e), Arhavi (Ark'abi), Hopa (Xopa), and Ardeşen (Art'aşeni).[2] In addition, there are also small immigrant groups in villages in the Marmara Region, the north-west of Turkey. Lastly, there is also a very small minority of Laz speakers within the borders of Georgia. There is no official recognition or regulation on Laz, nor is there any schooling option in Laz. The overwhelming majority of the speakers are Laz-Turkish bilinguals and over the age of 30. The exact number of speakers is not known as there is no official governmental survey on Laz people or their native language. But the estimated number of speakers varies between 30.000 and 50.000 (Lacroix, 2009; Kutscher, 2008). There is no official preservation attempt for Laz; and despite the attempts of a limited number of Laz activists there is no demographic data which suggest that younger generations have growing access to Laz. Thus, Laz remains as an endangered language.

1.3. Previous works on Laz

The academic study on Laz is rather limited as mentioned above. Early grammars and descriptive works include Rosen (1844), Anderson (1963), Tuite (1988), Holisky (1991), Kutscher et al. (1995) and Kojima and Bucak'lişi (2003). Note that some of the works cited focus on other dialects of Laz. There are two M.A. theses written on Pazar Laz at Boğaziçi University. The first one is on the case system of Pazar Laz (Gürpınar, 2000) while the second one is on the complementation and finiteness patterns in Pazar Laz (Emgin, 2009). A Ph.D. thesis has been written on the description of Ark'abi dialect of Laz (Lacroix, 2009). There is also a B.A. thesis which compares the agreement systems of Georgian and Laz within a theoretical

[2] Historically, this geographical region is called Lazika, Lazona, or Lazist'ani (the land of Laz) by the Laz.

perspective (Blix, 2012). There is a published descriptive grammar of Pazar Laz jointly written by the participants of a Field Methods course on Laz at Boğaziçi University (Öztürk and Pöchtrager, 2011).

1.4. Methodology

In this thesis, I will focus on the dialect of Laz spoken in Pazar. Note that there *is* significant variation in Laz, which may in fact go beyond dialectal variation as native speakers of Laz from different regions report a difficulty in mutual intelligibility and mostly prefer to use Turkish, instead.

To elicit data and acceptability judgments, I have primarily worked with İsmail Avcı-Bucaklişi[3]. But I have had access to other Laz native speakers in the Pazar region and checked with them some of the judgments on the elicited data. Due to the difficulty of the tasks required for Chapter 3, I have used contextual clues such as pictures or pre-texts defining contexts. I should note that the judgments were clear and robust, uniformly confirmed by the native speakers I have worked with. I have tested grammaticality by test sentences in Laz rather than via translation from Turkish to Laz.

1.5. Outline of the Thesis

In Chapter 2, I investigate the case system and subjecthood criteria in the Pazar dialect of Laz.

[3] He is the co-author of the two published Laz dictionaries (1999, 2007) and currently teaches Laz as a foreign language at the university level. He is a Laz-Turkish bilingual. He has acquired Turkish during primary school; however, he now speaks both Laz and Turkish fluently.

In Chapter 3, I present the basic linear order of arguments in out-of-context clauses that are judged to be acceptable in the absence of a pre-discourse. In the rest of the chapter, I employ three interpretational tests, namely weak-cross-over, quantificational scope, and the order of multiple Wh elements with the aim of determining the hierarchical organization between the external argument and an internal argument (i.e. subject vs. object), as well as, among the internal arguments.

In Chapter 4, I introduce the basics of agreement in Pazar Laz, providing a surface description. Then, I start to discuss the agreement accessibility facts with the aim of showing that the agreement accessibility follows from the syntactic locality. Introducing the basic mechanism of agreement valuation, i.e. AGREE, I compare the two alternatives for its implementation, with the aim of showing that AGREE does not necessarily induce case valuation, i.e. determine case values.

In Chapter 5, I discuss the intricate syntactic and post-syntactic interactions that determine how the person and number agreement in Pazar Laz are determined and realized. I argue that agreement nodes (i.e. Probes) are in a local spell-out domain, which renders the attained empirical data predicted. I first consider the syntactic approaches to the problems at hand (i.e. realizational hierarchy and omnivorous number agreement) and show that they apparently fail to capture the data in its entirety without further stipulations. As alternatives, I discuss the post-syntactic approaches which potentially explain the realizational interaction (i.e. without further stipulations that may as well disrupt the desired syntactic uniformity).

In Chapter 6, I summarize the basic findings and the claims in the thesis and present some of the remaining issues that need to be investigated in future research.

CHAPTER 2

CASE AND SUBJECTHOOD IN PAZAR LAZ

In this chapter, I will attempt to provide a general outlook of Laz case system and argue that it strongly correlates with the semantic roles arguments assume, which is a rarely attested and thereby interesting phenomenon. Having an *active* case system, where the morphological cases NPs bear correspond to basic semantic roles, it is of great importance to see if the syntax of Laz is sensitive to cross-linguistically relevant grammatical functions like subject and object. The preliminary descriptive data discussed in this chapter suggest Laz in fact has a clear definition for subjecthood, as evidenced by the asymmetric behavior of arguments in anaphor binding and control phenomena. While subjects may act as referential antecedents for the gaps in control constructions and anaphoric elements, objects consistently fail to do so.

This chapter is organized in two main sections. The first section deals with the intricacies of the case system of Laz. The second section discusses the subjecthood criteria for Laz.

2.1. Case System of Pazar Laz

This section will present a descriptive overview of the case system in the Pazar dialect of Laz. Let us first state the simple fact that Pazar Laz has three differential case exponents: ERGative {–k}, DATive {-s}, and NOMinative {ø}. The first and second personal pronouns do not show any case alternation in their simplex forms as

in (1); however, in their complex forms, i.e., when they are followed by a universal quantifier, they *do* exhibit the case alternation illustrated in (2).

(1) T'k'va şk'u m-dzir-i-t
2.PL.ERG 1.PL.NOM 1-see-1.PST-PL
'You (pl) saw us.'

(2) T'k'va iri-*k* şk'u m-dzir-i-t
2.PL all-ERG 1.PL.NOM 1-see-1.PST-PL
'You *all* saw us.'

In (2), notice that the ERG case marker appears on the universal quantifier *iri* 'all' which immediately follows the pronoun. Compare the sentence in (2) with the one in (3) where the subject pronoun is third person and must overtly show the ERG marking. In light of the data on the person syncretism on the pronominal forms of PL, I will assume that all pronouns in PL are case marked even when the case marking is not overtly visible, which has independent evidence from the attested agreement patterns as will be discussed throughout the thesis.

(3) Bere-pe-*k* şk'u m-dzir-es
child-PL-ERG 1.PL.NOM 1-see-3.PL.PST
'The children saw us.'

In addition to the simple pronominal syncretism mentioned above, there are two important properties of Laz case system. One is the typologically rare alignment

it exhibits. Having an active case alignment, Laz neatly maps the various semantic roles that the arguments assume to the differential cases. The other is the case syncretisms, in particular relating to the dative case. Although many of the macro-semantic roles get differential case marking in Laz, dative case corresponds to a relatively wide and incoherent set of semantic roles. Both of these properties of Laz case system will be crucial in the discussion of the agreement system of Laz.

2.1.1. Active Case Alignment

In Laz, the case alignment is not accusative or ergative. Thus, it does not make reference to the transitivity of a predicate. Rather, the case marking differentiates between arguments with different semantic roles, which is a property of case systems that have *active alignment* (Dixon, 1994). The sentence in (4) has a transitive predicate which requires both external agent and internal theme arguments. While the argument that is semantically agent is overtly case-marked, the theme argument bears no overt case marking. I will refer to the overt case formative {-k} on the agent arguments as ergative [ERG], while I will simply call the non-case marked arguments nominative [NOM][4]. Although one cannot conclude from the sentence in (4) that the Laz case system does not refer to the transitivity, the fact that the marked argument is the external argument rather than the internal argument suggests that the Laz case alignment is not accusative.

[4] In case systems that exhibit ergativity, the unmarked case is commonly referred to as *absolutive;* however, the unmarked case is traditionally called NOM in the Caucausian linguistics. Also note that Legate (2005) has argued against absolutive as a distinct case.

(4) Koç'i-k dişk'a t'ax-u

man-ERG wood.NOM cut-3.PST

'The man cut (the) wood.'

The crucial data to reach a conclusion are in (5) and (6) below.

(5) Koç'i ğur-u

man.NOM die-3.PST

'The man died.'

(6) Koç'i-k k'i-u

man-ERG scream-3.PST

'The man screamed.'

The predicates in (5) an (6) are both intransitive but differ in one important respect. While the sentence in (5) has an unaccusative predicate, thereby, a theme argument, the one in (6) has an unergative predicate, thereby, an agent argument. We see that the external agent argument in (6) bears the ERG case, exhibiting the identical case-marker with the external agent argument of the transitive predicate in (4). Moreover, the internal theme argument in (5) is nominative as the one in (4). With the data at hand, we already eliminate the possibility of Laz having an accusative or ergative case alignment system. As the sole argument of the intransitive is differentially marked contingent with its semantic role, we cannot analyze the PL case system as accusative or ergative which only make reference to the transitivity of the predicate, consistently aligning the sole argument of the intransitives with the

subject of the transitives and the object of the transitives, respectively. The question, then, is if the Laz case system simply differentiates between external vs. internal arguments or it makes a finer distinction based on the semantic roles the arguments assume. The data in (7) and (8) suggest it is the latter.

(7) Bere-s nana-muşi a-limb-en
child-DAT mother-her.NOM APPL-love-IMPF.3
'The child loves her/his mother.'

(8) Bere-s obiraşe a-t'ax-u
child-DAT toy.NOM APPL-break-3.PST
'The child (accidentally) broke the toy. '

In the sentences in (7) and (8), we notice the DAT-NOM case array in contrast to the ERG-NOM case array in the transitive sentence in (4). The dative case marks the experiencer argument of a psych-predicate in (7). In (8), we see that the external argument of the predicate *break* is marked DAT unlike in (4). The canonical external semantic role of *break* is agent but Laz can grammatically mark that the external argument is less agent-like than the proto-typical (i.e. actor/initiator but unaware, by accident, involuntary etc.). I will refer to this complex semantic role as *deagentive*. Kallulli (2006) discusses, mainly in light of the Albanian data, the feature compositions of the semantic roles. In her proposal, the *agent* role is to be analyzed as [+intention; + cause] while the *unintentional causer* role, corresponding to what I refer to as *deagentive*, must have the [-intention; +cause] values. Thus, it seems possible and, probably, necessary to decompose the semantic roles into

abstract features to be able to derive the case realization scenarios that are sensitive to the semantic roles of the arguments. Then, PL can be argued to have the *active* case alignment which makes direct reference to the semantic roles, and not just the dichotomy of external vs. internal argument. The crucial difference between the external arguments of (4) and (7)-(8) appears to be their semantic roles. While the *agent* arguments in (4) and (6) are ERG, the *experiencer* and *deagentive* arguments in (7) and (8) are DAT. The basic conclusion from this section should be the fact that the case marking in PL exhibits a one-to-one correspondence with the semantic roles arguments assume. The next section will present an overview of the argumental case syncretisms in Laz.

2.1.2. Semantic Roles and Case Mapping

The previous section has presented the crucial data in favor of a case system that employs the differential case marking on the basis of semantic roles of the arguments. However, it is inevitable that the diversity of the possible semantic roles is extensive while the number of the morphological cases is relatively small. Thus, expectedly, Laz groups semantic roles into macro semantic roles. To illustrate, in (9-11), the arguments with theme, patient, and stimulus roles are all NOM.

(9)	Ma	ğoma	*layç'i-sk'ani*	b-dzir-i	[theme]
	1	yesterday	dog-your.NOM	1-see-1.PST	
	'I saw *your dog* yesterday.'				

(10) Ma *çxombi* p’-t’iğan-i [patient]

1 fish.NOM 1-fry-1.PST

‘I fried *fish*.’

(11) Ma *k’at’u-pe* m-a-limb-en [stimulus]

1 cat-PL.NOM 1-APPL-love-IMPF.3

‘I love *cats*.’

The sentences in (12), (13), and (14) illustrate the various semantic roles that the ERG arguments can assume. These include agent, instrument, and cause.

(12) *Bozomot’a-k* xe-pe d-i-mbon-u [agent]

girl-ERG hand-PL PV-REF-wash-3.PST

‘The girl washed her hands.

(13) *Ham nk’ola-k* ek’na go-nts’um-u

[instrument]

this key-ERG door.NOM PV-open-3.PST

‘This key opened the door.’

(14) *Furt’ona-k* oxori ok’o-x-u

[force/cause]

storm-ERG house.NOM PV-destroy-3.PST

‘The storm destroyed the house.’

However, it should be noted that the instrument role cannot be expressed by ERG and must be realized as an adjunct if the agent argument is present, as illustrated in (15).

(15)	Bere-k	ek'na	*ham*	*nk'ola-te*	go-nts'um-u
	child-ERG	door.NOM	this	key-INST	PV-open-3.PST

'The child opened the door *with this key*.'

Considering the relatedness of the semantic roles of the NOM arguments in (9-11) and the ERG arguments in (12-14), one can easily name the set of NOM arguments as UNDERGOER and the set of ERG arguments as ACTOR/INITIATOR in the vein of the proto-semantic role classification discussed in van Valin (2005). The relationship between case marking and semantic roles in PL has also been addressed in Taylan and Öztürk (2012), where they investigate, in particular, the effect of event composition on how morphological case marking is determined.

In contrast to these relatively coherent semantic roles that are linked to ERG and NOM marking, Pazar Laz exhibits semantically unpredictable syncretisms with respect to the dative case. That is, the set of semantic roles corresponding to the dative case is rather incoherent. The morphological variation in the verbal complex and pragmatics are often helpful in the correct mapping of the DAT arguments into different semantic roles.

The most distinct use of the dative case is for the arguments with *causee* semantic role. When an intransitive predicate is causativized, the causee argument is always NOM as seen in (16) and (17).

(16) Xordza-k bere o-bgar-in-u
woman-ERG child.NOM CAUS-cry-CAUS-3.PST
'The woman made the child cry.'

(17) Biç'i-k kinç'i o-ğur-in-u
boy-ERG bird.NOM CAUS-die-CAUS-3.PST
'The boy killed the bird.'

However, when a transitive predicate is causativized as illustrated in the causative counterpart of (18) in (19), the causee argument must bear the DAT case. As this argument invariably co-occurs with the suffix {–ap} that is used to causativize the transitive predicates, the DAT argument is unambiguously mapped into the causee role.

(18) K'oçi-k dişk'a çit-um-s
man-ERG wood.NOM cut-IMPF-3
'The man is cutting wood.'

(19) K'oçi-k bere-muşi-s dişk'a o-çit-ap-am-s
man-ERG child-his-DAT wood.NOM CAUS-cut-CAUS-IMPF-3
'The man is making his child cut wood.'

The second use of DAT is seen within the lexically ditransitive predicates few in number. In this small set, the DAT argument seems to always express the *goal-recipient* role as in (20).

(20) Nana-k bere-muşi-s cari ç-u
mother-ERG child-her-DAT food.NOM feed-3.PST
'The mother fed her child (food).'

Most importantly, the DAT case is also used for applied arguments in what is called *'the applicative constructions'* where the valency of an event, i.e. the number of participants, is increased by one through the introduction of a *non-core* argument (Pylkkänen, 2002, 2008). This use of DAT almost always co-occurs with the applicative morphology on the verbal complex. Although the applicative morphology indicates the presence of at least one applied argument, the range of semantic roles that the applied DAT arguments can assume is fairly wide.

The sentence in (21) and its counterpart with the applied argument in (22) illustrate how the applicativization works in PL. A DAT argument is introduced as a non-core argument (i.e. not selected by the predicate) and the applicative morphology on the verbal complex signals its presence.

(21) Nana-k a past'a ç'-u
mother-ERG a cake.NOM bake-3.PST
'The mother baked a cake'.

(22) Nana-k *bere-pe-muşi-s* a past'a u-ç'-u
mother-ERG child-PL-her-DAT a cake.NOM APPL-bake-3.PST
'The mother baked her children a cake.'

The semantic role of the applied DAT in (22) is *recipient* while the ones in (23), (24), and (25) are *source*, *possessor*, and *benefactive*, respectively.

(23) Bere-k *baba-muşi-s* cenç'areri u-gor-u
child-ERG father-her-DAT money.NOM APPL-want-3.PST
'The child wanted money *from her father*.'

(24) *Nana-s* skiri u-ğur-u
mother-DAT child.NOM APPL-die-3.PST
'*The mother's* child died.'

(25) Xordza-k *cuma-muşi-s* bere-muşi-şeni past'a
Woman-ERG brother-her-DAT child-his-for cake.NOM
u-ç'-u
APPL-bake-3.PST
'The woman baked *her brother* a cake for his child.'

The semantic roles that the applied DAT arguments can assume in Laz are not restricted to those given in (22)-(25), though. The next section will focus on another set of applied DAT arguments which will be argued to exhibit subject behavior in PL patterning with the quirky subjects of Icelandic (Sigurðsson, 2002).

2.1.3. DAT Subjects in PL

The last group of applied DAT arguments to be discussed involves the 'notionally[5]' subject arguments. In section 2.1.1., we have seen two different configurations where a 'notional' subject is marked DAT, as illustrated in (26) and (27).

(26) Nana-s bere-muşi a-limb-en
mother-DAT child-3.POS.NOM APPL-love-IMPF.3
'The mother loves her child.'

(27) Bere-s obiraşe a-t'ax-u
child-DAT toy.NOM APPL-break-3.PST
'The child (accidentally) broke the toy. '
'The child was able to break the toy.'

Let us again note that the DAT argument in (26) is *experiencer* while the one in (27) is ambiguous between the *deagentive* and *abilitative* senses. Cross-linguistically, it is very common for experiencers to be DAT (Belletti and Rizzi, 1988). The differential marking of *deagentive* arguments is reported for Slavic languages and Albanian (Kallulli, 2006). Furthermore, the ambiguity between the out-of-control reading (i.e. deagentive) and the dynamic ability sense (i.e. abilitative) is attested in languages other than Laz. Davis et al. (2007) argue, in light of the Salish data, that the ambiguity stems from the universal or existential interpretation of Circumstantial Modality. Rivero et al. (2009) also discuss that Polish exhibits the

[5] For the time being, I will use the term 'notional' and will present the formal subjecthood criteria in section 2.2.

syncretic marking of *deagentive* and *abilitative*. Thus, even the languages which do not have active case alignment appear to exhibit a certain degree of semantically determined case marking. This type of differential case marking has been treated as involving *applicatives,* where the differential case marking stems from the local inherent case assignment. (Kim, 2012; Georgala, 2012)

It should be noted that it is the applicativization phenomenon, i.e. the applicative morphology and the applied argument, that adds the semantics of the experiencer role in (26), and the circumstantial modality in (27). The non-applicative counterparts of (26) and (27) are given in (28) and (29), respectively.

(28) Bere i-limb-en
child.NOM PASS-love-IMPF
'The child is loved.'

(29) Obiraşe i-t'ax-u
toy.NOM PASS-break-3.PST
'The toy got broken.'

The last type of DAT subject in PL is a typologically interesting one used with the Perfect construction. To my knowledge, this is unattested elsewhere. The DAT argument in the Perfect can be argued to have the possessor and/or experiencer semantics since the most salient sense of the perfect in PL is the experiential perfect (Öztürk and Pöchtrager, 2011). The experiential perfect is used to refer to past events without mentioning its precise time and frequency (Chappell, 2001). The sentence in

(30) illustrates the use of experiential perfect. Notice the DAT marking on the 'notional' subject of the sentence.

(30) Ham bere-s livadi-s u-çaliş-ap-un
This child-DAT field-LOC APPL-work-PERF-IMPF
'This child has the experience of working in a field.'
'This child has worked in a field (at least once before).'

In this section, I have attempted to complete the overview of possible DAT arguments in PL by discussing the *notional* subjects marked DAT. The following section will focus on the empirical evidence for subjecthood in PL and attempt to save us from the 'notional' part of the expression 'notional subject', I have used so far.

2.2. Defining Subjecthood

In this section, I will discuss the subjecthood criteria for Laz. I will use anaphor binding and control tests to show that subject and object arguments cluster separately. Based on the proposed subjecthood criteria, I will argue that the last three types of DAT arguments that have been described in the section 2.1.3., i.e. experiencer, deagentive/ abilitative, and the DAT of the experiential perfect, are in fact subjects while the DAT arguments that have the *possessor, benefactive, recipient, source,* and *causee* roles cannot show subject behavior.

2.2.1. Anaphor Binding

Anaphors such as reflexives are elements which must be referentially bound by an antecedent. In PL, only subjects can bind reflexives as seen in (31) and (32). The anaphoric phrase *ti-muşi* 'herself/himself' can only be bound by the ERG argument, i.e. the subject, in (31). Likewise in (32), only the subject can bind the reflexive element with the only difference that the subject of (32) is not ERG but DAT. The non-subject causee DAT *biç'i* 'boy' in (31) and (32) cannot bind the reflexive although it is a potential antecedent. Thus, the subject and the object behave differently with respect to their anaphor binding potentials.

(31) Xordza-k_i biç'i-s_k ti-muşi $_{i/*k}$ o-gor-ap-u
woman-ERG boy-DAT head-3.POS.NOM CAUS-look for-3.PST
'The woman made the boy look for herself/*himself.'

(32) Xordza-s_i biç'i-s_k ti-muşi $_{i/*k}$ a-gor-ap-u
woman-DAT boy-DAT head-3.POS.NOM APPL-look for-3.PST
'The woman was able to make the boy look for herself/*himself.'

The sentences in (33)-(36) show that all three types of DAT subjects (experiencer in (33), abilitative/deagentive in (34), and the subject of experiential perfect in (35)) can bind the reflexive as the ERG subject does in (36). Therefore, there is no difference between ergative and dative subjects with respect to their anaphor binding potentials.

(33) Ham biç'i-s_k ti-muşi$_k$ opşa a-limb-en

this boy-DAT head-POS3.NOM much APPL-love-IMPF

'This boy loves himself very much.'

(34) Ham biç'i-s_k ti-muşi$_k$ yali-s a-dzir-u

this boy-DAT head-POS3.NOM mirror-LOC APPL-see-3.PST

'This boy was able to see himself in the mirror.'

'This boy accidentally saw himself in the mirror.'

(35) Ham biç'i-s_k ti-muşi$_k$ yali-s u-dzir-ap-un

this boy-DAT head-POS3.NOM mirror-LOC APPL-see-PERF-IMPF

'This boy has the experience of seeing himself in the mirror.'

(36) Ham biç'i-k_k ti-muşi$_k$ yali-s dzir-u

This boy-ERG head-POS3.NOM mirror-LOC see-3.PST

'This boy saw himself in the mirror.'

In (37) below, the co-reference between the benefactive DAT *biç'i* 'boy' and the reflexive is not possible, which confirms that the set of arguments that can be potential binders are subjects.

(37) Bozomot'a-k$_i$ biç'i-s_k ti-muşi $_{i/*k}$ u-msk'van-u

girl-ERG boy-DAT head-3.POS.NOM APPL-make pretty-3.PST

"The girl made herself/*himself pretty for the boy."

2.2.2. Control

In addition to the anaphor-binding test discussed in the section 2.2.1., the data on control constructions show that the subject and the objects cluster separately. In control constructions, there is an argumental gap, i.e. an *unpronounceable* argument, which needs to be referentially anchored by means of control. That is, an argument in the matrix clause must act as the referential antecedent for the argumental gap and control it. An example of a want-*type* control construction is given in (38) while (39) illustrates a control construction with an adjunct purpose clause from English. In both examples, the embedded clause has a gap that gets its reference from the matrix clause subject *Mary*, yielding an interpretation where the semantic role associated with the gap is referentially linked to *Mary*. This phenomenon is referred to as 'control.'[6]

(38) Mary $_k$ wants [__ $_k$ to leave the party].

(39) Mary $_k$ runs [___ $_k$ to lose weight].

In what follows, I will attempt to show that in Pazar Laz only matrix clause subjects, i.e. not the objects, can control the gaps and the gaps that need control can only be *subjects* themselves, albeit *unpronounceable*.

In (41) and (43), the subject positions of predicates which would assign ERG to their external argument as seen in (40) and (42), are replaced by gaps. In (41), the

[6] In the literature, there is a debate regarding the status of the gap in control constructions (see Hornstein, 1999; Culicover and Jackendoff, 2001; Landau, 2003 among others). I will not be discussing any of the theories regarding control. I will simply describe the control data in PL.

subject of the unergative predicate is shown to surface as a gap while the sentence in (43) illustrates the same for the subject of a transitive predicate.

(40) Xordza-k i-bgar-s
woman-ERG PRV-cry-3
'The woman cries.'

(41) Xordza-k_k [__$_k$ o-bgar-u] gor-um-s
woman-ERG [__ NML-cry-NML] want-IMPF-3
'The woman wants to cry.'

(42) Xordza-k dişk'a çit-um-s
woman-ERG wood.NOM cut-IMPF-3
'The woman is cutting wood.'

(43) Xordza-k_k [__$_k$ dişk'a o-çit-u] gor-um-s
woman-ERG [__ wood.NOM NML-cut-NML] want-IMPF-3
'The woman wants to cut wood.'

The data in (44) and (45), on the other hand, show that the NOM argument of the unaccusative predicate can be replaced by a gap.

(44) Koç'i ğur-un
man.NOM die-IMPF.3
'The man is dying.'

(45) Koç'i-k $_k$ [___ $_k$ o-ğur-u] va gor-um-s

man-ERG [___ NML-die-NML] NEG want-IMPF-3

'The man does not want to die.'

Thus, the data at hand suggest that both NOM and ERG subject positions can be gaps in control constructions. The set of data in (46) and (47) might be trivial; however, it conveniently supports the argument that the ability to be controlled, i.e. being a gap, defines the subjecthood in Laz. In a transitive predicate, only the subject can be a gap, hence the ungrammaticality of (46). Notice that the subject-gap counterpart of (46) in (47) *is* grammatical.

(46) *Bere-k $_k$ [xordza-k ___ $_k$ o-dzir-u] gor-um-s

child-ERG [woman-ERG ___ NML-see-NML] want-IMPF-3

Intended: 'The child$_i$ wants the woman to see him$_i$'

(47) Bere-k $_k$ [___ $_k$ xordza o-dzir-u] gor-um-s

child-ERG [___ woman.NOM NML-see-NML] want-IMPF-3

'The child wants to see the woman.'

Considering the fact that gaps can only correspond to subjects, the data in (48) and (49) present further evidence for the subjecthood of the experiencer DAT arguments. Notice that the gap in (49) corresponds to the position of the DAT argument, as seen in (48).

(48) Bere-s layç’-epe a-limb-en

child-DAT dog-PL.NOM APPL-love-IMPF.3

‘The child loves dogs.’

(49) Bere-k $_k$ [___ $_k$ layç'-epe o-limb-u] gor-um-s

child-ERG [___ dog-PL.NOM NML-love-NML] want-IMPF-3

ama a-şk'urin-en

but APPL-fear-IMPF.3

‘The child wants to love the dogs but s/he fears.’

Let us now use the control tests from the opposite angle. Here, I attempt to show that only subject arguments can control a gap in the embedded clause. The data in (50) and (51) clearly show that there is no difference between DAT and ERG subjects with respect to controlling a gap in the adjunct clause.

(50) Nana-s $_k$ [___ $_k$ bere-pe-muşi o-xel-u]-şeni

mother-DAT [___ child-PL-3.POS.NOM NML-make.happy-NML]-for

a-t’rağod-en

APPL-sing-IMPF.3

‘The mother can sing to make her children happy.’

(51) Nana-k $_k$ [___ $_k$ bere-pe-muşi o.xel.u]-şeni t’rağod.am.s

mother-ERG [___ child-PL-her.NOM make.happy.NML]-for sings

‘The mother is singing to make her children happy.’

The data in (52), on the other hand, show that the non-subject DAT argument *baba* "father" cannot control the gap in the embedded clause. The DAT is an applicative argument as in (50); however, it still cannot act as subject, therefore, cannot control. Furthermore, it should be noted that the intervening non-subject DAT renders the sentence ungrammatical as it destroys the locality condition for the control relation to be established between the ERG subject of the matrix clause and the gap in the embedded clause. Note that the sentence in (53), where the nominalized embedded clause is replaced by a non-complex NP, is grammatical.

(52) *Xordza-k_i baba-s_k [___$_{i/k}$ dişk'a o-çit-u] u-gor-u
woman-ERG father-DAT [___ wood NML-cut-NML] APPL-want-PST.3
Lit: 'The woman wanted wood-cutting from her father.'
Intended: "The woman wanted her father to cut wood.'

(53) Xordza-k baba-s cenç'areri u-gor-u
woman-ERG father-DAT money.NOM APPL-want-PST.3
'The woman wanted money from her father.'

Also note that the sentence in (54) is grammatical as the non-subject DAT argument does not intervene but is in the embedded clause, as evidenced by the absence of the applicative morphology on verbal complex of the matrix clause.

(54) Xordza-k$_k$ [___$_k$ baba-s dişk'a o-çit-u] gor-u
woman-ERG [___ father-DAT wood NML-cut-NML] want-3.PST
'The woman wanted to cut wood for her father.'

The discussion in this section has shown that gaps in control clauses can only be subjects and only matrix clause subjects can control. We have seen that the presence of an intervening non-subject potential controller between the matrix clause subject and the gap leads to ungrammaticality due to the violation of the locality constraint in control phenomena. With these facts at hand, we have attempted to identify the behavior of different arguments with respect to their control potentials and show that the arguments cluster as subject and non-subjects, allowing only the former to participate in control constructions. Apart from establishing the subjecthood criteria for Laz, we have also attempted to show that a subset of the DAT arguments patterns with NOM/ERG arguments and exhibits subject behavior.

2.3. Summary

In this chapter, I have presented an overview of the case system of Pazar Laz. We have seen that PL exhibits the typologically rare *active* case alignment, where there is direct relationship between the case marker on an argument and the semantic role of the argument. Overtly realized initiator (in most cases, *agent*) of a transitive and unergative event bears the ERG case while the undergoer/theme argument of the unaccusative event and the object of a transitive event bears NOM case. Thus, the case system differentiates between the external and internal arguments. Furthermore, PL has a set of non-core DAT marked arguments that corresponds to a wide range of semantic roles such as benefactive, possessor, goal, and source. We have also seen that experiencer, deagentive, abilitative arguments, and the external argument of the Perfect are also marked DAT. It can be argued that these are divergences from the prototypical agent role which are grammatically marked. This whole picture

confirms the semantic case mapping system in PL. The findings in this section will be especially helpful in the theoretical discussion on how case values on the arguments are determined.

In the second section of this chapter, I have presented the subjecthood criteria based on the control and binding data. These two phenomena make a clear difference between subjects and non-subjects. Only a subset of argument, i.e. subjects, may be binder, controller, and the gap in a control construction. In particular, the binary classification of DAT arguments as subjects and non-subjects will be relevant in the following chapters.

CHAPTER 3

IS LAZ A NON-CONFIGURATIONAL LANGUAGE?

Any syntactic account of the agreement phenomenon must have a working hypothesis for some sort of hierarchy for arguments since in most languages which exhibit overt agreement, not all arguments can agree. Rather, there is always a hierarchy of agreement accessibility that determines which argument(s) can agree when. For a post-syntactic analysis of agreement, the hierarchy of agreement accessibility is expected to be dependent on some phenomenon that is itself not purely syntactic. Bobaljik (2008), for example, argues that agreement accessibility is dependent on the morphological case value that is computed post-syntactically. In a syntactic analysis of agreement, on the other hand, the agreement accessibility must be dependent on a hierarchy that is itself syntactic. That is, the agreement accessibility that is assumed to be the outcome of syntactic derivation should also follow from the syntactic locality.

For a syntactic analysis, the *thematic* hierarchy proposed as the hierarchical organization of arguments (i.e. an event's participants with different semantic roles) is the most likely candidate to be the hierarchy that the agreement accessibility follows. In the literature, the accumulating evidence from a range of domains of grammar suggests a cross-linguistically uniform thematic hierarchy of arguments (Baker, 1997).

In the Minimalist Program (Chomsky, 1995), syntactic derivation is assumed to proceed in a bottom-up fashion and each syntactic object, including complex syntactic objects like argument NPs, is assumed to be introduced to the syntactic

derivation by MERGE, a basic syntactic operation which concatenates two objects and form a unique syntactic object that is available for further concatenation. Therefore, the introduction of each argument NP into the derivation obligatorily follows a temporal sequence, naturally providing a structural hierarchy for argument NPs. This abstract hierarchy may not be readily observable in the linear order of argument NPs. Thus, some syntactic tests have been used in the literature to show the hierarchy between the argument NPs. For some languages, however, known syntactic tests can give results that fail to show the hierarchy, suggesting a non-hierarchical organization of argument NPs.

The common assumption in the Minimalist Program is that syntax proper is a uniform domain of grammar while the cross-linguistic variation stems from "the easily detectable properties of utterances" (Chomsky, 2011). Thus, within this perspective of grammar, it should be of utmost importance to the Minimalist Program (henceforth MP) that the challenging empirical data attained against the universal argument hierarchy are accounted for (Baker, 2001). The Pazar dialect of Laz gives such offending results by the syntactic tests commonly used in the literature to identify the universal hierarchy of arguments. That is, tests such as Weak Cross-Over (WCO), quantifier scope, and the linear order of multiple Wh-elements fail to fully show the hierarchy of all arguments. These tests explicitly show that the subject is always higher than the object, which means that object is merged earlier than the subject. Yet they crucially fail to show a hierarchy between the objects[7], alluding to a phrase structure referred to as *non-configurational* (Hale, 1989). The agreement accessibility patterns attested in PL expectedly confirm the hierarchy of the subject and the object. Interestingly, the agreement accessibility hierarchy also

[7] I use the term object as an umbrella term for non-subject arguments with semantic roles such as benefactive, recipient, theme (of transitive), source, causee, possessor.

explicitly shows that there is in fact a hierarchy between the objects, disproving the non-configurationality hypothesis in favor of the universal thematic hierarchy assumed in the generative literature. Furthermore, it provides further evidence for the hypothesis that person-number agreement is a syntactic valuation operation that is strictly sensitive to syntactic locality (i.e. it belongs to *syntax proper*), not a post-syntactic morphological dependency phenomenon.

This chapter is organized in two main sections. The first section deals with how the linear order in a clause maps onto the information structure. The second section is an attempt to show that PL exhibits properties that are associated with non-configurationality (i.e. the non-hierarchical organization of argument NPs).

In the first section, I will first discuss the basic linear order constituent in PL clauses that are judged felicitous in non-discourse bound utterances. In addition, I will attempt to provide a preliminary sketch of the effect of scrambling on the information structure, basically identifying the Topic and Focus positions in the linear order. In the second half of this chapter, I will apply the syntactic tests used to show the argument hierarchy and show that they in fact fail to show a hierarchical organization for objects while they explicitly prove the hierarchy between the subject and the objects.

3.1. On Linear Order and Hierarchy in PL

In Pazar Laz, the person and number values of maximally two argument DPs can be cross-referenced on the verbal complex. In clauses with events that have two or more arguments, the realization of agreement is subject to a hierarchy of arguments that is in most cases *independent* of the linear (i.e. surface) order of the arguments in a

clause. This hierarchy determines which arguments' discourse information is to be cross-referenced on the verbal complex, which I will refer to as *agreement accessibility* or *agreement control* throughout the thesis. Let us first observe the simple fact that Laz allows clause-internal scrambling of argument NPs. While (1) illustrates the basic linear order where the subject precedes the object, in (2), the subject is focused and is in the immediately preverbal position. Provided that the verbal complex bearing the agreement is not affected from the change in the linear order, there is no change in the grammatical functions and semantic roles NPs assume, either. The simple but critical conclusion from this set of data alone is the fact that the verbal agreement in PL reflects a hierarchy of arguments that is not strictly dependent on the linear order of the NPs.

(1) Ma si ce-k-ç-i. [basic order]
1 2 PV-2-beat-1
'I beat you.'

(2) Si ma ce-k-ç-i. [scrambled order]
2 1 PV-2-beat-1
'It was me who beat you.'

As will be clear in Chapter 4 and Chapter 5, the linear order of the arguments in non-discourse bound (i.e. out-of-context) clausal utterances that have presentational focus in fact reflects the temporal MERGE sequence of argument NPs into their thematic positions. The agreement accessibility hierarchy will be shown to conform to the hierarchy of arguments in their thematic MERGE positions, not in

their post-displacement positions. Thus, I will be using the acceptability judgments for non-discourse bound clausal utterances and the agreement accessibility patterns to identify the argument hierarchy (i.e. the temporal MERGE sequence of argument NPs) and argue that PL in fact does *not* exhibit a non-configurational phrase structure.

3.1.1. Basic Linear Order in PL

In this section, I will present data on the basic word order of PL, i.e. the linear order of arguments that is judged to be felicitous for non-discourse bound (i.e. out-of-context) clausal utterances.

The trivial example in (3) below presents a clause that is judged to be grammatical as a non-discourse bound utterance. The example in (4), however, is not acceptable if there is no pre-discourse about the event. The example in (3) has a presentational focus (i.e. the prosodic focus on the verb) while in (4) the subject *ma* is prosodically focused and is in the immediately preverbal position. It should also be noted that the object *si* in (4) is the topic.

(3) Ma si g-dzir-i
1 2 2-see-1.PST
'I saw you.'

(4) Si *ma* g-dzir-i
2 1 2-see-1.PST
'It was me who saw you.'

The brief discussion above is sufficient to give an idea about the focus and the topic position in PL and the basic linear order of the subject and the object in a clause with presentational focus. The basic order of constituents for PL and the relative order of the focus and topic positions are given in (5).

(5) Subject > Object > Verb [Presentational Focus]
Topic > Focus > Verb [Discourse Bound Utterance]

As discussed in section 2.1.1., PL uses dative marking for subjects that are less agent-like than the prototypical agent, e.g. deagentive. The basic linear order for dative subjects does not exhibit any difference from the ergative marked subjects as seen in the clause with presentational focus in (6) and the theme-focus counterpart in (7).

(6) Bere-s si a-limb-en
child-DAT 2 APPL-love-IMPF.3
'The child loves you.'

(7) Si *bere-s* a-limb-en
2 child-DAT APPL-love-IMPF.3
'It is the child who loves you.'

In a clause that has an event with three participants (i.e. two objects) as in (8), there is a robustly preferred linear order for the two objects in the non-discourse bound utterances. In a clause with presentational focus, the recipient object must

precede the theme object. The reverse order of the two is infelicitous in a context-free utterance. In example (9) where the theme object precedes the recipient object is judged to be felicitous iff there is a pre-discourse regarding the event.

(8) Ma bere-s oşk'uri me-p-ç-i
1 child-DAT apple.NOM PV-1-give-1.PST
'I gave the child (the) apple.'

(9) Ma oşk'uri *bere-s* me-p-ç-i
1 apple.NOM child-DAT PV-1-give-1.PST
'It was *the child* whom I gave the apple.'

Assuming the relative order of subject>object still holds true, the updated basic order of constituents for PL is given in (10).

(10) Subject > Object $_{\text{recipient}}$ > Object $_{\text{theme}}$ > Verb [Presentational Focus]

PL has a set of applicative DAT arguments, as discussed in section 2.1.2. and 2.1.3. These applicative arguments can assume different semantic roles and grammatical functions. In (11) below, an applicative DAT argument assuming the *benefactive* role is used with a ditransitive event, inducing an event with four participants; the agent, the benefactive, the recipient, and the theme. The preferred relative order of the arguments in a clause with presentation focus, as in example (11), is agent subject> benefactive> recipient> theme. The preferred position for the

benefactive in a discourse where the benefactive is focused is again the immediately preverbal position, as in (12).

(11) Nana-şkimi-k ma bere-s oşk'uri m-i-ncğon-u
mother-my-ERG 1 child-DAT apple.NOM 1-APPL-send-3.PST
'My mother sent (the) apple to the child for me.'

(12) Nana-şkimi-k bere-s oşk'uri *ma* m-i-ncğon-u
mother-my-ERG child-DAT apple.NOM 1 1-APPL-send-3.PST
'It was for me that my mother sent (the) apple to the child.'

The preferred relative order of the constituents in clauses with presentational focus is then updated accordingly in (13).

(13) Subject > Object $_{\text{benefactive}}$ > Object $_{\text{recipient}}$ > Object $_{\text{theme}}$ > Verb

In example (14) below, the basic position of the causee DAT argument, which is indexed on the verbal complex by the causative formative {–ap}, is illustrated. The native speaker judgment for the causee argument in this situation is dropping the causee object all together since the causee is already indexed on the verbal complex. When asked to judge the clause in (14) with the overt benefactive and the causee argument, the preferred judgment for the position of the causee in a clause with presentational focus is pre-benefactive. In (15), the updated basic linear order of constituents is given.

(14) Nana-şk'imi-k ma k'oçi-s dişk'a m-o.çit.ap-u
mother-my-ERG 1.DAT man-DAT wood.NOM 1-chop.CAUS-3.PST
'My mother made me chop wood for the man.'

(15) Subject > Object $_{\text{causee}}$ > Object $_{\text{benefactive}}$ > Object $_{\text{recipient}}$ > Object $_{\text{theme}}$ > Verb

Lastly, basic linear position of the applicative argument that denotes possessive relation will be discussed. The object that has the possessor role cannot co-occur with the recipient and the benefactive, possibly due to a structural intervention in the derivation of the possessor (See Öztürk (2013) for an account). Thus, we can only show its relative order with respect to the theme and the causee, which is what (16) does. The linear order of the theme and the possessor is almost always fixed as possessor>theme. They also tend to move as a unit, for which reason the linear order as in (17) where the causee is intervening between the possessor and the theme is rejected.

(16) Cuma-şkimi-k ma bere-muşi-s toma m-o.xut'or.ap-u
brother-my-ERG 1 child-his-DAT hair.NOM 1-cut.CAUS-3.PST
'My brother made me cut his child's hair.'

(17) ??Cuma-şkimi-k bere-muşi-s ma toma m-o.xut'or.ap-u
brother-my-ERG child-his-DAT 1 hair.NOM 1-cut.CAUS-3.PST

In this section, we have attempted to identify the basic linear order in PL clauses that have presentational focus and are judged felicitous as non-discourse

bound (i.e. context-free) utterances. As for discourse bound utterances, we have seen that the strongly preferred focus position is immediately preverbal and pre-focus position appears to be reserved for topic elements. A summary of linear order preferences for clauses with presentational focus and discourse bound clauses is given below in (18) and (19), respectively.

(18) [Presentational Focus]

Subject > Object $_{\text{causee}}$ > Object $_{\text{benefactive}}$ > Object $_{\text{recipient}}$ > Object $_{\text{theme}}$ > Verb

Object $_{\text{possessor}}$

(19) [Discourse Bound]

Topic > Focus > Verb

3.2. Non-Configurationality in PL

Having identified the basic linear order of PL clauses in the previous section, I will proceed with the discussion of the apparent non-configurational properties of Pazar Laz. In Chapter 2, I have shown that Pazar Laz has relatively clear subjecthood criteria. Only subjects can be referential antecedents for anaphoric elements. In addition, only subjects can be gaps in the embedded clause of a control construction and again only the subject of the matrix clause can control the gap in the embedded clause. On the basis of these data, it might seem a bit far-fetched to argue for a non-configurational phrase structure for PL. Yet one should bear in mind that these criteria can only provide a differential diagnosis of argument NPs with respect to their grammatical functions. In other words, the only organization based on these

empirical data is the distinction between the subject vs. the objects. However, as we have seen in section 3.1.1., PL speakers find clauses that have four overt arguments processable. In this section, I will basically apply the relevant syntactic tests to PL so as to identify if we can in fact prove a hierarchical organization among objects, as well. The crux of the findings in this section is that PL expectedly makes a hierarchical organization between the subject and the objects while there is almost no evidence for a hierarchy between the objects, which alludes to a non-configurational phrase structure (Baker, 2001). As the data that will be attained in this section will be tested against the empirical data on the agreement accessibility hierarchy in Chapter 4 and Chapter 5, it is of great importance to give an overview of the apparent non-configurational properties of PL.

This section is organized as three main subsections, corresponding to three different syntactic tests to be applied. The three tests that I will be using are Quantificational Scope, Weak Cross-Over, and Multiple Wh-elements, respectively.

3.2.1. Quantificational Scope

The scopal interaction of the universal quantifiers (e.g. 'every') with the existential variables[8] (e.g. 'some') is not always strictly constrained with the linear precedence, as noted long before in the literature (May, 1977). The interpretation may not necessarily depend solely on the linear order; however, the scope behavior of quantificational elements appears to interact with the linear order in intricate and interesting ways.

[8] I use the term *existential variable* to cover the indefinites like English 'a' and also what is traditionally referred to as existential quantifiers like 'some'.

Notice that (20) has two interpretations which correspond to wide and narrow scope readings of the universal quantifier *every* with respect to the existential variable *one*[9]. Likewise, (21) has two interpretations, which clearly shows that the scopal interpretation of the universal quantifier is not constrained by its linear position in a clause, that is at least in the English sentences in (20) and (21).

(20) Every boy saw a girl.

one>every: There is a girl and every boy saw her.

every>one: For every boy, there is a girl that he saw.

(21) A boy saw every girl.

one>every: There is a boy and he saw every girl.

every>one: For every girl, there is a boy that saw her.

However, not every language exhibits the pattern sketched above with respect to the scope of universal quantifiers. As a matter of fact, in Laz, as a language that allows scrambling, the wide and narrow scope readings of the universal quantifier are not immediately available in all potential linear positions. That is, in some cases, the potential ambiguity may not be attested.

In (22), like in (20), the NP with the universal quantifier is the subject and we see that the universal quantifier can get wide and narrow scope readings in Laz, as well.

[9] I will use 'one' instead of 'a' to enhance the readibility.

(22) K'ata k'oçi-k a bere dzir-u

every man-ERG one child.NOM see-3.PST

'There is a child and every man saw her.' [one>every]

'For every man, there is a child that he saw.' [every>one]

However, in (23), no ambiguity is attested with respect to the interpretation of the universal quantifier that is now in the object position. We witness that the only reading possible for (23) forces a narrow scope reading for the universal quantifier. This shows that unlike the examples (20) and (21) from English, the linear order in PL has an effect on the interpretation of the universal quantifier.

(23) A k'oçi-k k'ata bere dzir-u

one man-ERG every child.NOM see-3.PST

'There is a man and he saw every child.' [one>every]

*'For every child, there is a man that saw her.' *[every>one]

The sentences in (22) and (23) both reflect the *basic* linear order *subject>object* as discussed in the previous section. Crucially; however, we have seen an asymmetry between (22) and (23) with respect to the scope readings available. While both wide and narrow scope reading is available in (22), only narrow scope reading is possible in (23). This asymmetry must be due to the only observable difference between (22) and (23): the syntactic position of the universal quantifier. In the subject position, the universal quantifier allows two different scope readings while in the object position, it has obligatory narrow scope.

This interesting asymmetry stems from the nature of the 'existential variable' itself. Unlike the universal quantifier, the indefinite *a* 'one' in PL is *not* a quantifier but a variable that may also be 'bound at the discourse closure'. The variable status of the indefinites enables them to escape from the scope of the universal quantifier[10]. In (22), as the linear order shows, the existential variable is in the scope of the universal quantifier but it may also be interpreted outside the scope of the quantifier, i.e. at the discourse-closure. In this way, the non-linear scope reading (the inverse scope) is attained. However, in (23), the existential variable is outside the scope of the universal quantifier at every level, yielding only the surface scope reading possible.

Before we see how scrambling affects the scope readings, we need to briefly mention why there is ambiguity in the English sentence in (21). Although the exact machinery that is used might vary, many analyses assume that universal quantifiers can covertly move and get wide scope over an existential variable (i.e. (non-linear) inverse scope). But the data in (23) clearly show that the inverse scope cannot be attained in Laz by means of a 'covert' quantifier movement, which is possibly because Laz allows scrambling unlike English. In the next section, the effect of scrambling on scope phenomena in Laz is discussed.

3.2.1.1. Scrambling and Scope

In the Minimalist Program, overt (and also covert) displacement of syntactic objects is referred to as movement and is assumed to involve two basic syntactic operations: COPY and MERGE (Chomsky, 1995). One of the implications of this perspective on

[10] See Fodor and Sag, 1982; Reinhart, 1997; Kratzer, 1998; Kelepir, 2001.

displacement phenomena is that the moved syntactic object leaves a *copy* behind which can potentially have an effect on interpretational phenomena like scope. This is exactly what is seen in (24) below.

(24) A bere k'ata k'oçi-k dzir-u
one child.NOM every man-ERG see-3.PST
'There is a child and every man saw her.' [one>every]
'For every man, there is a child that he saw.' [every>one]

In (24), the existential variable is fronted and it overtly gets wide scope over the universal quantifier. The linear order attained by this movement is *one>every* that we have seen in (23) before. Interestingly, the sentences in (23) and (24) have different ambiguity potentials although both have the overt *one>every* linear order. While (23) forces narrow scope reading for the universal quantifier, (24) does not. The fact that (24) allows wide scope indicates that the lower copy of the moved element can also be interpreted, deriving the ambiguity in (24).

The sentence in (25), on the other hand, shows that the overt movement of the universal quantifier into a higher position than the existential variable has the potential to alter the scope readings available. The obligatory narrow scope in (23) is indeed no longer obligatory in (25).

(25) K'ata bere a k'oçi-k dzir-u
every child.NOM one man-ERG see-3.PST
'A man saw every child.' [one>every], [every>one]

In (26) is a summary of the interaction of scrambling with scope readings. Notice that the only non-ambiguous configuration is the case where there is no copy of existential variable in the scope of the universal quantifier. Since the universal quantifier cannot covertly move in Laz, there is only one reading available, i.e. the narrow scope reading.

(26)	Basic Order	⟶	Scrambled Order
	ONE > EVERY		EVERY>ONE>~~EVERY~~
Readings:	one>every, *<u>*every>one*</u>		one>every, every>one
	EVERY > ONE		ONE> EVERY>~~ONE~~
Readings:	one>every, every>one		one>every, every>one

Until now, I have only attempted to find the appropriate scope test configuration for Laz. The crucial finding is that the *non-ambiguity is attested iff a copy of existential variable is not in the scope of the universal quantifier*. Thus, it seems the MERGE order of the two arguments in scopal interaction must be recoverable from the scope data. In case of non-ambiguity, the universal quantifier must have been merged before the existential variable. The hierarchy identified by means of this test will expectedly correspond to the thematic hierarchy of argument NPs. The empirical data in (22)-(25) inform us that the only possible MERGE order is that the nominative theme (object) is merged earlier than the ergative agent (subject). This may be translated into the hierarchy as ergative subject is higher than the nominative object.

In the following, I use this test to show that the experiencer dative subject is merged later than the nominative theme object. Among (27)-(30), the only sentence that is unambiguous is (27), in which the universal quantifier is in the nominative theme object while the existential variable is in the experiencer dative subject. According to the test configuration in (26), the only possible hierarchy that can give the empirical results in (27)-(30) is *dative experiencer subject> theme nominative*.

(27) A k'oçi-s k'ata bere a-limb-en
one man-DAT every child.NOM APPL-love-3.IMPF
'There is a man and he loves every child.' [one>every]
*'For every child, there is a man that loves her.' *[every>one]

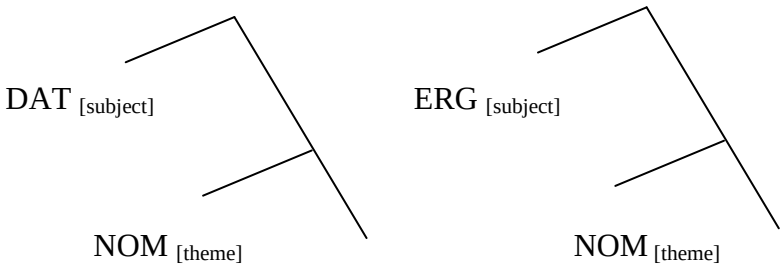
(28) K'ata bere-s a k'oçi a-limb-en
every child-DAT one man.NOM APPL-love-3.IMPF
'Every child loves a man.' [one>every], [every>one]

(29) K'ata bere a k'oçi-s a-limb-en
every child.NOM one man-DAT APPL-love-3.IMPF
'A man loves every child.' [one>every], [every>one]

(30) A k'oçi k'ata bere-s a-limb-en
one man.NOM every child-DAT APPL-love-3.IMPF
'There is a man and every child loves him.' [one>every]
'For every child, there is a man that she loves.' [every>one]

In (31) is the preliminary result of the scope test that I have applied so far.

(31)



Since only the ONE>EVERY linear order has the potential to give the non-ambiguity situation[11], I will not be providing all four combinations for each test case. In (32) and (33), I test the hierarchy of the dative recipient object and the ergative subject. Since only (32) is unambiguous, it is clear that the recipient object is lower (i.e. merged earlier) than the ergative subject. The ambiguity in (33) stems from the availability of the lower copy of the dative recipient that enables an interpretation inside the scope of the universal quantifier.

(32)	A	k'oçi-k	k'at'a	çxombi-s	xorts'i	ç-am-s
	one	man-ERG	every	fish-DAT	meat.NOM	feed-IMPF-3
	'There is a man and he feeds every fish.'					[one>every]
	*'For every fish, there is a man who feeds it.'					*[every>one]

(33)	A	çxombi-s	k'ata	k'oçi-k	xorts'i	ç-am-s
	one	fish-DAT	every	man-ERG	meat.NOM	feed-IMPF-3
	'Every man feeds a fish.'			[one>every], [every>one]		

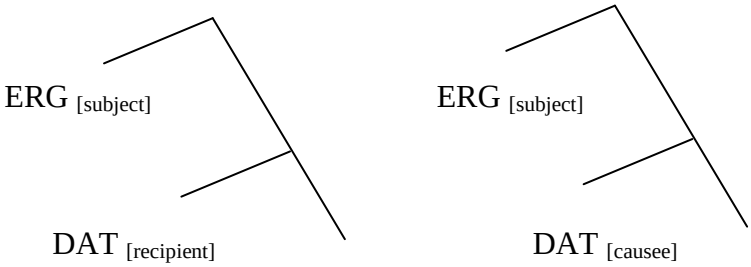
[11] This stems from the variable status of the indefinite. When 'one' is lower than 'every', it can always get an additional wide-scope reading.

In (34) and (35), I show that the *causee* dative object must be merged lower/earlier than the ergative subject. An intermediate summary of the scope tests in (32)-(35) is given in (36).

(34) A k'oçi-k k'ata bere-s dişk'a o.çit.ap-u
one man-ERG every child-DAT wood.NOM cut.CAUS-3.PST
'There is a man and he made every child cut wood.' [one>every]
*'For every child, there is a man who made him cut wood' *[every>one]

(35) A bere-s k'ata k'oçi-k dişk'a o.çit.ap-u
one child-DAT every man-ERG wood.NOM cut.CAUS-3.PST
'There is a child and every man made him cut wood.' [one>every]
'For every man, there is a child whom he made cut wood' [every>one]

(36)



In (37)-(38), I give the data that show the benefactive dative object must be merged earlier/lower than the ergative subject.

(37) A k'oçi-k k'ata xordza-s

one man-ERG every woman-DAT

bere-muşi u-car-u

child-POS3.NOM APPL-feed-3.PST

'There is a man and he fed her$_i$ child for every woman$_i$.' [one>every]

*'For every woman, there is a man who fed her child.' *[every>one]

(38) A xordza-s k'ata k'oçi-k

one woman-DAT every man-ERG

bere-muşi u-car-u

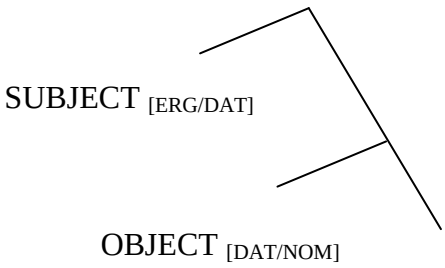
child-POS3.NOM APPL-feed-3.PST

'There is a woman and every man fed her child for her.' [one>every]

'For every man, there is a woman for whom he fed her child.' [every>one]

The interim summary of the scope test data in (22)-(38) is given in (39). The scope tests clearly show that the subject is higher than the theme, benefactive, recipient, and causee objects. The next section will look to see if the test can prove a hierarchy between objects (i.e. internal arguments).

(39)



3.2.1.2. Is There Hierarchy Between Objects?

The previous section has shown that the hierarchy between the subject and the objects is testable and empirically justifiable. In this section, we will see the data that show it is not equally easy to prove a hierarchy between object NPs using the scope test.

In (40) and (41), I have provided the data which show that the non-ambiguity configuration is again unique to one linear order: ONE>EVERY. However, the crucial difference from the data in the previous section is that both of the *one>every* linear orders (i.e. basic and scrambled) allow only narrow scope reading for the universal quantifier.

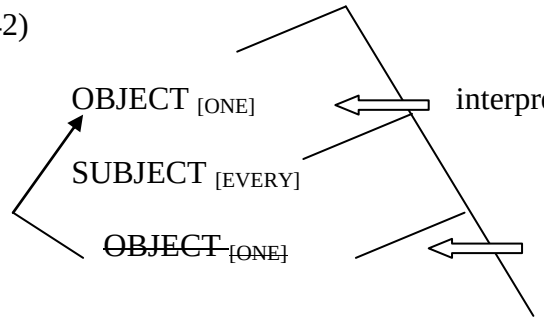
(40) Ma a xordza-s k'ata bere
1 one woman-DAT every child.NOM
v-o-ncar-ap-i
1-CAUS-sleep-CAUS-1.PST
'I made a woman make every child sleep.' [one>every] *[every>one][12]

(41) Ma a bere k'ata xordza-s
1 one child.NOM every woman-DAT
v-o-ncar-ap-i
1-CAUS-sleep-CAUS-1.PST
'I made every woman make a child sleep.' [one>every] *[every>one]

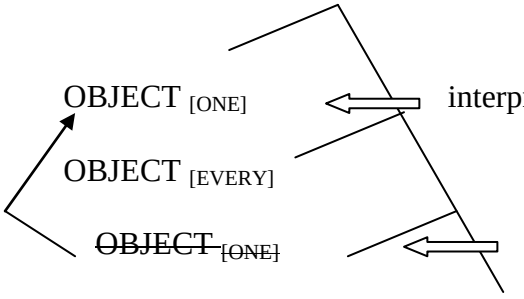
[12] Needless to say, the scope readings provided reflect the judgements for PL, not for English translations.

As one of the *one>every* linear orders must be the basic order that reflects the MERGE hierarchy, there must certainly be a lower copy of the existential variable. The implication of the data in (40) and (41), however, is the surprising fact that no interpretation which yields every>one reading is possible with *one>every* linear orders. This empirical fact makes it impossible to see the hierarchy between the causee and the theme objects in (40)-(41). Even if we assume that there is a lower copy of the existential variable, as the lower copy cannot be interpreted (i.e. yielding an inverse scope), there is no way to detect a hierarchy between the causee and the theme objects. In both of the one>every linear orders, they give the surface scope reading, which would render the scope test useless for the hierarchy of object NPs. In (42), I compare the diverging results of the test scope for subject/object and object/object hierarchies.

(42) INVERSE SCOPE *POSSIBLE*

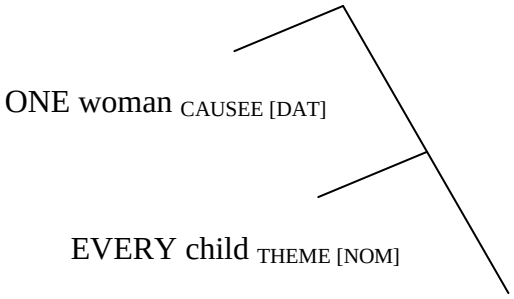


(43) INVERSE SCOPE *IMPOSSIBLE*

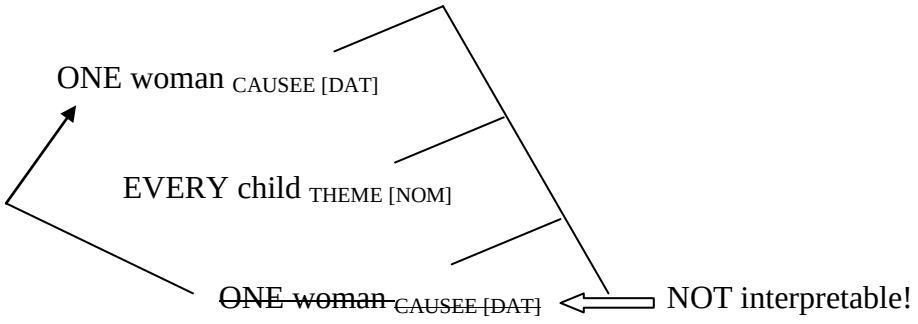


Due to (43), there is no way we can predict if (44) or (45) is the right derivation for the sentence in (40). Likewise, we cannot know what the right derivation for (41) is.

(44) ONE>EVERY; *EVERY>ONE

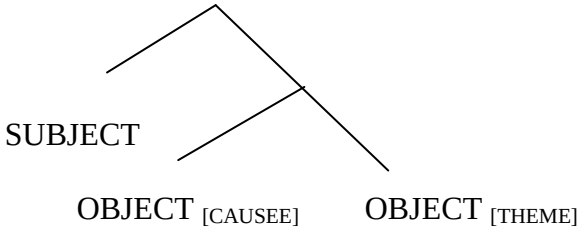


(45) ONE>EVERY; *EVERY>ONE



What (44) and (45) tell us is that we cannot even know if any movement has taken place (i.e. if there is any lower copy). Therefore, we cannot determine the hierarchy (i.e. the temporal MERGE sequence) of the causee and the theme objects based on the scope data. Thus, the only organization of the two that seems justified on the basis of the scope test is an offending non-hierarchical one as illustrated in (46).

(46)



In (47) and (48), I present the data which show that the scope test fails to determine the MERGE hierarchy between the causee dative and the benefactive dative.

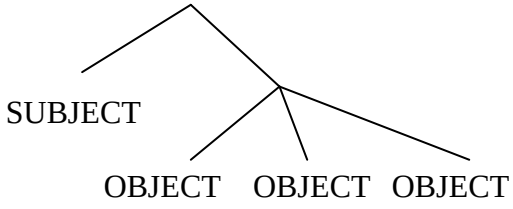
(47) A k'oçi-s k'ata xordza-s
one man-DAT every woman-DAT
dişk'a v-u-çit-ap-i
wood.NOM 1-CAUS-cut-CAUS-1.PST
'I made a man cut wood for every woman.' [one>every], *[every>one]

(48) A k'oçi-s k'ata xordza-s
one man-DAT every woman-DAT
dişk'a v-u-çit-ap-i
wood.NOM 1-CAUS-cut-CAUS-1.PST
'I made every woman cut wood for a man.' [one>every], *[every>one]

In Laz, the derivationally-relevant hierarchy that can be proven by the scope test for argument NPs only suggests an organization of subject vs. objects. According to the data from scope tests, there is no evidence that there is a MERGE hierarchy for the objects. This result implies a non-configurational phrase structure like in (49).

The non-configurationality as in (49), however, is not tenable in the Minimalist Program, as this would permit a massive parametric divergence in syntax, as a part of grammar that is desired to reflect cross-linguistic uniformity. Also note that a phrase structure like in (49) is against the basic assumptions of the MP. Thus, in Chapter 4 and Chapter 5, I will argue on the basis of empirical data on the agreement accessibility that the non-configurationality is epiphenomenal and PL in fact conforms to the universal hierarchy of arguments.

(49)



Due to the difficulty of the task, the judgments regarding the scope test may not be reliable alone. Thus, in the next section, I will be using another interpretational test, Weak Cross-Over, to identify the argument hierarchy and compare the results and implications of the two tests.

3.2.2. Weak Cross-Over (WCO)

Weak Crossover is a syntactic coreference restriction effect demonstrated in (50) below.

(50) Who$_i$ does his$_{k/*i}$ mother love ~~who~~$_i$?

In the above sentence, ‘Who’ is displaced from its MERGE position to the sentence initial position and has *crossed over* the pronominal element ‘his’. From the displacement position, ‘who’ cannot be the antecedent for the pronominal variable ‘his’; that is, the coreference between *who* and *his* is judged impossible by most native speakers of English.

The movement of the Wh-element is for interpretive purposes and is assumed to take place in every language. The weak crossover effect that is seen with the overt movement of the Wh-element in English is also true for Wh in-situ languages like Turkish. It can be seen that the Turkish counterpart of (50) in (51) also exhibits the WCO effect although Wh-word appears not to have crossed over the pronominal variable, staying in-situ. The assumption, then, is that the movement seen in English takes place *covertly* in Wh-in-situ languages like Turkish.

(51) Anne-si$_{k/*i}$ kim-i$_{i}$ seviyor?
mother-POS3 who-ACC loves
‘Who does his mother love?’

Leaving aside the important but irrelevant questions of how and why weak crossover effect occurs, we can now seek an answer to the question of how the WCO effect can help us understand the MERGE order of arguments in a language. A set of data from Turkish that illustrates the diagnostics value of the WCO effect is given in (52)-(55). Turkish is a Wh in-situ language that at the same time allows scrambling like Laz. The sentences in (52) and (53) linearly reflect the basic MERGE order pro>Wh while the basic MERGE order is Wh>pro in (54) and (55). The only configuration that yields WCO effect can be seen to be the pro>Wh order in (52).

Interestingly, however, it is not the derived/scrambled but the *basic* pro>Wh order that shows the WCO effect.

(52) Anne-si $_{i/*k}$ kim-i $_{k}$ seviyor? [WCO]
mother-POS3 who-ACC loves
'Who $_{k}$ does his $_{i/*k}$ mother love?'

(53) Kim-i$_{k}$ anne-si$_{k}$ ~~kim~~-i$_{k}$ seviyor? [no WCO]
'Who$_{k}$ does his$_{k}$ mother love?'

(54) Kim$_{k}$ anne-sin-i$_{k}$ seviyor? [no WCO]
Who mother-POS3-ACC loves
'Who$_{k}$ loves his$_{k}$ mother?'

(55) Anne-sin-i$_{k}$ kim$_{k}$ ~~anne-sin-i~~$_{k}$ seviyor? [no WCO]
'Who$_{k}$ loves his$_{k}$ mother?'

The Laz equivalent of the Turkish data in (52)-(55) is given in (56)-(59), where the exact same WCO facts are true. The WCO effect in (56), then, shows that the dative subject is merged higher/later than the nominative object.

(56) Nana-muşi-s $_{i/*k}$ mi$_{k}$ alimben? [WCO]
mother-POS3-DAT who.NOM loves
'Who $_{k}$ does his $_{i/*k}$ mother love?'

(57) Mi_k nana-muşi-s_k ~~mi_k~~ alimben? [no WCO]

'Who_k does his_k mother love?'

(58) Mi-s_k nana-muşi$_k$ alimben? [no WCO]

who-DAT mother-POS3.NOM loves

'Who_k loves his_k mother?'

(59) Nana-muşi$_k$ mi-s_k ~~nana-muşi$_k$~~ alimben? [no WCO]

'Who_k loves his_k mother?'

In (60) below, the summary of the WCO restriction with different linear orders in Turkish and Laz is presented. Since the only configuration that yields WCO restriction reveals the unscrambled basic MERGE order, it will be used as the test configuration to verify the argument hierarchy in Laz. Whenever we observe a WCO effect with the linear pro>Wh order, we will be able to show that the <Wh> is merged earlier than the <pro> and there is no copy of <pro> in the scope of the <Wh>.

(60) WCO test configuration

Basic Order		*Scrambled Order:*	
pro>Wh	WCO	Wh>pro>~~Wh~~	no WCO
Wh>pro	no WCO	pro>Wh>~~pro~~	no WCO

3.2.2.1. WCO and Subject/Object Asymmetry

In the previous section, we have already identified the MERGE hierarchy between the dative subject and nominative object since WCO effect is felt only with (56), where the dative subject and the nominative object are probably in their thematic MERGE positions, not in the post-displacement positions. In (61) and (62), I present the data that show the ergative subject is merged later/higher than the nominative object. Also note that throughout this section, out of space concerns, I will be testing the subject/object asymmetry using ergative subjects since there is no difference between ergative and dative subject and the results readily apply to the dative subjects.

(61) Nana-muşi-k $_{i/*k}$ mi$_{k}$ dzir-u?
mother-POS3-ERG who.NOM see-3.PST
'Who $_{i/*k}$ did his $_{k}$ mother see?' [WCO]

(62) Nana-muşi $_{k}$ mi-k $_{k}$ ~~nana-muşi $_{k}$~~ dzir-u?
mother-POS3.NOM who-ERG see-3.PST
'Who $_{k}$ saw his $_{k}$ mother?' [no WCO]

The data in (63) and (64) show that the causee dative object is merged earlier/lower than the ergative subject, yielding the WCO effect in (63) where there is no copy of <pro> in the scope of the <Wh>.

(63) Nana-muşi-k $_{k/*i}$ mi-s $_{i}$ dişk'a o-çit-ap-u?

mother-POS3-ERG who-DAT wood.NOM CAUS-cut-CAUS-PST.3

'Who$_i$ did his$_{k/*i}$ mother make cut wood?' [WCO]

(64) Nana-muşi-s $_{k}$ mi-k $_{k}$ ~~nana-muşi-s~~ dişk'a

mother-POS3-DAT who-ERG wood.NOM

o-çit-ap-u?

CAUS-cut-CAUS-PST.3

'Who $_{k}$ made his $_{k}$ mother cut wood?' [no WCO]

The data in (65) and (66), on the other hand, show that the benefactive dative object is merged earlier/lower than the ergative subject. Of the two pro>Wh linear orders, only (65) reflects the arguments in their thematic positions, yielding WCO effect as no copy of <pro> is available in the scope of <Wh>.

(65) Nana-muşi-k $_{i/*k}$ mi-s $_{k}$ dişk'a u-çit-u?

mother-POS3-ERG who-DAT wood.NOM APPL-cut-PST.3

'Who $_{k}$ did his $_{i/*k}$ mother cut wood for?' [WCO]

(66) Nana-muşi-s $_{k}$ mi-k $_{k}$ dişk'a u-çit-u?

mother-POS3-DAT who-ERG wood.NOM APPL-cut-PST.3

'Who $_{k}$ cut wood for his $_{k}$ mother?' [no WCO]

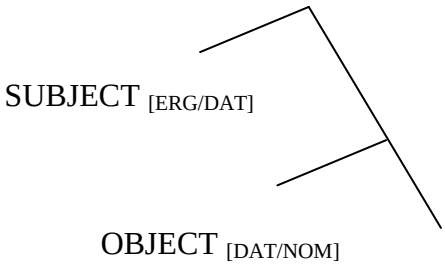
In (67) and (68), the hierarchy of the ergative subject and the recipient object is tested. As the WCO effect is felt in (67), the ergative subject is understood to be merged higher/later than the recipient object.

(67) Nana-muşi-k $_{i/*k}$ mi-s $_{k}$ cenç'areri u-ncğon-u?
mother-POS3-ERG who-DAT money.NOM APPL-send-PST.3
'Who $_{k}$ did his $_{i/*k}$ mother send money?' [WCO]

(68) Nana-muşi-s $_{k}$ mi-k $_{k}$ cenç'areri u-ncğon-u?
mother-POS3-DAT who-ERG money.NOM APPL-send-PST.3
'Who $_{k}$ sent money to his $_{k}$ mother?' [no WCO]

The empirical data attained in (56)-(68) suggest that ergative and dative subject is merged higher/later than the recipient, benefactive, causee, theme objects. The exact same hierarchy in (39) attained using the scope test has been verified on the basis of WCO data, as seen in (69).

(69)



3.2.2.2. WCO and Object Hierarchy

In the previous section, I have attempted to show the subject/object hierarchy using WCO tests. In this section, the WCO test will be used to show the exact same non-configurational effects among objects attained by scope tests in section 3.2.1.1.

The data in (70) and (71) show that WCO effect is felt in both benefactive>causee and causee>benefactive orders. Remember that with [pro>Wh] linear order, only the basic order [subject>object], which reflect the MERGE hierarchy, induces the WCO effect. However, in (70) and (71) both benefactive>causee and causee>benefactive orders induce WCO effect although one of the orders must the *non*-basic order in whose derivation there must be a copy of what is merged lower according to the argument hierarchy. But the lower copy (if there is one) is *not* interpretable. Thus, it is impossible to determine the MERGE hierarchy between the benefactive object and the causee object.

(70) Si nana-muşi-s $_{i/*k}$ mi-s $_{k}$
2 mother-POS3-DAT who-DAT
past'a u-ç'v-ap-i?
cake.NOM APPL-bake-CAUS-PST2?
'Whom $_{k}$ did you make his $_{i/*k}$ mother bake cake for?' [WCO]

(71) Si nana-muşi-s $_{i/*k}$ mi-s $_{k}$ past'a u-ç'v-ap-i?
'Whom $_{k}$ did you make bake cake for his $_{i/*k}$ mother?' [WCO]

In (72) and (73) are the data that test the hierarchy between the dative causee object and the nominative theme object. Similarly, there is no evidence for a hierarchy (i.e. MERGE priority) between the two, as both causee>theme and theme>causee linear orders induce WCO with the pro>Wh linear order.

(72) Si nana-muşi-s $_{i/*k}$ mi $_{k}$ o-car-ap-i?
2 mother-POS3-DAT who.NOM CAUS-feed-CAUS-PST.2
'Whom $_{k}$ did you make his $_{i/*k}$ mother feed?' [WCO]

(73) Si bere-muşi $_{i/*k}$ mi-s $_{k}$ o-car-ap-i?
2 child-POS3.NOM who-DAT CAUS-feed-CAUS-PST.2
'Whom $_{k}$ did you make feed his $_{i/*k}$ child?' [WCO]

The data in (74) and (75), on the other hand, test the hierarchy between the dative benefactive object and the nominative theme object. Again, both benefactive>theme and theme>benefactive linear orders induces the WCO effect, making it impossible to determine the MERGE hierarchy between the two.

(74) Si nana-muşi-s $_{i/*k}$ mi $_{k}$ u-car-i?
2 mother-POS3-DAT who.NOM APPL-feed-CAUS-PST.2
'Who $_{k}$ did you feed for his $_{i/*k}$ mother?' [WCO]

(75) Si bere-muşi $_{i/*k}$ mi-s $_{k}$ u-car-i?
2 child-POS3.NOM who-DAT APPL-feed-CAUS-PST.2
'Who $_{k}$ did you feed his $_{i/*k}$ child for?' [WCO]

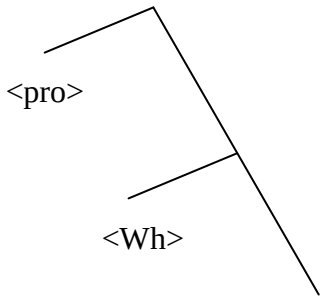
The data in (76) and (77) test the hierarchy between the dative recipient object and the dative causee object. Likewise, there is no evidence for a hierarchy between the two as both causee>recipient and recipient>causee linear orders induce the WCO effect with the pro>Wh linear order.

(76) Si nana-muşi-s $_{i/*k}$ mi-s $_{k}$ oşk'uri
2 mother-POS3-DAT who-DAT apple.NOM
u-ncğon-ap-i?
APPL-send-CAUS-PST.2
'Who $_{k}$ did you make his mother $_{i/*k}$ send apple(s) to?' [WCO]

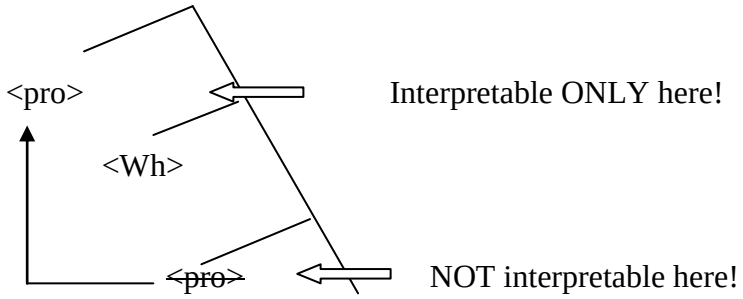
(77) Si nana-muşi-s $_{i/*k}$ mi-s $_{k}$ oşk'uri
2 mother-POS3-DAT who-DAT apple.NOM
u-ncğon-ap-i?
APPL-send-CAUS-PST.2
'Who $_{k}$ did you make send apple(s) to his mother $_{i/*k}$?' [WCO]

The WCO test that has been used to determine the asymmetry between the objects has failed to identify the MERGE sequence between the objects. It is impossible to know whether the derivation in (78) or (79) is the right one, for in case of a displacement as in (79), the lower copy of the pronominal element cannot be interpreted, yielding robust WCO effect. Thus, we again get a non-configurational organization for objects, as illustrated in (80).

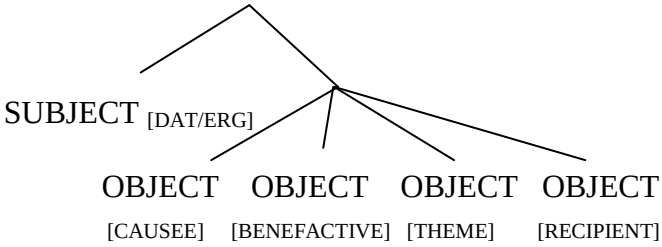
(78)



(79)



(80)



3.2.3. Linear Order of Multiple <Wh> Elements

In the first and second sections of this chapter, I have respectively used the scope and WCO tests to identify the argument hierarchy. These two tests have shown that the ergative and dative subjects are merged after/higher than any dative and nominative object. Thus, the ergative and dative subjects are higher than the objects. However, the WCO and scope tests have failed to determine the MERGE order between the objects. In this section, I will present data on the linear order of the <Wh> phrases which show that the subject and object asymmetry is persistent while an asymmetry

between the objects is not attested. Also note that there is no overt movement of Wh-phrases in PL, all the <Wh> elements can stay in-situ.

3.2.3.1. Subject/Object Asymmetry

The question in (81) gives the linear order of the ergative subject and the nominative theme object in the form of <Wh> elements. The object-fronted counterpart of (81) in (82), on the other hand, is judged ungrammatical. Thus, the linear order where both of the <Wh> elements remain in situ reflects the MERGE order.

(81) Mi-k mi dzir-u?
who-ERG who.NOM see-PST.3
'Who saw who?'

(82) ??/*Mi mi-k ~~mi~~ dzir-u?
who.NOM who-ERG see-PST.3
Intended: 'Who saw who?'

The data in (83) and (84) show that the same effect in (82) holds true when the subject is dative, not ergative. Of the two orders in (83) and (84), the dative subject>nominative object order is judged grammatical.

(83) Mi-s mi a-dzir-u?
who-DAT who.NOM APPL-see-PST.3
'Who could see who?'

(84) ??/*Mi mi-s ~~mi~~ a-dzir-u?

who.NOM who-DAT APPL-see-PST.3

Intended: ‘Who could see who?’

3.2.3.2. Multiple <Wh> and Object/Object Asymmetry

The data in the previous section has shown that only the basic linear order of the two <Wh> elements is judged grammatical when one of the <Wh> elements is the dative or the ergative subject. However, the data in (85) and (86) show that this effect does not hold when the <Wh> elements are both objects since both causee>theme and theme>causee orders are judged grammatical as if they were in-situ.

(85) Si mi-s mi o-car-ap-i?

2 who-DAT who.NOM CAUS-feed-CAUS-2.PST

(86) Si mi mi-s o-car-ap-i?

2 who.NOM who-DAT CAUS-feed-CAUS-2.PST

‘Whom did you make feed who?’

The data in (87) and (88) show that the symmetry of the objects in the linear order of multiple <Wh> elements holds true for the benefactive-theme pair, as well.

(87) Si mi-s mi u-car-i?

2 who-DAT who.NOM APPL-feed-2.PST

(88) Si mi mi-s u-car-i?

2 who.NOM who-DAT APPL-feed-2.PST

'Whom did you feed for who?'

The data in this section have confirmed the non-configurational picture for the organization of objects in PL. Chapter 4 and 5 will mainly discuss the agreement accessibility hierarchy and argue that the non-configurationality that has been identified in this chapter should be epiphenomenal and is possibly an effect of the cyclic nature of the syntactic derivation.

3.3. Summary

In the first section of this chapter, I have attempted to present an overview of the basic linear order of PL clauses. Based on the acceptability judgments on out-of-context clausal utterances (i.e. non-discourse bound readings), I have determined the following basic linear order for PL clauses:

Subject > Object $_{\text{causee}}$ > $\underline{\text{Object}_{\text{benefactive}} > \text{Object}_{\text{recipient}}}$ > Object $_{\text{theme}}$ > Verb

Object $_{\text{possessor}}$

In the second section, I have used three different interpretational tests to argue that PL exhibits some non-configurational properties while still maintaining a distinction between subject and non-subjects. The WCO, quantifier scope, and the relative linear order of multiple Wh elements have uniformly shown that PL exhibits a hierarchical organization between subject and non-subject arguments. However, these three tests have also uniformly shown that there is no evidence for a hierarchical organization between non-subject arguments despite of the fact that PL

clauses allow up to four overt arguments. In Chapter 5, I will show based on the evidence from the locality-driven agreement phenomena in PL that the non-configurationality should an epiphenomenon. As will be clear in Chapter 5, there is robust evidence that non-subject arguments are also hierarchically organized in PL.

CHAPTER 4

Φ-AGREEMENT ACCESSIBILITY

In this chapter, I will first present a basic descriptive outline of the φ-agreement phenomena in PL (i.e. prefixal person, suffixal person and number agreement). I will restrict the in-depth theoretical analysis in this chapter to how φ-agreement accessibility determines the realization of the suffixal person agreement in PL. Basically, conforming to the theoretical predictions, the syntactic locality surfaces as the principle behind the φ-agreement accessibility. I will use a version of AGREE (Chomsky, 2000, 2001) which dissociates case-valuation and φ-agreement (Preminger, 2011). I will present evidence for the inherent status of the ERG and DAT case values in PL. Based on this assertion, I will claim that AGREE can see the arguments that bear an inherent/locally assigned case value. Thus, I will claim that receiving a local/inherent case does not block AGREE for φ-agreement matching. I will also discuss the non-uniform agreement accessibility patterns in DAT > NOM case array. I will argue that the defective intervention in Chomsky (2000) predicts a typology of φ-Goals, acknowledging the visibility and intervention potential as two different parameters. I will be claiming that the defective intervention system overgenerates, sanctioning a non-attested locality-violating scenario. Instead, based on the empirical data on the asymmetry in the φ-agreement accessibility of the NOM argument that has an invisible DAT above it, I will claim that the intervention potential and visibility refer to the same thing in grammar and it is possible to mimic the effect of the defective intervention by means of Phase Impenetrability Condition (Chomsky, 2001).

4.1. Descriptive Overview of Laz Agreement System

In this section, I will present a descriptive overview of the agreement system of Laz. In the Pazar dialect of Laz, the overt agreement in φ-features, i.e. morphological co-variance between the verbal complex and the person and number information of arguments, is morphologically realized on the two sides of the verbal stem, i.e. by prefixal and suffixal agreement exponents. The basic schematic morphological outlook of the verbal stem in relation to the agreement formatives is given in (1) below. An illustrative example of the potential complexity of the PL verbal inflection is given in (2). Note, however, the verbal inflection may as well be as simple as in (3).

(1) *person* – valency – root – valency – aspect – copula – tense/*person* – *number*

(2) m-i-car-ap-am-t'-i-t
1-APPL-feed-CAUS-IMPF-COP-2.PST-PL
'You (pl.) were making him feed him for me '

(3) car-u
feed-3.PST
'He fed him.'

The suffixal agreement exponents in PL show syntactic allomorphy contingent with the tense-aspect features. In addition, suffixal agreement exponents have both fusional and agglutinative formatives for person and number agreement,

which may at times complicate the emerging morphological template. The main goal of this chapter, however, is to discuss the syntactic properties of the φ-agreement rather than its morphological properties. Therefore, I will restrict the discussion in this chapter to the syntactic accessibility of arguments to φ-agreement. Therefore, I leave out the detailed discussion on the workings of morphological realization to Chapter 5. At this point, it will be sufficient to briefly discuss the over-arching generalizations regarding the realization of φ-agreement in PL.

4.1.1. Person Syncretism

In PL, despite the apparent person syncretism in the suffixal agreement exponents, the person information of maximally two arguments is unambiguously marked. While suffixal person agreement exponents merely differentiate between third person and non-third person, the differentiation of first and second person is dependent on the realization of the prefixal agreement.

The verbal form in (4) has the suffixal agreement marker {–u} which indicates that one of the event participants, i.e. the subject, is third person while the prefixal agreement marker {m-} that marks the other event participant, i.e. the object, is first person.

(4) m-ç-u
1-feed-3.PST
'S/he fed me.'

The verbal forms in (5) and (6), however, both have the suffixal agreement marker {-i} despite of the fact that their subjects are second and first person, respectively. The syncretic suffixal agreement formative {-i} has to be dissociatively interpreted with respect to the person value of the prefixal agreement marker. Thus, {-i} is realizing second person in (5) and first person in (6). Due to the dissociative interpretation requirement, the reflexive readings for the verbal forms in (5) and (6) are not available, which guarantees the unambiguous cross-referencing of maximally two arguments.

(5) m-ç-i

1-feed-2.PST

'You fed me.' [dissociative interpretation]

*'I fed me' [non-dissociative interpretation]

(6) k-ç-i

2-feed-1.PST

'I fed you.' [dissociative interpretation]

*'You fed you' [non-dissociative interpretation]

The table in (7) below summarizes the person agreement paradigm in PL. Note that there is no overall person syncretism that creates ambiguous forms for person marking even though one suffixal agreement exponent is syncretic.

(7) The Person Agreement Paradigm in PL

S \ O	1	2	(3)[13]
1	*	*k*-ç-*i*	*p*-ç-*i*
2	*m*-ç-*i*	*	ç-*i*
3	*m*-ç-*u*	*k*-ç-*u*	ç-*u*

As discussed above, the dissociative interpretation in the transitive paradigm resolves the potential ambiguity. If there is only one argument that can agree, i.e. with intransitive verbs and with the transitive verbs where the object fails to agree because it is third person, we observe the agreement paradigm I will refer to as the *intransitive paradigm.* In the intransitive paradigm, PL makes use of another prefixal agreement formative that marks the person value of the argument that agrees *suffixally*. In (8), the syncretic suffixal exponent {-i} is obligatorily interpreted as first person due to presence of the prefixal agreement marker {p-} which *also* marks the first person. The absence of {p-}, as in (9), requires that suffixal exponent {-i} be interpreted as second person.

(8) p-ç-i

1-feed-1.PST

'I fed him.'

(9) ç-i

feed-2.PST

'You fed him.'

[13] *Intransitive agreement pattern* refers to cases where the object is third person or there is no object, hence the parantheses in (3).

4.1.2. Argument Hierarchy and Prefixal Agreement

As discussed in the previous section, there is interaction between the prefixal and suffixal agreement in PL. The suffixal agreement domain can host the exponents that mark the person value of only one type, i.e., the subject. The prefixal agreement domain, on the other hand, can host exponents that mark the person value of two argument types, i.e., the subject and the object.

The prefixal agreement exponent in (10) cross-references the person value of the object, while the one in (11) cross-references the person value of the subject.

(10) ma si k-ç-i
1 2 2-feed-1.PST
'I fed you.'

(11) ma p-t'ax-i
1 1-break-1.PST
'I broke (it).'

It must be noted that the prefixal agreement domain cannot host subject and object markers simultaneously, as seen in (12), the ungrammatical counterpart of (10). Rather, there seems to be a hierarchy of *object>subject* for the realization of prefixal person agreement.

(12) *ma si k-p-ç-i / p-k-ç-i
1 2 2-1-feed-1.PST / 1-2-feed-1.PST

Although the terms subject and object will shortly be insufficient to explain the whole agreement accessibility system of PL, I have used them in this section to make the discussion easier and present the basic generalizations. The over-arching fact is that the controllers of the suffixal and prefixal agreement are different arguments in the transitive paradigm while they are the same argument in the intransitive paradigm. The preliminary realizational schema of person agreement on the verbal complex of PL is given in (13) below.

(13)

	prefixal person – verbal stem –	*suffixal person*
Intransitive Paradigm	A	A
Transitive Paradigm	B	A

In the intransitive paradigm, both prefixal and suffixal agreement cross-references the person value of the same argument, i.e., A. In the transitive paradigm, the suffixal agreement realizes the person value of argument A while the prefixal agreement realizes the person value of a different argument, i.e., B. In this way, PL unambiguously cross-references the person value of two different arguments.

4.1.3. Tense-Aspect Dependence of Suffixal Person Agreement

As mentioned in section 4.1.1, the suffixal agreement exponents show allomorphic variation contingent with tense-aspect features. Prefixal agreement exponents, however, do not exhibit any syntactic allomorphy with respect to tense-aspect features. Since the prefixal agreement is insensitive to tense-aspect, the intransitive paradigm will be sufficient to illustrate the tense-aspect dependent variation in the suffixal agreement exponents. The table in (14) below illustrates the past,

imperfective, imperfective past, and subjunctive inflections of the verbal stem *-t'ax-* 'break'.

(14) *Tense-Aspect Dependent Suffixal Exponents*

	PAST	IMPERFECTIVE	IMPF PAST	SUBJUNCTIVE
1	p-t'ax-**i**	p-t'ax-um	p-t'ax-um-t'-**i**	p-t'ax-a
2	t'ax-**i**	t'ax-um	t'ax-um-t'-**i**	t'ax-a
3	t'ax-**u**	t'ax-um-**s**	t'ax-um-t'-**u**	t'ax-a-**s**

As it is clear from the table, past tense and agreement exponents are always fusional, the paradigms that occur with imperfective and subjunctive are agglutinative, using the third person marker {–s} and zero exponents for first and second person. It is important to note that the suffixal syncretism between first and second person is meta-paradigmatic, consistently attested across past and non-past paradigms, as seen in (15).

(15)

	PAST	NON-PAST
1	-i	0
2	-i	0
3	-u	-s

In addition to agglutinative agreement exponents in the non-past paradigm, PL has a set of imperfective markers which fusionally express person agreement values. The variation among the set of imperfective markers reflects verbal classes corresponding to the different types of event structure compositions (Taylan and Öztürk, 2012; Demirok, 2012). In the unaccusative type, the imperfective markers {–e(r)} and {–u(r)} are employed. Within the non-past paradigm, first and second person are still expressed through the zero exponent; however, the third person

agreement marker {–s} is not used with {–e(r)} and {–u(r)}. Instead, these two imperfective exponents have the third person fusional forms {–en} and {–un}, respectively. The relevant examples are in the table in (16). Note that in the imperfective past or imperfective subjunctive paradigm, the suffixal agreement is not realized by the imperfective exponents. Thus, the allomorphic variation is only seen when the imperfective morpheme is used alone.

(16) Unaccusative Imperfectives

	IMPF- die	IMPF-roll	IMPF-PAST	IMPF SUBJUNCTIVE
1	b-ğur-ur	v-i-rg-er	b-ğur-ur-t'-i	v-i-rg-er-t'-a
2	ğur-ur	i-rg-er	ğur-ur-t'-i	i-rg-er-t'-a
3	ğur-*un*	i-rg-*en*	ğur-ur-t'-u	i-rg-er-t'-a-s

4.1.4. Number Agreement

4.1.4.1. Omnivorous Number Agreement

In PL, the plurality of agreeing arguments can be cross-referenced on the verbal complex. The number agreement is realized suffixally. In the prefixal agreement domain, number is not encoded. The realization of number agreement is *omnivorous* in that it is often *not* possible to recover which agreeing argument's plurality is encoded on the verb. Since person agreement maximally encodes the person values of two arguments, when two arguments agree in person, it is possible that one *or* both of the person-agreeing arguments is plural. Thus, the plurality is encoded ambiguously in PL. The sentence in (17) illustrates the ambiguous/omnivorous number agreement in PL.

(17) m-ç-i-t

1-feed-2-PL

‘You (sg.) fed us.’ [singular subject; plural object]

‘You (pl.) fed me.’ [plural subject; singular object]

‘You (pl.) fed us.’ [plural subject; plural object]

The realization of number agreement also exhibits a morphological complication. When the suffixal agreement is first or second person, the agglutinative number formative *–t* is used to mark the number information. However, when the suffixal person agreement indicates third person, the number and person information (as well as tense) is cumulatively marked by fusional formatives. This is merely a realizational fusion, though. The plurality information can still be mapped onto the argument that is not agreeing suffixally, as illustrated in (18). In (18), the number and person information marked by the fusional formative {–es} is marking the number information of the *object* and the person information of the *subject*, as well as the past tense.

(18) Bere-k şk’u m-dzir-es

Child-ERG 1.PL.NOM 1-see-3.PL.PST

‘The child saw us.’

The table in (19) below gives the full paradigm with the past inflection of the verb ‘*feed’*.

(19) Full Person-Number Agreement Paradigm (Past)

O / S	1SG	2SG	3SG	1PL	2PL	3PL
1SG		k-ç-i	p-ç-i		k-ç-i-t	p-ç-i
2SG	m-ç-i		ç-i	m-ç-i-t		ç-i
3SG	m-ç-u	k-ç-u	ç-u	m-ç-es	k-ç-es	ç-u
1PL		k-ç-i-t	p-ç-i-t		k-ç-i-t	p-ç-i-t
2PL	m-ç-i-t		ç-i-t	m-ç-i-t		ç-i-t
3PL	m-ç-es	k-ç-es	ç-es	m-ç-es	k-ç-es	ç-es

The table in (20), on the other hand, gives the full paradigm with the imperfective inflection of the unaccusative verb 'die' and the subjunctive inflection of the verb 'break'. In the tables in (19) and (20), notice the third person past allomorph *–es*, subjunctive allomorph *–n*, and the imperfective allomorph *–an*.

(20) Full Person-Number Agreement Paradigm (Imperfective-Subjunctive)

	IMPF 'die'	SUBJUNCTIVE 'break'
1SG	b-ğur-ur	p-t'ax-a
2SG	ğur-ur	t'ax-a
3SG	ğur-un	t'ax-a-s
1PL	b-ğur-ur-t	p-t'ax-a-t
2PL	ğur-ur-t	t'ax-a-t
3PL	ğur-ur-*an*	t'ax-a-*n*

4.1.4.2. Number Agreement and Subjecthood

The number agreement accessibility has a significant diagnostic value in PL. The arguments that can agree for number are only those that agree for person. In that sense, number agreement appears to be parasitic on person agreement. The examples in (21) and (22) illustrate the fact that the number agreement is only accessible to the person-agreeing arguments. As the nominative second person argument cannot agree

in person, its plurality cannot be cross-referenced, hence the ungrammaticality of (22).

(21) Nana-muşi-k ma t'k'va m-o-ts'ir-u
mother-POS3-ERG 1.DAT 2.PL.NOM 1-CAUS-show-3.*SG*.PST
'My mother showed you (pl.) to me.'

(22) *Nana-muşi-k ma t'k'va m-o-ts'ir-*es*
mother-POS3-ERG 1.DAT 2.PL.NOM 1-CAUS-show-3.*PL*.PST

However, this is not the whole story regarding number agreement accessibility. Subjects and objects show an asymmetry in number agreement in that when they are third person only subjects can agree in number while objects cannot. The sentence in (23) illustrates that third person objects cannot agree. This fact still holds true with a dative subject, as seen in (24).

(23) Ma bere-pe b-dzir-i-*t
1 child-PL.NOM 1-see-1.PST-*PL
'I saw the children.'

(24) Nana-s bere-pe a-dzir-u /*a-dzir-es
mother-DAT child-PL APPL-3.PST/ APPL-3.PL.PST
'The mother was able to see the children.'

Note that the fact that subjects and objects show an asymmetry in accessibility to number agreement is a simplified generalization. In Chapter 5, I will present a piece of data which shows that it is not the grammatical function but the syntactic hierarchy of arguments that brings about the apparent asymmetry. It will be argued that the syntactic locality should be the explanation of the agreement accessibility patterns at hand.

4.2. Φ-Agreement Accessibility in PL

4.2.1. Overview of AGREE and Probe-Goal System

In this section, I will present the basic theoretical approach to agreement I will make use of. One of the clear cases of syntactic dependency in grammar is inarguably *φ-agreement* as it is overtly realized as the morphological co-variance between the verbal complex and φ-features, i.e. the person, number, and gender/class information, of arguments. The model I will be using is referred to as AGREE proposed in Chomsky (2000, 2001). AGREE is a basic syntactic operation that establishes a syntactic valuation/checking relation between a Probe and a Goal. In this model, a Probe is looking for a syntactic value from a Goal that matches its features. Fuß (2005) reports that Chomsky (2000) defines Matching relation involving AGREE operation between a Probe and a Goal as following:

> Matching is a relation that holds of a probe P and a goal G. Not every matching pair induces Agree. To do so, G must (at least) be in the domain D(P) of P and satisfy locality conditions. The simplest assumptions for the probe-goal system are:
>
> (i) Matching is feature identity

(ii) D(P) is the sister of P

(iii) Locality reduces to 'closest c-command'

Two approaches to AGREE involving φ-feature matching are possible. In its original formulation by Chomsky (2000, 2001), AGREE is assumed to result in φ-agreement *and* case valuation simultaneously. This approach to φ-agreement has its conceptual basis from the general model of syntactic derivation referred to as Checking Theory, where AGREE induces bi-directional valuation between a Probe and a Goal. In this approach to φ-agreement, the Goal is an argument which has uninterpretable Case feature while the Probe is a head, which has uniterpretable φ-feature. In a bi-directional checking relationship, the uninterpretable φ-feature of the Probe is "valued" by the matching Goal which inherently has a φ-value. The uninterpretable Case-feature of the argument Goal, on the other hand, is "valued" by the Case-value of the Probe head. To put it simply, AGREE between a Probe and a Goal is responsible for the morphologically realized φ-agreement on the Probe and the morphologically realized case value on the Goal. In the checking approach to AGREE, it is crucial to see a direct relation between case valuation and φ-agreement. Naturally, this approach proposes an empirically testable claim: case and φ-agreement must be co-dependent in languages which overtly realizes both. Thus, a language where case and φ-agreement are dissociated constitutes an empirical challenge and casts serious doubt on the validity of checking-based AGREE approach to φ-agreement.

In the second potential approach to AGREE, the checking mechanism is not employed. Thus, φ-valuation is *not* necessarily a bi-directional phenomenon which requires case-valuation (Preminger, 2011). In this approach to φ-agreement, AGREE simply copies the φ-values from a matching Goal and values the Probe *in situ*. As a

result, a co-dependency between case valuation and φ-valuation is not stipulated. Thus, this approach predicts that languages with dissociated case and agreement systems should be attested.The case and φ-agreement system of PL is a good case study for several reasons. Its case system involves ergativity and inherent cases in addition to the overtly realized φ-agreement with multiple arguments. There are not many languages that exhibit these properties at the same time.

In this chapter, the *suffixally* realized φ-agreement in person will be investigated in detail while the valuation resulting in the overt prefixal person agreement is investigated in Chapter 5. Leaving out the details regarding the exact identity of the Probe head and the workings of the morphological realization to Chapter 5, I will be mainly focusing on the φ-agreement accessibility and how syntactic locality affects φ-agreement. Furthermore, I will be testing the two approaches to φ-agreement sketched above against the empirical data from PL.

4.2.2. Basic Intransitive and Transitive Agreement Patterns

In the basic intransitive agreement pattern, the person value of the sole argument is cross-referenced on the verbal complex and realized as *suffixal agreement*. In (26) and (27), the person value of the sole participant of the unaccusative event '*die'* is morphologically reflected on the verbal complex. Notice the alternation in the suffixal agreement.

(26) Si ğur-i
2.NOM die-2.PST
'You died.'

(27) K'oçi ğur-u

Man.NOM die-3.PST

'The man died.'

While in (28) and (29), the person value of the sole participant of the unergative event *swim* shows agreement on the verbal complex.

(28) Si i-nçir-i

2.ERG PRV-swim-2.PST

'You swam.'

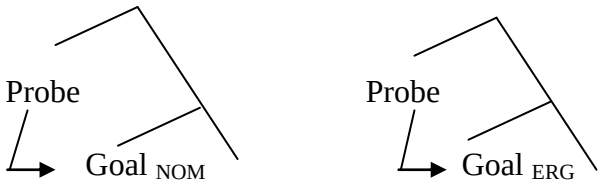
(29) Bere-k i-nçir-u

Child-ERG PRV-swim-3.PST

'The child swam.'

Notice that the morphological case value of the agreeing argument NP is nominative in the unaccusative event while it is ergative in the unergative event. However, neither there is a morphological reflex in the person agreement on the verb nor is the agreement accessibility affected in any way. On the basis of these simple data on the person agreement pattern in PL, it appears that there is no empirically justified correlation between the φ-agreement and case valuation, contra the prediction of the Checking approach to AGREE. The general schema of the φ-agreement that is shown in the examples (26)-(29) is illustrated in the tree diagrams in (30).

(30)



Both the NOM argument of the unaccusative verb and the ERG argument of the unergative verb is a matching Goal for the c-commanding Probe. There is no discrepancy between the two Goals in terms of φ-agreement accessibility and the morphological reflex of the φ-agreement. In the examples (31) and (32) below, the basic transitive agreement pattern is illustrated. In both examples, it is the ERG subject that controls the suffixal agreement. Notice that the person value of NOM object has no effect on the value of the suffixal person agreement.

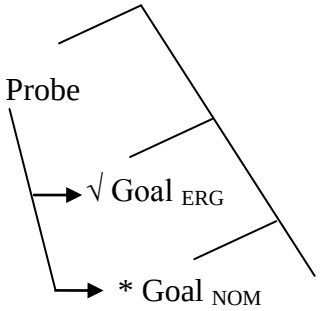
(31) Si bere ce-ç-i
2.ERG child.NOM PV-beat-2.PST
'You beat the child.'

(32) Bere-k si ce-k-ç-u
child-ERG 2.NOM PV-2-beat-3.PST
'The child beat you.'

The tree diagram in (33) illustrates the locality configuration that is responsible for the agreement accessibility hierarchy observed in the basic transitive agreement in PL. Note that, in section 3.2., we have seen independent evidence for the fact that ERG is higher than the NOM. The Probe cannot access the lower matching NOM Goal due to the higher intervening ERG Goal that also matches the

φ-feature of the Probe. Thus, the AGREE between the Probe and the Goal in the φ-agreement phenomenon strictly obeys locality.

(33)



4.2.3. Dative Arguments and Φ-agreement Accessibility

In this section, the φ-agreement accessibility patterns of applicative DAT arguments will be investigated. In PL, as discussed in section 2.1.3., some of the subjects are overtly marked with dative case. Dative subjects pass the subjecthood tests such as control and anaphor binding. Moreover, dative subjects pattern with ergative subjects in terms of interpretational tests such as quantifier scope and WCO, as extensively discussed in section 3.2. Although the experiencer, abilitative, deagentive subjects and the subject of Perfect semantically cover a wide range of argument roles, all of the dative subjects uniformly require applicative morphology on the verbal complex and pattern alike in terms of agreement accessibility. To put it simply, *none* of the dative subjects can control *suffixal person agreement*.

As discussed in Chapter 2 and Chapter 3 before, the applicative DAT arguments can also be non-core (i.e. *not* subject) arguments. In PL, applicativization is used to introduce non-core DAT arguments with a wide range of semantic roles. These non-subject applicative DAT arguments can express the *benefactive*,

possessor, *goal*, and *source* roles. Like DAT subjects, non-core applicative DAT arguments can *never* control the suffixal person agreement.

In the example (34), dative subject is first person while nominative object is second person; however, the suffixal person agreement shows agreement for neither of the arguments and is morphologically realized as *default third person*. Even though dative case is not phonologically visible on the non-third person arguments[14], the non-accessibility effect observed with dative subjects is robust. See the example (35) for the overtly dative marked counterpart of the example (34). In both examples, the third person suffixal agreement formative is the default (i.e. unvalued) realization of the Probe.

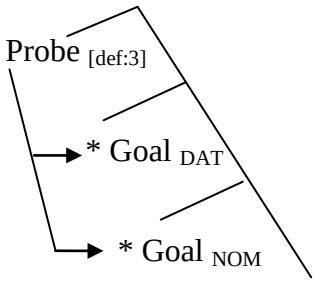
(34) Ma si m-a-limb-u
1.DAT 2.NOM 1-APPL-love-3.PST
'I loved you.'

(35) Bere-s si a-limb-u
child-DAT 2.NOM APPL-love-3.PST
'The child loved you.'

The tree diagram in (36) illustrates the agreement accessibility pattern observed with dative subjects. Notice the apparent *intervention effect* induced by the DAT subject, blocking φ-agreement with the NOM goal.

[14] That is, there is no overt case alternation for first and second person pronouns in their simplex forms.

(36)



Like DAT subjects, non-subject applicative DAT arguments also fail to value the φ-feature on the Probe. For instance, in (37), an applicative DAT with possessor-malefactive role cannot value the φ-feature of the Probe as evidenced by the fact that the suffixal person agreement is not and cannot be controlled by the DAT argument.

(37) Ma k'inçi m-i-ğur-u
1.DAT bird.NOM 1-APPL-die-3.PST
'My bird died.'
'The bird died on me'

Notice that the person value expressed suffixally in (37) is not the value of the DAT but the value of the NOM. Unlike DAT subjects, the non-core DAT applicative arguments cause no intervention effect that blocks φ-agreement with a lower matching Goal. In (38) and (39), the applicative DAT arguments can be seen to have no effect on the accessibility of the lower NOM goal to φ-agreement.

(38) Ma si m-i-ğur-i
1.DAT 2.NOM 1-APPL-die-2.PST
'You, who belong to me, died.' / 'You died on me.'

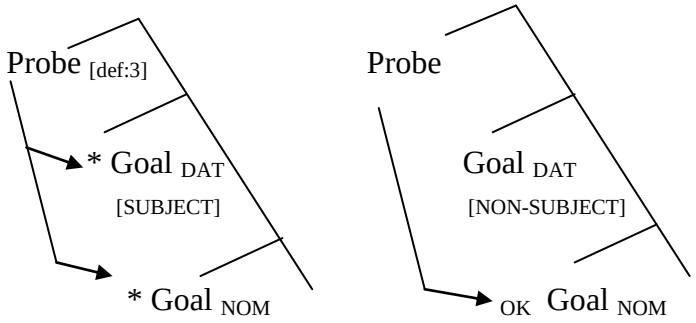
(39) Bere-s si u-ğur-i

child-DAT 2.NOM 3.APPL-die-2.PST

'You, who belong to the child, died.' / 'You died on the child.'

Thus, we have a basic generalization which states that applicative DAT arguments cannot φ-value the Probe, regardless of their grammatical function as subject or object. However, the agreement accessibility patterns are not uniform across applicative DAT arguments in that there is an asymmetry regarding the accessibility of the lower matching Goal to φ-agreement. While DAT subjects exhibit an intervention effect and appear to block the φ-agreement with a lower matching Goal, non-subject DAT arguments are simply invisible to φ-agreement, yielding no intervention effect. In (40) is a summary of the agreement accessibility patterns attested with applicative DAT arguments. Note that the diagrams below naively represent the basic facts without any commitment to a specific analysis of the agreement accessibility.

(40)



4.2.4. On the Intervention Potential and Visibility

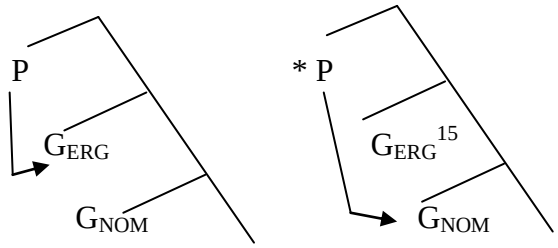
The facts discussed in the previous section have several significant implications. Firstly, we have established that the φ-value in applicative DAT arguments is always *invisible* for some reason. In fact, this appears to be an empirical fact justified on the basis of cross-linguistic data. Holmberg and Hróarsdóttir (2003, 2004) discuss the phenomenon for Icelandic, for example. This phenomenon has also been one of the main research interests in the recent generative literature (Chomsky, 2005). Although the invisibility of DAT is well-established, the intervention effect is not equally consistent. Holmberg and Hróarsdóttir (2008) report there is a dialectal variation regarding the intervention potential of DAT arguments in Icelandic. The same is true for PL in that the invisibility of DAT is absolute while the intervention potential of DAT is not. While DAT subjects apparently induce intervention effect, non-subject DAT arguments cannot do so, simply being invisible to the Probe. This whole description that makes reference to the grammatical function of the DAT may neatly capture the facts of PL; however, it *does* create a conceptual problem in syntax which stems from the system that allows an odd class of 'invisible interveners'. If we were to think about the intervention potential and visibility as two different parameters, we predict four possible classes of Goals to be attested, as illustrated in (41).

(41)

Visible	Intervener			
Yes	Yes	:	attested	e.g. ERG $_{\text{SUBJECT}}$
No	No	:	attested	e.g. DAT $_{\text{NON-SUBJECT}}$
No	Yes	:	attested	e.g. DAT $_{\text{SUBJECT}}$
Yes	No	:	not attested	violates locality

In addition to the class of 'invisible interveners', this system allows a non-attested class of 'visible non-intervener Goals', which directly violates the syntactic locality. The four different Probe-Goal scenarios of the system, where the visibility to the Probe and the intervention potential are independent, are schematically represented in (42) and (43).

(42)



visible; intervener
attested

visible; non-intervener
non-attested: violates locality

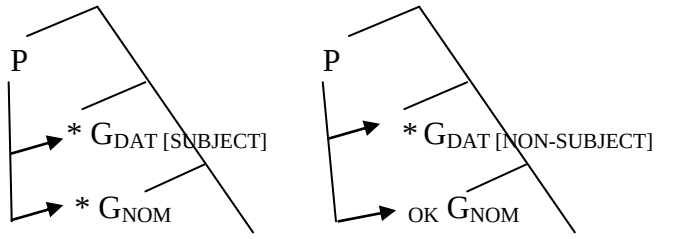
In (42), the φ-value of the ERG Goal is visible to the Probe as evidenced by the fact that it is accessible to the φ-agreement. Under no condition in PL, the locality violating derivation is attested. That is, the lower NOM Goal is never accessible to the φ-agreement if there is a higher visible Goal, strictly obeying locality. Thus, there is no visible non-intervener Goal in PL, as a matter of fact, in any other language.

The applicative DAT Goals are always invisible to the Probe as they consistently fail to φ-value the Probe as seen in (43). However, there is an apparent asymmetry with respect to their intervention potentials. While DAT subjects are interveners, non-subject DAT arguments are never interveners in PL. This is at best suspicious considering the fact that visible Goals are always interveners across languages. Then, why should it be the case that invisible Goals can at times be

[15] This is only meant to represent the PL facts. Certainly, there are languages where ERG is not visible and thereby not an intervener.

interveners? The more important problem is how to account for the intervention potential in the case of syntactic invisibility.

(43)



invisible; intervener *attested*

invisible; non-intervener *attested*

Now that we have seen the empirical and conceptual problems associated with a system that considers visibility and intervention potentials as independent parameters, let us briefly consider the alternative. If intervention potential and visibility is considered to refer to the same parameter, on the other hand, we predict only two classes of Goals as illustrated in (44). The direct implication of (44) is that *'a Goal is an intervener iff it is visible'*. This creates a conceptually simpler and empirically consistent system, also significantly reducing the potential learnability complexity.

(44)

Visible	→	Intervener			
Yes	→	Yes	:	attested	e.g. ERG [SUBJECT]
No	→	No	:	attested	e.g. DAT [NON-SUBJECT]

However, the apparent facts in (43) simply *cannot* be stated if the intervention potential and visibility are thought to be the same thing. For (43) to work, an invisible Goal must have intervention potential which is impossible under

(44). However, the intervention effect with DAT subjects is unquestionably robust. It seems the empirical facts in (43) force us to discredit the hypothesis which sees the intervention potential and visibility as the same property. But this would surely be too hasty a step. In section 4.2.6., I will consider a phase-based alternative for the apparent invisible DAT intervention and argue for the system, where the visibility and the intervention potential in fact refer to the same parameter. Note that the phase-analysis I will propose will be inevitably preliminary and thereby needs to be tested against empirical data from other languages that exhibit variation in the intervention potential of invisible DAT arguments.

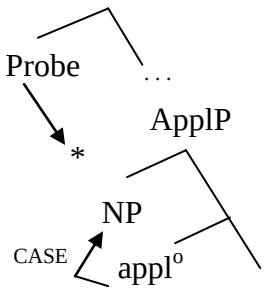
4.2.5. Case and AGREE

In section 4.2.2., we have seen a piece of data which suggests that the case-valuation and the φ-valuation are not necessarily co-dependent. It is a fact that both ERG and NOM arguments in PL can value the Probe, respecting the locality condition. On the basis of this empirical fact, it is not possible to find a syntactic or morphological reflex of these two case values in how φ-agreement is obtained and realized. However, the non-accessibility of the applicative DAT arguments to φ-agreement, as discussed in section 4.2.3., suggests the contrary. The applicative DAT arguments fail to φ-value the Probe despite the φ-features present in them. The syntactic behavior of DAT Goals with respect to the φ-agreement suggests there might in fact be a direct relationship between case-valuation and φ-agreement. Therefore, the agreement accessibility of DAT, ERG, and NOM might be claimed to present a contradictory picture regarding what AGREE really does. Is it a unidirectional valuation operation that copies the value of a Goal to a Probe or is it a bidirectional

valuation operation that simultaneously establishes φ-agreement and case valuation? To be able to answer this question, we will need to investigate the case system in detail and consider the potential case valuation scenarios.

In the literature, it is more than commonly assumed that the applicative DAT arguments get an inherent/local case value (i.e. *not* by means of the case-valuation through a Probe) and for this reason they are syntactically *inert (inactive),* rendering them invisible to the Probe (Chomsky, 2005). This behavior of applicative DAT arguments can be a supporting evidence for the original formulation of AGREE which considers Probe-Goal relation to establish both case-valuation and φ-agreement. In (45) is the schematic representation of an applicative DAT argument and its inaccessibility to the φ-agreement.

(45)



As seen in (45), the applicative arguments are assumed to MERGE in the specifier of the Appl-head and get inherent case (often DAT) in this local configuration (Pylkkanen, 2008). The local case-valuation is assumed to render the Goal inert for further syntactic operations. Thus, the Probe cannot AGREE with the Goal that is syntactically invisible. This piece of data suggests that AGREE establishes both case-valuation and φ-agreement. When a Goal gets its case-value locally, φ-agreement with this Goal is impossible.

With this claim regarding the impossibility of AGREE with DAT arguments at hand, let us now investigate the case-insensitive behavior of the φ-agreement with ERG and NOM arguments. Specifically, the overt and obligatory φ-agreement with ERG arguments appears to be problematic for the version of AGREE that we have presented supporting evidence for. There is an extensive literature on the ergative case and possible sources of ergativity in languages. It is not possible to do justice to all analyses proposed on ergativity here. To put it simply, *ergativity* is the alignment of the sole argument of an intransitive predicate with the object of a transitive predicate while *accusativity* as attested in languages like English and Turkish is the alignment of the sole argument of an intransitive predicate with the subject of a transitive predicate (Dixon, 1994). In the literature, there seems to be a consensus which states that ergativity is not a uniform phenomenon and it might have different sources cross-linguistically (Woolford, 2006; Legate, 2006). I will discuss the two alternative approaches to ergativity. I assume neither alternative on its own can account for the whole phenomenon. Rather, both types of ergativity seem to be attested cross-linguistically. The two alternatives to ergativity are given in (46).

(46) a. Ergative case is inherent (like DAT)

b. Ergative case is structural (like ACC)

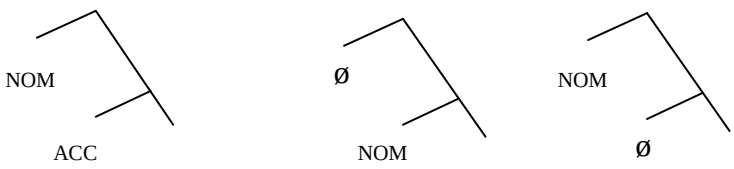
We have already stated the fact that DAT is more than commonly assumed to be a locally assigned inherent case. But the same consensus is not true for the inherent status of ERG. The cross-linguistic data make it very challenging to propose an over-arching account of the ergativity. Instead, what is dubbed as ERG case seems to have at least two different sources.

4.2.5.1. Ergativity and Case Alignment

One simplistic way of diagnosing if ERG in a language is inherent or structural is to see if there is any semantic basis for the ERG case. Marantz (1991), for example, takes the semantic uniformity of the ERG case marked arguments in some languages as an indicator for its inherent status. As discussed in 2.1.1., ERG in PL seems to correspond to the proto semantic role INITIATOR. Thus, in PL, ERG seems to be a theta-related case in that the subjects of both unergatives and transitives are marked ERG. This theta-relatedness criterion as a diagnostics for ERG case may not be sufficient to prove the inherent status of ERG, though. There is an asymmetry between languages regarding the case value of the subject of unergatives. While the subject of unergatives surface as ERG in PL, it surfaces as the default NOM case in many other languages like Kurmanji (Atlamaz, 2012; Gündoğdu, 2011). Therefore it seems necessary to consider the whole case alignment system of a language to be able to benefit from the theta-relatedness criterion in diagnosing the status of ERG.

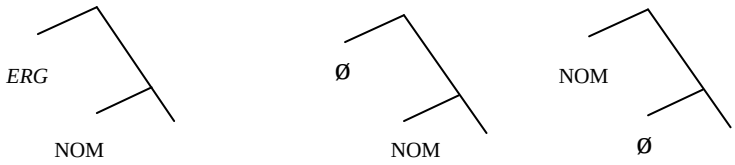
Let us briefly go over some of the case alignment systems that are attested (Dixon, 1994). In (47) is the case-system of accusative languages where the 'marked' argument is the object of the transitive predicate while other arguments get the unmarked case NOM. In accusative languages, the dependent case is ACC. Needless to say, both NOM and ACC are structural cases.

(47) Transitive Unaccusative Unergative



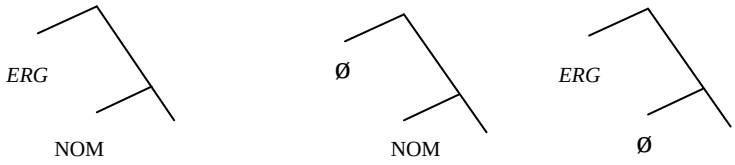
In (48) and (49), on the other hand, are the two basic types of 'ergative' languages. In (48), the subject of a transitive predicate has a 'marked' case, i.e. ERG. Notice, however, that the subjects of all intransitives always surface as NOM, i.e. they cannot get ERG. In this type of ergative languages, the ergative case can be claimed to be the dependent case in that its licensing is dependent on the presence of a NOM argument.

(48) Transitive Unaccusative Unergative



In (49), however, the ergative case appears not to be a dependent case unlike in (48). Notice that all external arguments are marked ERG, without any reference to the transitivity of the predicate. The licensing of the ERG is not dependent on the presence of a NOM argument unlike the system in (48). Being able to surface on all external arguments, ERG seems to have the characteristics of an inherent case assigned locally in a language that has the alignment system in (49). PL on the surface is an example of a language where ERG is an inherent case.

(49) Transitive Unaccusative Unergative



Thus, while theta relatedness seems to be a valid criterion, it is not sufficient to conclude that ERG is inherent. However, considering the alignment system of a language seems to present a clearer picture regarding the status of ERG. The alignment data suggest that ERG in PL is an inherent case that is locally assigned to the external arguments.

4.2.5.2. Ergativity and ECM

To present further evidence for my claim that ERG in PL is an inherent case and not a structural case, I will also discuss the data on case preservation. Arguments that bear an inherent case and those that bear a structural case exhibit asymmetric behavior in case-driven displacement phenomena. While arguments that bear a structural case may show case alternation, arguments that bear an inherent case are predicted to resist case-alternation (i.e. they exhibit 'case preservation'.). Let me first discuss an example case-alternation phenomenon from Turkish where the displacement simultaneously induces the case alternation and an interpretational alternation. In (50), the universal quantifier in the subject position takes obligatory narrow scope with respect to negation. In (51), the sentence in (50) is embedded in another clause whose predicate is an ECM (exceptional case marking) verb. In ECM construction, the subject of the embedded clause can receive case from the higher clause. This is exactly what happens in (51). The displacement of the embedded subject to the matrix clause (or to its edge) induces a case alternation from NOM to ACC. The subject of the embedded clause gets the objective case ACC from the matrix clause, which results in a significant change in the scope readings available for the universal quantifier. In (51), due to the displacement, the universal quantifier

escapes from scope of the negation, forcing the widescope reading. The data in (50) and (51) show that ECM phenomena can potentially induce a scopal alternation, which constitute robust evidence for the source of the overt case-alternation, i.e. the displacement.

(50) Herkes gel-me-di
Everyone.NOM come-NEG-PST
'Everyone did not come.' [not>every, *every>not]

(51) Herkes-i $_k$ [t_k gel-me-di] san-dı-m
Everyone-ACC [t_k come-NEG-PST] think-PST-1
'I thought nobody came.' [every>not, *not>every]

Now let us apply the same test to PL and try to see if there is any evidence for the displacement of the embedded subject in ECM construction. In (52), the exact same scopal facts of Turkish hold true for the simplex clause in PL. The universal quantifier in the subject position gets obligatory narrow scope with respect to negation.

(52) Kat'a bere-k ma va m-dzir-u
Every child-ERG 1.NOM NEG 1-see-3.PST
'Every child did not see me.' [not>every, *every>not]

In (53), on the other hand, the clause in (52) is embedded in a clause whose predicate is an ECM verb. The scopal alternation in Turkish ECM construction is

also true for PL. The embedded subject gets obligatory wide scope with respect to negation in (53). However, notice that the subject of the embedded clause cannot show any case alternation in that ERG case has to be 'preserved'. There is direct evidence for the displacement of the embedded subject. Yet case alternation is not possible. If the ERG case were a structural subjective case, we would predict that the displacement induces an alternation from ERG to objective case NOM in PL. Yet this prediction is not borne out. Thus, I take this a supporting evidence for the claim that ERG is an inherent case in PL.

(53) Kat'a bere*(-k) ma va m-dzir-u
Every child-ERG/*NOM 1.NOM NEG 1-see-3.PST
do-m-a-ts'an-u
PV-1-APPL-think-3.PST
'I thought every child did not see me.' [every>not, *not>every]

Also consider the data in (54) and (55), which show that the DAT case is also an inherent case, patterning with ERG in PL.

(54) Kat'a bere-s nana-muşi va a-limb-en
Every child-DAT mother-3.POS NEG APPL-love-IMPF.3
'Every child does not love her/his mother' [not>every, *every>not]

(55) Kat'a bere-s nana-muşi va a-limb-en
Every child-DAT mother-3.POS NEG APPL-love-IMPF.3
do-m-a-ts'an-u
PV-1-APPL-think-3.PST
'I thought every child does not love her/his mother' [every>not, *not>every]

It is very unfortunate that we cannot apply the same test for NOM subjects as this would not show anything, considering that objective case is also NOM in PL. Empirically, it is possible to claim that NOM is an inherent case like DAT and ERG or a structural default [unmarked] case. I will not pursue this further and simply assume that NOM is a default case in PL due to its unmarked status.

4.2.5.3. Ergative is Inherent

With these data and conclusions at hand regarding ERG, DAT, and NOM in PL, we can now recapitulate the question why the 'φ-agreement accessibility' asymmetry of ERG and DAT arguments poses contradictory evidence for the version of AGREE where the case-valuation and φ-agreement are co-dependent. That is, if both ERG and DAT are inherent case values assigned locally in PL, why should there be an asymmetry in their φ-agreement accessibility? It is clear that if ERG is an inherent case in PL, the version of AGREE which stipulates that a Goal should *not* be inert (i.e. it must still need a case value.) will not work.

We can propose two alternative hypotheses to overcome this problem. One alternative is to argue that unlike DAT, ERG is *not* an inherent case and thereby *not* inert for φ-agreement. This would automatically account for the visibility of ERG,

and invisibility of DAT. However, the evidence discussed above suggests that ERG is also an inherent case. Thus, the primary weakness of this approach is the empirical challenge in establishing that ERG is a Probe-dependent case-value, contrary to what seems obvious. Therefore, I will not pursue this hypothesis further.

A second alternative would be to adopt the version of AGREE that dissociates case-valuation and φ-agreement. The primary weakness in the approach is the arbitrariness of the asymmetric φ-agreement accessibility of ERG and DAT. In this alternative, an explanatory account for the invisibility of DAT and the visibility of ERG will be unavoidably elusive. Yet again the empirical facts of agreement accessibility in PL point to the second alternative. As will be explored in Chapter 5, the person value of inherent DAT arguments is also cross-referenced in PL, albeit *not* suffixally. Moreover, ERG and DAT arguments have no asymmetry in their agreement accessibility for number. Thus, the accessibility facts of φ-agreement *do* present evidence for the second approach and evidence against the first approach. The table in (56) presents an overview of the agreement facts in PL. Notice that there is an asymmetry between the prefixal and suffixal agreement regarding the compatible case values. However, crucially, all types of arguments exhibit overt agreement even though the positional realization of the agreement can vary.

(56)

	NOM	ERG	DAT
person (suffixal)	+	+	-
person (prefixal)	+	-[16]	+
number	+	+	+

[16] See Chapter 5 for the impossibility of (suffix-independent) disjoint value for ERG in the prefixal agreement.

The facts of number agreement will be explored in detail in Chapter 5. However, introducing the gist of the data here will be sufficient to be able to propose a working hypothesis. In (57) and (58), the plurality of the DAT subjects is to be reflected on the verbal complex. Thus, it is clear that the number Probe is able to see into the inherent DAT arguments.

(57) Bere-pe-s ma a-limb-es
child-PL-DAT 1.NOM APPL-love-3.PL.PST
'The children loved me.'

(58) K'oç-epe-s oxori mv-a-rg-es
man-PL-DAT house.NOM PL-APPL-build-3.PL.PST
'The men were able to build (a) house.'

Notice the fact that the ERG and DAT subjects pattern alike in number accessibility, as seen in (59) below.

(59) K'oç-epe-k oxori mo-rg-es
man-PL-ERG house.NOM PV-build-3.PL.PST
'The men are building (a) house.'

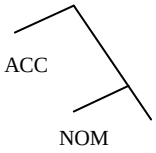
On the basis of the data in (57)-(59), I will be adopting the version of AGREE which dissociates the case-valuation and φ-agreement as a working hypothesis. Thus, I will assume that there is nothing that prevents inherent cases to

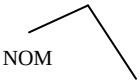
be visible and accessible to the φ-agreement. The fact that they get their inherent cases locally does not mean they are incapable of being a matching Goal to a Probe.

4.2.5.4. Structure of Case

As mentioned above, unidirectional approach to AGREE will introduce some degree of randomness to the relationship between case and agreement. So as to eliminate some of the randomness and prevent the potential overgeneration, I will assume the decomposition approach to case, proposed in Caha (2009). Based on the cross-linguistic facts of case-syncretisms and morphological containment, Caha argues that the case values such as NOM, ACC must be decomposed as layers of syntactic features. For instance, NOM being the unmarked case will be syntactically present in any other case value. He proposes the structures in (60) for NOM and ACC.

(60) ACCUSATIVE NOMINATIVE



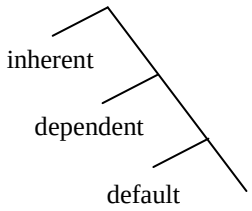


He makes the prediction that if ACC is visible to AGREE, so will be NOM. This case-decomposition approach will reduce the extra load on the learnability and will significantly reduce the overgeneration. The case-decomposition proposal outlined above makes the prediction that in no language will there be a Probe which can see the φ-value in ACC but not the φ-value in NOM. It should be noted that the case values he discusses correspond to structural cases. Thus, he does not explicitly discuss inherent case values. However, the principle in his approach can be readily

applied to inherent cases. At this point, we can make use of the typological facts on the agreement accessibility hierarchy of case values discussed in the work of Bobaljik (2006) and Marantz (1991). They argue and predict that if a lexical or inherent case is accessible to the φ-agreement, the dependent and unmarked case will also be accessible to the φ-agreement. Likewise, the accessibility of the dependent case will sanction the accessibility of the unmarked case. The case-decomposition approach will be used as a methodical implementation of this generalization outlined in Bobaljik (2006). The agreement accessibility hierarchy of case values is given in (61). The case decomposition approach will handle the accessibility generalization in (61) as in (62).[17]

(61) inherent/lexical case > dependent case > unmarked/default case

(62)



4.2.6. A Phase Theoretic Account of DAT Intervention

In section 4.2.4., I have outlined the empirical and conceptual problems associated with the intervention of an invisible Goal, i.e. DAT intervention. The system that is compatible with the DAT intervention requires that an invisible Goal be able to intervene, in principle sanctioning *defective intervention* in grammar (Chomsky,

[17] See section 5.2.3.1. for the application of the case decomposition approach to the data at hand.

2000). This system, where the visibility and the intervention potential are different parameters, predicts four possible combinations given in (41), repeated here as (63).

(63)

Visible	Intervener			
Yes	Yes	:	attested	e.g. ERG $_{\text{SUBJECT}}$
No	No	:	attested	e.g. DAT $_{\text{NON-SUBJECT}}$
No	Yes	:	attested	e.g. DAT $_{\text{SUBJECT}}$
Yes	No	:	not attested	violates locality

The system depicted in (63) overgenerates allowing a locality-violating set of visible non-intervener Goals. This, I believe, makes this approach conceptually and empirically unattractive. Thus, I will consider an alternative approach.

The alternative is to assume that the visibility and the intervention potential are really the same thing. This approach produces the system in (44), repeated here as (64).

(64)

Visible	→	Intervener			
Yes	→	Yes	:	attested	e.g. ERG $_{[\text{SUBJECT}]}$
No	→	No	:	attested	e.g. DAT $_{[\text{NON-SUBJECT}]}$

Although this system is conceptually attractive and does not overgenerate, it cannot account for the apparent intervention of the invisible DAT subjects in PL, i.e. it *undergenerates*. Thus, I will attempt to circumvent the narrowing in the empirical coverage that occurs if (64) is chosen. I will be arguing that the DAT intervention stems from the phase-based derivation and the invisible DAT arguments are in fact *never* interveners. That is, I will claim that there is no *defective intervention* in

grammar. The apparent DAT intervention will be argued to be an epiphenomenon, basically an effect of the *phase-based* derivation.

Let us first see what *phases* are in syntax. A phase is defined as the unit of cyclic transfer to interfaces (Chomsky, 2000, 2001, 2005). In a phase-based cyclic syntactic derivation, the computational burden (i.e. the memory load) is reduced by allowing periodic forgetting of the derivational information (Richards, 2007). The cyclic derivation is achieved by what is called the *Phase Impenetrability Condition* (henceforth PIC). PIC[18], as proposed in Chomsky (2001), ensures that the material in a phase is inaccessible for syntactic computation *as soon as the next phase starts.* In Chomsky (2001) unlike in Chomsky (2000)[19], the material merged between the first phase head and the next phase head can access the domain of the first phase[20] in that the cyclic transfer is delayed until the next phase head is merged (Gallego, 2010). Chomsky (2001) formulates the PIC as in (65).

(65) [Given the structure $[_{ZP}$ Z … $[_{HP}$ α [H YP]]], with H and Z the heads of phases]: The domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations. (Chomsky, 2001:14)

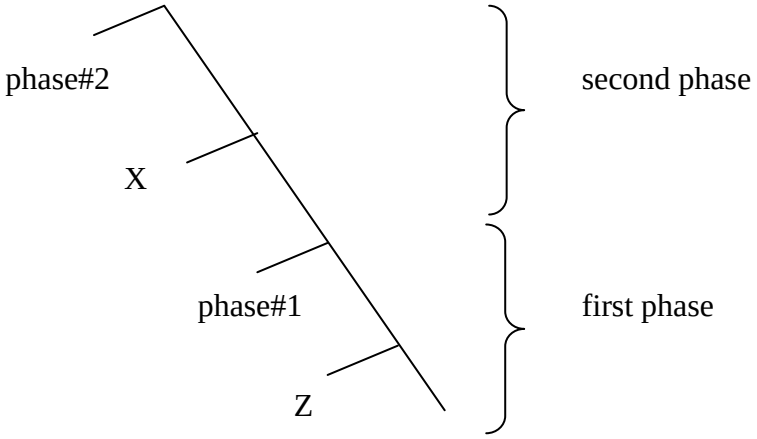
In (66), where the phase heads are underlined, $T^{o}_{[probe]}$ can access VP according to the formulation of PIC in (65). As only the phase heads count as triggers for spell-out in Chomsky (2001), the material merged before the second phase head can still access the domain of the first phase.

[18] See the original formulation of PIC in Chomsky (2000).
[19] See Gallego (2010) and Richards (2007) for the notion of phase and its development. In particular, it should be noted that the version in Chomsky (2000) has been modified in Chomsky (2001) so as to accommodate some empirical facts regarding agreement.
[20] In Chomsky (2000), this is not the case in that the second phase is assumed to start (thereby rendering the previous phase inaccessible) as soon as the first phase is completed.

(66) $[_{CP}\ \underline{C}\ [_{XP}\ldots\ T^{o}_{[probe]}\ldots\ [_{vP}\ \alpha\ \underline{v}\ [_{VP}\ V\ DP]]]]$

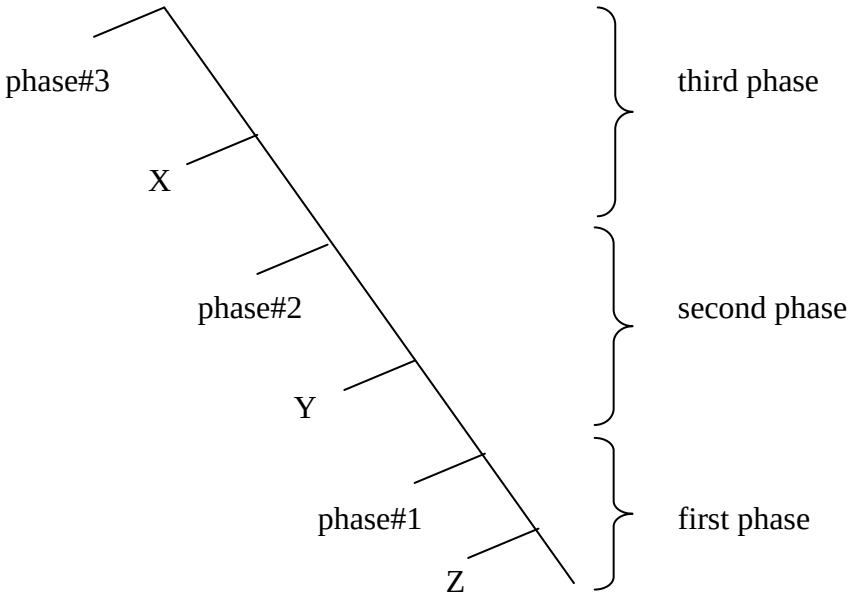
In (67), I outline the phase-based cyclic derivation schematically.

(67)



In (67), the MERGE of phase#2 renders the material in the first phase (i.e. Z) inaccessible to the operations in the second phase. That is, Z can interact with X only before the MERGE of phase#2.

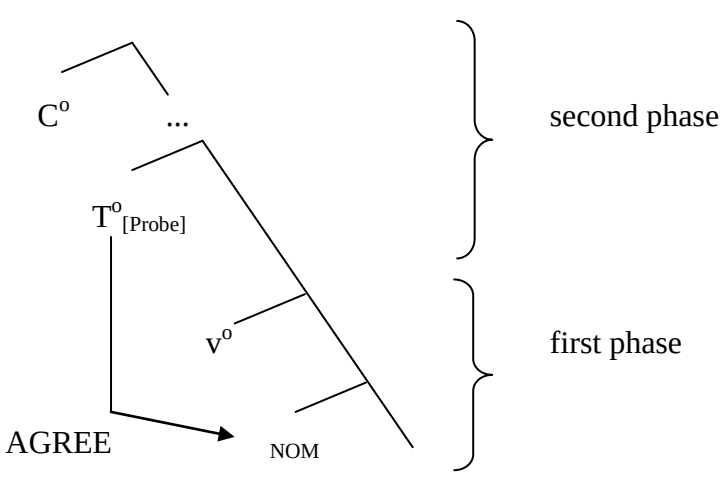
(68)



Likewise, in (68), the material in the first phase (i.e. Z) will be inaccessible to the operations in the third phase. In (68), it is not possible for Z to interact with X in situ, as ensured by PIC.

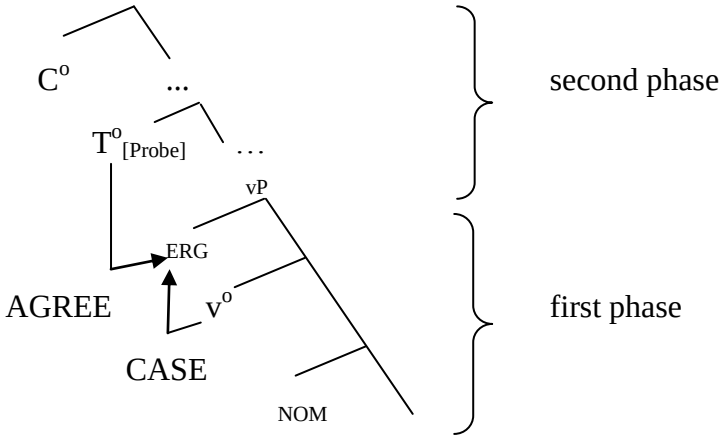
Let us now see how AGREE, the in-situ matching operation, fits in the phase-based derivation in syntax. In Chomsky (2001), the phase#1 is assumed to be completed upon the MERGE of the phase-head v^o (i.e. where the thematic structure is satisfied) while the phase#2 is assumed to be completed upon the MERGE of the phase-head C^o (i.e. the clausal completeness). In the specifier of v^o sits the external argument of the transitive and unergative verbs. I assume that the ERG argument is merged in spec-vP where it also gets its inherent case. In unaccusative structures, there is no overt NP in the specifier of v^o. Thus, no ERG argument can surface in the unaccusative structures in PL. As Chomsky (2001) does, I assume that the Probe (that realizes tense-dependent suffixal agreement in PL) is on T^o[21]. In (69) and (70), I give the simplified derivations for how AGREE works in a phase-based system. (69) and (70) represents the valuation via AGREE in the unaccusative and transitive structures, respectively.

(69)



[21] The exact identity of the Probe will be discussed in Chapter 5.

(70)



The DAT arguments, as discussed in section 4.2.5., are introduced in the specifier of an Appl° head where they get inherent DAT case. Let us remember the fact that DAT arguments show apparent asymmetric behavior in *intervention potential*. While DAT subjects count as interveners, non-subject DAT arguments do not show any intervention effect. I will assume that the Appl° heads that introduce the *non-subject* DAT arguments[22] are not phase-heads since at the point of their MERGE, the thematic structure is still not satisfied in that the lowest phase head is v. However, I will claim that the Appl° head that introduces the DAT subject is merged above the first phase head v° (Öztürk, 2013) and counts as the second phase-head. It might be reasonable to claim that the subject introducing Appl head is a phase head on the grounds that it extends the already-satisfied thematic domain, which may fit the semantic criteria discussed for phasehood (Richards, 2003). The stipulations I will need are given in (71). In the following, I will attempt to provide evidence for these stipulations as much as the empirical data allow.

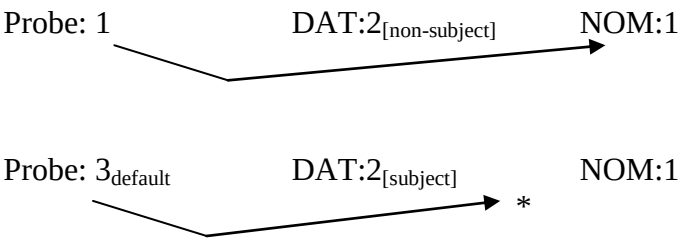
[22] In Chapter 3, I have presented evidence for the fact that objects are merged lower/earlier than the subjects, which suggests that the appl heads that introduce non-subject DAT arguments are merged lower/earlier than v head.

(71) a. Appl^{o} that introduces DAT $_{[subject]}$ is merged above v^{o} and is a phase-head[23]

b. Appl^{o} that introduces DAT $_{[non\text{-}subject]}$ is merged below v^{o}, hence not a phase-head

Let us first recall the asymmetry in agreement accessibility, which is illustrated in (72). Note that the left-to-right order reflects the c-command.

(72)



Before stipulating an extra phase boundary that introduces the DAT subjects, we should eliminate other possible 'simpler' explanations. For example, it would be desirable to handle the asymmetry by showing that the NOM that is c-commanded by the non-subject DAT, at some level of representation, moves to a higher position where the DAT would no longer be an intervener. In this configuration, the Probe would be expected to see the NOM. This would be not unreasonable as the NOM appears to be the subject. However, the preferred linear order does not present any evidence for this kind of movement. Also consider the data in (73) below. The scope data in (73) suggest that the NOM remains in-situ and does not a have a higher copy that could make the AGREE between the Probe and the NOM possible.

[23] I will not argue for the presence of an intermediate non-phase head between Appl^{o} and v^{o}. I refer the reader to (Öztürk, 2013) where Appl^{o} is claimed to select for a ParticipleP merged above vP.

(73) A xordza-s [k'ata oxori] mo-a-rg-u

a woman-DAT [every house.NOM] PV-APPL-build-3.PST

'A woman was able to build every house.' [one>every, *every>one]

'Every house is built for one woman.' [one>every, *every>one]

The sentence in (73) is ambiguous; however, in either reading, there is no copy of the NOM argument higher than the DAT that would induce the [every>one] scope. With this fact at hand, let us now see if there is any reason to postulate different structures for the different readings of the sentence in (73).

In PL, there is evidence that the Appl^{o} head that introduces the DAT subject is merged higher than the first phase head v^{o} while the Appl^{o} head that introduces the non-subject DAT arguments is merged inside the first phase, thereby below v^{o}. The first evidence is the selectional sensitivity of the subject introducing Appl^{o} head. In PL, it is not possible to introduce a DAT subject to unaccusative bases that require external causers, which suggests that the subject introducing Appl^{o} head is merged just above the vP (i.e. Appl^{o} selects vP). Consider the ungrammatical sentences in (74) and (75).

(74) *ham t'op'i-s a-kt-en.

ham ball-DAT APPL-spin-IMPF.3

Intended: 'This ball is able to spin.'

(75) *ham t'op'i-s u-kt-ap-un.

this ball-DAT APPL-spin-CAUS-IMPF

Intended: 'This ball has spun before.'

Notice that a DAT subject cannot be introduced onto the unaccusative base that requires an external causer. The same pattern can be seen in (76)-(77) below. It should also be noted that the restriction sketched above is not about transitivity in its traditional sense, but about the properties of the v^o head.[24] For instance, one can easily use an unergative base to introduce a DAT subject, as in (78).

(76) furt'ona-s cami a-t'ax-u
storm-DAT glass.NOM APPL-break-3.PST
'The storm was able to break the glass.'

(77) *Cami-s a-t'ax-u
glass-DAT APPL-break-3.PST
Intended: 'The glass was able to break.'

(78) Bere-s a-bgar-u
child-DAT APPL-cry-3.PST
'The child was able to cry.'

Lastly, we should also note that the DAT subject introducing $Appl^o$ head cannot be added onto another ApplP as it selects for a vP. See the examples in (79) and (80). Although there is nothing that would be semantically or pragmatically odd about the sentence in (80), it is structurally ungrammatical. The ungrammaticality possibly stems from the selectional properties of the subject introducing $Appl^o$ head.

[24] See Taylan and Öztürk (2012) for the insightful analysis of PL event structure, where they claim PL forces an implicitly transitive structure for intransitives, as well.

(79) Bere-s k'uçxe a-ts'k'un-en

child-DAT foot.NOM APPL-feel pain-IMPF.3

'The child feels pain in his foot.'

(80) *Bere-s k'uçxe u-ts'k'un-ap-un

child-DAT foot.NOM APPL-feel pain-CAUS-IMPF.3

'The child has felt pain in his foot before.'

Now that we have seen considerable amount of data which suggest that DAT subject introducing Appl^{o} head is merged above v^{o}, we can proceed with the evidence that show that DAT non-subject introducing Appl^{o} head is merged below v^{o}. In Chapter 3, I have presented abundant evidence that subjects are merged higher than the non-subjects. But let me present a piece of data for the sake of completeness. The WCO facts in (81) and (82) show that the non-subject DAT is lower than both ERG and DAT subjects. As the ERG subject is introduced in spec-vP, it follows that the lower non-subject DAT is merged below v^{o}. Likewise, (82) suggests that the DAT subject is merged higher than the non-subject DAT, which confirms the finding in (81).

(81) Nana-muşi-k $_{k}$ mi-s $_{i/*k}$ bere u-ncir-u?

mother-3.POS-ERG who-DAT child.NOM APPL-make.sleep-3.PST

'For whom$_{i}$ did his$_{k/*i}$ mother make the child sleep?' [WCO]

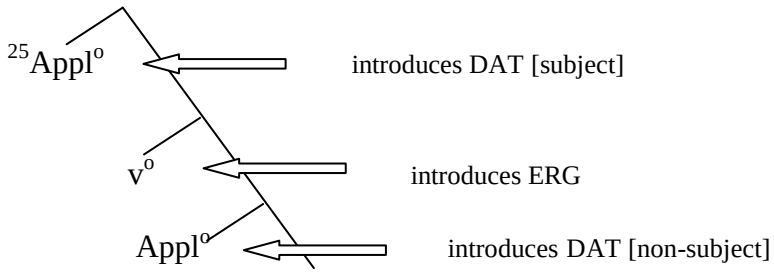
(82) Nana-muşi-s $_k$ mi-s $_{i/*k}$ bere a-ncir-u?

mother-3.POS-DAT who-DAT child.NOM APPL-make.sleep-3.PST

'For whom$_i$ could his$_{k/*i}$ mother make the child sleep?' [WCO]

In the discussion so far, we have seen evidence for the MERGE hierarchy of the heads in (83) below.

(83)



Unfortunately, PL does not allow me to present robust independent evidence for the phase status of the higher Appl^o. However, there is a piece of data which may well be a support for postulating different representations for the two DAT>NOM case arrays. In (84) is an ambiguous sentence with a DAT>NOM case array. Note that the two available readings in (84) show an interesting interpretational asymmetry.

(84) A oxori k'ata xordza-s ~~[a oxori]~~ mv-a-rg-u

a house.NOM every woman-DAT [a house] PV-APPL-build-3.PST

'A house was built for every woman.' [one>every, *every>one]

'Every woman was able to build a house.' [one>every, every>one]

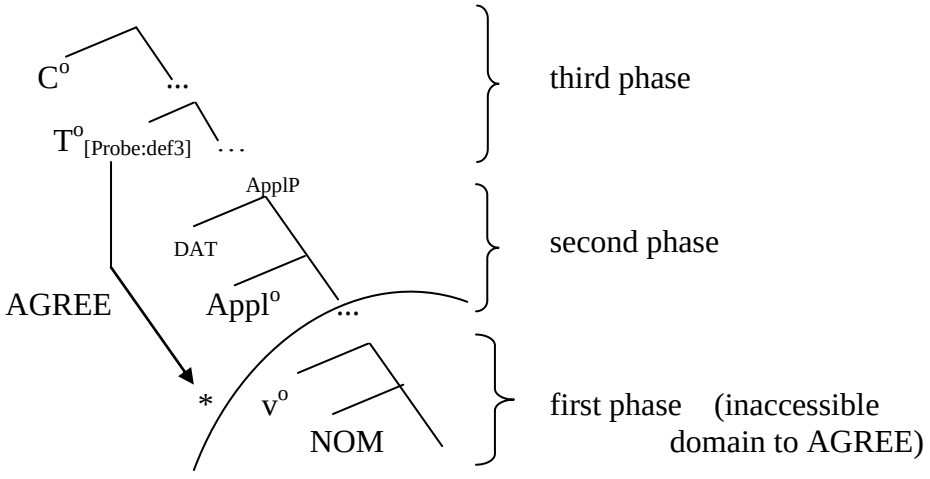
[25] See Boneh and Nash (2011) for another proposal that argues that an Appl head can be merged above vP.

The preposed NOM argument cannot take narrow scope with respect to the DAT argument iff the DAT is the non-subject argument. However, in the reading where DAT is the subject, the lower copy of the NOM argument can also be interpreted. I will provisionally claim that this asymmetry may stem from the fact that the subject DAT is introduced in the edge of a phase as opposed to the non-subject DAT[26]. However, I should add this piece of data does not robustly show that the asymmetry stems from the phase status of the higher Appl^{o} head. Thus, I will use the data on agreement accessibility asymmetry to claim that higher Appl^{o} is a phase-head.

The representation in (86), where the Probe fails to see the NOM argument, is an example derivation for a clause with DAT subject as in (85).

(85) Ma si m-a-limb-u/(*-i)
1.DAT 2.NOM 1-APPL-love-3.PST/(*-2.PST)
'I loved you.'

(86)

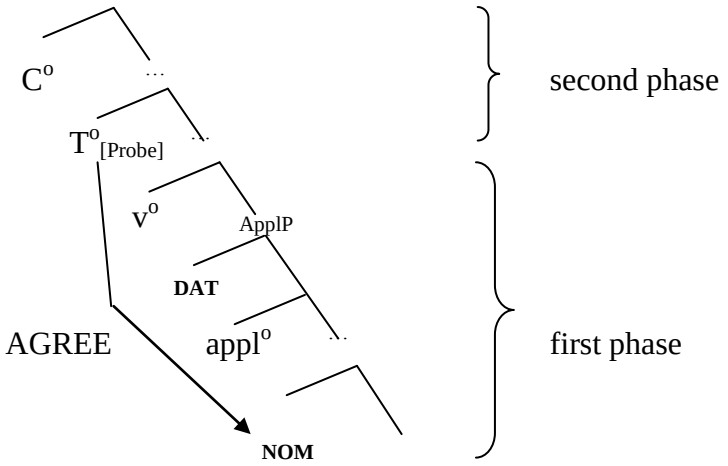


[26] In Chapter 3, I have discussed in detail that the subject and non-subjects exhibit an asymmetry in interpretational phenomena like WCO and quantificational scope. This might allude to an explanation that resorts to the notion of phase in that the arguments that are in the domain of the phase and the argument that is in the edge of that phase behave differently in scope/WCO phenomena.

Notice that in (86) the Probe fails to find a matching Goal as the DAT argument is invisible to the Probe and the NOM argument is already inaccessible at the point where the Probe is merged.

Let us now see how the non-subject DAT arguments do not show any intervention. Since the first phase is completed upon the MERGE of v^o, the DAT argument being invisible and the NOM argument being in the search space of the Probe, the AGREE between the Probe and the NOM argument is established as depicted in (87). This simplified sample derivation represents an unaccusative clause with possessor/ malefactive (non-subject) DAT argument (88).

(87)



(88) Ma si m-i-ğur-i

1.DAT 2.NOM 1-APPL-die-2.PST

'You, who belong to me, died.'

'You died on me.'

In this section, I have attempted to provide a phase-based analysis of the apparent DAT intervention. The crux of the analysis rests on the assumption that the $Appl^o$ head that introduces the DAT subject is a phase-head patterning with v^o. As

the derivation proceeds blindly (i.e. not knowing what will be merged next.), in case of subject introducing appl^{o} heads, we get a bi-phasal thematic domain. For syntax, the first potential phase-head is v^{o}, the point where the thematic structure is satisfied. The merger of v^{o} completes the first phase. The subject introducing Appl^{o} head must be acting as a phase-head because of the fact that it extends the thematic domain (i.e. still introducing an argument with a different semantic role). Compare the accessibility of NOM to the Probe in (87) and (86). In (86) which has a bi-phasal thematic domain, the NOM in situ is inaccessible to the Probe, resulting in default third person value while the NOM argument is accessible to the Probe in (87) as there is only one phase head between the NOM argument and the Probe.

Also consider the data in (89) and (90) both of which use the same verbal base. Notice that the NOM in (89) cannot value the Probe as there is a second phase head that introduces the DAT subject while the NOM in (90) can value the Probe as there is only one phase head, i.e. the v^{o}, between the NOM and the Probe.

(89) Si ma g-a-limb-u
2.DAT 1.NOM 2-APPL-love-3.PST
'You loved me.'

(90) Ma v-i-limb-i
1.NOM 1-PASS-love-1.PST
'I was loved.'

Lastly, I will discuss how potentially ambiguous forms can be disambiguated via the agreement asymmetry. Compare the sentence pair below in (91) and (92).

They are minimally different (i.e. divergent only in the suffixal agreement); however, the readings available are totally different. Notice that both verbal forms have the APPL formative {a-}. This marker can only surface if there is an applicative head that introduces a DAT argument into an unaccusative structure. The applicative head may be merged above the unaccusative base (i.e. above v^o) or inside it (i.e. below v^o). Except the agreement asymmetry, there is nothing that signals the difference between the two potential merge sites for the applicative (i.e. subject or non-subject interpretation of the DAT). If the DAT is to be interpreted as the subject, it must be merged above the v^o, which yields the sentence in (91) where the non-subject reading for DAT is not possible. The fact that suffixal agreement cannot show agreement for the NOM argument suggests that the NOM argument is in an inaccessible domain in (91). I have claimed that this is due to a second phase layer intervening (i.e. $Appl^o > v^o$). The sentence in (92), on the other hand, exhibits overt agreement with the NOM argument. The possibility of agreement shows that the NOM is in an accessible domain. Thus, the $Appl^o$ that introduces the DAT is understood to be introduced below v^o in (92), yielding a one-phased domain (i.e. $v^o > Appl^o$) unlike in (91).

(91) Si ma ce-g-a-ç-u/(*-i)
2.DAT 1.NOM PV-2-APPL-beat-3.PST/(*-1.PST)
'You were able to beat me.' ~ 'You accidently beat me.'
*'I was beaten for you.'

(92) Si ma ce-g-a-ç-i/(*-u)

2.DAT 1.NOM PV-2-APPL-beat-1.PST/(*-3.PST)

‘I was beaten for you.’

*‘You were able to beat me.’ ~ *‘You accidently beat me.’

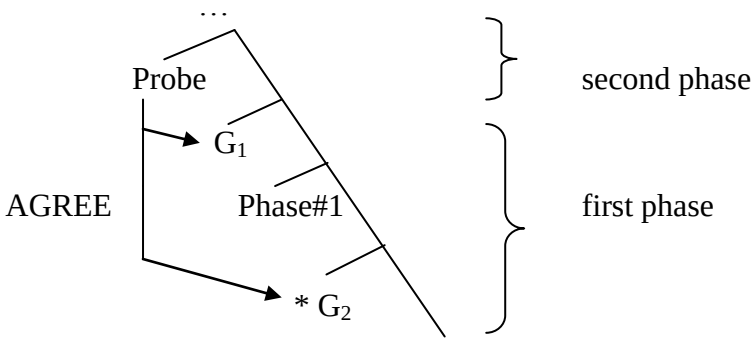
Thus, agreement asymmetry in DAT-NOM case arrays makes possible the mapping between the form and a thematic structure. In that sense, the agreement facts significantly contribute to the interpretation. At this point, I should also briefly discuss the PL facts in the light of the semantic criteria (i.e. propositionality) to identify phases. It has been assumed that the first phase is assumed to correspond to the thematic domain where the full argument structure is completed with vP. Yet again, I have presented evidence which suggests PL can introduce an Appl-DAT argument above the first phase (i.e. above vP), which in a sense extends the thematic domain and adds to the argument structure. Öztürk (2013) claims that the higher Appl^{o} is merged above vP and constitutes a different ‘thematic phase’ that interacts with the lower thematic phase (i.e. vP).

For instance, consider the sentence in (91) where the subject DAT is introduced above vP, i.e. in the second phase. We observe that there are two potential readings (i.e. abilitative and deagentive) for (91). Öztürk (2013) argues that this may be due to potential interaction options with the lower thematic phase. In particular, she claims that the lower thematic phase has an implicit initiator in the spec-vP that can be referentially bound by the higher DAT, inducing the abilitative reading. The alternative deagentive interpretation is induced if the implicit initiator is not referentially bound by the higher DAT (i.e. disjoint interpretation of the two

'initiators' leads to deagentive reading[27]). Thus, the vP domain and the ApplP above it in Öztürk (2013) can be argued to correspond to different thematic phases, which can interact to induce different interpretations for the same form.

Let us now sum up the claims and the findings in this section. I take it that the DAT arguments themselves do not have the intervention potential. Rather, it is the phase-based cyclic derivation that yields the apparent intervention effect. By using phase-based derivation, I have aimed to simplify the typology of Goals, reducing the visibility and the intervention potential to the same parameter. I predict that the intervention phenomenon is not uniform potentially having two sources: PIC and locality. The configurations where we will see intervention effect is given (93) and (94). In the following structures, [G] represents an invisible Goal while G represents a visible Goal.

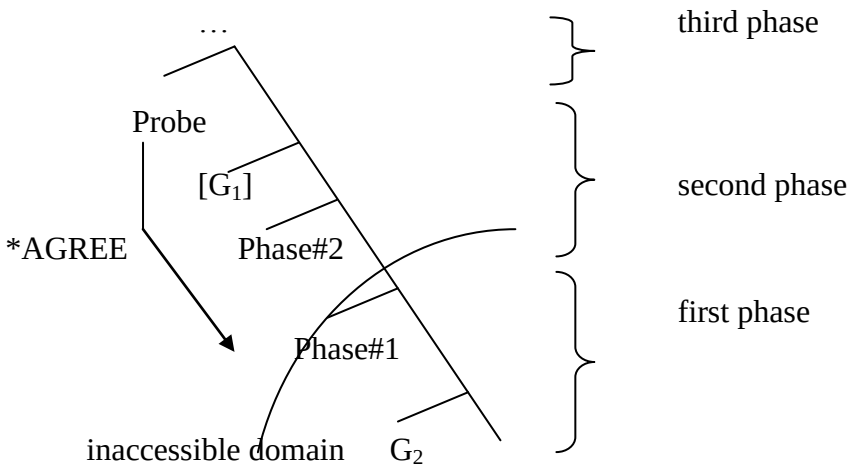
(93) *Locality Driven Intervention*



G_1, being visible, intervenes between G_2 and the Probe.

[27] The disjoint interpretation seems to be compatible with the out-of-control semantics of the deagentive construction. The DAT argument that has the deagentive role is thematically linked to the lower event (vP), yet it does not referentially bind the implicit initiator of the lower event, leading to the out-of-control reading.

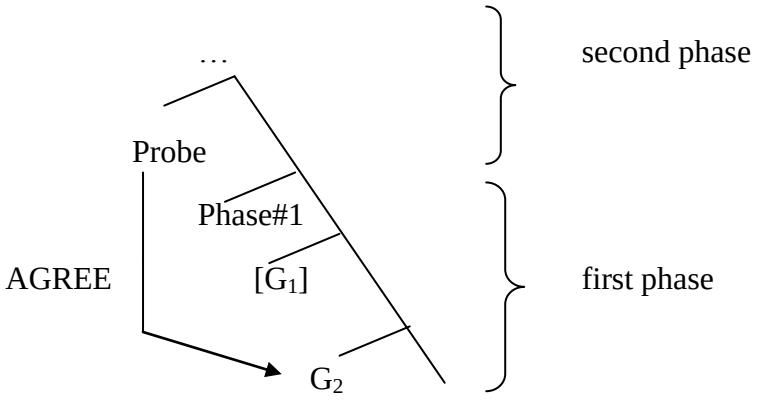
(94) *PIC-induced Intervention*



PIC is responsible between the intervention between G_2 and the Probe.

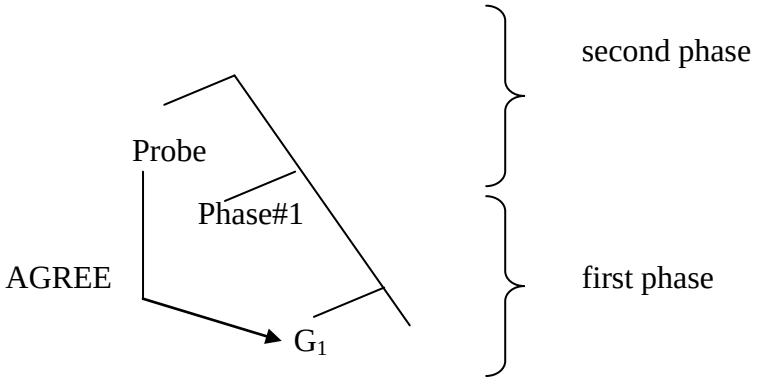
The configurations in (95) and (96) give the non-intervention scenarios. In (95), an invisible Goal fails to intervene while in (96) PIC is simply not effective as there is only one phase-head between the Probe and the Goal.

(95) *Invisible Goal Cannot Intervene*



G_1, being invisible, cannot intervene between G_2 and the Probe.

(96) *PIC has no effect*



As there is only one phase-head between G_1 and the Probe, there is no intervention.

4.3. Summary

In this chapter, I have presented a basic descriptive outline of the agreement phenomena in PL. I have shown that the φ-agreement accessibility is sensitive to syntactic locality, conforming to the argument hierarchy I identified in Chapter 3.

I have assumed that AGREE (Chomsky, 2000, 2001) is the basic operation that establishes a syntactic dependency between the φ-value of an argument (i.e. Goal) and the Probe. I have argued that ERG and DAT case are both locally assigned inherent cases based on the theta-relatedness (active case alignment) and case-preservation data. Assuming the version of AGREE which dissociates case-valuation and agreement (Preminger, 2011), I have attempted to show that the Probe that realizes the suffixal person agreement can see the value of the inherent ERG case in PL. Likewise, in Chapter 5, I will show that the Probe that realizes the prefixal person agreement can see the value of the inherent DAT case in PL. Thus, it will be clear that an argument that bears an inherent case may as well be accessible to AGREE. This is merely dependent on the specification of a Probe as to which case value it can see into.

I have also shown that the defective intervention system predicts a typology of Goals that includes a non-attested set of visible non-intervener Goals. I have argued that this system overgenerates, allowing AGREE to be established in a locality-violating configuration. The non-uniformity in the accessibility of NOM to agreement when it is c-commanded by a DAT (an invisible Goal) may appear to require a system where intervention potential and visibility are different parameters regarding Goals. However, the overgeneration in this system renders it less attractive. Thus, I have argued that it should be possible to merge intervention potential and visibility into the same parameter if the apparent intervention of an invisible Goal is accounted for by some other mechanism. As a potential candidate, I have argued that PIC may well be the solution to the problem at hand as it can mimic the effect of apparent intervention of an invisible Goal. Therefore, I have claimed that intervention can have two sources only: syntactic locality and PIC.

CHAPTER 5

PREFIXAL AGREEMENT AND NUMBER AGREEMENT

In this chapter, I will be mainly discussing the person agreement realized prefixally and the number agreement realized suffixally in PL. I will show that all agreement nodes on the PL verbal complex are inter-dependent and in a local domain.

In Chapter 3, I have discussed the non-configurational aspects of PL which apparently exhibits a non-hierarchical organization for the non-subject arguments. I have claimed that this must be an epiphenomenon as the prefixal person agreement facts *do* show that there is a hierarchical organization between non-subject arguments, as well. Thus, in the first section of this chapter, I will be presenting the data on agreement accessibility which show the hierarchy of arguments in PL.

The bulk of this chapter will be in the second section. As discussed in Chapter 4, the suffixal person agreement is controlled by the highest visible Goal in the domain of the Probe. I have also claimed that both the ERG and the DAT case values are locally assigned and inherent. In the checking-based alternative of AGREE (Chomsky 2000, 2001), a φ-Probe must *not* be able to see into an argument that bears an inherent case. This prediction is not borne out in that the person and number information of the arguments that bear inherent case is also cross-referenced obligatorily in PL. Thus, I will argue that the checking approach to AGREE is not viable (Preminger, 2011) in that it undergenerates disallowing agreement with inherently-case marked arguments. I will argue that what determines agreement accessibility and realization is the specification of φ-Probes as to which case values they can see into. In this chapter, I will mainly argue that the verbal functional

sequence of PL has two independent person Probes which are specified as to which inherent case value they can see into[28]. Discussing the locality effects in the valuation of the two Probes, I will propose a local configuration for the two Probes, which derives the empirical facts of PL agreement.

Another important property of the prefixal agreement is the fact that the person value encoded by the prefixal agreement can be interpreted disjointly or jointly in reference to the person value of the suffixal agreement. As we have mentioned in Chapter 4, in the *transitive paradigm*, where two person values are encoded, the prefixal agreement realizes a disjoint value whereas in the *intransitive paradigm*, where only one person value is expressed, the prefixal agreement jointly realizes the same person value expressed by the suffixal agreement (see section 5.1.1. below for examples). This interesting picture regarding the prefixal agreement has received well-acknowledged syntactic analyses embodied in the Cyclic Agree approach in Béjar and Rezac (2009) and the Multiple Agree approach in Nevins (2007). Using empirical data from PL, I will discuss the validity of these two syntactic approaches. Then, as alternatives, I will discuss the possible post-syntactic analyses of the same phenomenon. I will argue that the post-syntactic accounts can use their spell-out mechanisms to deliver the same empirical facts without further stipulation and extra mechanism in syntax. Assuming Chomsky's (2001) Uniformity Principle which suggests that the linguistic variation should be justified at the lexical level as much as possible, I will argue that the post-syntactic analyses should be preferred on conceptual and empirical grounds. As post-syntactic alternatives, I will discuss the Distributed Morphology account (Halle and Marantz, 1993, 1994) and then compare it with two Nanosyntax (Starke, 2010) alternatives. Although it is

[28] I postpone the discussion of the identity and syntactic positions of the Probes till section 5.2.3.

possible to compare the validity of the post-syntactic analyses and to choose one over the others, I will not do that. My aim is merely to show that a post-syntactic analysis is possible and must be preferred over a syntactic analysis.

Lastly, I will be investigating the workings of number agreement in PL and argue that the number Probe also strictly obeys locality. I will also attempt to account for the asymmetries of arguments in their accessibility to the number agreement.

5.1. Prefixal Agreement Hierarchy

5.1.1. Descriptive Overview

In this section, I will be discussing the agreement accessibility hierarchy for the prefixal agreement which is realizing a disjoint value from the person value of the suffixal agreement. That is, I will be mainly focusing on the *transitive paradigm*, where two disjoint person values are encoded on the PL verbal complex. Let us first remember the person agreement exponents that encode disjoint and joint person values. The table in (1) gives an outline. Notice that the {g-} and {b-} exponents have allomorphic variants whose distribution depends on the phonological shape of the stem (Demirok, 2011)

(1) The Prefixal Agreement Exponents

	Disjoint	*Joint*
1	m-	b- [v-, p'-, p-]
2	g- [k'-, k-]	Ø
3	Ø	Ø

In the basic transitive predicate with ERG subject and NOM object, it is the ERG subject that controls the suffixal agreement while it is the NOM object that

controls the prefixal agreement. In (2) is an example of a transitive predicate with disjoint person values. As the NOM object is second person, we see the disjoint second person marker on the verbal complex. The example in (3) illustrates the same facts for the first person NOM object.

(2) Bere-k si g-dzir-u
child-ERG 2.NOM 2-see-3.PST
'The child saw you.'

(3) Bere-k ma m-dzir-u
child-ERG 1.NOM 1-see-3.PST
'The child saw me.'

In (4) is an example of intransitive paradigm where the sole argument is a first person NOM. Likewise, the example in (5) illustrates the same facts for a transitive predicate where the NOM object is third person. Thus, the prefixal agreement can show disjoint person values as in (2) and (3) or joint person values as in (4) and (5).

(4) Ma b-ğur-i
1.NOM 1-die-1.PST
'I died.'

(5) Ma bere b-dzir-i
1.ERG child.NOM 1-see-1.PST
'I saw the child.'

5.1.2. The Accessibility Hierarchy of Non-subject Arguments

Keeping in mind the fact discussed in section 5.1.1. regarding the realization of prefixal person agreement, let us now see the hierarchy of arguments that is evidenced by their potential to control the *disjoint* agreement which is realized prefixally. PL has causee arguments that are marked with DAT case. The WCO and scope facts discussed in Chapter 3 have not shown any asymmetry between the causee DAT and NOM arguments. The piece of data given in (6) suggests the contrary.

(6)	K'oçi-k	ma	si	m-o-ncir-ap-u
	man-ERG	1.DAT	2.NOM	1-CAUS-sleep-CAUS-3.PST
	'The man made me make you sleep.'			

(7)	*K'oçi-k	ma	si	g-o-ncir-ap-u
	man-ERG	1.DAT	2.NOM	2-CAUS-sleep-CAUS-3.PST
	'The man made me make you sleep.'			

The unacceptability of the example in (7) suggests that the agreement accessibility in PL is $DAT_{[causee]}$>NOM. That is, when there is a causee DAT argument along with a NOM, it is the causee DAT argument that can control the disjoint prefixal agreement.

Let us now investigate the wide range of applicative DAT arguments available in PL with respect to their accessibility hierarchy to the prefixal agreement. The applicative DAT arguments are never visible to the Probe that realizes the

suffixal agreement. However, all of the applicative DAT arguments are visible to the Probe that realizes the prefixal agreement. Let us first see that all of the applicative DAT arguments are higher than the NOM.

In (8) is an example of a predicate with applicative DAT subject. We see that the suffixal agreement is realizing the default third person value and the person value of the DAT subject is prefixally expressed by the disjoint person markers. The NOM argument, however, is not accessible for agreement. This confirms the hierarchy of $DAT_{[subject]}$>NOM that was also shown in Chapter 3 and Chapter 4.

(8)	Ma	si	m-a-limb-u
	1.DAT	2.NOM	1-APPL-love-3.PST
	'I loved you.'		

The example in (9) shows that in the presence of an applicative DAT argument that has the benefactive role, NOM argument cannot control the prefixal agreement. This piece of data suggests a hierarchy of $DAT_{[benefative]}$>NOM.

(9)	Xordza-k	ma	si	m-i-ncir-u
	woman-ERG	1.DAT	2.NOM	1-APPL-sleep-3.PST
	'The woman made you sleep for me.'			
	*'The woman made me sleep for you.'			

In (10) is an example which tests the agreement accessibility hierarchy of the DAT goal and the NOM. The inaccessibility of NOM to the prefixal agreement in the presence of a $DAT_{[goal]}$ suggests the hierarchy of $DAT_{[goal]}$>NOM.

(10) Xordza-k ma si m-i-şkval-u

woman-ERG 1.DAT 2.NOM 1-APPL-send-3.PST

‘The woman sent you to me.’

*‘The woman sent me to you.’

The example in (11) tests the agreement accessibility of the $DAT_{[possessor]}$ and the NOM. The inaccessibility of NOM to the prefixal agreement in the presence of a DAT possessor suggests the hierarchy of $DAT_{[possessor]}$>NOM.

(11) Xordza-k ma si m-i-gor-u

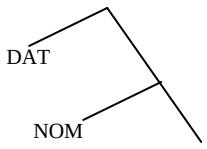
woman-ERG 1.DAT 2.NOM 1-APPL-want-3.PST

‘The woman wanted you, who belong to me.’

*‘The woman wanted me, who belong to you.’

The data and discussion so far have shown that the hierarchy of DAT and NOM arguments in (12). The hierarchy in (12) holds true for all types of DAT arguments.

(12)



Let us now investigate the internal organization of DAT arguments. The example in (13) illustrates the hierarchy between the applicative DAT subject and the causee DAT. It is the $DAT_{[subject]}$ that controls the prefixal agreement, which shows that $DAT_{[subject]}$ is higher than the $DAT_{[causee]}$.

(13) Ma si bere m-a-ncir-ap-u

1.DAT 2.DAT child.NOM 1-APPL-sleep-CAUS-3.PST

‘I was able to make you make the child sleep.’

*‘You were able to make me make the child sleep.’

The sentence in (14) shows that it is the $DAT_{[causee]}$ that controls the prefixal agreement when there is also a $DAT_{[benefactive]}$, which shows that $DAT_{[causee]}$ is higher than the $DAT_{[benefactive]}$.

(14) K’oçi-k ma si dişk’a

man-ERG 1.DAT 2.DAT wood.NOM

m-o-çit-ap-u

1-CAUS-cut-CAUS-3.PST

‘The man made me cut wood for you.’

*‘The man made you cut wood for me.’

Assuming the relative hierarchy of the arguments is fixed, we predict that the $DAT_{[subject]}$ is higher than the $DAT_{[benefactive]}$, as confirmed in (15).

(15) Ma si bere m-a-ncir-u

1.DAT 2.DAT child.NOM 1-APPL-sleep-CAUS-3.PST

‘I was able to make the child sleep for you.’

*‘You were able to make the child sleep for me.’

The example in (16) shows that the $DAT_{[benefactive]}$ is higher than the $DAT_{[goal]}$ as it is the $DAT_{[benefactive]}$ that controls the prefixal agreement when both are present. Likewise, we predict that $DAT_{[goal]}$ would be lower than the $DAT_{[causee]}$ and the $DAT_{[subject]}$, as respectively illustrated in (17) and (18).

(16) Xordza-k ma si oşk'uri m-i-ncğon-u
woman-ERG 1.DAT 2.DAT apple.NOM 1-APPL-send-3.PST
'The woman sent you apple(s) for me.'
*'The woman sent me apple(s) for you.'

(17) Xordza-k ma si oşk'uri m-o-ncğon-ap-u
woman-ERG 1.DAT 2.DAT apple.NOM 1-CAUS-send-CAUS-3.PST
'The woman made me send apple(s) to you.'
*'The woman made you send apple(s) to me.'

(18) Ma si oşk'uri m-a-ncğon-u
1.DAT 2.DAT apple.NOM 1-APPL-send-3.PST
'I was able to send you apple(s).'
*'You were able to send me apple(s).'

The example in (19) shows that the $DAT_{[causee]}$ is higher than the $DAT_{[possessor]}$ as it is the $DAT_{[causee]}$ that controls the prefixal agreement when both are present.

(19) Xordza-k ma si bere

woman-ERG 1.DAT 2.DAT child.NOM

m-o-ncir-ap-u

1-CAUS-sleep-CAUS-3.PST

‘The woman made me make your child sleep.’

*‘The woman made you make my child sleep.’

Lastly, it should be noted that PL does not allow the $DAT_{[possessor]}$ argument to co-occur with $DAT_{[benefactive]}$ or $DAT_{[goal],}$ which suggests that the possessor argument has a complex derivation, possibly involving a raising from the *theme* position to *benefactive* position.[29] The co-occurrence restriction suggests that the *goal* argument acts as an intervener for this raising, hence the ungrammaticality of (20) (Öztürk, 2013).

(20) Xordza-k ma si bere

woman-ERG 1.DAT 2.DAT child.NOM

*m-i-ncir-u /*m-i-şkv’al-u

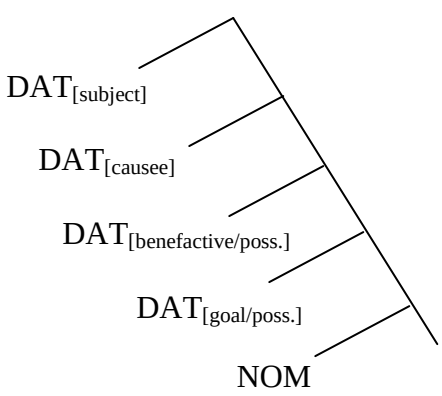
*“The woman made your child sleep for me / sent your child to me.”

*“The woman made my child sleep for you / sent my child to you.”

The discussion so far has shown the agreement accessibility hierarchy in (21).

[29] The evidence for this raising might be the fact that the possessor arguments also encode secondary affectee semantics in PL (Öztürk, 2013).

(21)



Bear in mind that the hierarchical asymmetry between the $DAT_{[subject]}$ and the others in (21) has been shown in Chapter 3. However, the hierarchy between non-subject DAT/NOM arguments was *not* justified on the basis of interpretational WCO and scope tests. But the empirical data on the agreement accessibility patterns readily illustrate that there is in fact a hierarchical organization between non-subject arguments, eliminating the hypothesis that PL has a non-configurational phrase structure regarding the organization of non-subject arguments.

5.2. The Interaction of Prefixal-Suffixal Person and Number Agreement

5.2.1. Double Nature of Prefixal Agreement

In PL, there is a complication regarding which argument can control the prefixal agreement. The minimal pair in (22) and (23) show that the prefixal agreement may express a joint person value as in (22) or a disjoint person value as in (23). Note that with the terms *joint* and *disjoint*, I refer to the value of the suffixal person agreement.

(22) Ma bere b-dzir-i *joint agreement*

1.ERG child.NOM 1-see-1.PST

'I saw the child.'

(23) Si ma m-dzir-i *disjoint agreement*

2.ERG 1.NOM 1-see-2.PST

'You saw me.'

While the joint value always reflects what is realized suffixally, the disjoint value is always different from what is expressed suffixally. The crucial empirical data against an independent valuation for the 'joint value' of the prefixal agreement is the fact that PL does have a gap in the agreement paradigm. The table in (24) illustrates this gap.

(24) The Gap in the Agreement Paradigm <s: subject; o: object >

	-i	-u
m-	2s:1o	3s:1o
g-	1s:2o	3s:2o
b-	1s:3o	*
0-	2s:3o	3s:3o

The impossibility of an inflection like < * b-X-u > indicates that the prefixal agreement does not search for a different value in case it fails to find a disjoint value. Rather, what the prefixal agreement does is merely reflect the value of the suffixal agreement.

In the following two sections (i.e. sections 5.2.1.1. and 5.2.1.2.), I will discuss the validity of the well-acknowledged syntactic approaches to the double nature of the prefixal agreement in PL.

5.2.1.1. Cyclic Agree (Béjar and Rezac, 2009)

The Cyclic Agree approach has been used to account for the prefixal agreement paradigm of Georgian (Béjar and Rezac, 2009). The prefixal agreement paradigm of Georgian is identical to the prefixal agreement paradigm of PL. Thus, I will adopt the analysis they propose for Georgian and show how it fails to account for the data in PL.

In the Cyclic Agree approach, the realization hierarchy and the double nature of the prefixal agreement have been the primary empirical concerns. Let us remember the fact that there is a realization hierarchy for the prefixal agreement. Descriptively speaking, the exponent hierarchy is m=g>b. Béjar and Rezac call the markers higher in the hierarchy, i.e. {m-} and {g-}, *first cycle* exponents while they call the marker lower in the hierarchy, i.e. {b-}, *second cycle* exponent. Thus, the example in (23), repeated as (25) below, exhibits the <first person> first cycle exponent while the one in (22), repeated as (26) below, exhibits the <first person> second cycle exponent. While the first cycle cross-references the person value of the *internal argument*, the second cycle reflects the person value of the *external argument*. In Cylic Agree, the second cycle is initiated if the first cycle fails to find a matching Goal or finds a deficient Goal (i.e. a third person argument that is commonly assumed to be 'personless'[30]).

(25) Si ma m-dzir-i
2.ERG 1.NOM 1-see-2.PST
'You saw me.'

[30] See Kayne (2000), Béjar and Rezac (2003) among others.

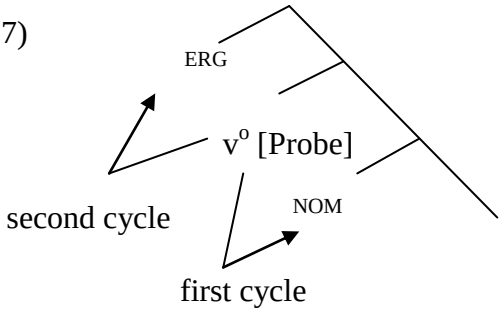
(26) Ma bere b-dzir-i

1.ERG child.NOM 1-see-1.PST

'I saw the child.'

In (27) below, the schematic valuation of the prefixal agreement Probe[31] is depicted. If a person value is found in the first cycle, that is if the NOM is first or second person, the second cycle does not occur, giving us (25). However, if the internal argument is third person, the second cycle is required to value the Probe, deriving (26).

(27)



The first empirical problem with the Cyclic Agree is regarding the agreement patterns attested with unaccusatives. In unaccusatives, PL, like Georgian, obligatorily exhibits the second cycle exponents. However, the prediction is that the first cycle exponents realize the person values of the internal argument, which is the sole argument of an unaccusative predicate. The example in (28) shows that this prediction is not borne out. If there is no active Probe in the unaccusatives, then what is responsible for the identical agreement realization in (28) and (29)? This is a problem that does not find an answer in the work of Béjar and Rezac (2009).

[31] Béjar and Rezac (2009) assume that the Probe is on the v head; I am adopting their analysis here.

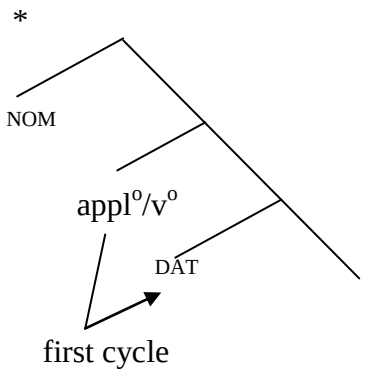
(28) Ma b-ğur-i / *m-ğur-i <predicted to be *first cycle [m-]*,
1.NOM 1-die-1.PST / 1-die-1.PST but *second cycle [b-]* is used>
'I died.'

(29) Ma k'oçi b-dzir-i <*second cycle* exponent>
1.ERG man.NOM 1-see-1.PST
'I saw the man.'

The second empirical problem is seen with DAT subjects. When there is a DAT subject, the internal argument is inaccessible for agreement in PL [32]. It appears that the first cycle must see the DAT subject and not the internal argument, as evidenced by the derivation yielding (30).

(30) Ma si m-a-limb-u
1.DAT 2.NOM 1-APPL-love-3.PST
'I loved you.'

(31)



[32] See Chapter 4 for the detailed analysis of the so-called Dative Intervention.

Notice that the dative subject is cross-referenced by the first cycle exponent {m-}. The structure to be assumed to derive (30) under Cyclic Agree is given in (31). However, (31) cannot be the structure for events with DAT subjects. We have seen evidence against (31) in Chapter 3 and Chapter 4. The DAT subjects are always higher than the NOM arguments.

If we were to conform to the fact that DAT subjects are higher than NOM under Cyclic Agree, we would yield the robustly ungrammatical form in (32) for (30). As the Probe will see the internal argument NOM in the first cycle, it would produce the agreement pattern in (32).

(32)	*Ma	si	g-a-limb-u
	1.DAT	2.NOM	2-APPL-love-3.PST
	'I loved you.'		

The third problem with Cyclic Agree is that it does not consider the interaction of the suffixal agreement with the prefixal agreement. There is no explicit or implicit discussion or prediction regarding the realization of suffixal agreement in Béjar and Rezac (2009). Thus, without further stipulation, it may not be able to exclude the outlawed derivation yielding the verbal inflection <*b-X-u> as it ignores the crucial fact regarding the joint agreement (i.e. its dependency on the suffixal person value).

Based on the discussion and the data in this section, I conclude that the Cyclic Agree approach makes empirically unjustified predictions and should not be preferred as a theory that is supposed to capture the double nature of the prefixal agreement. In the following section, I will present yet another well-acknowledged

account, namely the Multiple AGREE approach (Nevins, 2007) and discuss its validity.

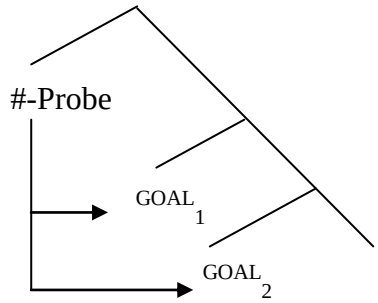
5.2.1.2. Multiple AGREE (Nevins, 2007)

Deriving from the co-occurrence and complementarity restrictions on the realization of multiple argument exponents, Nevins (2007) proposes a theory he calls Multiple Agree. In the Multiple Agree approach, a Probe is assumed to be able to copy the values of all matching Goals in its domain/path. He discusses a clear example of Multiple Agree at work, i.e. the omnivorous number agreement in Georgian where the plural exponent on the verbal complex can indicate the plurality of either the internal argument or external argument. The table in (33) summarizes the realization scenarios of plural exponent on the Georgian verbal complex. The schematic representation of Multiple Agree is given in (34). Notice that the Probe may simultaneously AGREE with any matching Goal in its domain. The $Goal_1$ does not create any intervention effect.

(33) Omnivorous Number in Georgian (Nevins, 2007)

External Argument	*Internal Argument*	*Plural Exponent*
PL	SG	YES
SG	PL	YES
PL	PL	YES
SG	SG	NO

(34)



Let us now assume that Multiple Agree is at work in the valuation resulting in the prefixal agreement in PL and look into what kind of a realizational hierarchy would be able to explain the double nature of the prefixal agreement. In (35) and (36), I present example realization scenarios to illustrate the variation of exponents across the case-value parameter.

(35) Disjoint Marker Controllers (in italics)

'>' = 'higher'	Prefixal Exponent	Prefixal Exponence	Suffixal Exponence
ERG:2> *NOM:1*	m-	1	2
ERG:2 > *DAT:1*	m-	1	2
DAT:1$_{[subject]}$ > NOM:2	m-	1	3 $_{[def]}$
DAT:1$_{[object]}$ > NOM:2	m-	1	2

(36) Joint Marker Controllers (in italics)

'>' = 'higher'	Prefixal Exponent	Prefixal Exponence	Suffixal Exponence
NOM:1	b-	1	1
ERG:1	b-	1	1
ERG:1>NOM:3	b-	1	1
DAT:3$_{[object]}$ > *NOM:1*	b-	1	1

To be able to see how disjoint and joint markers behave, let us compare the tables in (35) and (36). In (35), it appears that the first-person prefix {m-} is consistently disjoint (i.e. from the suffixal exponence) and it may cross-reference the

person value of DAT and NOM arguments. In (34), we see that the first-person prefix {b-} *cannot* be disjoint from the suffixal exponence. Rather, the joint first person maker {b-} seems to be able to occur if the value of the suffixal exponence is also first person.

Also notice that the joint marker {b-} may cross-reference the person value of ERG and NOM, but not DAT. As the Probe that results in the suffixal agreement exponence cannot see into DAT arguments, it is not possible for the joint marker {b-} to cross-reference the value of a DAT argument. This presents further evidence for the fact that the joint marker {b-} absolutely depends on the value of the suffixal agreement Probe.

The table in (36) makes it clear that for the first person marker {b-} to win, the suffixal exponence must reflect the first person, as well. In case of non-first person exponence in the suffixal agreement, the joint marker {b-} cannot win. The table in (37) shows that there is a hierarchy between the joint and disjoint markers. If a disjoint marker is eligible, the first person exponence in the suffixal agreement does not matter. For example in (37), the disjoint marker {g-} encodes the disjoint second person value and blocks the joint marker {b-}. Thus, we can identify two conditions for the realization of the joint marker {b-}: *the suffixal exponence must be first person* and *a disjoint marker should not be eligible.*

(37) Disjoint Marker Controllers (in italics)

'>' = 'higher'	Prefixal Exponent	Prefixal Exponence	Suffixal Exponence
ERG:1> *NOM:2*	g-	2	1
ERG:1 > *DAT:2*	g-	2	1
DAT:2$_{[subject]}$ > NOM:1	g-	2	3 $_{[def]}$
DAT:2$_{[object]}$ > NOM:1	g-	2	1

It must be clear from the discussion and the data above that there is a realizational interaction between the prefixal and the suffixal agreement. Iff the prefixal agreement fails to mark a disjoint value (i.e. if it is third person) and the suffixal agreement also has the first person exponence, can the joint marker {b-} win.

As mentioned above, the disjoint and joint markers do not exhibit a one-to-one relationship with specific case values. Let us now remember the variation of the prefixal agreement controllers across the case-value parameter, which is presented in (38). As (38) shows, there are two restrictions regarding which argument can control which type of markers.

(38) Joint & Disjoint Marker Controllers (Prefixal Agreement)

	NOM	*ERG*	*DAT*
Disjoint	yes	NO	yes
Joint	yes	yes	NO

The potential to be a controller of a disjoint or joint prefixal marker does not present a strict mapping between the type of the marker and a case value. Given the right locality configuration, any argument can control any marker type. We see only two restrictions on what can control what, both of which can be accounted by the locality restriction and the dependency of the prefixal agreement on the suffixal agreement exponence. The two restrictions are these: the ERG argument can never control the prefixal disjoint marker and the DAT argument can never control the prefixal joint marker. I have already touched upon the reason why DAT cannot control the joint marker under any configuration. Since the joint marker obligatorily depends on the exponence of the suffixal agreement and the Probe resulting in the suffixal agreement can never see into DAT arguments, it is not possible for the joint

marker to be controlled by the DAT argument under any circumstance. The other restriction is the ERG argument not being able to control the disjoint marker. This restriction simply stems from the locality configuration. Since ERG argument is always the subject and the highest argument, the Probe resulting in the suffixal agreement will always AGREE with ERG. Therefore, ERG can never control a disjoint value (i.e. a value that is different from the value the suffixal Probe finds)

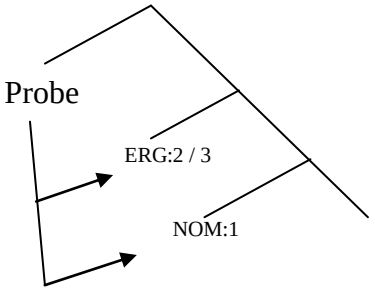
Thus, I conclude that the prefixal agreement markers in fact do not show any case restriction. But the two apparent restrictions on the prefixal agreement markers are epiphenomenal in that both can be derived from the locality facts and the dependency with the suffixal agreement exponence. There is no need to stipulate a case restriction for the disjoint and joint markers.

In the discussion so far, I have attempted to eliminate a potential savior of the Multiple Agree mechanism by showing that there is no readily available case restriction that can correctly predict which prefix will show up when. What is more intriguing is that it is not clear how the Multiple Agree system would derive the realizational hierarchy for the prefixal agreement if we simply ignore the suffixal agreement exponence (i.e. the value of the Probe that results in the suffixal agreement).

Let me illustrate the problem with an example configuration. Note that the hierarchy of arguments should not play a crucial role in the Multiple Agree approach as the Probe can AGREE with any matching Goal in its domain. In (39) is the configuration where the disjoint second person marker {m-} is controlled by the NOM argument. Assume that the Probe in the diagram results in the overt prefixal agreement, ignoring the suffixal agreement for now[33].

[33] I will discuss the identity and the syntactic positions of the Probes in section 5.2.3.

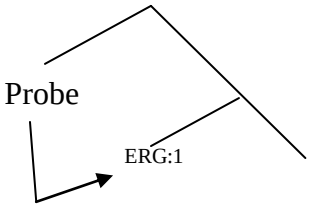
(39)

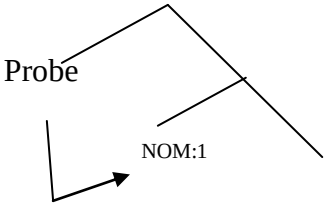


m-dzir-i	/	m-dzir-u
1-see-2.PST		1-see-3.PST
‘You saw me.’		‘S/he saw me.’

In (40) below are the configurations where the sole ERG and NOM arguments control the first person joint marker {b-}, i.e. in unergative and unaccusative structures, respectively.

(40)

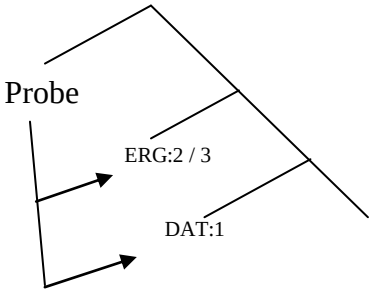




b-zd-i	/	b-ğur-i
1-pull-1.PST		1-die-1.PST
‘I pulled.’		‘I died.’

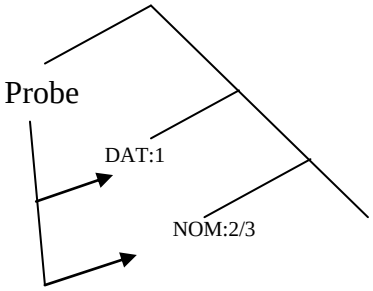
It appears it is not possible to predict merely from the case value of an argument whether the prefixal agreement will show a disjoint or joint marker. For instance, NOM controls the disjoint marker {m-} in (39) while it controls the joint marker {b-} in (40). To circumvent the problem, it is clear that we need to stipulate that the value of the NOM argument is indexed by the disjoint marker iff the Probe also gets a value from ERG. There is no motivation behind why NOM can control both disjoint and joint markers given the right configuration, and not the ERG. Another stipulation regarding the DAT arguments has to be made so that the system will choose disjoint markers to index their person values. The configurations in (41) and (42) illustrate how DAT arguments obligatorily control disjoint markers.

(41)



m-i-ç'v-i	/m-i-ç'-u
1-APPL-bake-2.PST	1-APPL-bake-3.PST
'You baked for me.'	'S/he baked for me.'

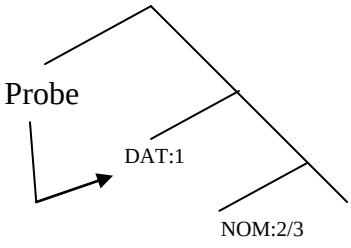
(42)



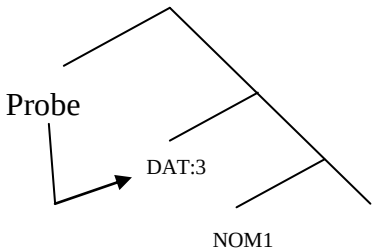
m-i-ğur-i	/m-i-ğur-u
1-APPL-die-2.PST	1-APPL-die-3.PST
'You died on me.'	'S/he died on me.'

The disjoint marker-selection of DAT arguments is obligatory and independent as can be easily seen with DAT subjects. With DAT subjects, the NOM object will not even be visible to the Probe as it is not accessible (i.e. as evidenced by the fact that it can never control any agreement marker). In (43), it is shown that the DAT subject controls the disjoint marker and the NOM argument is unable to control any disjoint or joint marker.

(43)



m-a-limb-u
1-APPL-love-3.PST
'I loved you/him/her.'



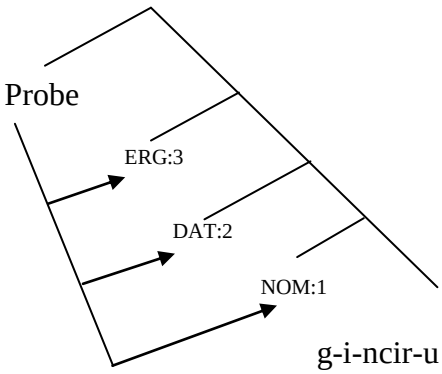
(*m-/*b-)a-limb-u
1_{disj}/-1_{joint}-APPL-love-3.PST
'S/he loved me.'

To sum up the lengthy discussion so far, we needed to make several stipulations to be able to account for the prefixal realization of agreement using Multiple Agree. In (44), I give a list of the stipulations we were forced to make if we assume the Multiple Agree and make the relevant Probe independent of the suffixal Probe. The picture we get is rather complicated and has the potential to pose a learnability problem.

(44) a. DAT may only control the disjoint markers.
b. ERG cannot control the disjoint markers.
c. NOM can control the disjoint marker if an ERG argument is present.
d. NOM is able to control both the disjoint and joint markers.
e. If a disjoint marker is eligible, the joint marker cannot surface.

Note that the stipulations in (44) may be able to derive the agreement patterns in predicates with two arguments; however, the predicates with three or more arguments will cause a serious problem that calls for another basic stipulation. Let us see the problem with the example in (45).

(45)



g-i-ncir-u *m-i-ncir-u
2-APPL-sleep-3.PST *1-APPL-sleep-3.PST
'S/he made me sleep, for you.'

In (45) above is the configuration where there are three arguments eligible for agreement. The one that obligatorily controls the prefixal agreement is the DAT

argument. But simply there is nothing amongst the assumptions of the Multiple Agree system that can predict this. Thus, we will need to add to the list in (44) another stipulation which reproduces the locality effect (that is not predicted by Multiple Agree) by means of a linear realizational hierarchy of the case values. That is, we have to claim that for realizational purposes, the DAT is 'higher' than the NOM. As the Multiple Agree approach in part eliminates the locality and the syntactic hierarchy effects by assuming that a Probe will AGREE with any matching Goal in its domain, we will need to recreate this effect by means of a post-syntactic realizational hierarchy which states that the DAT has the priority to control the disjoint marker if NOM also meets the requirements to control the disjoint marker. With this many stipulations required, I will suggest that the Multiple Agree approach fails to deliver promising results. To be able to account for the double nature of the prefixal agreement, it loses many intuitive aspects regarding agreement phenomena such as locality. Thus, I will assume Multiple Agree is not at work in the PL agreement phenomena.

5.2.2. Implications of the Prefixal Agreement in PL

In the previous section, I have investigated the syntactic alternatives, namely Cyclic Agree and Multiple Agree approaches, as two theories of agreement that promise to deliver an account of the double nature of the prefixal agreement. I have presented weak points of both approaches and given my reasons for not adopting them. In this section, I will present further observations regarding the interaction between the prefixal and suffixal person agreement.

Let us first remember the data on the suffixal agreement in PL. The Probe that is responsible for the suffixal agreement in PL (i.e. T^{o}) can see into the NOM and ERG arguments but not the DAT arguments. The prefixal agreement in PL on the other hand can cross-reference the value of DAT arguments, as well. The crucial property of the prefixal agreement for which a non-arbitrary account has been elusive so far is, however, the fact that it shows a double-nature, being compatible with both disjoint and joint markers. That is, the prefixal agreement may cross-reference the value of the suffixal agreement or it may cross-reference a disjoint value. This is not unique to PL in that the agreement in the Kamchatkan language Itelmen exhibits similar behavior. Itelmen has two agreement slots on the verbal complex like PL. One of the two agreement slots in Itelmen is compatible with both joint and disjoint markers like in PL (Bobaljik and Wurmbrand, 2001). I will take this property of the 'double' agreement in PL and Itelmen to be a non-random phenomenon. This type of between-slot dependencies which result in morphological realization known as *extended exponence/double marking* are typically considered to be an effect of post-syntactic phenomena rather than the syntactic derivation itself.

On the basis of the cross-linguistic data at hand, we can identify two types of agreement systems that exhibit overt agreement with more than one argument. In (46), I give the potential types of agreement systems that have *two* agreement slots and that may exhibit agreement with (at least) two arguments. Assume that the *primary agreement* slot roughly corresponds to the subject agreement while the *dependent agreement* roughly corresponds to object agreement.

(46) Type A: The dependent agreement may exhibit the value of the primary agreement when it *fails* to mark a disjoint value.

Type B: The dependent agreement exhibits a null/default value when it fails to mark a disjoint value.

PL and Itelmen, then, will be a Type A language where the dependent agreement exhibits double nature. In a Type A language, the realization of the dependent probe is subject to a post-syntactic/realizational hierarchy. In (47), I schematically represent the potential values that the dependent and primary agreement slots may cross-reference in Type A and Type B languages. Note that '>' represents the post-syntactic realizational hierarchy in (47). That is, if the exponent marking the value of the argument <y> is not eligible, Type A language will exhibit a joint exponent marking the value of the argument <x> which is already marked by the primary agreement. In Type B language, however, the dependent agreement will exhibit a null or default marker if it fails to show agreement for an argument. This abstraction and what I mean by 'post-syntactic realizational hierarchy' will be clear in section 5.2.4.

(47)

	$\text{Agreement}_{[\text{dependent}]}$	$\text{Agreement}_{[\text{primary}]}$
Type A	y>x	x
Type B	y>default/null	x

In (48), I outline the case values of the arguments whose person value may be cross-referenced by the dependent and primary agreement in PL. Notice how PL applies the schema for Type A language in (47).

(48)

	Agreement$_{[dependent]}$	Agreement$_{[primary]}$
disjoint value		
	NOM	ERG
	DAT$_{[non-subject]}$	ERG
	DAT$_{[non-subject]}$	NOM
	DAT$_{[subject]}$	default
joint value		
	ERG	ERG
	NOM	NOM

Notice that the joint values may reflect the values of the primary agreement, i.e. ERG and NOM, provided that the dependent agreement fails to find a disjoint value. If the dependent agreement finds a disjoint value, it cannot show the joint value. Now that we know enough about the interactional system between the prefixal and suffixal agreement in PL, we can finally discuss the identity and syntactic position of the Probes, which I will do in the following section.

5.2.3. The Identity and the Hierarchy of the Probes in PL

As PL is a language which has two agreement slots and may exhibit overt agreement with two arguments, I will simply assume there are two separate person Probes in the verbal functional structure of PL. The suffixal agreement slot exhibits tense-dependent allomorphs as discussed in Chapter 4, which suggest that the Probe that is responsible for the primary (subject) agreement is either on the tense head T^{o} or is local enough to induce the allomorphic variation dependent on the tense value. Determining the exact syntactic position of the other Probe that is realized prefixally is not that easy, though. The main reason is the fact that PL, being a primarily suffixing head-final language, does not have many prefixes, which makes it difficult

to predict its hierarchical position from the morphological linear position. The only thing that the prefixal agreement formatives may precede in the prefixal domain is the valency markers (i.e. the causative and applicative formatives) which belong to the event structure domain. From that information we can understand the Probe that is realized prefixally is higher than the thematic domain. However, the locality effects in the agreement valuation allude to a more precise hierarchical position for the Probe that realizes the prefixal agreement. First of all, there seems to be a local relation between the prefixal and suffixal agreement. In (49)-(51), the prefixal agreement markers seem to be realized contingent with the value of the suffixal agreement markers. The prefixal agreement formatives can mark a disjoint value as in (51) or it may jointly cross-reference the value of the ERG subject as in (49) or the value of the NOM subject as in (50).

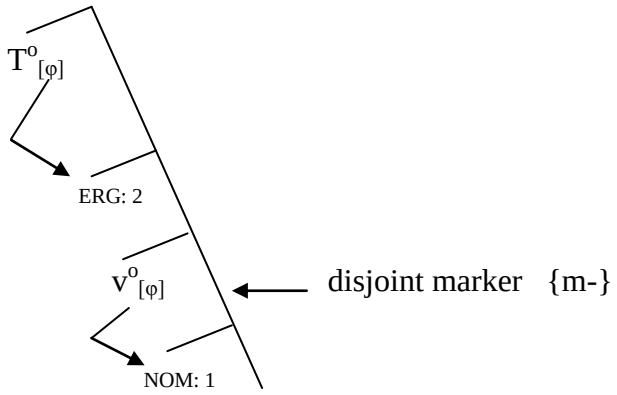
(49) Ma b-dzir-i
1.ERG 1-see-1.PST
'I saw him/her.'

(50) Ma b-ğur-i
1.NOM 1-die-1.PST
'I died.'

(51) Si ma m-dzir-i
2.ERG 1.NOM 1-see-2.PST
'You saw me.'

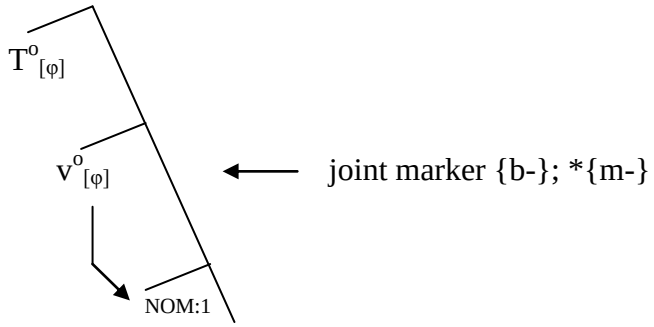
The example in (50) is especially important in that it shows that the prefixal agreement is still overtly realized with unaccusative predicates. In the standard applications of the agreement system (Chomsky, 1995), the two Probes, i.e. the subject and object agreement Probes, are located on the T^o and v^o, respectively. If we assume that the object agreement Probe is on v^o, then we must claim that the prefixal agreement will not be realized since the v^o will be absent or defective (i.e. there will be no Probe on it). Alternatively, if there is a Probe on the unaccusative v^o, we have to stipulate that it cannot cross-reference the value of the NOM argument with a disjoint marker. In (52), the relevant structure for the transitive sentence in (51) is given. Notice that the prefixal agreement realizes the value of the NOM argument with the disjoint marker {m-}.

(52)



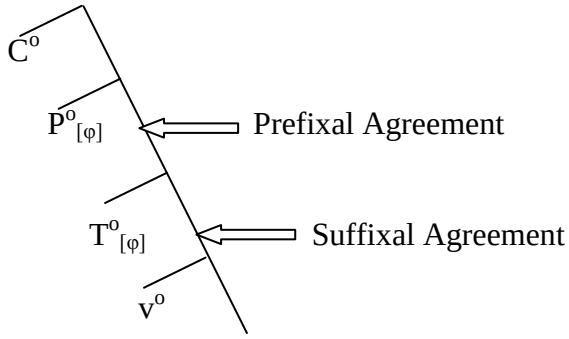
In (53), the representation of the unaccusative in (50) is given. Notice that the value of the NOM argument is to be cross-referenced by the joint marker {b-} and not the disjoint marker {m-}. Thus, what determines the variation in the realization of the Probe on v^o is a valid question that can be raised. If there is no Probe on v^o in unaccusative structures, then how do we still have a prefixal agreement exponent?

(53)



It is a fact that there is a realizational competition between the joint and disjoint markers for the prefixal agreement. It is also a fact that in both unaccusative and transitive structures, the prefixal agreement must surface. I will suggest that we may not be able to account for the interaction between the prefixal and suffixal agreement if the prefixal agreement is assumed to be on the v^o. We certainly need them in the same local domain to be able to model the realization interaction between the prefixal and suffixal agreement. Thus, to make the morphological realization competition in the prefixal agreement structurally viable, I will claim that the prefixal and suffixal agreement Probes are in a local configuration. Specifically, to correctly capture the impossibility of the disjoint-marker with the NOM argument of the unaccusatives, we need to make sure that the Probe on T^o is the first Probe that sees the NOM argument and not the object agreement Probe. Thus, I will claim that the object agreement Probe is higher than the subject agreement Probe on T^o. It seems to be impossible to determine the exact hierarchy of the object agreement Probe within the left periphery, though. The structure that I will assume for the PL verbal functional structure is given in (54).

(54)



In the following section, I will use the functional structure in (54) to derive the disjoint valuation patterns in transitive and intransitive paradigms with several potential thematic structures. However, before that, it will be relevant to discuss the predictions of the standard subject-object agreement configuration in (52) and the dependent-Probe-higher configuration proposed in (54). Assuming a post-syntactic linearization algorithm that would map the syntactic hierarchy into the linear precedence as conceptualized in Mirror Principle in Baker (1985), and more formally in the work of Kayne (1994), we predict that the higher nodes in hierarchy must surface as outer morphology in terms of linear precedence. The hierarchy of the relevant syntactic heads in (52) is $T_{[\varphi]}$>$v_{[\varphi]}$ >verb, which can lead to the linear orders verb+$v_{[\varphi]}$+$T_{[\varphi]}$ or $T_{[\varphi]}$+$v_{[\varphi]}$+verb. Thus, the standard agreement configuration predicts that the subject agreement formatives would always be outer than the object agreement formatives. The cross-linguistic survey on the linear order of morphemes first presented in Julien, (2002) and reported in Fuß (2005) show that this prediction is *not* borne out in that this merely appears to be a mild tendency rather than a strong restriction, as seen in (55).

(55) Julien (2002) and Fuß (2005)

subject agr. outer than object agr.	attested in 42 genera
object agr. outer than subject agr.	attested in 26 genera

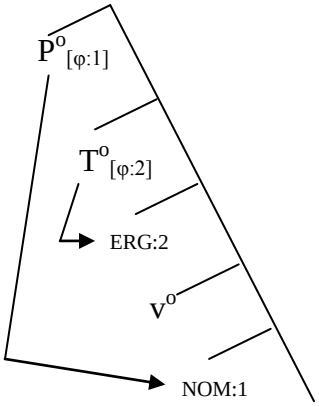
These cross-linguistic facts suggest that the positions of the agreement Probes cannot be universally fixed[34]. In fact, this is the conclusion that Julien (2002) reaches in her work on the attested linear morpheme orders. While morphemes marking other functional categories like aspect and modality seem to have cross-linguistically stable linear positions, the same stability cannot be asserted for agreement markers, which can occur almost anywhere on the verbal complex. Now that we have seen some evidence that justifies the proposal in (54), we can discuss how Probe-valuation works in PL.

5.2.3.1. Case and AGREE: Disjoint Valuation

In the previous section, I presented my reasons as to the relative hierarchical positions of the two Probes in PL functional sequence. While one of the Probes is on/above T^o, the other Probe is higher than the Probe on T^o. In (56)-(59), I give example derivations that present various valuation scenarios under the hypothesis that the prefixal agreement node is higher than the suffixal agreement node. Note that when a Probe fails to find a matching Goal, it shows the default value [def:3].

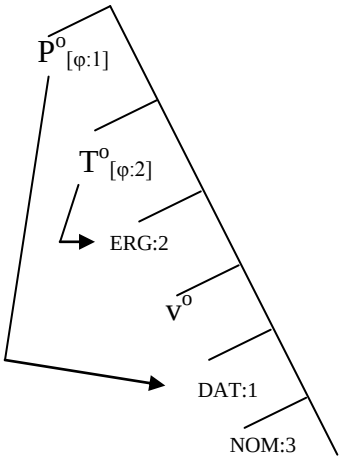
[34] Marantz (1992), Embick and Noyer (1999) among others treat case and agreement morphemes as *dissociated*, i.e. not part of syntax proper.

(56)



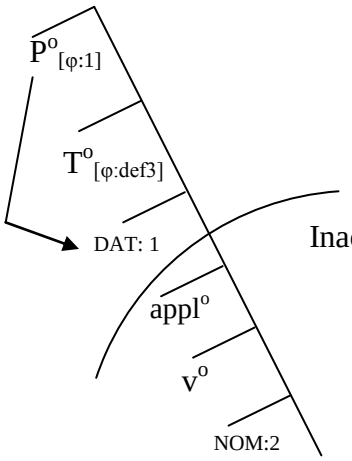
m-dzir-i
1-see-2.PST
‘You saw me.’

(57)



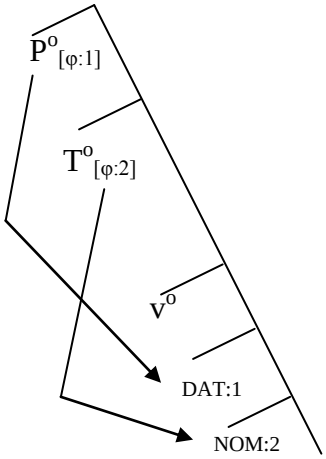
m-i-t’ax-i
1-APPL-break-2.PST
‘You broke it for me.’

(58)



m-a-dzir-u
1-APPL-see-3.PST
‘I was able to see you.’

(59)



m-i-ğur-i
1-APPL-die-2.PST
'You died on me.'

An important aspect of the agreement valuation scenarios illustrated in (56)-(59) is that it always results in the disjoint valuation of the two Probes, respecting locality. However, on the surface, all of the derivations seem to be violating locality if it is not assumed that Probes can be specified as to which case values they can see into. For instance in (56) and (57), the valuation seems to occur in a nested path structure where the ERG Goal between the higher Probe and the NOM Goal might induce an intervention effect. One way to circumvent this problem is to claim that Goals whose values have been copied by a Probe cannot intervene, as valuation renders them inactive-inert for further syntactic operations. Or alternatively, we can assume that ERG case value is simply invisible to the higher Probe. Likewise, in (58), it is the T^o that is more local to the DAT Goal; however, it simply cannot see into the DAT Goal. In all constructions with DAT subjects, it is the higher Probe that cross-references the value of the DAT Goal. None of the DAT Goals are visible to the Probe on T^o. Considering this fact, we can also account for the apparent locality violation in (59) where it is not the Probe on T^o, but the higher Probe that sees the non-subject DAT Goal.

If we acknowledge that the DAT and ERG case values are locally assigned inherent case values, we can simply assume that different Probes can be specified as to which case values they can see into. The table in (60) summarizes the Probe specifications in PL. According to the case visibility facts, DAT will never be visible to $T^{o}_{[\varphi]}$ and ERG will never be visible to $P^{o}_{[\varphi]}$.[35] Accordingly, DAT and ERG will not be an intervener to $T^{o}_{[\varphi]}$ and $P^{o}_{[\varphi]}$, respectively.

(60) Probe-Case Visibility

	$ERG_{[inherent]}$	$DAT_{[inherent]}$	$NOM_{[default]}$
$T^{o}_{[\varphi]}$ <suffixal agreement>	YES	NO	YES
$P^{o}_{[\varphi]}$ <prefixal agreement>	NO	YES	YES

The agreement accessibility hierarchy discussed in Bobaljik (2008) states that if an inherent case is visible to a Probe, the default NOM case must also be visible. The facts of case visibility in PL are neatly in line with the agreement accessibility generalization. The next section will discuss the joint valuation scenarios in PL.

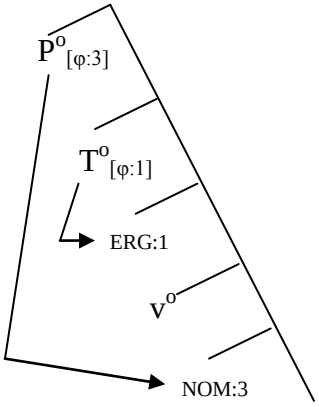
5.2.3.2. Is *Joint Valuation* Possible?

In the previous section, I have dealt with the disjoint valuation scenarios where the two Probes cross-reference disjoint values. However, the prefixal agreement in PL exhibits an interesting double-nature in that when the higher Probe that is realized as the prefixal agreement fails to find a value in its domain, it jointly cross-references

[35] The apparent joint valuation will be discussed in the following section. In this section, I merely focus on the disjoint valuation.

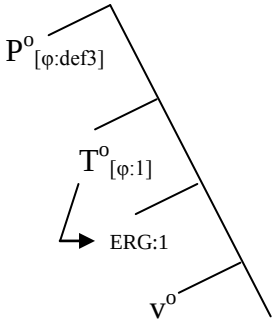
the value cross-referenced by the suffixal agreement. This is only possible for NOM and ERG arguments, as discussed before. Since DAT is always invisible to $T^{o}_{[\varphi]}$, it is not possible for the prefixal and suffixal agreement to jointly cross-reference the value of the DAT argument. Descriptively speaking, the prefixal agreement can exhibit a joint value, if it fails to find a first or second person Goal in its domain, i.e. when it finds a third person Goal or it finds no Goal in its domain. The example derivations in (61)-(65) illustrate the potential scenarios where P^{o} finds a third person Goal or shows default agreement when it cannot find any Goal. Again, assume that ERG is invisible to $P^{o}_{[\varphi]}$ and DAT is invisible to $T^{o}_{[\varphi]}$. It must be noticed that all the sentences given on the right exhibits the first person joint marker {b-} although the syntactic value of the $P^{o}_{[\varphi]}$ is [3]. This fact is crucial in the discussion that will follow. For now, assume that the valuation that results in $P^{o}_{[\varphi=3]}$ and $T^{o}_{[\varphi=1]}$ gives rise to the first person joint marker {b-}.

(61)



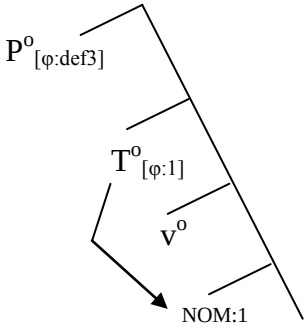
b-dzir-i
1-see-1.PST
'I saw him/her/it.'

(62)



v-inçir-i
1-swim-1.PST
'I swam.'

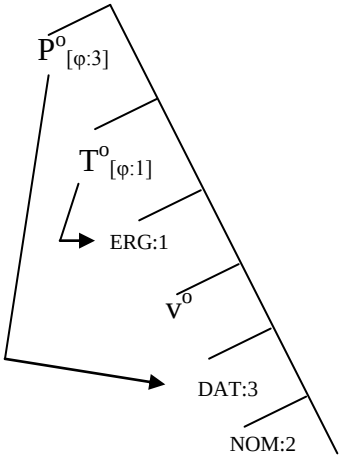
(63)



b-ğur-i
1-die-1.PST
'I died.'

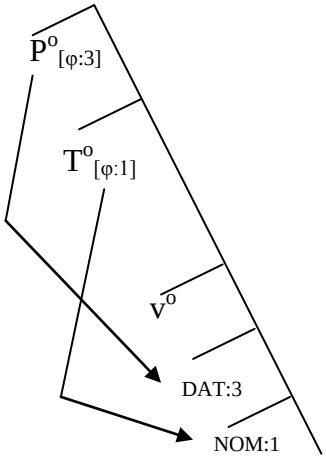
In the simple transitive as in (61) and unaccusative as in (62) and unergative as in (63), P^o always reflects the value [3]. As it is always T^o that is more local to the argument that shows suffixal agreement. (64) and (65) illustrate the same facts for derivations with applicative arguments.

(64)



v-u-ncir-i
1-APPL-make.sleep-1.PST
'I made you sleep for him/her.'

(65)



v-u-ğur-i
1-APPL-die-1.PST
'I died on him/her.'

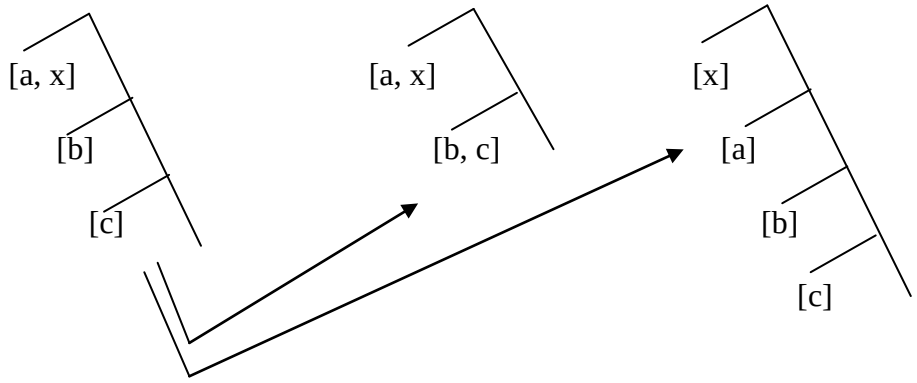
In all of the cases in (61)-(65), the first person NOM or ERG argument that is cross-referenced suffixally is also cross-referenced prefixally. Then, it is clear that the joint realization of the prefixal and suffixal agreement strictly depends on the condition that the higher Probe find no first or second person value in its domain, again respecting locality. Alternative hypotheses can be proposed to account for the joint prefixal and suffixal agreement realization. However, the before-mentioned condition on the joint agreement realization, i.e. *the third person value on* $P^{o}_{[\varphi]}$, suggests that the joint realization is *not* the result of an independent syntactic valuation but rather a realizational property of the prefixal agreement in PL. The joint marker {b-} surfaces iff the higher probe has the value [3] and the lower probe has the value [1]. In that sense, the joint marker {b-} on its own shows that the two Probes are local enough to induce a realizational dependency. Thus, I will disregard potential syntactic accounts discussed before, i.e. Multiple Agree or Cyclic Agree and instead discuss the post-syntactic alternatives based on the structural configuration proposed here. The three alternatives I will be discussing are the Distributed Morphology framework and two approaches in Nanosyntax.

5.2.4. Post-Syntactic Accounts

2.5.4.1 Distributed Morphology

The Distributed Morphology framework (Halle and Marantz, 1993, 1994) aims to develop an architecture of grammar which attempts to dispense with a generative lexicon and distribute the morphosyntactic operations that are commonly assumed to 'happen in the lexicon' into the various levels of the grammar. The lexicon functions as a mere list of vocabulary items while its 'generative' power is distributed among syntax, post-syntax (i.e. morphological structure), spell-out (i.e. lexicalization or vocabulary insertion), and morphophonology. Syntax operates on abstract syntactic features and generates a structure for further morphosyntactic operations like Fusion (i.e. merger of two heads into one terminal node), Fission (i.e. separation of features in a head into more than one terminal node) (Halle, 1997). After the morphosyntactic operations follows the vocabulary insertion, i.e. the matching of abstract syntactic features with the vocabulary items in the non-generative lexicon. The basic mechanism of vocabulary insertion is the competition of the vocabulary items based on the Subset Principle. The Subset Principle requires that the most specific vocabulary item that matches *maximally* all of the features in a terminal node win the competition and be inserted into the terminal node. The diagrams in (67) summarize a hypothetical example of Fusion and Fission operations that happen post-syntactically before the vocabulary insertion.

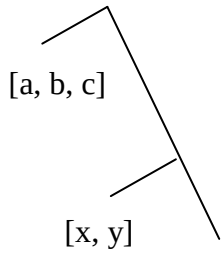
(67) *Syntax-Generated Structure* *Fusion* *Fission*



The diagrams in (68) summarize a hypothetical example of the competition for vocabulary insertion after the modifications to the syntax-generated structure of abstract features. In the competition for the spell-out of the syntactic structure in (68), the whole list of vocabulary items compete.

In the structure, the lower complex terminal node [x, y] has to be lexicalized by a vocabulary entry that matches all or a subset of the features in that node. Thus, the lower terminal node [x, y] can be lexicalized only by the vocabulary item /N/. The vocabulary item /J/ can never lexicalize the lower node as it contains the feature [z] that is not present in the node to be lexicalized. Likewise, the higher node [a, b, c] is to be lexicalized by the vocabulary item /L/ as it fully matches the features contained in the node [a, b, c] in the syntactic structure. The vocabulary item /M/ would never be able to win the competition for insertion into the higher node as it contains the feature [d] that cannot be matched. Also note that in case of a more specific vocabulary item like /L/, the vocabulary item /K/ cannot match the higher syntactic node [a, b, c].

(68) *Structure before Vocabulary Insertion* *Vocabulary Items*



/K/ ⟶ [a, b]

/L/ ⟶ [a, b, c]

/M/ ⟶ [a, b, c, d]

/N/ ⟶ [x]

/J/ ⟶ [x, y, z]

Now that we have seen the basic mechanisms of the Distributed Morphology framework (henceforth DM), we can discuss what it can offer as a post-syntactic solution to the double nature of the prefixal agreement, i.e. the prefixal-suffixal joint agreement possibility. PL suffixal agreement formatives exhibit a syncretism between first and second person as seen in the table in (24) showing the person agreement paradigm, repeated here as (69).

(69)

	-i	-u
m-	2s:1o	3s:1o
g-	1s:2o	3s:2o
b-	1s:3o	*
0-	2s:3o	3s:3o

As seen in (69), the suffix {-i} syncretically marks both first and second person values. The solution of DM for such cases is to allow a vocabulary item to win the competition to be inserted into two different asymmetrically-complex feature bundles.

First of all, assume that the person values are asymmetrically complex[36] and are represented according to their discourse values as in (70).

(70) [+ person; + participant; + speaker] first person

[+ person; + participant] second person

[+ person] third person

For expository reasons, I will represent the [person] feature as [3], [participant] feature as [2], and [speaker] feature as [1]. With the person value decompositions in (70), the syncretic agreement suffix {–i} can be claimed to have the specification [3 + 2]. Given that PL lexicon has no formative that is specified as [3 + 2 + 1], both the syntactic node that has first person value, i.e. [3 + 2 + 1], and the one that has second person value, i.e. [3 + 2] will be lexicalized by the syncretic suffix {-i}. While the node that expresses second person is fully matched, the node that expresses first person can only match a subset of its features. In (71) are the specifications of the suffixal agreement markers {-i} and {-u}.

(71) Vocabulary Items

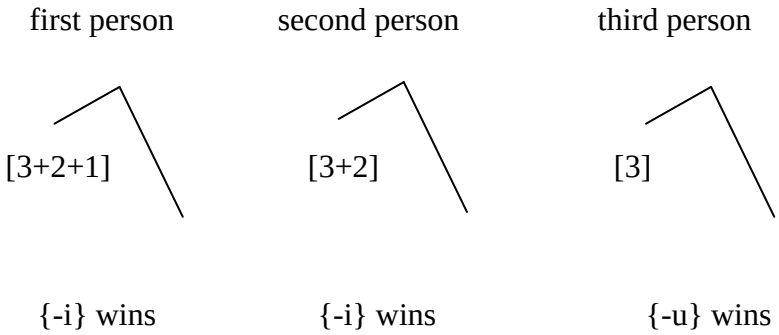
{-i} ⟶ [3+2]

{-u} ⟶ [3]

With the vocabulary items given in (71), the diagrams in (72) show which formatives win the competition, deriving the syncretism at hand.

[36] Alternatively, one could assume that they are symmetrically complex if the minus values are also considered to be part of syntax, e.g. third person →[+person; - participant; - speaker]. Here, I only consider one alternative.

(72)



Notice that both of these suffixal agreement formatives simultaneously express the past tense. Thus their feature compositions must contain the [past] feature, as well. This will be crucial in the discussion of the prefixal agreement markers. I repeat the specifications in (71) with [past] feature added in (73).

(73) Vocabulary Items

{-i} ⟶ [past + 3 + 2]

{-u} ⟶ [past + 3]

The set of prefixal markers that express a disjoint person value from the suffixal agreement value are {m-} and {g-}, which cross-reference first and second person values, respectively. The feature compositions of the disjoint prefixal markers are given in (74).

(74) Vocabulary Items

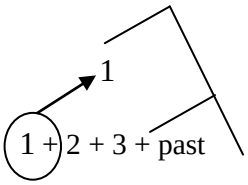
{m-} ⟶ [3 + 2 + 1]

{g-} ⟶ [3 + 2]

The joint agreement marker which marks the person value cross-referenced suffixally is {b-}, which denotes the first person value. The more important question is how to represent the joint marker {b-}, which only surfaces if the syntactic node cannot express the disjoint first and second person values, i.e. if {m-} and {g-} cannot be inserted. The problem at hand is both {m-} and {b-} marks the same person value in the same node but the condition on when they can surface is strict. There is a realizational hierarchy that can be formulated as "m=g>b": i.e. If {m-} or {g-} can be inserted, {b-} cannot. The obvious solution to this problem is to assume that {b-} lexicalizes only the feature [1] while {m-} lexicalizes the feature complex [3+2+1]. Then, the question is how the node happens to have the single feature [1] and as an extended value from the suffixal agreement node. The agreement paradigm in PL in (69) clearly shows that the joint marker {b-} can only surface if the suffix is {-i}.

At this point, DM presents a solution that makes use of Fission operation to derive the *extended exponence (i.e. double marking)* induced by the joint marker {b-}. Since {-i} is a syncretic form that is specified as [past + 3 + 2], it can never fully match the first person value in the suffixal agreement node. The feature [1] in the suffixal agreement node will remain unlexicalized which is normally tolerated according to DM assumptions. However, some languages might prefer to use Fission operations to create further nodes for vocabulary insertion for unmatched features. According to DM, this is what PL seems to do (to disambiguate the syncretic suffixal agreement possibly). The diagram below in (75) demonstrates the Fission operation that moves the unmatched [1] feature into the prefixal agreement node.

(75)



Fission moves [1] into the higher node:

{b-} is inserted into this node matching [1]

{-i} is inserted into this node fully matching [past+3+2]

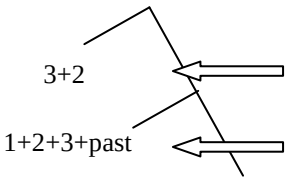
The Fission account of the double nature of the prefixal node is not free of problems, though. Consider the sentence in (76) where the suffixal agreement cross-references the second person ERG argument while the prefixal agreement cross-references the first NOM argument. The diagram in (77) represents the agreement nodes in the structure of (76).

(76) Ma si g-dzir-i

1.ERG 2.NOM 2-see-1.PST

'I saw you.'

(77)



{g-} wins, matching all the features in the node.

{-i} wins, leaving [1] unlexicalized.

For (77), one could also ask the question if the unlexicalized feature [1] is fissioned off to the upper node, deriving a complex node that has the features [3+2+1]. If the answer is yes, it is predicted that the disjoint marker {m-} wins the competition, resulting in the form {m-dzir-i}; however, the prediction is not borne out as seen in (76). The only way to circumvent the problem is to stipulate that Fission is only applicable if the upper node has no second or first person feature.

Another problem for the DM account is that the feature-wise complex terminal nodes are not hierarchically ordered. Thus, the competition for a complex

terminal node is blind as to the decision of which feature can remain unlexicalized. Assume the scenario in (78) where both vocabulary items appear to be eligible for insertion but only one can be inserted.

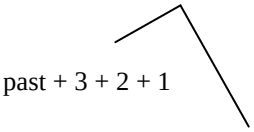
(78) Vocabulary Items

{-i} ⟶ [past + 3 + 2]

{-u} ⟶ [past + 3]

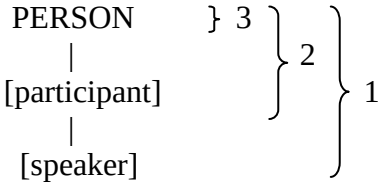
{m-} ⟶ [3 + 2 + 1]

{g-} ⟶ [3 + 2]



In (78) above, the node to be lexicalized is given on the left and the vocabulary items that compete for the lexicalization is given on the right. There is no vocabulary item that can match all the features in the node. Thus, the subset of the features in the node will be attempted to be lexicalized. We see that there are two candidates that can match the three features out of four features in the node. These two vocabulary items are {m-} and {-i}. Thus, it must be stipulated that some features need "matching" more than others. Feature geometric approaches have been developed within DM that attempts to capture the asymmetric behavior of the features in terms of matching requirement (Harley, 1994). See an example of feature geometry for person features in (79) below.

(79)



However, it is an established fact that the Grammar has a complex hierarchical organization. I believe restricting the vocabulary insertion to terminal nodes and allowing the possibility of feature-wise complex nodes that are not hierarchically organized create unnecessary complications in the architecture. Thus, a feature geometric approach as proposed in (Harley, 1994) seems to be necessary to prevent overgeneration within DM.

At this point, it may be relevant to discuss a criticism regarding DM discussed in Nanosyntax literature (see Caha, 2009). The morphological operations such as Fusion and Fission are claimed to be blind to lexical inventory of a language. It has been argued that this creates a redundant acquisitional burden for the learner by imposing both a Fusion rule to create a complex terminal node and a complex vocabulary entry to be inserted into the complex node during spell-out. Moreover, it has been suggested that destroying the syntactic compositions by rules like Fusion and Fission also complicates the competition for vocabulary insertion. Then, an alternative that makes use of less machinery to derive the same set of empirical facts may be preferred. Nanosyntax is a recent attempt to achieve that. The reader should evaluate to what extent it is successful in attaining the same level of empirical coverage with supposedly less machinery. I will be impartial regarding this as I merely aim to show that post-syntactic accounts are available that can derive the empirical facts that syntactic accounts may not be able to derive.

2.5.4.2.Nanosyntax: Phrasal Spell-out

In the previous section, I have reviewed DM and proposed a sketchy analysis using the spell-out mechanism of DM. I have tried to account for the syncretism in the

suffixal agreement markers and considered the Fission rule and some potential drawbacks. In this section, I will attempt to provide an alternative account that shares some basic assumptions with DM but differs in some other.

In Nanosyntax (Caha, 2009; Starke, 2010), syntax is assumed to have all the generative power while lexicon is seen as a "dumb repository". As in Distributed Morphology, insertion of lexical items is assumed to be post-syntactic (unlike Minimalism (Chomsky, 1995) which assumes early lexical insertion). Syntax operates on abstract linguistic features by MERGE as in DM. The merger order of abstract linguistic features is subject to a universal functional sequence (*fseq*). For instance, in no derivation can the merger of [past] precede the merger of [imperfective]. The idea of a universal functional sequence builds on the related work in the cartographic approach to language (Cinque, 2002).

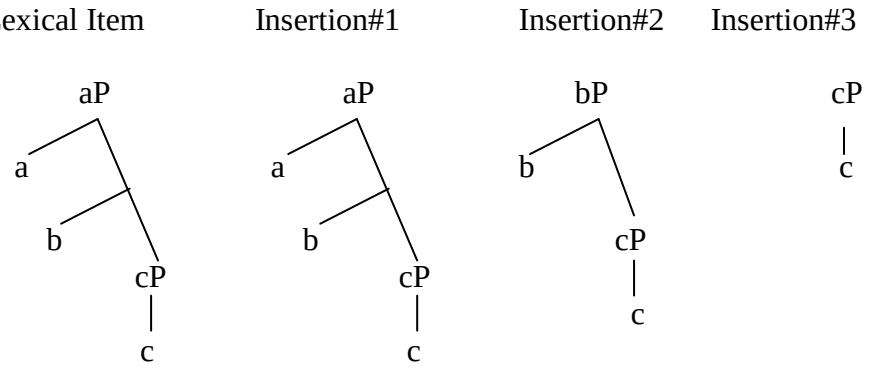
Nanosyntax *disallows* hierarchically unordered lists of features merged as one syntactic head. That is, no pre-syntactic merger of syntactic features (i.e. into 'feature bundles') is available. Each syntactic feature must be merged in syntax according to *fseq*. Yet, decomposing syntactic derivations into 'nano' bits has a profound consequence in particular for the shape of the lexicon. Syntactic terminals are mostly *sub-morphemic*. That is, the listed 'words' are mostly phrasal entries in the lexicon and when they are matched with the syntactic trees, they can *span* more than one terminal.

In DM, a lexical item can only be inserted into a terminal node; however, Nanosyntax assumes that both terminal and non-terminal nodes can be potential targets of lexical insertion, hence the *phrasal lexicalization*. The idea of phrasal lexicalization comes with the assumption that lexicon can store lexical items that are hierarchically organized. Nanosyntax raises an important question: If syntax can

generate hierarchical structures, what is it that bans the lexicon from storing phonological forms that correspond to a phrase? Assuming that this question will not get a valid answer that proves otherwise, *phrasal lexicalization* must be an option in grammar.

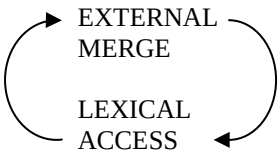
DM assumes that some features in a complex terminal node can remain unmatched, and thereby proposes the spell-out mechanism of Subset Principle. Nanosyntax, on the other hand, assumes the *Exhaustive Lexicalization Principle* which requires that all features in the syntax-generated structure be matched with a lexical item. However, unlike DM, Nanosyntax claims that a lexical item inserted to a non-terminal node can "shrink downwards", i.e. the highest feature(s) can remain unmatched. Thus, Nanosyntax recognizes the Superset Principle as the spell-out mechanism. The diagram in (80) illustrates the Superset Principle at work. The phrasal lexical item that corresponds to aP can be inserted into three potential syntactic structures given in (80).

(80)



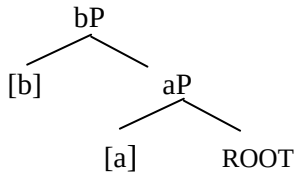
In the version of Nanosyntax articulated in Pantcheva (2011), each instance of MERGE is followed by lexical access, schematized in (81). Any time a new feature is introduced into the derivation, syntax looks for a matching lexical entry in the lexicon.

(81)



The model above is referred to as *cyclic lexicalization* (i.e. lexical matching of abstract syntactic features). See an illustrative hypothetical derivation in (82) below:

(82)



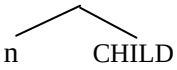
MERGE-1= [a] + ROOT
ACCESS LEXICON= Match aP

MERGE-2= [b] + aP
ACCESS LEXICON= Match bP

Assume the lexicon contains the lexical entries in (83).

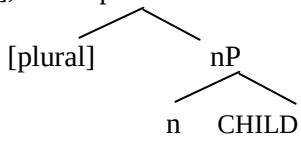
(83)

Lexical Entry=A

< [tʃaɪld], 

>

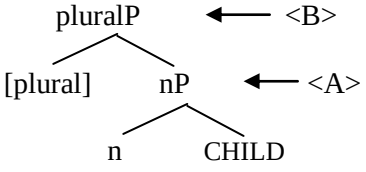
Lexical Entry=B

< [tʃɪldrən], 

>

In (84) is the nanosyntactic derivation of the irregular plural form of *child.* Since B entry (syntactically) contains A, the insertion of B overrides A.

(84)



MERGE= n + CHILD
ACCESS LEXICON= Match nP ~ A

MERGE= [plural] + nP<A>
ACCESS LEXICON PluralP ~ B

Now let us see how the derivation of the regular plural would follow. Assume the lexical entries in (85).

(85)

Lexical Entry=C

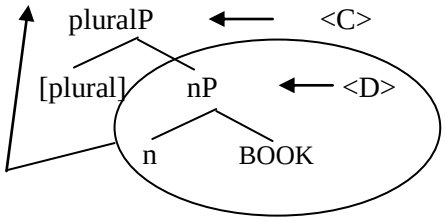
< [s], pluralP >
|
[plural]

Lexical Entry=D

< [bʊk], nP >
n BOOK

Given the lexical entries in (85), the derivation must proceed as in (86). Since the phrasal lexical entry C does not contain D, D must evacuate and adjoin to the root projection. Only after D evacuates, can C get inserted.

(86)



MERGE= n + BOOK
ACCESS LEXICON= Match nP ~ D

MERGE= [plural] + nP<D>
ACCESS LEXICON= PluralP ~ C

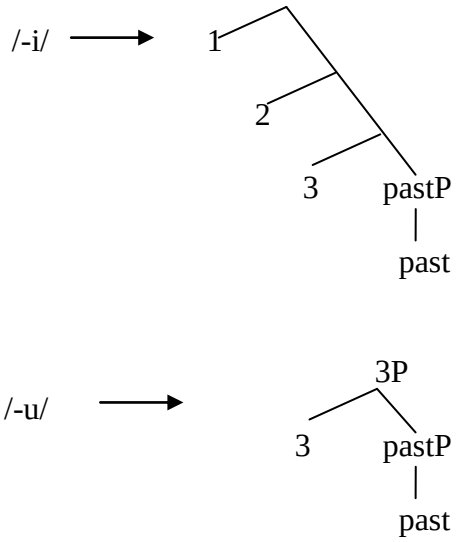
The evacuation movement leaves a trace which is ignored for lexicalization purposes. The evacuation of the nP creates a constituent that can be lexicalized by the entry D and also derives the suffixation of the plural marker, [bʊk] + [s].

Assuming the *cyclic phrasal lexicalization* system in Nanosyntax, in theory, there should be no need for structure modification operations like Fusion and Fission. Let us now see how cyclic lexicalization derives the same set of empirical facts discussed for DM.

In (87) are the lexical entries that realize the suffixal agreement. Notice that the structure that corresponds to the second person and the one that corresponds to the first person are both lexicalized by /-i/. The first person structure will get a full

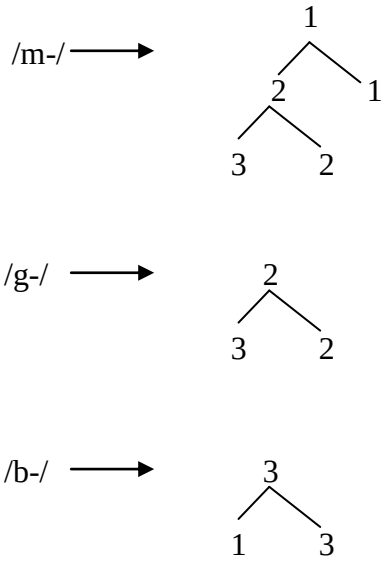
match by /-i/; however, /-i/ will shrink according to Superset Principle for the second person structure.

(87)



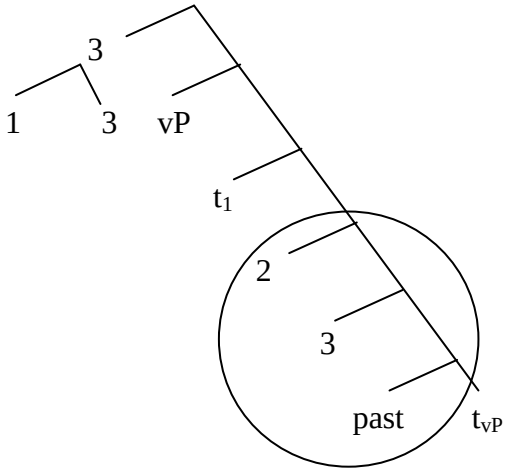
The prefixal agreement, as discussed before, is compatible with both disjoint and joint markers. Let us first see how disjoint and joint markers are to be represented. In (88), while suffixes are phrasal lexical entries and may trigger evacuation movement, prefixes are non-phrasal lexical items and correspond to heads. Iff a prefix is to realize a complex feature set, we deal with head-adjunction structures, hence the complex prefixal structures in (88).

(88)



In (89) below, there is an example derivation of joint agreement in PL. The lower Probe's feature [1] is lexicalized together with the higher Probe's feature [3].

(89) b-dzir-i = I saw it.



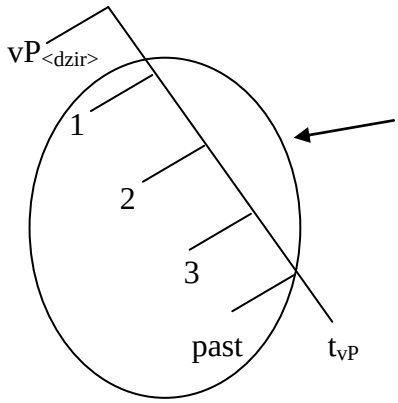
/dzir/ ⟶ [vP…]

/b-/ ⟶ [3[1]]

/-i/ ⟶ [2[3[past]]]

The derivation in (89) is admittedly quite complex as it heavily relies on spell-out driven evacuation movements to derive the correct linear order of morphemes. Upon the completion of vP and its spell-out, the tense feature is merged and valuation happens, i.e. AGREE copies the first person value from the Goal. The spell-out is attempted to lexicalize the merged person values together with the tense feature [past]. The lexical item /-i/ can lexicalize everything above vP provided that vP evacuates to the root node, which produces the derivational step in (90).

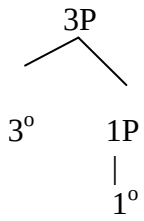
(90)



/-i/ matches [1[2[3[past]]]]

At this point of derivation, *fseq* requires that the higher Probe $P^{o}_{[\varphi]}$ be inserted. Then, the Probe copies the value via AGREE. If the valuation results in the mere value of [3], which I assume is the default identity of the Probe, an evacuation movement of the lower feature [1] is triggered to lexicalize the feature [3] together with [1]. The movement induces a head-adjunction structure as seen in (89); hence a prefix. The type of the movement is always determined by the shape of the lexical entry that is a potential match. In a sense, the motivation for the movements is the spell-out itself, which suggests that the movements are not to be learnt but they are the computational outcome of the lexical inventory of a language. All the linguistic variation is assumed to be derivable from the lexicon. To illustrate, if PL lexicon had the phrasal entry in (91) for {b}, the realization would be as in [*dzir-i-b], not [b-dzir-i], for the triggered movement would not produce a head-adjunction structure.

(91)



However, the complexity of the derivation and the immense amount of movements required in phrasal lexicalization system make even the testability of the mechanism challenging[37]. Another issue with the phrasal lexicalization system is the compatibility problem with the Phase Theory (Chomsky, 2001). The fact that every external merge initiates a cycle of spell-out, i.e. a phase, eliminates the conceptual

[37] However, the phrasal lexicalization mechanism is open to the listing of the frequent complex utterances in the lexicon. Each spell-out attempt may not necessarily invoke movements. It is quite possible that previously listed forms match the syntax-generated structures directly.

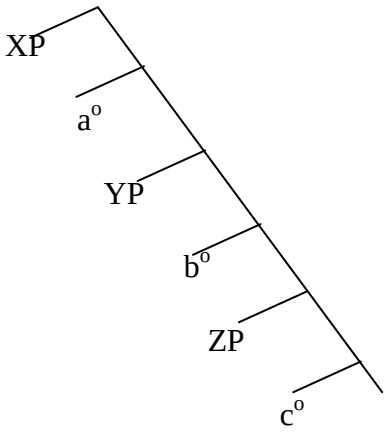
motivation behind (Chomsky, 2001). For these reasons, I will discuss a considerably simpler proposal within Nanosyntax in the following section.

2.5.4.3. Nanosyntax: Spanning

In addition to the cyclic phrasal lexicalization approach of Pantcheva (2011) which makes ample use of spell-out driven movements to derive the correct linear morpheme order, an alternative approach that does not invoke spell-out driven movements has been proposed within Nanosyntax. This approach referred to as "spanning" has been developed by Svenonius (2012). In the spanning model, a stretch of head sequence (i.e. multiple heads) can be lexicalized by one morpheme given that this morpheme is specified for all of these heads and there is no intervening head for matching purposes.

There is no need for phrasal movement or head movement. Morphosyntactic operations like Fusion are not evoked in the spanning approach, either. Spanning, however, is a spell-out mechanism that does not try to derive the linear order facts by movement unlike Phrasal Lexicalization. As in the phrasal lexicalization model, morphemes are specified for their linear positioning in Spanning. But this specification is a direct one regarding linear positioning, not an indirect instruction for a specific type of movement unlike in phrasal lexicalization. In (92), I illustrate how spanning works.

(92) Syntactic Structure Lexical Item



/K/ → [a-b-c]

/L/ → [a-b]

/M/ → [c]

/N/ → [a-c]

/P/ → [b]

In (92), the spell-out works on the Union Principle which requires that the morpheme that can 'span' the maximum number of heads win provided that it does not *skip* a head. For instance, given the lexical items on the right, the morpheme /K/ will win the competition as it can span the whole head sequence [a[b[c]]] without skipping any head. Notice that the phrasal objects in the specifier positions do not intervene since they are assumed to constitute separate spell-out domains. In the absence of the lexical item /K/, the lexical items /M/ and /L/ will jointly lexicalize the head sequence deriving a linear order where the /L/ is outer than /M/. The lexical item /N/ can never lexicalize the given head sequence as it skips a head, violating the basic constraint on spanning. Also note that in the absence of /K/, the lexical item /P/ cannot win as /L/ can match a bigger span, blocking the insertion of /P/. Now let us see how spanning can derive the PL agreement markers. In (93), I give the specifications for the agreement markers of PL. In (94), I give an example spell-out of agreement nodes using spanning.

(93) /-i/ [1-2-3-past]

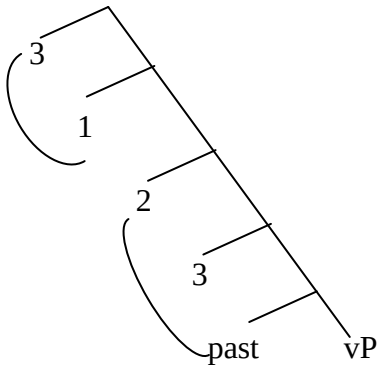
/-u/ [3-past]

/m-/ [1-2-3]

/g-/ [2-3]

/b-/ [3-1]

(94)



/b-/ [3-1]

/i-/ [2-3-past]

b-dzir-i
1-see-1.PST
'I saw it.'

Given the structure in (94) and the lexical items in (93), feature/head sequence [3-1-2-3-past] can only be lexicalized jointly by the morphemes /b-/ and /-i/. Due to the Union Principle in Nanosyntax, the biggest matches win. Since there is a match that can lexicalize the head sequence [3-1], the morpheme /-i/ shrinks down to lexicalize [2-3-past] (i.e. instead of [1-2-3-past]) so that the sequence [3-1] can be lexicalized by the morpheme /b-/.

5.2.4.4. The Implications of Post-syntactic Accounts

In the discussions in the last two sections, I have aimed to show that it is possible to derive the interesting double-nature of the prefixal agreement without evoking any extra syntactic (or even morphosyntactic) operation that forces double-valuation. Instead, the parametric variation among languages regarding the realization of the

object agreement slot can be captured with post-syntactic spell-out mechanisms. Although I have tried to point to some issues, I have not aimed to prove which spell-out mechanism is better in any way; the reader may evaluate the explanatory power and the validity of the three post-syntactic approaches that I have discussed for the facts of PL.

In the section 5.2.2., I have discussed the variation between languages with respect to the realization of the object agreement slot. In languages like PL and Itelmen, where the object agreement slot can host subject agreement formatives in addition to object agreement formatives, the two Probes must be local enough to induce the double-compatibility. That is, the two Probes must be in the same spell-out domain so that a spell-out competition in the object agreement slot is possible. If the object agreement Probe is on v^o, i.e. lower in the structure, we do not predict any such competition effect as the two slots will not be in a local spell-out domain. This is a prediction that needs to be tested against empirical data from various applicable languages.

5.2.5. Number Agreement in PL

In PL, number agreement exhibits an interesting property in terms of accessibility. Notice the asymmetry in number agreement accessibility in (95) and (96). While the third person plural ERG subject can agree in number in (95), the third person plural NOM object cannot agree in number in (96).

(95) Bere-pe-k ma m-dzir-es

child-PL-ERG 1.NOM 1-see-3.PL.PST

'The children saw me.'

(96) Ma bere-pe b-dzir-i-(*t)

1.ERG child-PL.NOM 1-see-1.PST-(*PL)

'I saw the children.'

This does not stem from the inaccessibility of NOM arguments for number agreement as (97) shows. When the NOM argument is the subject, it can agree in number.

(97) Bere-pe ğur-es

child.PL.NOM die-3.PL.PST

'The children died.'

Also, the asymmetry is not dependent on the inability of objects to agree in number. Notice in (98) that the second person plural NOM object, which also controls the prefixal person agreement as opposed to the third person plural NOM object, *does* agree in number.

(98) Ma t'k'va g-dzir-i-t

1.ERG 2.PL.NOM 2-see-1.PST-PL

'I saw you (pl).'

The data in (95)-(98) may imply that the number agreement with non-subject arguments is parasitic in nature. That is, it depends on the prefixal person agreement. When there is no person agreement with a non-subject argument, number agreement seems to be impossible, as well. The sentence in (99), in contrast to (98), shows that in case of a DAT subject, the NOM object can agree neither in person nor in number.

(99) Ma t'k'va m-a-limb-u/*-es/*-i-t
1.DAT 2.PL.NOM 1-APPL-love-3.PST/*3.PL.PST/*2.PST-PL
'I loved you (pl).'

Another evidence for the parasitic nature of the agreement is given in (100). When the prefixal agreement agrees with a DAT object, the person value of the lower NOM object cannot be cross-referenced. Thus, it is predicted that the number agreement with the NOM object will not be available in this configuration. The prediction is borne out as seen in the impossibility of plural marking on the verbal form in (100).

(100) K'oçi-k ma t'k'va m-ots'ir-u/*-es
man-ERG 1.DAT 2.PL.NOM 1-show-3.SG.PST/*-3.PL.PST
'The man showed you(pl) to me.'

Thus, there is ample evidence that at least some instances of number agreement in PL is person-parasitic. There is also apparent evidence suggesting a subject/object asymmetry for third person arguments, as evidenced by the accessibility asymmetry in (95)-(96). However, I will claim that it is *not* the

grammatical function that determines this accessibility asymmetry but merely the argument hierarchy. Although it is third person, notice how the non-subject benefactive DAT argument can agree in number in (101) but not in (102).

(101) Bere-pe-s oxori mo-a-rg-*es*
child-PL-DAT house.NOM PV-APPL-build-*3.PL*.PST
'(A) house is built for the children.'

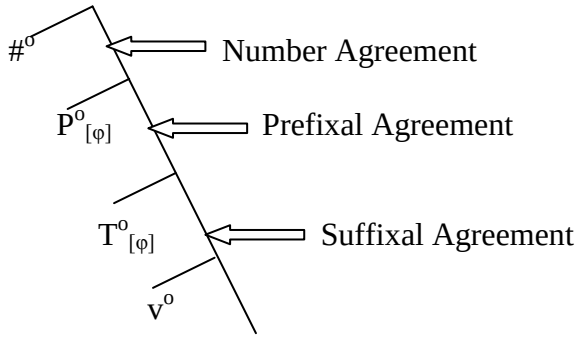
(102) K'oçi-k bere-pe-s oxori mo-u-rg-u/*-*es*
man-ERG child-PL-DAT house.NOM PV-APPL-build-3.PST/**3.PL*.PST
'The man built (a) house for the children.'

In PL, it is a fact that the plurality of the highest argument can always be cross-referenced regardless of its person value or grammatical function. But the number value of the lower arguments can only be person-parasitically cross-referenced. If the person value of the lower cross-referenced argument is second or first person, its plurality can also be cross-referenced. At this point, we find a piece of evidence for the claim that default value (perhaps the syntactic identity) of a person Probe is [3]. Within this approach, a Probe does not need to copy anything from the matching Goal if the Goal is third person. We can claim that there is simply no valuation taking place if the matching Goal only has the person value [3]. But the third person Goal is still visible and is an intervener for the lower Goals.

Using this approach, we might have a non-random explanation for the asymmetry between the second/first and third person arguments in terms of number agreement. Using the structure in (103), we can derivationally assume that

immediately after the MERGE of the person values of the prefixal agreement comes the MERGE of number values. If the prefixal agreement Probe provides the structure with the 'parasitic' plural value as a result of the person valuation of $P^{o}_{[\varphi]}$, there will not be a second probing for a number value.

(103)



In a sense, the plural value of a second or first person argument 'tags along' when the person valuation happens. If there is no plural value merged in the structure, there will be a number probing which will always find the highest Goal. Since this Goal will intervene for the lower Goals, if both parasitic number agreement and true number probing strategies fail to find a plural value, the verbal inflection cannot show a plural marker.

Thus, although it is morphologically indistinguishable, there are two distinct sources for the overt number agreement in PL. One is parasitic number agreement while the other is the pure number agreement that cross-references the plurality of the highest Goal.

Let us now see the potential valuation scenarios that determine if the verbal form will show plurality or not. In (104) below is the illustrative table showing when there may or may not be the plural exponence. Notice the dependency on the prefixal

exponence, i.e. the tagging along of the plural value, and also the fact that the highest Goal's plurality is always marked.

(104)

ERG >	DAT >	NOM	PLURAL EXPONENCE	PREFIXAL EXPONENCE
3.SG	-	2.PL	YES	2
3.PL	-	2.SG	YES	2
3.PL	-	2.PL	YES	2
-	-	3.PL	YES	(no valuation)
3.PL	-	-	YES	(no valuation)
	3.PL	3.SG	YES	(no valuation)
3.SG	-	3.PL	NO	(no valuation)
3.SG	3.PL	3.PL	NO	(no valuation)
3.SG	1.SG	3.PL	NO	1
3.SG	1.SG	2.PL	NO	1

To reduce the complexity of the table above, let me now discuss the valuation scenarios in a derivational sense. The MERGE of the plural value [PL] can be due to two sources. It may be provided as a result of the parasitic copying of the [PL] value in the first or second person Goal that the $P^{o}_{[\varphi]}$ finds. Or it may be the true number Probe $\#^{o}$ that finds the [PL] value in the highest Goal. If both strategies fail to find [PL], there will not be a plural exponence on the verbal complex. Therefore, derivationally speaking, the parasitic number agreement precedes the true number agreement in PL. Let us now see when the number probing will be initiated. I list these situations in (105).

(105)

a. $P^{o}_{[\varphi]}$ fails to find a Goal.

b. $P^{o}_{[\varphi]}$ finds a Goal; however, it is SG.

c. $P^{o}_{[\varphi]}$ finds a PL Goal; however, it is third person. As there is no valuation between the $P^{o}_{[\varphi]}$ and the Goal, there is no parasitic copying of the [PL] value.

Assuming that one of these scenarios in (98) has taken place, the derivation will Probe down for a number value, i.e. [PL], and find the highest Goal in its domain[38]. In the majority of the cases, this will be the ERG, DAT or NOM subject. But in some cases where there is a non-subject DAT argument, we can indeed see the effect of the highest argument in PL, which is not directly linked to the grammatical function but to the syntactic locality, i.e. the argument hierarchy. At this point, I will present a piece of data that confirm the prediction of the analysis sketched above. The sentence pair in (106) and (107) shows that it is the syntactic locality (i.e. not the grammatical function) that determines whether or not there will be plural exponence on the verbal complex.

(106) Puc-epe ğur-es
cow-PL.NOM die-3.PL.PST
'The cows died.'

(107) Ma puc-epe m-i-ğur-u/(-*es)
1.DAT cow-PL.NOM 1-APPL-die-3.(*PL).PST
'My cows died.'

[38] In the Multiple AGREE approach, Nevins (2007) proposes a hypothesis which allows a Probe to match all the Goals in its domain. In this way, Multiple AGREE can capture the phenomenon referred to as *omnivorous number agreement*. However, one should note that it does not have any prediction regarding the impossibility of number agreement with the lower third person arguments. It is a fact that PL only allows number agreement with a third person argument iff it is the highest argument in the domain of the Probe. I have chosen not to stipulate this restriction in the proposal discussed here. Instead, I have claimed that the plural exponence may have two separate sources, i.e. either as parasitic on person or as pure number agreement. The proposal here may not be the best solution ever; however, it is more in line with the empirical data at hand.

In (107) the highest argument effect and parasitic number agreement effect both fail to deliver the plural exponence. In the derivation, $P^{o}_{[\varphi]}$ finds the highest goal DAT argument which is first person but singular. Although valuation takes place, there is no [PL] value that can be copied parasitically. Thus, the number probing is initiated which again finds the highest argument, i.e. a singular DAT. Therefore, the DAT argument blocks the number agreement with the lower NOM. While the number agreement with NOM is possible in (106), it is blocked by the DAT above it in (107). In (107), both strategies of number agreement fail to find the [PL] value and the verbal complex cannot cross-reference any plural exponence.

However, it should be noted that the number agreement phenomena I have been discussing so far merely considers the possibility of number agreement. The optionality of number agreement in some cases is attested even though it is subject to extensive dialectal variation. Therefore, I will not be discussing the variation regarding the optionality of number agreement and conclude here the discussion of this sketchy analysis of number agreement in PL.

5.3. Summary

In this chapter, I have first shown that the non-configurational properties in the organization of non-subject arguments discussed in Chapter 3 should be epiphenomenal as the agreement accessibility hierarchy clearly shows that there is as hierarchical organization for non-subjects in PL, as well.

In the rest of this chapter, I have attempted to show the interaction between prefixal and suffixal agreement in PL. I have argued that there are two person Probes which are specified for which case value they can see into. I have claimed that the

Probe that is realized prefixally is hierarchically above the Probe that is realized suffixally. As evidence to that, I have discussed the agreement pattern in unaccusative predicates.

I have shown that the prefixal person Probe has a double nature as it is compatible with disjoint (suffixal person-independent) and joint (suffixal person-dependent) agreement markers. This phenomenon has received well-acknowledged syntactic analyses like Cyclic Agree (Béjar and Rezac, 2009) and Multiple AGREE (Nevins, 2007). I have argued that both of these approaches have weak points in that they either cannot derive some of the empirical facts or can do so with a number of stipulations.

Therefore, I have chosen to discuss three post-syntactic alternatives: Distributed Morphology and two Nanosyntax alternatives (Phrasal Lexicalization and Spanning). My aim has been to show that it is possible to derive the same empirical facts without damaging syntactic uniformity. The analysis presented here makes the prediction that we may observe such dependency (as in the double nature of the prefixal agreement in PL) if the Probes are in a local spell-out domain. The dependency at hand is not the result of a secondary syntactic valuation but the result of the lexical competition during the spell out. Thus, the realizational hierarchy in the prefixal agreement is a post-syntactic hierarchy, not a syntactic hierarchy. The basic evidence for that is the strict condition on the realization of the joint marker.

In the final part of this chapter, I have presented a sketchy analysis of the number agreement in PL. I have shown that the plurality of the highest argument in PL can always be cross-referenced and the plurality of the lower argument is parasitic on person valuation. During the derivation, if the prefixal person Probe finds a first or second person Goal, valuation happens as a result of which the

plurality of the Goal that agrees prefixally can tag along, valuing the number Probe. If this valuation does not introduce the plural value to the structure, the Probe will search for the plural value and always find the highest Goal. Although sketchy, this analysis derives the correct empirical results, in particular the fact that a third person argument, if it is not the highest argument, cannot agree in number in PL.

CHAPTER 6

CONCLUSION

6.1. The Contribution to the Field of Linguistics

This work may be considered partly special in that it considers the agreement and case system of Pazar Laz *in its entirety*. The previous important work on the very similar agreement and case system of Georgian has failed to present a full picture of the interaction of these two systems. Rather, it appears that some piece of data from the case and agreement system has been used to support pre-constructed theories. Yet, I firmly believe the close investigation of a linguistic system in its entirety may reveal that it is possible to find counter-evidence to theories within the same language. Therefore, I have opted for an alternative approach to the linguistic theorizing in which I do not formulate a theory first and then start to seek partial empirical evidence from various languages. Rather, what I have attempted to do is to investigate the whole system of Pazar Laz and formulate theories which are in line with the whole of the attained empirical data (i.e. a model which should not overgenerate or undergenerate) and also the known linguistic generalizations and recurring linguistic patterns. If the findings and analyses in this thesis prove to be cross-linguistically fruitful or poor, it should mostly be attributed to the methodology I have chosen to employ.

There are three basic claims in this thesis. The first claim is that non-configurationality (non-hierarchical organization of arguments) might as well be epiphenomenal in that the apparent non-configurational organization of internal

arguments in Pazar Laz fails to explain the facts on the agreement accessibility hierarchy. As the agreement hierarchy is assumed to be the direct outcome of the syntactic locality, the non-configurational picture for Pazar Laz cannot be maintained.

The second claim is that case and agreement are not necessarily determined by the same operation and that agreement valuation may be unidirectional. A consequence of this is that there should be nothing that prevents agreement with arguments that bears a locally assigned inherent case. Yet, the system I propose is not haphazard in that the case visibility is still constrained by the hierarchy of case values. The predicted/potential agreement systems are still within the empirical domain. In fact, the alternative approach to agreement-case interaction which suggests inter-dependent case-agreement determination seems to undergenerate.

The third claim is that grammar should not have defective intervention, at least in the domain of agreement. Specifically, I argue that the visibility and intervention should not be separate parameters in grammar as this model overgenerates, predicting agreement to be attained in a locality violating configuration. As a preliminary alternative, I suggest that the phase-based derivation is an option that allows modeling the apparent intervention scenarios where syntactic locality alone falls short.

In addition to the claims above, I have also discussed a case of realizational hierarchy regarding agreement in Pazar Laz. I have attempted to show that being in a local spell-out domain can induce such post-syntactic realizational interactions and that there is no need to postulate alternative syntactic approaches that may as well destroy the desired the syntactic uniformity in grammar.

6.2 Summary of the Claims and Findings

In Chapter 2, we have seen that Pazar Laz, having a typologically rare *active case alignment* system, maps the basic semantic roles into three overt case values: ERG, NOM, and DAT. The case system of Pazar Laz does not make strict reference to transitivity or grammatical function. Instead, it exhibits a thematic/hierarchical case valuation, e.g. making a distinction between internal vs. external arguments. In such a system, subjecthood may as well be an elusive concept. Yet, I have identified two different subjecthood criteria by the asymmetric behavior of arguments in control and binding phenomena.

In Chapter 3, to be able to base the agreement phenomena on the syntactic locality, I have attempted to identify the hierarchy of arguments in PL. I have used three tests (i.e. WCO, quantificational scope, and the order of multiple-Wh) to test if there is any hierarchy. The tests have uniformly shown that Pazar Laz has a clear asymmetry/hierarchy between the external argument (i.e. subject) and the internal argument(s). Yet, the same tests, again uniformly, have suggested that there is no empirical evidence that shows that internal arguments are hierarchically ordered. Thus, I have concluded that the syntactic tests seem to allude to a non-configurational organization for internal arguments. However, the agreement accessibility data discussed in Chapter 5 *have* shown that the internal arguments are also hierarchically merged. Thus, leaving out the how-and-why of this intriguing issue for further research, I have concluded that the apparent non-configurationality should be epiphenomenal.

In Chapter 4, I have introduced the basic agreement facts of PL. I have argued that the agreement accessibility facts follow from the basic syntactic locality.

I have attempted to implement and argue for a version of AGREE that is not bidirectional (i.e. determining case and agreement simultaneously). As the basic evidence for this approach, I have discussed the possibility (in fact obligatoriness) of agreement with arguments that bear a locally assigned inherent case. On the basis of the case alignment and case-preservation data, I have argued that (at least) ERG and DAT are inherent cases in Pazar Laz but they *do* show obligatory agreement. Thus, I have suggested that an argument whose case value is not Probe-dependent *can* show agreement. With this conclusion, I have tried to dissociate case and agreement phenomena and propose a version of AGREE that is unidirectional (i.e. determining agreement but not case). In this chapter, I have also argued that visibility and intervention potential are not different parameters and defective intervention should not be part of grammar, for it simply overgenerates. I have also attempted to show that the simple unification of the visibility and intervention potential into one parameter, however, inevitably undergenerates. To eliminate both undergeneration and overgeneration, I have proposed that phases can also account for the apparent intervention scenarios where the syntactic locality does not suffice. With this approach, it will still be possible to maintain the unification hypothesis.

In Chapter 5, I have presented the data which show that all arguments in PL are hierarchically organized, as evidenced by the robust agreement accessibility asymmetries. The findings in this chapter have shown that the non-configurationality hypothesis for internal arguments cannot be maintained. I have also argued that there is an intricate syntactic and realizational (i.e. post-syntactic) interaction among the prefixal person agreement, suffixal person agreement, and number agreement in PL. I have suggested that this interaction may be accounted for if the agreement nodes (Probes) are in a local spell-out domain. In particular, I have

argued that the syntactic alternatives such as Cyclic Agree and Multiple AGREE either make empirical predictions that are not borne out or they deliver the facts with too many stipulations. On the basis of this, I have opted for post-syntactic alternatives and presented analyses within Distributed Morphology, Nanosyntax (Cyclic Phrasal Lexicalization), and Nanosyntax (Spanning). I have aimed to show that post-syntactic mechanisms are able to derive the same empirical facts without further stipulation in syntax proper.

6.3. Future Research

The main disadvantage of this thesis is that I have not been able to evaluate the cross-linguistic validity of the claims and analyses presented. For instance, the attempt in this thesis to eliminate the defective intervention and unify the visibility and intervention potential has been conceptually motivated as I could present only partial empirical support. To find wider empirical support for the claim here is a major issue that needs to be addressed in future research.

Another issue that calls for further investigation is the interaction of case and agreement in other dialects of Laz. For instance, Ardeşen dialect of Laz (AL) has lost its case system (Öztürk, 2011). Interestingly, the DAT intervention is not attested in AL, either. Although there is no case marking, the applicative subjects still cannot agree suffixally; however, unlike in PL they do not block agreement of a lower argument. For my analysis, the fact that they do not intervene would predict the thematic domain in such constructions is not bi-phasal in AL unlike in PL. Conveniently, this seems to have an immediate semantic reflex: There is an asymmetry between PL and AL in whether there is any restriction on the type of

events that can combine with applicative subjects. While PL shows certain restrictions, AL lacks them. The fact that there is no selectional restriction for applicative subjects in AL may as well allude to a single-phased thematic domain. I hope to further investigate the implications of this asymmetry in future research.

I have also identified the non-configurational properties of PL in scope phenomena, in particular, the asymmetric behavior of external and internal arguments in this respect. This issue is interesting and seems to be derivable from the phase-based syntax.

I am aware that the analyses and proposals in this thesis are neither conclusive nor are they the only options available. It is quite possible that I have failed to consider similar or better alternatives. It is also possible that the proposals made here will turn out to be simply invalid. I hope, for the sake of the scientific curiosity, that future research will determine the cross-linguistic validity of the claims in this thesis.

REFERENCES

Anderson, R. D. (1963). *A Grammar of Laz*. Dissertation. University of Texas at Austin.

Baker, M. (1985). The Mirror Principle and morphosyntactic explanation. *Linguistic Inquiry* 16.3: (p. 373-415)

Baker, M. (1997). Thematic Roles and Syntactic Structure. In L. Haegeman (Ed), *Elements of Grammar*. Kluwer, Dordrecht, (p. 73-137)

Baker, M. (2001). The Natures of Nonconfigurationality. In M. Baltin and C. Collins (Eds), *The Handbook of Contemporary Syntactic Theory*. Blackwell Publishers. (p. 407-438)

Béjar, S. and M. Rezac. (2003). Person licensing and the derivation of PCC effects. In A. Pérez-Leroux and Y. Roberge (Eds), *Romance linguistics: Theory and acquisition*. Amsterdam: John Benjamins. (p. 49–62)

Bejar, S. and M. Rezac. (2009). Cyclic Agree. *Linguistic Inquiry* 40:1 (p. 35-73)

Belletti, A. and L. Rizzi (1988). Psych-verbs and theta theory. N*atural Language and Linguistic Theory* 6: 291-352.

Blix, H. (2012). Kartvelian and the Pieces of Inflection. Ms. lingbuzz/001727

Bobaljik J. D. and S. Wurmbrand. (2001). Notes on Agreement in Itelmen. Ms. McGill, Montreal.

Bobaljik, J. (2006). Where's Phi? Agreement as a post-syntactic operation. *Leiden Papers in Linguistics* 3.2: (p. 1-23)

Bobaljik, J. D. (2008). Missing Persons: A case study in morphological universals. *The Linguistic Review* 25(1-2): (p. 203–230)

Boeckx, C. (2000). Quirky agreement. *Studia Linguistica* 54: (p. 354–380)

Boneh, N. and L. Nash. (2011). High and Higher Applicatives: The Case of French Non-core Datives. In *Proceedings of the 28th West Coast Conference on Formal Linguistics*. Somerville, MA: Cascadilla Proceedings Project. (p. 60-68)

Bucaklisi, I. A. and H. Uzunhasanoglu. (1999). *Lazuri-Turkuli nenapuna*. *Lazca-Türkçe Sözlük.* Istanbul: Akyüzyayincilik.

Bucaklisi, I. A., H. Uzunhasanoglu, and I. Aleksiva. (2007). D*idi Lazuri nenapuna-Büyük Lazca Sözlük*. Istanbul: Chiviyazilari.

Caha, P. (2009). *The Nanosyntax of Case*. Doctoral Dissertation. CASTL: University of Tromsø.

Chappell, H. (2001). The experiential perfect as an evidential marker in Sinitic languages. *Sinitic grammar: synchronic and diachronic perspectives*, Oxford University Press, 56-84.

Chomsky, N. (1995). *The Minimalist Program*, MIT Press, Cambridge, Mass.

Chomsky, N. (2000). Minimalist Inquiries: the Framework. In R. Martin, D. Michaels & J. Uriagereka (Eds), *Step by step*. Cambridge, MA: MIT Press, (p. 89-156)

Chomsky, N. (2001). Derivation by Phase. In M. Kenstowicz (Ed), *Ken Hale: A Life in Language*. MIT Press, Cambridge, Mass. (p. 1–52)

Chomsky, N. (2005a). On Phases. Ms.: MIT.

Chomsky, N. (2005b). Three Factors in Language Design. *Linguistic Inquiry* 36: (p. 1–23)

Chomsky, N. (2008) On Phases. In F. Robert, C. P. Otero, and M. L. Zubizarreta (Eds), *Foundational Issues in Linguistic Theory*. MIT Press.

Cinque, G. (2002). *Functional structure in DP and IP. The Cartography of Syntactic Structures, Volume 1*, New York: Oxford University Press.

Culicover, P. and R. Jackendoff. (2001). Control is not movement. *Linguistic Inquiry* 32 (p. 492-512)

Davis, H., L. Matthewson, and H. Rullmann. (2009). 'Out of control' marking as circumstantial modality in St'a´t'imcets. In L. Hogeweg, H. de Hoop and A. Malchukov (Eds), *Cross-linguistic semantics of tense, aspect and modality*. Amsterdam: John Benjamins.

Demirok (2012). The Status of Roots and Nanosyntactic Event Compostion. Paper Presented at Workshop on the Selection and Representation of Exponents at CASTL, University of Tromsø.

Dixon, R.M.W. (1994). *Ergativity*. Cambridge: Cambridge University Press.

Embick, D. and R. Noyer. (1999). Locality in Post-Syntactic Operations. In D. Embick and R. Noyer (Eds), *MITWPL 34: Papers in Morphology and Syntax: Cycle Two*. Cambridge. (p. 265-317)

Fodor, J. D. and I. Sag. (1982). Referential and quantificational indefinites. *Linguistics and Philosophy* 5: (p. 355-398)

Fuß, E. (2005). *The Rise of Agreement. A Formal Approach to the Syntax and Grammaticalization of Verbal Inflection*. John Benjamins.

Georgala, E. (2012). *Applicatives in Their Structural and Thematic Function: A Minimalist Account of Multitransitivity*. Doctoral dissertation. Cornell University.

Hale, H. and S. J. Keyser. (1993). On argument structure and the lexical expression of syntactic relations. In K. Hale and S.J. Keyser (Eds), *The View From Building 20*. MIT Press, Cambridge, (p. 53–109)

Hale, K. (1989). On nonconfigurational structures. In L. Maracz and P. Muysken (Eds), *Configurationality: The Typology of Asymmetries*. Foris, Dordrecht. (p. 293–300)

Halle, M. (1997). Distributed morphology: Impoverishment and fission. In B. Bruening, Y. Kang and M. McGinnis (Eds), *MITWPL 30: Papers at the Interface*, MITWPL, Cambridge, (p. 425-449)

Halle, M. and A. Marantz (1993). Distributed Morphology and the Pieces of Inflection.In K. Hale and S.J. Keyser (Eds), *The View From Building 20*, Cambridge, Mass.: MIT Press, (p. 111-176)

Halle, M. and A. Marantz. (1994). Some key features of Distributed Morphology. In A. Carnie and H. Harley (Eds), *MITWPL 21: Papers on phonology and morphology*, MITWPL,Cambridge. (p. 275-288)

Harley, H. (1994). Hug a tree: Deriving the morphosyntactic feature hierarchy. In A. Carnie and H. Harley (Eds), *MITWPL 21: Papers on phonology and morphology*. Cambridge. (p. 275-288)

Holisky, Dee Ann. 1991. Laz. In Harris, A. C. (Ed) *The Indigenous Languages of the Caucasus. Volume 1: The Kartvelian Languages*. Delmar/New York: Caravan Books.

Holmberg, A. and T. Hróarsdóttir. (2003). Agreement and movement in Icelandic raising constructions. *Lingua* 113: (p. 997–1019)

Holmberg, A. and T. Hróarsdóttir. (2004). Agreement and movement in Icelandic raising constructions. *Lingua* 114: (p. 651–673)

Hornstein, N. (1999). Movement and control. *Linguistic Inquiry* 30 (p. 69-96)

Julien, M. (2002). *Syntactic Heads and Word Formation*. Oxford: Oxford University Press.

Kallulli, D. (2006). Unaccusatives with dative causers and experiencers: A unified account. In D. P. Hole, W. Abraham, and A. Meinunger (Eds), *Datives and Other Cases: Between argument structure and event structure* (p. 271-300)

Kayne, R. S. (1994). *The Antisymmetry of Syntax*. *Linguistic Inquiry Monograph 25*. MIT Press.

Kayne, R. S. (2000). *Parameters and Universals*, Oxford University Press.

Kayne, R. S. (2010). Why are there no directionality parameters? In *WCCFL XXVIII*.

Kelepir, M. (2001). *Topics in Turkish Syntax: Clausal Structure and Scope*. Doctoral dissertation. MIT. Cambridge, MA.

Kim K. (2012). Affectees in subject position and applicative theory. *The Canadian Journal of Linguistics*, 57(1), March 2012, (p. 77-107)

Kojima, G. and Bucaklisi, I. A. (2003). *Lazuri Grameri*. Istanbul: Chiviyazilari.

Kratzer, A. (1998). Scope or Pseudo-Scope? Are There Wide-Scope Indefinites? In S. Rothstein (Ed.), *Events in Grammar* (p. 163–196)

Kutscher, S. (2008). The language of the Laz in Turkey: Contact-induced change or gradual language loss? *Turkic Languages* 12/1 (p. 82-102).

Kutscher, S., J. Mattissen, and A. Wodargd. (1995). *Das Mut'afi-Lazische*. Köln: Universität Humboldt University Berlin.

Landau, I. (2003). Movement out of control. *Linguistic Inquiry* 34: (p. 471-498)

Legate, J. A. (2003). Some Interface Properties of the Phase. *Linguistic Inquiry* 34: (p. 506-515)

Legate, J. A. (2005). The Absence of Absolutive Case. In J. Alderete, C. Han, and A. Kochetov (Eds), *Proceedings of the 24th West Coast Conference on Formal Linguistics* (p. 236-244)

Legate, J. A. (2006). Split Absolutive. In A. Johns, D. Massam and J. Ndayiragije (Eds), *Ergativity: Emerging issues*. Dordrecht: Kluwer. (p. 143-172)

Legate, J. A. (2008). Morphological and abstract case. *Linguistic Inquiry* 39: (p. 55-101)

Marantz, A. (1991). Case and licensing. In E. Reuland (Ed), *Arguments and Case*. Amsterdam: John Benjamins. (p. 11-30)

Marantz, A. (1992). How morphemes are realized phonologically. Paper presented at the DIMACS Workshop on Human Language, Princeton University. Ms., MIT.

May, R. (1977). *The Grammar of Quantification*. Doctoral dissertation. MIT, Cambridge, Mass.

Nevins, A. (2007). The representation of third person and its consequences for person-case effects. *Natural Language and Linguistic Theory* 25 (p. 273–313)

Nevins, A. (2010). Multiple agree with clitics: Person complementarity vs. omnivorous number. MS, UCL.

Öztürk, B. (2011). Applicatives and Statives in Pazar Laz. Paper presented at the Workshop on Functional Categories, Bogaziçi University.

Öztürk, B. (2013). Participle selecting applicatives in Pazar Laz. Ms. Boğaziçi University.

Öztürk, B. and E. Taylan. (2012). Transitive Intransitives in Pazar Laz. Paper presented at Typology, Theory: Caucasus at Boğaziçi University, Istanbul.

Öztürk, B. and M. Pöchtrager. (2011). *Pazar Laz*. LINCOM: Languages of the World Materials, Münich.

Pantcheva, M. B. (2011). Decomposing *Paths: The Nanosyntax of Directional Expressions*, Doctoral dissertation, University of Tromsø.

Preminger, O. (2011). *Agreement as a Fallible Operation*. Doctoral dissertation. Massachusetts Institute of Technology.

Pylkkanen, L. (2002). *Introducing arguments*. Doctoral dissertation, MIT, Cambridge, MA.

Pylkkanen, L. (2008). *Introducing arguments*. Cambridge, MA: MIT Press

Ramchand, G. (2008) *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge University Press.

Reinhart, T. (1997). Quantifier Scope: How Labor is Divided Between QR and Choice Functions. *Linguistics and Philosophy* 20 (p. 335–397)

Rezac, M. (2003). The fine structure of cyclic Agree. *Syntax* 6: (p. 156-182)

Rezac, M. (2004). *Elements of cyclic syntax*. Doctoral Dissertation, University of Toronto.

Rezac, M. (2008). Phi-Agree and theta-related Case. In D. Harbour, D. Adger, and S. Béjar (Eds), *Phi theory: Phi-features across interfaces and modules*, (p. 83-129) Oxford: Oxford University Press.

Richards, M. (2007). On Phases, Phase Heads, and Functional Categories. *Nanzan Linguistics: Special Issue 1*, 1: (p. 105-127)

Rivero, M. L., A. Arregui, and E. Frackowiak (2009). Circumstantial Modals in Polish and St'át'imcets. In F. Mailhot (Ed), *Proceedings of the 2009 annual conference of the Canadian Linguistic Association*.

Rosen, G. (1844). *Über die Sprache der Lazen*. Berlin: Lemgo et Detmold.

Sigurðsson H. A. and A. Holmberg (2008). Icelandic Dative Intervention: Person and Number are separate probes. In R. D'Alessandro, S. Fischer, and G. H. Hrafnbjargarson (Eds), *Agreement Restrictions*. Mouton de Gruyter. (p 251-280)

Sigurðsson, H. Á. (2002). To be an oblique subject: Russian vs. Icelandic. *Natural Language and Linguistic Theory* 20, (p. 691-724)

Sigurðsson, H. Á. (2003). Case: Abstract vs. morphological. In E. Brandner and H. Zinsmeister (Eds), *New perspectives on case theory* (p. 223–267). Standford, CA: CSLI.

Starke, M. (2009). Nanosyntax: A short primer to a new approach to language. *Nordlyd* 36(1), (p. 1-6)

Starke, M. (2010). Towards elegant parameters. http://ling.auf.net/lingbuzz/001183

Svenonius, P. (2012). Spanning. http://ling.auf.net/lingBuzz/001501

Tuite, K. (1988). *Kartvelian Morphosyntax. Number Agreement and Morphosyntactic Orientation in the South Caucasian Languages*. Doctoral dissertation, University of Montreal.

van Valin, R. (2005). *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.

Wooford, E. (2006). Lexical case, inherent case, and argument structure. *Linguistic Inquiry* 37: (p. 111-130)

Wurmbrand, S. (2006). Licensing Case. *Journal of Germanic Linguistics* 18: (p. 174-234)