Differential Subject Marking in Georgian

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Abstract

This dissertation examines the Differential Subject Marking (DSM) in Georgian in a broad sense, i.e. from the viewpoint that some subjects have different cases and agree differently. I answer the questions: what triggers the differentiation of subjects? How are cases in the subject position assigned? and When does differential agreement take place? I do not consider Differential Case Marking (DCM) in Georgian to be the effect of operations that take place only in the Morphological Structure (MS) after Spell-out, but assume that both case assignment and agreement based on an already assigned case (dependent, unmarked, etc.), happen in the syntax proper.

The main thesis of the dissertation is that all subject cases (including the so-called 'non-canonically marked' ergative and dative) are structural in Georgian, and that Dependent Case Theory (DCT) is enough to deal with structural case assignment. The arguments for this claim mainly concern (a) the existence of a second DP in the same case-assignment domain, which has unvalued case features at the moment of derivation, and (b) the accessibility of non-canonically marked subjects to the Agree operation, which leads to the ability to control agreement.

Contrary to what has been assumed for Georgian differentially marked subject cases (ergative and dative) in language-specific accounts, I show that the assignment of both cases can be analyzed by applying a pure Dependent Case (DC) algorithm and not a hybrid configurational approach with the addition of a DC rule (as was proposed for ergative) or inherent (as was proposed for both ergatives and datives).

In order to show that the both cases (ergative and dative) reflect mostly structural properties, first, I explain the cross-linguistically applied diagnostics to check structural vs. inherent cases, and afterwards, I apply them to Georgian. Conditioned upon the results, I show that most of the tests are either inapplicable or lead to equivocal results based on the parametric properties of the language.

I then present extensive evidence that, problematic for the DC rule, verbs without a second DP (such as unergatives) do actually involve an implicit argument in the structure. As part of my argumentation, I propose a new diagnostic to check the existence of the implicit argument in Georgian, namely, the insertion of a D head as a residual of a DP used with null or cognate objects. The existence of null objects in unergatives is not uncontroversial cross-linguistically, but I show that the counter-arguments for the absence of an implicit argument in the unergative structure in other languages do not extend to Georgian.

For dative subjects, I argue that they are of two different kinds, with one raised to the subject position and the other remaining in situ, although both are assigned configurationally in the vP domain. I also demonstrate that one of the main tests to check structural vs. inherent datives, case preservation under passivization in Double Object Constructions (DOC), cannot be applied to Georgian, as dative does not raise to the subject position, but scrambles to the left of the subject. As a result, there is no change in the syntactic environment that may cause case alternation.

I then turn to the differential agreement patterns and show that there is no mismatch between DSM on verb and case assigned to a DP. Only dative subjects exhibit differential agreement. I analyze the Agree relationship of dative subjects adopting the Upwards Agree (UA) account, but without postulation that this is the only possible analysis. Specifically, I demonstrate that UA is compatible with Internal Argument Agreement, which has been argued to be problematic. I show that at least for Georgian, it does not make incorrect empirical predictions.

Finally, I propose some new language-specific diagnostics to test various properties associated with DSM in Georgian. Specifically, these diagnostics are related to test subjecthood, unergatives vs. unaccusatives, the existence of the implicit argument, and the existence of the non-thematic position.

All claims are based on the large empirical domain, including corpus data, elicited data with speaker samples and my grammatical intuitions as a native speaker of the language.

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Naturally, not all the mentioned linguists necessarily agree with my analysis, and any possible shortcomings remain my responsibility.

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Abbreviations

Acronyms

A = transitive subject

ApplP = applicative phrase

CP = complementizer phrase (also known as clause-type phrase)

CT = case theory

DA = Downwards Agree

DAM = differential argument marking

DC = dependent case

DCH = disjunctive case hierarchy

DCM = differential case marking

DCT = dependent case theory

DM = distributed morphology

DO = direct object

DOC = double object construction

DOM = differential object marking

DP = determiner phrase

DSM = differential subject marking

EA = external argument

ECG = ergative case generalization

EM = extension marker

ECM = exceptional case marking

EPP = extended projection principle

FinP = finiteness phrase

φ = phi-features: gender, person and number features (for Georgian just person and number features)

GB = Government and Binding

GF = grammatical function

GG = generative grammar

GR = grammatical relation

IA = internal argument

IC = inherent case

ICT = inherent case theory

INDO = indirect object

LDA = long distance agreement

m-case = morphological case

MCC = multiple case checking

MI = Minimalist Inquiries

MP = Minimalist Program

MS = morphological structure

NP = noun phrase

O = transitive object

OVS = object, verb, subject (word order)

PCC = person case constraint

PF = phonetic form (also known as phonological form)

PIC = phase impenetrability condition

PP = adpositional phrase (also known as prepositional/postpositional phrase)

pro = the unpronounced pronoun

PRO = null pronoun in the subject position of the non-finite clause

RIAM = reflexive implicit argument marking

S = intransitive subject

S_A = unergative subject

S_P = unaccusative subject

Spec,XP = specifier of XP

SVO = subject, verb, object (word order)

TAM = tense / aspect / mood

TG = transformational grammar

TP = tense phrase

Tr = transitive

UA = Upwards Agree

vP = verb phrase merged with v^0 functional head

VP = verb phrase

VIVA = visibility of inherent-Case to verbal agreement

Glosses

1 = first person

2 = second person

3 = third person

ABS = absolutive

ACC = accusative

ADV = adverbial

AOR = aorist

AP = antipassive

APPL = applicative

AUX = auxiliary

CAUS = causative

COP = copula

DAT = dative

DEF = default

DOBJ = direct object

EMPH = emphatic vowel

ERG = ergative

FIN = finite

FUT = future

GEN = genitive

IND = indicative

INFL = inflection

INSTR = instrumental

IOBJ = indirect object

IPFV = imperfective

NABS = non-absolutive

NFIN = non-finite

NGEN = non-genetive

NMLZ = nominalization

NNOM = non-nominative

NOM = nominative

OBJ = object

PASS = passive

PFV = perfective

PL = plural

PLUPRF = pluperfect

POSS = possessive

PR = preverb

PRF = perfect

xviii

PRS = present

PRT = particle

PST = past

PTCP = participle

PV = preradical vowel

REFL = reflexive

SBJ = subject

SBJV = subjunctive

SG = singular

THM = thematic suffix

Symbols

* ungrammatical sentence

() grammatical with or without parenthesized material

*() grammatical only if parenthesized material is present

(*) grammatical only if parenthesized material is absent

?? not fully grammatical sentence

? not natural sentence

% contradictory acceptability judgements from native speakers

0 functional or lexical head

Corpora and data abbreviations

GDSMDC – Georgian DSM Data Collection (collected as a result of the original

       fieldwork by Berikashvili 2019, 2021), sub-collections:

GDSMC – Georgian DSM Collection (recorded material)

GDSMQ – Georgian DSM Questionnaire (distributed online)

GLC – Georgian Language Corpus (Doborjginidze, Lobzhanidze & Gunia 2012; Doborjginidze, Lobzhanidze & Mirianashvili 2014), sub-collections:

NMGC – New and Modern Georgian Corpus

PCGC – Parallel Corpus of Georgian Chronicles

GNC – Georgian National Corpus (Gippert, Meurer & Tandashvili 2011 – 2022), sub-collections:

GNC – Georgian National Corpus, Modern

GRC – Georgian Reference Corpus

Georgian transliteration

The recorded data and other examples from the original fieldwork are transcribed following the Georgian National System of Romanization, developed by Apridonidze-Chkhaidze (2002), Institute of Linguistics, Georgian Academy of Sciences.

ა	a	მ	m	ღ	gh
ბ	b	ნ	n	ყ	q'
გ	g	ო	o	შ	sh
დ	d	პ	p'	ჩ	ch
ე	e	ჟ	zh	ც	ts
ვ	v	რ	r	ძ	dz
ზ	z	ს	s	წ	ts'
თ	t	ტ	t'	ჭ	ch'
ი	i	უ	u	ხ	kh
კ	k'	ფ	p	ჯ	j
ლ	l	ქ	k	ჰ	h

1. Introduction

1.1 Topic: Differential Subject Marking (DSM)

The term Differential Subject Marking (DSM) is quite ambiguous in its readings. It may be used either in a broad sense, or in a narrow sense. In a broad sense, DSM is a linguistic phenomenon that exists in a language "if some subjects have a different case, agree differently or occur in a different position than others. In a narrower sense, such differences are thought of as DSM effects only if they depend on the features of the subject in some way […]" (Woolford 2008: 17). In the current work, the term DSM is mostly used in a broad sense in that subjects have different cases and agree differently, but also in a narrow sense, in case of pronouns, when more marked cases are not spelled out morphologically when they occur in combination with marked: 1st and 2nd person features.

It has been acknowledged in the literature that DSM, cross-linguistically, does not constitute a unified phenomenon (see Silverstein 1976; Comrie 1984; Aissen 1999; 2003; Woolford 1997; 2008; de Hoop & de Swart 2008a; Kornfilt 2008; 2020; Spyropoulos 2020 etc.), and its effects can be analysed from different perspectives. Thus, subjects can be differentiated "on the basis of the form, such as being pronoun or not, […] on the basis of semantic features such as being a real agent (volitional, in control) or not, […] and on the basis of clausal features, such as tense/aspect/mood or the main/dependent clause distinction" (de Hoop & de Swart 2008b: 1). As we will see in the next chapters, Georgian displays all these factors: differentiation based on form (PF effects on pronouns); semantic features (such as volitionality and affectedness); and formal features (tense/aspect distinction and transitivity).

The analysis is based on two points: (a) differential marking on DPs, i.e. morphological case (morphology on the DP determined by the properties of a nearby verb), and (b) differential marking on Vs, i.e. agreement (morphology on the verb determined by features of a nearby DP). Cases assigned to the subjects in Georgian are: nominative/absolutive, ergative and dative (1).

(1) a. mkhat'var-i   surat-s   khat'-av-s.
         painter-**NOM/ABS**   picture-DAT/ACC   draw-THM-3SG.SBJ:PRS
         'The painter draws a picture.'

     b. mkhat'var-ma   surat-i   da-khat'-a.
         painter-**ERG**   picture-NOM/ABS   PR-draw-3SG.SBJ:PFV.PST
         'The painter drew a picture.'

     c. mkhat'var-s   surat-i   da-u-khat'-av-s.
         painter-**DAT**   picture-NOM/ABS   PR-APPL-draw-THM-3SG.OBJ:PST
         'The painter has drawn a picture.'

Agreement patterns show the opposition of nominative/absolutive and ergative arguments vs. dative arguments by using different sets of agreement markers, traditionally labeled either as subject vs. object agreement (Chikobava 2008 [1950]; Shanidze 1980 [1973]; Melikishvili 2001; Melikishvili, Humphries & Kupunia 2008; Gogolashvili 2011 etc.)., or more recently as external vs. internal argument agreement (see for instance McGinnis 2008; Thivierge 2021 among others) (2).

(2) a. me   surat-s   **v**-khat'-av.

1.SG.NGEN[NOM/ABS]   picture-DAT/ACC   1SG.SBJ-draw-THM

'I draw a picture.'

b.   me   surat-i   da-**v**-khat'-e.

1.SG.NGEN[ERG]   picture-NOM/ABS   PR-1SG.SBJ-draw-PFV.PST

'I drew a picture.'

c.   me   surat-i   da-**m**-i-khat'-av-s.

1.SG.NGEN[DAT]   parcel-NOM/ABS   PR-1SG.SBJ-PV-draw-THM-3SG.OBJ:PRF.PST

'I have drawn a picture.'

The same examples (2) also depict the DSM phenomenon in a narrow sense, namely, 1st and 2nd person pronouns are not spelled out for case morphologically, but show the same agreement patterns as other subjects, and are assigned the same syntactic cases (syntactic cases are indicated in square brackets) as 3rd person nominals.

The thesis deals with DSM mainly as a Differential Case Marking (DCM), answering the questions: what triggers differentiation of subjects, and how are the cases in the subject position assigned? Agreement patterns are discussed only in the case of dative subjects, but are not supposed to show the whole picture of the complex verb agreement in Georgian.

1.2 Main questions and claims

The main research questions that are elaborated in this work are: (1) What triggers DSM in Georgian? (2) What is the relation between abstract and morphological case? (3) How is/are abstract subject case(s) assigned as a result of Agree operation, configurationally,

or are some of them just inherent cases? (4) When differential marking is expressed in verbal morphology, does agreement show a mismatch from the assigned case? If so, is it that agreement licenses arguments or some arguments trigger agreement while others do not? (5) Is Georgian DSM the effect of certain operations that take place only in the Morphological Structure (MS) after Spell-Out, or are there any deeper syntactic differences involved?

More specific questions are related to the issues of structural vs. non-structural (i.e. lexical and inherent) cases in terms presented in Woolford (2006), who extends the Case Theory (Chomsky 1980; 1981; 1986; 2000; 2001) by the assumptions that have lately been formulated as Inherent Case Theory (ICT); and, of the assignment of case by configurational rules as presented in Dependent Case Theory (DCT) initiated by Marantz (2000 [1991]), and lately developed in Baker & Vinokurova (2010); Baker (2013; 2015); Preminger (2014; 2021); Baker & Bobaljik (2017), among many others.

The present work is a joint morphology- and syntax-based account. On the one hand, it differs from the strictly syntactic Chomskian view that the abstract case is assigned via agreement with the functional head in adopting the dependent case (DC) algorithm to the case assignment, thus giving mostly morphological dimension. On the other hand, it differs from the strictly morphological Marantzian view that the case assignment rules apply only on the post-syntactic level in assuming that the case assignment happens in syntax. Moreover, agreement is assumed to happen after the case (dependent, unmarked etc.) has been already assigned to the argument (following Bobaljik 2008), but in syntax proper and not on the morphological PF level (in line with Preminger 2014; and Baker 2015). However, the main claim is still that DCT is enough to deal with structural cases, and I assume all subject cases in Georgian to be structural.

My key claims can be summarized as follows:

(1) The main formal/clausal factors that cause DSM in Georgian are: transitivity, based on the structural position of the argument (i.e. where it is base-generated), the existence of the second DP in the same case-assignment domain and tense/aspect;

(2) All subject cases (including non-canonically marked, ergative and dative subjects) are structural in Georgian, assigned by the DC rule;

(3) The inherent case hypothesis cannot be applied to Georgian, as all subject cases are accessible to the Agree operation;

(4) Problematic for the DC rule issues that concern verbs without a second DP, such as unergatives with ergative subject marking, are resolved by proving the existence of the implicit argument in the structure;

(5) New diagnostics are proposed to test various properties of the language, including that for the existence of the implicit argument, based on the specific parameters of Georgian;

(6) Unlike previous language specific accounts for ergative case assignment, I show that the assignment of ergative can be analysed by a pure DC rule and not a hybrid configurational one, with the addition of DC (Nash 2017), or case assigned/checked by the v^0 head with Aspectual features (Ura 2006), or as an inherent case (Nash 1996). This is more in lines with what has been proposed theoretically by Marantz (2000 [1991]), illustrated on Georgian examples.

(7) Unlike previous language specific accounts for dative case assignment (McGinnis 1997; 1998a; 1998b)[1], I analyse dative as reflecting mostly structural relations and not as an inherent, based on the argumentation that (a) dative arguments in two-place passives of ditransitives are not derived subjects, contra

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[1] McGinnis' (2001; 2004) phase-based approach is more compatible to analyze dative as a structural in Georgian, though she does not say explicitly that Georgian has high-applicatives.

to Marantz (2000 [1991]), Béjar (2003) and Lomashvili & Harley (2011)[2] and that

(b) datives are accessible to the Agree operation.

(8) There is no-mismatch between DSM on verb and case assigned to a DP; dative arguments show different agreement from nominative/absolutive and ergative subjects, which is analysed in the thesis adopting Upwards Agree (UA) (as proposed by Zeijlstra 2012).

Let me introduce these claims in more detail.

The factors that trigger DSM in Georgian are summarized under three key points: (a) form of the argument (PF effects on pronouns); (b) semantic features associated with volitionality and affectedness (dative experiencer subjects); and, (c) formal features such as tense/aspect and type of predicate (transitive vs. intransitive) (ergative/dative subjects). DSM on verbs does not show mismatches from the assigned case. The opposition is nominative/absolutive and ergative vs. dative arguments. Differential agreement patterns only appear with dative subjects. I analyze the Agree relation of dative subjects following the UA account proposed by Zeijlstra (2012), and further developed in Bjorkman & Zeijlstra (2019), which has been criticized (Bárány & Van der Wal 2021; Preminger 2013; Preminger & Polinsky 2015 etc.) that it is not compatible with Internal Argument Agreement and Long Distance Agreement (LDA). I show that this is not a problem for Georgian. This analysis is not only possible, and the agreement can be presented in the Downwards Agree (DA) fashion as well. My analysis of dative argument agreement does not aim to make theoretical claims about Agree relations, but serves as evidence for the discussion of DSM in terms of case marking.

Regarding the status of subject cases, I claim that both ergative and dative case-marked subjects are assigned structural cases. And these structural cases are best

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[2] See also McGinnis (1997) for the assumption that although the dative argument does not raise in passive, still it is invariant and hence inherent.

analyzed under the configurational, dependent case assignment rule. The arguments for this claim mainly concern (a) the existence of a second DP in the same case-assignment domain, which has unvalued case features at the moment of derivation when case is being assigned, and (b) the accessibility of non-canonically marked subjects to the Agree operation, which leads to the ability to control agreement.

Further evidence includes case preservation/alternation in different syntactic environments and association of non-canonically marked arguments with different thematic roles. I show that some traditional tests provide misleading results based on the parametric property of the language. Thus, the test of case preservation under passivization in ditransitive Double Object Constructions (DOC), checking whether dative is an inherent case, cannot be applied to Georgian, as dative does not raise to the subject position, but scrambles to the left of the subject. As a result, the syntactic environment for the dative argument is not changed: there is no raising to the subject position that may cause case alternation. This and other tests are discussed in detail.

Problematic for the DC rule are some verbs that have no overt unmarked case in the structure. For instance, ergative assignment is observed with two types of verbs which either lack a second DP argument (unergative verbs) or where the second DP does not carry unmarked case (predicates with ergative-dative pairings). I argue that both these cases involve a covert object in the nominative/absolutive, based on the argumentation, that they have a transitive structure, exhibit agreement morphology for the implicit argument, and can employ cognate objects. The test I am using to show this is the distribution of the determiners as a residual of a DP with null or cognate objects. Agreement morphology for the implicit argument is more controversial, as the cognate object is always 3.SG, thus, alternatively it may be analyzed as an instance of a default agreement. However, the quantifier used as a D head in unergatives, which encodes implicit argument, requires restriction to a singular, based on the parametric property of

Georgian. So, even agreement morphology can be used as additional indirect evidence of the existence of the implicit argument. This issue is discussed in detail in the section on unergatives. The existence of an implicit argument is not uncontroversial cross-linguistically, but I show that the counter-arguments for the absence of an implicit argument of such unergative structure for other languages do not hold for Georgian.

As DCT comes about in different versions, the one I am mainly adopting is that of Baker (2015), following him in such main postulates as (a) functional heads do not play any role in checking-off case features; (b) case assignment happens in syntax proper, not post-syntactically; and, (c) dative case can be assigned configurationally in *v*P domain. However, I do not follow the hybrid version of assignment as illustrated by Baker & Vinokurova (2010), and Baker (2015) for the Sakha language, and do not assume *v*P to be a phase, but a case-assignment domain.

To sum up, the structural case assignment under the DC rule for Georgian happens in three steps: (a) First, dependent dative case is assigned to the highest argument in *v*P domain; (b) Second, dependent ergative case is assigned to the highest argument in CP domain; (c) Third, unmarked nominative/absolutive case is assigned to the DP with unvalued case features. The assigning of the dative in *v*P domain does not block the assigning of the ergative in CP domain, as the internal argument of VP remains visible for the case assignment algorithm in the larger CP domain. So, there is no need to have two unmarked cases in opposition of two dependent cases. All dependent cases are realized before assigning the unmarked cases. The thing that matters for dependent case assignment is the existence of a second DP in the same spell-out domain with an unvalued case feature, and not with an unmarked/default case feature. Thus, two dependent cases are available in the structure, with the restriction that these cases must not be realized in the same spell-out domain.

Previous accounts on the Georgian ergative and dative case assignment, including some non-specific Georgian accounts, which provide examples from Georgian and are important for analysis or specific agreement-based accounts (Marantz 1989; 2000 [1991]; Nash 1996; McGinnis 1997; 1998a; 1998b; 2001; 2004; Béjar 2003; Ura 2006; Legate 2008; Lomashvili & Harley 2011; and Nash 2017) are put in the discussion, and the difference of my account from the already existing ones is highlighted.

As already mentioned, I also propose some new diagnostics to test subjecthood, unergatives vs. unaccusatives, and to check the existence of the implicit argument and of the non-thematic position for Georgian, based on the parametric property of the language. All claims are based on the large empirical domain, to which I turn in the next section.

1.3 Brief remarks on methodology and empirical domain

The design of this investigation does not presuppose the crucial modification of the existing formal model of CT as such but rather applies an abstract DC structure to the Georgian data. That is to say, the model is adapted by adjusting its elements to the new observational input. It includes qualitative scientific methods in the sense that the formulation of the hypothesis and theoretical statements are checked against Georgian linguistic data on DSM in detail.

The priority of qualitative methods for this study lays in the fact, that some rare phenomena are decisive for the modeling DSM in Georgian and thus should receive the same amount of attention as frequent ones. As such, the qualitative methods give us an opportunity to dive deeper into the problem, and syntax provides deeper insight on the surface phenomena.

The research is based on data obtained from (1) The Georgian National Corpus, Modern Georgian, designed and coordinated by Gippert, Meurer & Tandashvili (2011-2021), available at http://gnc.gov.ge/gnc/page; (2) New and Modern Georgian Corpus data, designed and coordinated by Doborjginidze, Lobzhanidze & Gunia (2012) available at http://corpora.iliauni.edu.ge and http://oldcorpora.iliauni.edu.ge; (3) the additional data collection created with the purpose of obtaining more specific information about DSM features in Georgian.

The corpora used from Gippert, Meurer & Tandashvili (2011-2021) include the Georgian National Corpus (GNC), Modern Georgian (size: 2,108.370 words) and the Georgian Reference Corpus (GRC) (size: 202,728.329 words) (for more detailed information about GNC see Gippert & Tandashvili 2015).

Data obtained from the Georgian Language Corpus (GLC) (size: ≈15,000.000 words) administrated by the Ilia State University is from two sub-collections, namely New and Modern Georgian Corpus (NMGC) by Doborjginidze, Lobzhanidze & Gunia (2012), linguistically annotated texts from 1838 to 2012 represented in a variety of genres, and the Parallel Corpus of Georgian Chronicles (PCGC) for several medieval examples needed for discussion by Doborjginidze, Lobzhanidze & Mirianashvili (2014) (for more detailed information about GLC, see Doborjginidze & Lobzhanidze 2017; and Lobzhanidze 2022).

The other source of the empirical data provided in the thesis includes elicited material with speaker samples and questionnaires designed for linguist and non-linguist participants. The data was obtained as a result of the original fieldwork conducted in 2019 and 2021 with the aim to reveal properties of DSM and answer questions associated with its use or its features. GDSMC is a collection of interviews and different types of diagnostic tests obtained from 21 native-speaking consultants, while GDSMQ is a questionnaire study distributed online among Georgian language linguists (11 in sum).

See Appendix A for merely one test sample on case alternation under A-movement and Appendix C for some samples from the online questionnaire.

As the qualitative methods are preferred in this study due to the fact that they provide more in-depth information and a complete, detailed description, the data results are merely used to provide examples on different phenomena. All original data discussed in this study are given explicitly in the text. Thus, Georgian sources mostly encompass data either from the two stages of the original fieldwork (GDSMC & GDSMQ) or from the mentioned corpora (GNC & GLC) available online. In the majority of cases, following the GG tradition, not all glosses are included, only those that are important for discussion.

Some points need further clarification, namely, examples from different languages are given from the existing literature and cited accordingly. When Georgian examples are provided from other sources available in related literature, I keep the original version of the transliteration and glosses used. Yet, when the glosses used are different from what expected or what I follow, I explain some theoretical claims of the authors in a footnote when it is appropriate for discussion. If the original example does not contain glosses (this happens mainly in case of Georgian descriptive grammars) I provide glosses which I use throughout the thesis.

All other examples, unless indicated otherwise, are based on my knowledge of different languages, and in the case of Georgian, on my knowledge as a native speaker of the language.

1.4 Outline of the thesis

The thesis is set up as follows: in Chapter 2, I present different approaches to analyzing DSM and the theoretical framework, that is minimalist assumptions as outlined by Chomsky's minimalist program (MP) (Chomsky 1995; 1998; 2000; 2001). I discuss Case

Theory and its subsequent, most prominent implementations: Inherent Case Theory (ICT) and Dependent Case Theory (DCT). Both these theories come about in different versions. Some references to earlier works on Georgian case-assignment (including descriptive, relational, reference grammars and works in the generative, computational and language-processing approaches) are provided in the final section.

In Chapter 3, I present a short overview of the general properties of ergativity and argument structure in Georgian. Section 3.1 deals with such issues as split ergativity based on the tense-aspect distinction, argument-structural property, so-called split S, and morphological ergativity. Section 3.2 presents the case system and argument structure in Georgian, focusing on subject case functions. Section 3.3 discusses factors that trigger DSM in Georgian, including differentiation based on form: PF effects on pronouns, semantic features such as animacy and formal features such as transitivity and tense/aspect distinction.

In Chapter 4, I explain tests applied cross-linguistically to check structural vs. non-structural cases with illustrative examples from various languages and show some limitations of the implementation of these diagnostics. In the second part of this chapter (Section 4.2), I discuss the acceptability of diagnostics to Georgian and illustrate that given the various parametric properties of the language some of the traditional tests must be ruled out. The main focus is on the tests that provide misleading/equivocal results, namely case preservation under passivization in DOC passives and case alternation in non-finite environments.

In Chapter 5, I present an analysis of ergative marked subjects in Georgian, from the viewpoint of differential marking on DPs. Section 5.1 is designated to providing a brief overview of the relevant previous accounts (Legate 2008; and Nash 2017) on Georgian ergative. Section 5.2 applies a number of diagnostics to test structural vs. non-structural case to Georgian ergative, in order to show that Georgian ergative mostly reflects

structural relations. In Section 5.3, an analysis of Georgian ergative as a dependent case is presented. The last part contains a detailed discussion on unergatives which seem to be problematic for the DCT as they have no overt unmarked case in the structure. I claim that unergatives do actually involve an implicit argument in the structure and present novel data and argumentation to support my view. I also present possible cross-linguistic counter-arguments for the lack of implicit argument with unergative verbs (based on Preminger's (2012) assumptions on Basque unergatives) and show that these arguments do not hold for Georgian.

In Chapter 6, I provide an analysis of dative marked subjects in Georgian, both from the viewpoint of differential marking on DPs, i.e. DCM, and differential marking on verbs, i.e. agreement. Section 6.1 includes a brief overview of the relevant previous accounts (McGinnis 1997; 1998a; 1998b; and Lomashvili & Harley 2011) on Georgian dative, Section 6.2 discusses the properties of datives in different syntactic constructions, while section 6.3 applies a number of diagnostics to test structural vs. non-structural cases and shows that Georgian dative cannot be analyzed as an inherent case. Section 6.4 provides a dependent case analysis of dative based on the existence of the second DP in the same case-assignment domain and accessibility of dative for establishing an Agree relationship. I analyze the Agree relationship of dative subjects adopting the Upwards Agree (UA) account, as proposed by Zeijlstra (2012), and further developed in Bjorkman & Zeijlstra (2019).

Finally, in Chapter 7, I present the conclusion and outline some implications of the presented analysis for CT.

2. Theoretical background

In this chapter first I present different approaches to the DSM analyses cross-linguistically and second, I introduce the main theoretical assumptions that this work is based on, namely, Case Theory (CT) developed within the framework of Chomsky's Minimalist Program (MP), with its consequent implementation Inherent Case Theory (ICT) and Dependent Case Theory (DCT), introduced by Marantz (2000 [1991]) as a configurational morphologically oriented approach to case assignment. The next section provides general approaches of the DSM analyses cross-linguistically.

2.1 Different approaches to the analysis of DSM

There are different approaches to analyzing Differential Argument Marking (DAM), including functional, Optimality-based, morphological and syntactic approaches. DSM, in the narrow sense (i.e. when it depends on the features of the subject), is sometimes treated in the functional literature as a mirror image of Differential Object Marking (DOM) (see Silverstein 1976; Aissen 1999; 2003; Woolford 2008; but see also de Hoop & Narasimhan 2005; 2008; and Kornfilt 2008 for alternative accounts; see also Kalin 2018; Bárány & Kalin 2020 for references to DOM accounts).

Functional approaches explain DCM as a result of two interacting functions, namely (a) a disambiguating/discriminating function where case serves to distinguish the subject from the object, and (b) an identifying/indexing function where case serves to identify certain semantic roles. Both of these functions favor the marking of "non-prominent" subjects. Thus, case is more likely to be assigned to those subjects which are low in prominence (i.e. less typical subjects, those that are not relatively prominent on one of the various dimensions, e.g. semantic role, animacy, definiteness, etc.). The same also holds

for objects. The prominence of subjects/objects is defined in terms of scales/hierarchies, known in related literature as "Hale/Silverstein hierarchies" (see Hale 1972; Silverstein 1976; Comrie 1989; Dahl 2000; Aissen 2003; Woolford 2008; Keine 2010; Bárány & Kalin 2020; Spyropoulos 2020 among many others). The main hierarchies include person/animacy, definiteness and thematic roles (1).

(1) a. *Person/Animacy Hierarchy* (Woolford 2008: 34)

1PL > 1SG > 2PL > 2SG > 3HUM.PL > 3HUM.SG > 3ANIM.PL > 3ANIM.SG > 3INAN.PL > 3INAN.SG

b. *Definiteness Hierarchy* (Aissen 2003: 444)

pronoun > name > definite > indefinite specific > non-specific

c. *Thematic Hierarchy* (Bresnan & Kanerva 1989: 23)

agent > beneficiary > goal/experiencer > instrument > theme/patient > locative

High-in-prominence subjects refer to the higher members of such hierarchies. However, there are some languages in which, by contrast, subjects that are high in prominence are marked, rather than low-prominent ones. This is for instance the case in Hindi, where the ergative case is used for subjects of perfective highly transitive predicates (2a), seeing highly transitive relating to the degree of transitivity and being used for the predicates which allow both DSM and DOM, they are also similar in that they allow their objects to passivize (see de Hoop & Narasimhan 2005; 2008 for a detailed discussion; see also Malchukov 2005 for different case marking patterns based on the degree of transitivity of predicates). On the contrary, subjects of "less transitive" predicates, such as *mil* 'receive', are not assigned ergative, irrespective of the perfective aspect (2b).

Hindi (de Hoop & Narasimhan 2008: 64)

(2) a.   raam=ne   patthar=ko   / patthar-Ø   toDl-aa

         Raam=ERG   stone=ACC   / stone-NOM   break-PFV.SG.M

         'Raam broke a/the stone.'

Hindi (see Mohanan 1994, *apud* de Hoop & Narasimhan 2008: 65)

   b.   raam=ko   ek   kitaab-Ø   mil-ii

         Raam=DAT   one   book-NOM   receive-PFV.SG.F

         'Raam received a book.'

The marking of high-prominent subjects also holds for Turkish, where specific subjects are morphologically marked, while non-specific ones are not. It has been explicitly shown by Kornfilt (2008) that only specific subjects of the embedded nominal clauses can bear the genitive case (3a), while non-specific ones cannot get genitive marking (3b).

Turkish (Kornfilt 2008: 84)

(3) a.   [köy-ü   bir   haydut-un   bas-tığ-ın]-ı   duy-du-m

         village-ACC   A   robber-GEN   raid-FN-3SG-ACC   hear-PST-1SG

         'I heard that a (certain) robber raided the village.' (specific for all people)

   b.   [köy-ü   haydut   bas-tığ-ın]-ı   duy-du-m

         village-ACC   robber   raid-FN-3SG-ACC   hear-PST-1SG

         'I heard that robbers raided the village.' (non-specific, generic reading)

DSM can also occur in subjects of intransitive verbs, and that requires case marking on typical, semantically highly agentive (i.e. higher member of the thematic hierarchy) subjects (see de Hoop & Malchukov 2007; de Hoop & de Swart 2008a). Examples with intransitive unergative verbs are important because they provide evidence that DSM is not always driven by the necessity to disambiguate subjects from objects.

Functional approaches have been formalized in the generative framework under optimality-based accounts that involve different constraints. According to the Optimality Theory (OT), multiple possible surface forms compete with each other, while constraints penalize candidates that are not optimal. The most influential from this point of view is Aissen's account (1999; 2003), where she uses the notion of Harmonic Alignment to show that case is assigned to subjects which are low in prominence, thus treating DSM as a mirror image of DOM. Aissen (1999; 2003) also introduces a markedness and an economy constraint. Markedness constraint is, for instance, "avoid unmarked animate objects", while an economy constraint penalizes morphological case marking. The interaction of these two constraints serves on one hand to distinguish subjects from objects (distinctiveness) and on the other hand to express an iconic way of functional markedness by case marking (iconicity). The other OT account is that of Woolford (2008), which also predicts that subjects low in prominence (in terms of animacy, definiteness, or person) are case-marked, but this account is based on the case-markedness hierarchy (4).

(4) *Case Markedness Hierarchy* (Woolford 2008: 31)

    ergative > dative > accusative > nominative

Cases at the more marked end of the hierarchy are more likely to be morphologically marked. However, case cannot be morphologically realized in combination with marked

features, because such a constraint blocks the faithfulness constraint that requires the morphological marking of a case. The example provided by Woolford (2008) shows the blocking of ergative case realization in 1st, and 2nd person in ergative languages, such as Dyirbal.

The most notable works in functional approaches include Comrie (1989); Legendre et al. (1993); Aissen (1999; 2003); Woolford (2001; 2008); de Swart (2003); Malchukov (2006); de Hoop & Malchukov (2007); de Hoop & Narasimhan (2008); de Hoop (2011); and, Malchukov & de Swart (2011) *inter alia*.

Morphological approaches to DSM indicate that all subjects have abstract nominative Case, but this uniform abstract Case is not realized uniformly (or even overtly). According to these approaches, DSM is the result of the interaction of Case feature with impoverishment rules (see Keine & Müller 2008; Keine 2010). In comparison with the functional approaches, it is impoverishment and not case-assignment that is tied closely to markedness: "If impoverishment applies to a certain type of argument, it applies to all less marked ones" (Keine 2010: 208). Thus, markedness scales/hierarchies are also relevant in morphological approaches, as impoverishment is conditioned by Hale/Silverstein hierarchies, some of which were indicated in (1).

The difference between functional and morphological approaches is that in functional approaches DCM is analyzed as an alternation between overt case exponent and the absence of case exponent, so-called zero/non-zero alternation, while morphological ones explore DSM instances that involve alternation between different overt case exponents (see Keine & Müller 2008; 2011; 2014; see also Spyropoulos 2020 for an overview of different approaches). In functional approaches, subjects are not always Case-marked but their markedness can lead to the addition of case-marking. In morphological approaches, subjects have a Case, but markedness may result in this Case

not being realized on the surface (see Bárány & Kalin 2020 for the difference between morphological and functional approaches).

Morphological approaches also include feature decomposition of case (Halle 1997; Halle & Vaux 1998; McFadden 2004; Keine 2010; Keine & Müller 2014, etc.), assuming that the case feature is not atomic, but rather consists of different sub-features such as [±subj(ect)], [±gov(erned)], [±obl(ique)] (see Müller 2004 and Keine 2010 among others; see also McFadden 2004 for different labels, as for instance, [±inferior]). Case decomposition allows impoverishment to affect several sub-features of a case and not the case as a whole, thus leading to the DCM. Subsequently, markedness in morphological approaches, unlike functional ones, does not lead to the introduction of new features, thus following Chomsky's inclusiveness condition (5), but rather deletes some sub-features in different environments. See Keine (2010) for a discussion how (5) prohibits the introduction of new case features during the course of derivation.

(5) *Inclusiveness Condition* (Chomsky 1995: 228)

   "No new objects are added in the course of computation apart from rearrangements of lexical properties."

Syntactic approaches analyze DSM on the basis of the relative syntactic position and/or syntactic licensing. The main topics can be summarized under the following headings: (a) case assignment – different subjects assign different cases (this may even be without opposition that one is overtly marked and, the other is not); (b) case checking/licensing: different subjects check/license their cases differently (if we adopt the idea that case licensing is necessary at all); (c) case visibility: arguments are either visible or invisible for case assignment, for instance, for DC calculus; (d) case accessibility:

some cases are accessible for agreement, while others are not; (e) agreement: different subjects or differently case-marked subjects agree differently.

The main questions here are: how is the subject case assigned? How it is licensed/checked during derivation? Why are some arguments non-canonically case-marked and why do they agree differently? And why does this differentiation not align with the grammatical functions of subjects and objects? Case assignment here is viewed as one based on structural relationships between nominals and particular heads (by linking it to agreement in the Chomskian (2000; 2001) way), or one assigned configurationally, based on the existence of the second argument in the same domain (as presented in Yip, Maling & Jackendoff 1987; Marantz 2000 [1991]; Bittner & Hale 1996). An important topic if a case is assigned by a particular head is the connection between case assignment and movement. In which position do subjects receive their case? Is this (a) ex situ from T^0? or (b) in situ from v^0? (see, for instance, Bobaljik & Branigan 2006 and Aldridge 2004 *inter alia* for ergative case assignment respectively, see also Deal 2015 for different syntax-based accounts of ergative languages and references therein).

Another topic addressed in the literature is the relationship between case and agreement (see, for instance, Baker 2008; 2013; Bobaljik 2008; Preminger 2014; 2021 *inter alia*), mostly focusing on the issue of whether agreement licenses/checks the case of the arguments, i.e. the case is assigned via agreement, as proposed by Chomsky (2000; 2001) or whether arguments carrying structural case are eligible/accessible for agreement, i.e. agreement is triggered by already case-assigned DPs, as proposed by Bobaljik (2008), Baker (2008).

As DSM effects are associated both with syntax and morphological spell-out, several joint morphology- and syntax-based accounts have been proposed that either view case assignment and agreement as post-syntactic phenomena, the input of which is syntactic structure (see Marantz's (2000 [1991]) dependent case theory and Bobaljik's (2008)

agreement theory, but see also Baker & Vinokurova (2010); Preminger (2014); Baker (2015) for the assumption that dependent case assignment happens in the syntax proper), or allude to the syntactic means of case assignment which later can be undone by morphological impoverishment (see for instance Legate 2002; 2006; 2008 for an inherent case theory account).[3] DSM effects can thus be caused by the use of lexical or inherent cases on some subjects (for instance, experiencer datives in some languages), by use of the dependent case (for instance ergative), or by the impoverishment of abstract case features in the presence of the 1st and 2nd person (for instance in 1st and 2nd person pronouns). DSM expressed on verbal morphology may appear parallel to DCM, showing that differently-case marked subjects agree differently (for instance, dative subjects may show different agreement patterns from nominative/absolutive or ergative subjects), or be independent phenomenon, with two possibilities: either language has DS agreement, but not DCM, or has both DSM on verb and DSM on DPs, but the two are independent. Thus, the mismatches between DSM expressed on a verb and DCM, highlight that case and agreement are not two sides of the same coin. Two reasonings are possible to address these issues: one that agreement licenses arguments (if we adopt case assignment by the functional head), i.e. both Case and agreement happen at an abstract level, and differential marking is a result only on the spell-out domain; and second, that some arguments trigger agreement, while others do not based on the Case/case of the argument that makes case features either capable or incapable of establishing an Agree relationship.

As I analyse DSM in Georgian in terms of differential case marking, the main focus is on the subject differentiation based on the case of the argument. Generally speaking, DSM in this work is related to whether a case marker is presented on subject or not, in other words, whether subject appears in a different case from that expected, i.e. is non-

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[3] Both Inherent Case Theory and Dependent Case Theory are described in detail in sub-sections 2.2.3 and 2.2.4 respectively.

canonically marked. Therefore, the understanding of DSM presupposes understanding of the CT, to which I turn in the next section.

2.2 Theoretical framework: The Minimalist Program (MP)

The general theoretical framework of the study is Generative Grammar (GG), as presented in Chomsky's Minimalist Program (MP) (Chomsky 1995; 1998; 2000; 2001).

2.2.1 Case Theory (CT)

The main theory that has been proposed first in Government and Binding (GB) and later in minimalist approach (see Chomsky 1980; 1981; Chomsky 1986 for the GB and; Chomsky 1995; 1998; 2000; 2001 for the MP accounts) that deals with the case assignment constraints is Case Theory (CT), which concerns abstract and not morphological case. The traditional definition of case characterizes it as an inflectional category of nominals, which typically marks a nominals' relation to other constituents of a clause. Two types of cases must be distinguished in CT. The first is abstract case, which is assigned to arguments depending on the syntactic structure and the second the morphological case, a form which is realized at the surface level. Abstract case plays a central role in forcing movement and other syntactic transformations, like passives, raising, unaccusatives, etc., and regulates alternation between overt and unpronounced subjects in non-finite clauses (Bobaljik & Wurmbrand 2011: 44). Morphological case is the surface case form that is assigned to a DP.

Thus, the main goal in CT is to distinguish between morphological case and abstract Case. Whether different morphological case forms are available is a parameter as it does not apply to all languages, while the abstract Case is universal. These two versions of case are quite distinct, sometimes overlapping, sometimes not. The main problem, as

mentioned by Preminger (2021: 1) is that "descriptivist *taxonomies* of case ('nominative', 'accusative', 'ergative', 'absolutive', and so on) are frequently conflated with theoretical *ontologies* of case (the ways in which case may depend on syntactic context, however many such ways there may be)." This creates numerous misunderstandings in the literature, as it does in trying to capture the need of the case theory as such. It would likely be better to have different labels for abstract cases and not to call them by the same names used for *taxonomies* of case.

The abstract case is generally associated either with thematic roles or grammatical functions (GF) of arguments in the sentence, which are indicated by morphosyntactic features. For instance, the German example (6) shows that the thematic role of *agent* is realized as nominative, of *theme* as accusative, and of *goal* as dative. The same example can also be tied to GFs of arguments in stating that *subject* is realized as nominative, *direct object* as accusative, and *indirect object* as dative.

German

(6) Sie hat ihm einen Brief geschrieben.

she.NOM has him.DAT a.ACC letter written.

'She has written him a letter.'

However, not in all languages and not always within even the same language thematic roles and case marking go hand in hand. For instance, the Greek example (7a) shows that the thematic role of *agent* is realized as nominative, of *theme* as accusative and of *goal* as genitive (not as dative, in comparison with the German example), while (7b) depicts a passive sentence, with the *theme* realized as nominative.

Greek

(7) a. O   idioktítis   tou   plióni   to   logariasmó.
        the   owner.NOM   him.GEN   pays   the   bill.ACC.
        'The owner pays the bill for him.'

    b. O   logariasmós   plirónetai.
        the   bill.NOM   is_paid
        'The bill is paid.'

Based on the Greek examples (7a and b), we could postulate then, that GF of subject is decisive to assign nominative, no matter whatever thematic role it might have; however, other languages show that different cases can be assigned in the subject position. For instance, the Basque example (8) shows that at least three cases (nominative, ergative, and dative) can serve to mark subject arguments.

Basque (Levin 1989, Austin & Lopez 1995, *apud* Woolford 2008: 19)

(8) a. Ni-ri   zure   orientako-a-k-Ø   gustatzen   zaizkit.
        I-**DAT**   your   shoes-DET-NOM   like   AUX
        'I like your shoes.'

    b. Miren-ek   attea   ireki   du.
        Miren-**ERG**   door-NOM   open   AUX
        'Miren opened the door.'

    c. Atea-Ø   ireki   da.
        door-**NOM**   open   AUX

'The door opened.'

The Icelandic examples in (9) show that the case of objects may also be different.

Icelenadic (Taraldsen 1995, Schütze 1997, *apud* Baker 2012: 256)

(9)   a.   Hún   elskar   þá.

        she.NOM   love.3ss   them.**ACC**

        'She loves them.'

      b.   Henni   leiddust   þeir.

           she.DAT   be.bored.with.3ps   they.**NOM**

           'She was bored with them.'

Thus, different cases can be assigned in one position and no one-to-one mapping is applicable between GFs and assigned cases. Neither thematic roles nor GFs give us one unified picture. This means that the case which we see at the surface level does not align perfectly with the abstract case, i.e. the case assigned by a functional head. Although all noun phrases undergo case assignment, this may either be realized in different ways or not realized at the surface structure. As Marantz (2000 [1991]: 18) notes, "the connection between abstract case as the means to license NPs and morphological case as what you see on NPs" is not even close. Because there are instances in different languages that illustrate that a DP can get a morphological case without being licensed, and vice versa, a DP can be licensed as an argument without getting a case. The examples for these are provided by Marantz (2000 [1991]) from Icelandic, and I reproduce them here. (10) indicates how a DP gets a morphological case without being licensed, while (11) shows an example where a DP is licensed as an object without getting case.

Icelandic (Marantz 2000 [1991]: 18)

(10) a. María   óskaði (Ólafi)   alls   goðs.

         Mary-NOM   wished Olaf-DAT everything-GEN good-GEN

     b. Þess   vas   óskað.

        this-GEN   was   wished

     c. Henni   var   óskað   þess.

        her-DAT   was   wished this-GEN

Icelandic (Marantz 2000 [1991]: 19)

(11) Ég Tel   henni   hafa   alltaf   þótt   Ólafur   leiðinlegur.

     I   believe her-DAT to-have always thought Olaf-NOM boring-NOM

Further mentions in the literature (see Preminger 2021) suggest that in the generative linguistics case is very often analysed as equivalent to nominal licensing: However, as Preminger (2021: 1) shows first it is not clear whether "a mechanism of nominal licensing, above and beyond the independently necessary mechanism of c-selection, even exists" (see Preminger 2021 for additional references, in particular McFadden 2004; 2012 for discussion; see also Zeijlstra 2020 for c-selection mechanism) and second, even if it exists, it is not connected directly to the case.

Three principles must be taken into account while analysing case assignment according to CT (see Polinsky & Preminger 2014: 153–156 for the summary of the principles proposed within the CT). These principles include the *Case Uniqueness Principle,* where a DP may receive only one Case; the *Case Filter*, where every nominal

argument must be assigned Case and *Case Licensing*, where every instance of Case must be properly licensed.

According to the Case Uniqueness Principle, all DPs must receive only one case. Let us assume that the DP has already been assigned inherent dative. In this case, it cannot get any other structural or whatever case. However, as mentioned in the literature, this principle incorrectly rules out so-called *Suffixaufnahme* or case stacking examples (see for instance Polinsky & Preminger 2014 for the general overview; see also Gerdts & Youn 1988; Schütze 2001 for Korean case stacking; and McGreight Young 1988; Béjar & Massam 2002; Richards 2013; Tingchun 2018 among others for a discussion on Multiple Case Checking (MCC), case assignment and case concord concerning case stacking examples in various languages, such as Niuean and Lardil). (12) provides the most cited examples of case stacking in Korean, where NOM is stacked onto inherent DAT in subject position.

Korean (Joon 1996, *apud* Schütze 2001: 194)

(12) a.   Nay-**ka**   paym-i   mwusepta.

            I-**NOM**   snake-NOM   Fearful

      b.   Na-**eykey**   paym-i   mwusepta.

            I-**DAT**   snake-NOM   Fearful

      c.   Na-**eykey-ka**   paym-i   mwusepta.

            I-**DAT-NOM**   snake-NOM   fearful

            'I am afraid of snakes.'

The explanation for the phenomenon in Korean is that an inherent case is not sufficient to license NP's appearance in subject position and it must additionally receive

structural case, which for subjects is NOM (see Schütze 2001 for references and for an alternative view). The issue whether the *Suffixaufnahme* falsifies the Case Uniqueness Principle is controversial and can be analyzed in various ways. Old Georgian could be also a candidate language for study of case stacking examples.

According to the Case Filter in Minimalist approach, each DP must be assigned a Case. If the DP cannot be assigned a case, it must undergo DP movement to satisfy Case requirements at the deep-structure level. Such movement in the range of various constructions is motivated by the Case Filter: promotion to subject in passive, raising, movement of arguments in unaccusative VPs (see Bobaljik & Wurmbrand 2011: 47; Pesetsky & Torrego 2011: 58 for discussion and appropriate examples). Another important issue is addressed by the authors with regards to comparison of the Case-based account of movement and the Extended Projection Principle (EPP), namely, the requirement that every finite clause has a subject. This question has also been the focus of major discussion, and various ideas have been proposed, including one by Marantz (2000 [1991]) that the EPP alone is sufficient and there is no need for Case theory as such (see Sub-section 2.2.4 on this view).

Note that the Case Filter is about overt DPs, and, in some languages CPs and implicit arguments can be counted as well, but not sentential complements (of passives or adjectival predicates) or PRO. Thus, in Figure 2.1, reprinted from Koeneman & Zeijlstra (2017), PRO cannot get the case as it appears in the position of the subject in a non-finite clause, where it cannot be assigned a case, i.e. caseless position.
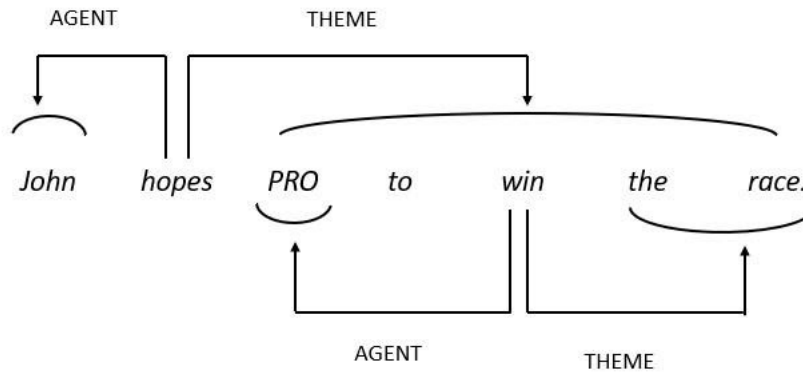
Figure 2.1: PRO and non-thematic position (Koeneman & Zeijlstra 2017: 79)

While some verbs limit lexical subjects to PRO in non-finite clauses, others permit Case assignment across a non-finite clause boundary (see examples (13a) vs. (13b), reprinted from Ura 2001: 340).

(13) a.   Mary believed/considered/reported [John/*PRO to have loved her].

      b.   Mary tried/intended/managed/desired [*John/PRO to go abroad].

This causes additional questions to arise regarding how the case of a subject in a non-finite clause is actually assigned. The construction (13a, 14) is known in the literature as Exceptional Case Marking (ECM), because of the syntactic position of accusative within the embedded clause. It has proven to be a puzzle for different theoretical assumptions within CT in Minimalism.

(14) [4]

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[4] In trees that include the case assignment, case assignment by a functional head is indicated by a dashed arrow, configurational case assignment by a dotted arrow, and movement by a solid arrow.

TP
DP [NOM] I
T'
T [T: Past] -ed
vP
<DP>
v'
V+v want
VP
<V>
TP
DP [ACC] police
T'
T [T: Non-Fin] to
VP
V arrest
DP [ACC] him
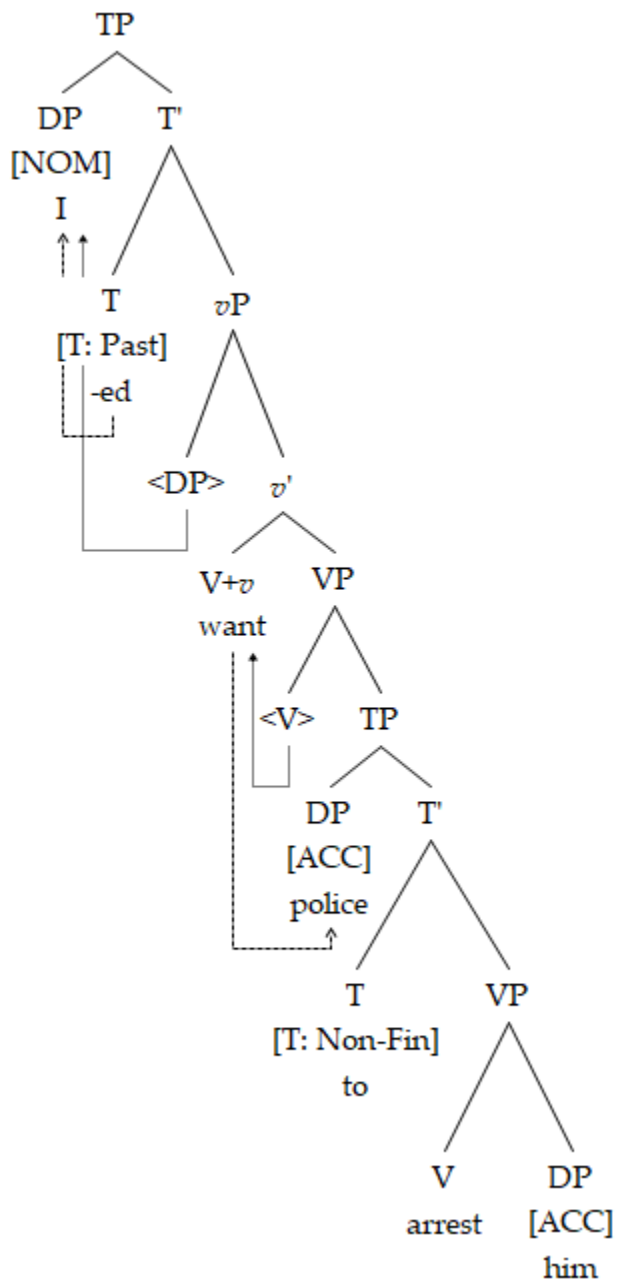
According to the Case Licensing Principle, the assignment of case must be properly checked, by using a mechanism known as feature checking. "The case filter becomes a requirement that a noun be close enough to a Case assigner to check that the noun has the right features" (Carnie 2013: 338). However, if case assignment happens postsyntactically (an idea advocated by Marantz 2000 [1991], see Sub-section 2.2.4), then case assignment is independent from the feature checking.

In standard CT, Case is assigned and checked by a designated head, either a lexical head (V^0, P^0) or a functional head (v^0, $Appl^0$, T^0). Starting with Chomsky (1981), lexical V^0 was responsible for assigning accusative, later on, based on Burzio's generalization (1986), that states that if a verb has an accusative case, it has an external argument, this function was tied to the functional head v^0, introduced by Chomsky (1995) and followed by Kratzer (1996) as bearing the semantic role of introducing an external argument, which is also responsible for assigning accusative. See the same example (15a and b) for accusative assignment by lexical V^0 head or functional v^0.[5]

(15a)

```
                      TP
                    /    \
                  DP      T'
                 /  \    /  \
                D   NP  T    VP
               The  girl [T: Past]
                                /  \
                               V    DP
                              saw  [ACC]
                                    /  \
                                   D    NP
                                  the   boy
```

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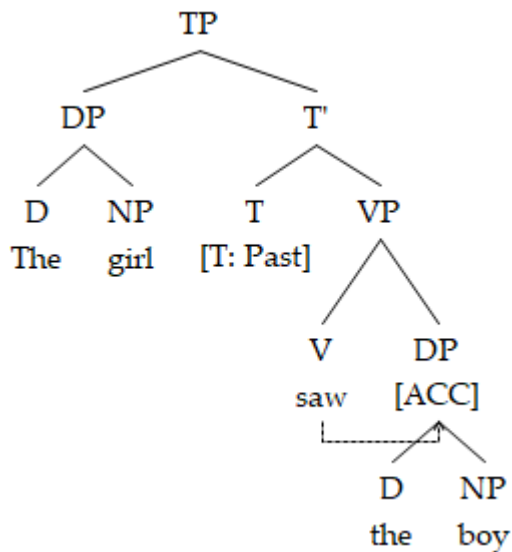
[5] Other theories have also been proposed on how the accusative case is actually assigned. For instance, Legate (2014) proposes that accusative is assigned under Agree with Voice, which is different from v^0, it can be assigned also configurationally (Marantz 2000 [1991]; Baker 2015; Baker & Bobaljik 2017 etc.). However, in traditional CT, these two theories are more prominent.

(15b)

```
                        TP
                   ╱          ╲
              DP                  T'
            ╱    ╲             ╱      ╲
         D      NP          T         vP
        The    girl      [T: Past]   ╱
                                  <DP>        v'
                                 ╱   ╲      ╱    ╲
                               D     NP    v      VP
                              the   girl         ╱  ╲
                                              V       DP
                                             saw     [ACC]
                                                    ╱    ╲
                                                   D      NP
                                                  the     boy
```
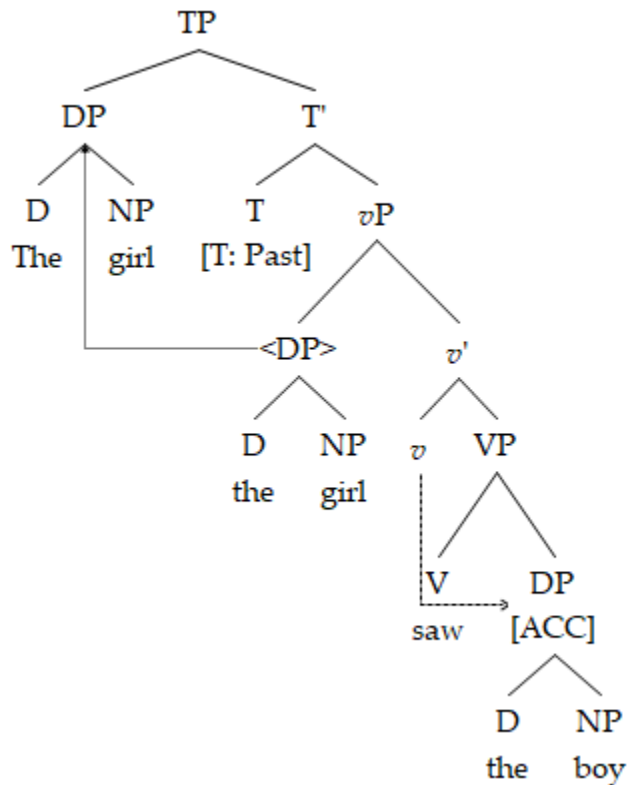
The assigning of the nominative case is mainly tied to the functional T^0 (or I^0 or Fin^0) head. In English, it is only the finite T^0 i.e. Fin^0 that assigns nominative case to its specifier (see Koeneman & Zeijlstra 2017: 109 for an explanation of such labeling). Example (16) depicts nominative assignment by the T^0 head in English.

(16)

```
                        TP
                   _____|_____
                  /             \
                DP              T'
               [NOM]          __|__
               /\            /     \
              /  \          T       VP
             D   AP    [T: Present]  /\
            The  /\        -s       /  \
                /  \               V    PP
               /    \             live  /\
              A     NP                 /  \
          well-known actor            P    DP
                                      in   /\
                                          /  \
                                         D    NP
                                        the  city
```
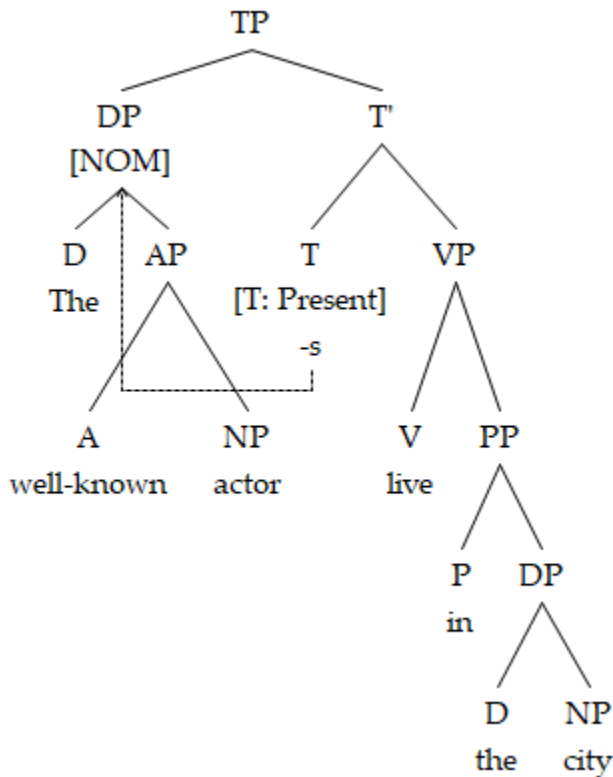
For English, V^0/v^0 and P^0 are heads responsible for the accusative case, while the finite T^0 is responsible for nominative. However, the idea that UG includes a Case filter, and that case assignment by functional head takes place in all languages is now controversial. For discussion, see Baker (2015: 11), and for critiques and alternative views of the case assignment, see Marantz (2000 [1991]), Pesetsky & Torrego (2001; 2004; 2007; 2011), McFadden (2004; 2012), Richards (2010) and Diercks (2012).

What we have seen so far is that DPs appear in the complement position of V^0 or P^0 or in the specifier position of a functional head and the case that is assigned to them is associated with different heads. As case-licensing heads are not of the one class, the result is that Case can be treated either as an *inherent* case (often regarded as a non-structural in the literature,) or as a *structural* case assigned by a functional head. In both instances, case features must be checked by one of these heads, thus highlighting that structural

mechanism is required for case assignment. This leads us to the next question: what kind of abstract cases do we have?

2.2.2 Case types: structural, non-structural: inherent, lexical, quirky

There are several types of abstract cases distinguished in GG. The main distinction is between *structural* case and *inherent* case. *Structural* case is assigned to a DP by virtue of being in a particular structural position. It includes case assigned via agreement with a functional category (e.g. accusative by v^0, or nominative in the specifier of TP) (17), case assigned by a rule of dependent case, when there are two DPs in the same domain (18a) (discussed in detail in Sub-section 2.1.4), or case assigned by default (18b) (see Baker 2013: 27 for discussion on structural cases and their relationship to agreement).

> *English* (Baker 2013: 15)

(17) *structural accusative, structural nominative assigned by a functional head*

a. I usually find *him* in the park.

b. *He* usually finds me in the park.

> *Shipibo* (Baker 2014b: 344, 360)

(18) *dependent ergative*

a. Ochiti-baon-ra   bake   natex-kan-ke.

dog-PL.**ERG**-PRT   child   bite-p.S-PRF

'The dogs bit the child.'

b. *default absolutive*

No-a-ra   nami   bo-ma-anan-ke.

we-**ABS**-PRT   meat   take-CAUS-RECIP-PRF

'We sent meat to each other.'

Generally, *structural* cases include most instances of nominative, absolutive, accusative, and ergative, and some instances of dative case. "The assignment of *inherent* case is tied [on the contrary] to a particular semantic theta-role or to lexical properties of the governing head (e.g. dative case assigned by the German verb *helfen* 'help')" (Haspelmath 2011: 508), i.e. the differentiation is mostly semantic and not structural. The distinction of *inherent* and *lexical* case proposed by Woolford (2006) is based on the assumption that the *inherent* case is somewhat "structurally determined", and aside from a certain semantic theta-role, it is also associated with a structural configuration. The proposed inherent cases are ergative, associated with v^0 that is assigned to external arguments (Agents) and dative, associated with a second extended projection of the VP, called ApplP, assigned to goal arguments (see Andrews 2017: 575 for definition of inherent cases). Inherent case is described in detail in Sub-section 2.1.3. Here, I merely provide two examples from German, where (19a) demonstrates inherent dative, while (19b) lexical dative.

German (Van Valin 2018: 117)

(19)   *inherent dative*

   a. Ich   habe ihr   ein   Buch gekauft.
      1SG.NOM have 3SG.F.**DAT** a.ACC book bought
      'I bought her a book.'

   b. *lexical dative*
      Ich   habe ihr   geholfen.
      1SG.NOM have 3SG.F.**DAT** helped.

'I helped her.'

The *lexical* case is also called *quirky* case. The term *quirky* case is mostly used to denote the displacement of structural case marking by non-nominative marking on subjects, and non-accusative marking on objects (see example (20) for the dative case used for certain subjects in Icelandic).

Icelandic (Barðdal 2011: 624)

(20) *quirky dative*

Hundum   líkar   illa   fótsnerting.

dogs.DAT   like   badly   foot-touch.NOM

'Dogs dislike their feet being touched.'

2.2.3 Inherent Case Theory (ICT)

Traditional CT was initially proposed on the basis of English grammar as an outline of a proper theory for the abstract case and its morphological realization. As such it did not cover all the issues associated with case assignment rules cross-linguistically. After providing more extensive analyses for case assignment rules in other languages, several challenges for a standard case theory have been sketched, one of which involves non-canonically case-marked core arguments in different languages. A lot of proposals have been made to investigate ergative alignment and rules of case assignment in ergative languages, and quirky cases assigned/displaced in the position of nominative subjects or accusative objects. Thus, the main questions addressed are: why do GFs of subjects and objects not correspond to the assigned cases; and, how are cases assigned, structurally or inherently?

This was the main reason for supplementing CT with other additional assumptions and developing other theories. The most prominent two implementations of CT are ICT and DCT. Both these approaches appear in different versions.

I will start with ICT. According to this proposal, there are minimal changes in standard CT, mainly based on the idea of case division into two types: structural and non-structural. According to Chomsky (1981; 1986), the fundamental properties of case assignment include structurally case-marked NPs, and inherently case-marked "as determined by properties of its [-N][6] governor"; structural case, "in general is dissociated from θ-role; it is a structural property of a formal configuration," while "inherent case is presumably closely linked to θ-role" (Chomsky 1981: 170–171). As noted by Barðdal (2011: 621), this opposition is similar to the traditional distinction of grammatical and semantic cases with the addition that Chomsky's inherent case is not just a semantic case. For him it "is what later came to be known as ''thematic'' case, i.e. case marking assigned on the basis of a specific thematic role" (Barðdal 2011: 621). Yet Chomsky (1981) himself does not sub-categorize case assignment by inherent properties of the governor into the *lexical* case and *inherent* case. This sub-categorization comes into play later, for instance, as in Zaenen et al. (1985) with the distinction of "semantic", "lexical/idiosyncratic" and "functional" cases. *Lexical/idiosyncratic* is the one lately labeled as an *inherent* case (see Zaenen, Maling & Thráinsson 1985: 115–116; and Barðdal 2011 for further discussion on the dichotomy of lexical and structural cases in the literature and other works referred to therein) and the other presented in Yip et al. (1987), where the authors claim that "no verb may have two idiosyncratic lexical cases: where there seems to be more than one, the second is supplied by a lexical rule based on the thematic role that the argument bears" (Yip, Maling & Jackendoff 1987: 229).

---

[6] In Chomsky's (1981) account, the [-N] feature is decisive to be able to assign abstract case.

As such, semantic cases must be subdivided into truly lexical idiosyncratic cases, which are assigned by several lexical and thematic heads. For an example of a truly lexical case, see (21), where different cases in Russian are assigned by different P heads.

Russian

(21) a. On   ostalsya doma   iz-za   dozhd-ya.

           he   stayed   home   because   rain-**GEN**

           'He stayed home because of the rain.'

      b. My   govorili   o   kartin-ax.

           we   talked   about   painting-**PREP.**PL

           'We talked about paintings.'

In comparison with examples in (21), the inherent case, though still lexical and non-structural, is tied to a particular semantic theta-role, being more predictable and regular. The idea of the non-structural lexical/inherent case proposed in CT is supplemented by semantically motivated cases into lexical and inherent in ICT (Woolford 2006). See (22), reprinted from Woolford (2006: 111).

(22)
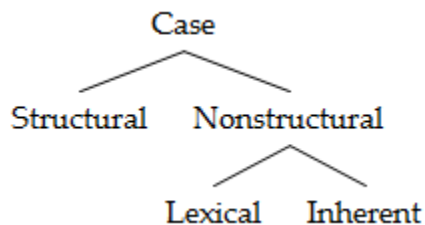
According to Woolford (2006), lexical and inherent cases differ in their behavior and manner of licensing.

"Lexical Case is idiosyncratic Case, lexically selected and licensed by certain lexical heads (certain verbs and prepositions). Inherent Case is more regular, associated with particular θ-positions: inherent dative Case with DP goals, and ergative Case with external arguments" (Woolford 2006: 111).

Both non-structural cases are licensed at a level prior to structural case licensing, within the *v*P, but are distinguished by the heads that license them: the inherent Cases are licensed by v^0 heads above VP proper, while the idiosyncratic lexical Cases are licensed by V^0 inside the VP. So, non-structural case licensing can be presented as follows: "(a) Lexical Case is licensed only by lexical heads (e.g., V, P); (b) Inherent Case is licensed only by little/light v heads." (Woolford 2006: 117).

Licensing can be presented in the form of a tree (23) reprinted from Woolford (Woolford 2006: 116).

(23)
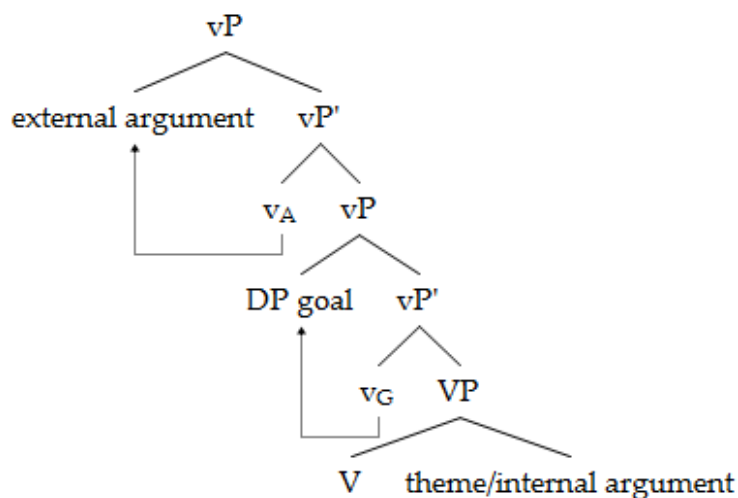
By connecting the inherent case to v^0, the notion of inherent case was extended to the case associated with a particular theta-position, in other words with a structural configuration.

The division of non-structural cases into lexical and inherent shows that the inherent case is not purely lexical, but neither is it structural (based on standard diagnostic tests, mainly case preservation under A-movement).[7] On one side, it is associated with a certain semantic theta-role, thus demonstrating its connection to the semantics. On the other side, it is assigned by a functional head and is not fully lexical. Thus, the inherent case cannot be regarded as a semantic case, as a pure semantic/lexical case must be introduced by a lexical and not functional head. From this point of view, it is hard to say that the inherent case is not structural, as it is associated with a structural configuration and licensing by a functional and not lexical head.

Woolford's approach (2006) has been criticized in several works, but continues to be particularly influential. For instance, regarding the Icelandic examples, Svenonius (2006) claims that all core arguments are assigned structural cases, while Barðdal (2011), on the contrary shows that all core arguments have lexical cases (see Barðdal 2011 for other accounts for Icelandic and more detailed discussion). Andrews (2017) highlights that the inherent case under Woolford's (2006) notion is somehow structurally determined and groups grammatical cases, ergative and dative (in the descriptive view), with lexical cases. Andrews (2017: 576–578) also discusses several diagnostics from Woolford's (2006) so-called "putative reliable diagnostics", namely case preservation under movement and theta-relatedness, and shows that despite their initial plausibility, they do not work out for many languages. Polinsky & Preminger (2014: 161) also question the status of v^0 head "as a lexical head introducing the external argument" because only a lexical head can

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[7] See Chapter 4 for diagnostics to test structural vs. non-structural cases.

place "the same sort of idiosyncratic case requirements upon the argument it introduces" as the lexical case does, and an inherent case in its nature is a lexical/semantic case.

The main argumentation for the status of ergative as an inherent case lies in the association of ergativity with the argumenthood, its theta-relatedness. There are two interpretations of theta-relatedness tests for ergative: the weak one is associated with the agentive theta-role, i.e. ergative is restricted just to semantic agents, and the strong one with the identification of an external argument in general. This association is based on the fact, that in many languages "the link between ergative case and the thematically agentive event participant seems quite strong" (Polinsky & Preminger 2014: 161). This has been observed, for example, in Hindi and Basque where ergative is regarded as a semantically determined case associated with the agent role (see Mohanan 1994; Butt 1995 for Hindi; and Laka 2006; 2017 for Basque among others, but see also alternative accounts for Hindi by Davison 2004; and for Basque by Rezac, Albizu & Etxepare 2014; Berro & Etxepare 2017, where ergative is regarded as a structural case).

The empirical evidence in many languages shows that ergative is not always restricted to an agentive meaning and can bear different thematic roles. Often, these roles can be taken to be proto-agents, i.e. causers, experiencers, or even instruments (24).

   Basque (Sheehan 2017: 67)

(24) a. Berri-ek   (ni) haserretu naute.

    new-DET.PL.**ERG** I Anger 1SGABS.AUX.3PLERG

    'The news angered me.'

   Hindi (Mohanan 1994, *apud* Sheehan 2017: 69)

  b. tuṣaar-ne vah kahaanii yaad   kii.

    Tushar-**ERG** I anger 1SGABS.AUX.3PLERG do.PERF

'Tushar remembered that story.'

Tsez (Polinsky 2016: 299)

c. Yiła   rek-ä   ħišimuku   r-aˤɣi-x.

DEM   key-**ERG**   lock.ABS.IV   IV-open-PRS

'This key opens the lock.'

Other diagnostics that can be used to prove that case is inherent and not structural, such as case preservation under passivization, are discussed in detail in Chapter 4. The main predictions of the claim that ergative is inherent are that ergative cannot be assigned in a non-thematic position, it cannot appear on expletives and derived subjects. The latter is based on Marantz's Ergative Case Generalization (ECG), see (25).

(25) *Ergative Case Generalization* (Marantz 2000 [1991]: 13)

"Even when ergative case may go on the subject of an intransitive clause, ergative case will not appear on a derived subject."

This generalization is regarded as an additional argument for ergative being inherent by proponents of ICT. Legate (2012) argues that as ergative is typically assigned by a v^0 head to the DP base-generated in its specifier, i.e. to a thematic subject, this theory predicts that it should not appear on derived subjects. "Non-inherent analyses do not make this prediction without additional stipulation, since ergative case is triggered simply by the number of arguments that require licensing" (Legate 2012: 183).

Another important line for ergative languages discussed by ICT is about the nominative/absolutive   case   in   the   subject   and   object   position.   How nominative/absolutive is licensed in ergative languages is also regarded as an additional

argument for ICT (see Aldridge 2004; 2008; Massam 2006; Woolford 2006; Legate 2008; Mahajan 2017 *inter alia*). Most of these works refer to the two types of ergative languages, those where the absolutive is a morphological default, and those where the absolutive is identical to nominative. In Legate's (2008) terminology, all ergative languages are either ABS=DEF or ABS=NOM (but see Rudnev 2021 for an alternative view based on examples from Avar, where absolutive shows mixed properties). According to Legate (2008), ABS=DEF languages show the same morphological realization of the arguments, while syntactically intransitive subjects bear a nominative case, i.e. the abstract case assigned by the T^0 head, while transitive objects get accusative abstract case from the v^0 head. In ABS=NOM languages, on the contrary, both intransitive subjects and transitive objects have an absolutive i.e. structural nominative, assigned by T^0 (see Legate 2008 for the full description of both types and for the appropriate argumentation; see also Polinsky & Preminger 2014; Rudnev 2021 for an evaluation of the idea that ergative languages fall into two distinct subtypes). For ICT, an important piece of argumentation is that if an absolutive in the object position is licensed by a T^0 head (i.e. if ABS=NOM), the ergative cannot be structural, as otherwise, it would intervene and there would be no possibility for the T^0 head to license the absolutive case.

The second type of ergative languages (ABS=DEF) differ from ABS=NOM in the following way: In ABS=NOM languages every ABS gets assigned by the finite T^0, while in ABS=DEF languages, different nominals may receive a case from different heads, but all get spelled out as absolutive, i.e. default. Thus, the difference, as pointed out by Legate (2008: 58), is in the lexical entries of v^0 heads: "in ABS=DEF languages, transitive v assigns accusative case, whereas in ABS=NOM, it does not", however, this does not affect the assigning of ergative as an inherent case.

Based on ICT, many linguists regard ergative to be an inherent case (see Nash 1996; Woolford 1997; 2006; 2017; Massam 2001; 2002; 2006; Aldridge 2004; 2008; 2012; Anand &

Nevins 2006; Laka 2006; 2017; Legate 2006; 2008; 2012; Mahajan 2012; 2017; Coon 2013a etc.). Furthermore, it has been addressed that this view may have advantages for non-strict ergative languages, i.e. those that show split patterns based on a tense+aspect distinction or full DP/pronouns distinction. According to several accounts, Georgian might seem to be such a language and, therefore, the Georgian ergative could be thought of as an instance of the inherent case (Nash 1996; Legate 2008). However, the next section will provide an overview of another theory that is more compatible with Georgian.

2.2.4   Dependent Case Theory (DCT)

Now, I turn to the other prominent approach to case theory: DCT. This theory was initiated by Marantz (2000 [1991]) and developed extensively in McFadden (2004), Baker & Vinokurova (2010), Baker (2014b; 2015), Preminger (2014), Levin & Preminger (2015), and Baker & Bobaljik (2017), among many others. Lately, the theory has been discussed by Preminger (2021), where he proposed a new update to Marantz's (2000 [1991]) assumptions. Other configurational approaches to case assignment that share the idea that the ergative and accusative case are assigned by virtue of the presence of the other noun phrase are those presented by Yip et al. (1987) and Bittner & Halle (1996a; 1996b), but they differ in their implementation from DCT. The former presents a case assignment based on a hierarchy of grammatical functions proposing that the syntactic surface case forms a case tier that is autonomous of the phrase structure and is associated with other NPs in the phrase structure tier. The latter combines "case competition" with the functional head's assignment. In Bittner & Halle's approach (1996a), the functional head is activated by the Case competitor for the subject, i.e. ergative is assigned by I^0 when it is activated by the nominative object. This is not what happens in pure DCT, where the dependent case takes precedence over the unmarked case and is not assigned by any particular functional head.

According to the pure DC theory, as proposed by Marantz (2000 [1991]), there is a complete break between the abstract Case and m(orphological)-case, especially in languages with rich morphological case and agreement systems. Case assignment happens post-syntactically and not in syntax proper. Following Marantz's proposal, however, it has been indicated by other scholars that as case assignment happens prior to movement (Baker & Vinokurova 2010: 638–641; Baker 2015: 47–50), and considering that φ-agreement happens on the basis of the morphological case (Preminger 2014: 182–186), case assignment cannot happen post-syntactically.

According to Marantz (2000 [1991]), there is no need to allude to the Case theory as such, as

"The mapping between semantic roles and argument positions, augmented by the subject requirement of the Extended Projection Principle (EPP), is sufficient to license NPs in argument positions" (Marantz 2000 [1991]: 11).

The main point of this theory is the position of DP which is relative to other DPs within a particular domain. If there are two DPs in the domain (in Marantz's notion this domain is generally a clause), then one of the DPs must bear a dependent case. The dependent case is the marked case of the DP. If the lower of two DPs in a domain is marked, then it is an accusative; if the higher is marked, it is an ergative. The second DP, after dependent case assignment is realized as an unmarked case, which is nominative/absolutive in the clause domain.

So, the dependent case assigned up to the subject is ergative, while the dependent case assigned down to the object is accusative (Marantz 2000 [1991]: 25). This is presented in the scheme below (26).

(26)
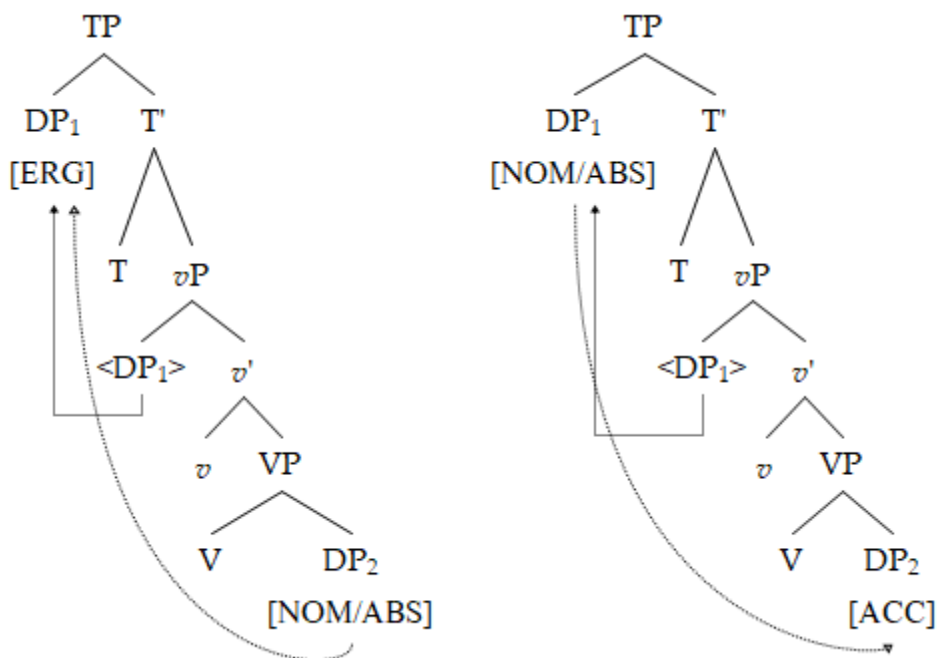
The rule of the DC (27) states (Baker 2015: 48–49):

(27) "a. If there are two distinct NPs in the same spell out domain such that NP$_1$ c-commands
         NP$_2$, then value the case feature of NP$_2$ as accusative unless NP$_1$ has already been
         marked for case.

    b. If there are two distinct NPs in the same spell out domain such that NP$_1$ c-commands
         NP$_2$, then value the case feature of NP$_1$ as ergative unless NP$_1$ has already been
         marked for case."

   One nominal is distinct from another if the two are not part of a chain. Thus, languages
differ in whether the dependent case is assigned up to the subject, or down to the object.
An extension of this was proposed by Deal (2015; 2019) for the tripartite languages, based
on the examples from Nez Perce where dependent cases can be assigned both up and
down. Example (28a) illustrates a transitive subject with ergative and transitive object

with accusative (i.e. two dependent cases), while (28b) shows an intransitive subject in a
bare form, nominative (i.e. unmarked case).

       Nez Perce (Deal 2015: 657)

(28) a. haacwal-nim   pee-p-Ø-e   cu'yeem-ne.

           boy-**ERG**   3SBJ-eat-P.ASP-REM.PST   fish-**ACC**

           'The boy ate the fish.'

      b. haacwal   hi-peeleey-n-e.

           boy.**NOM**   3SBJ-get.lost-P.ASP-REM.PST

           'The boy got lost.'

Thus, three possible parameters have been schematized in the literature for dependent
case relation: *upward* and *downward* as indicated in (26), and *reciprocal* as indicated in (28a)
for Nez Perce (see Levin & Preminger 2015 for labels and further discussion).

The dependent case by nature is structural, however, Marantz's idea of structural case
is somewhat different from the idea of Chomsky (2000; 2001), for whom structural case is
"primarily a relationship between a functional head and a nearby NP in the same
domain" (Baker 2014b: 343). The structural conditions which play role in case assignment
by functional head consist of: "(i) a c-command relation obtaining between a designated
head and the relevant noun phrase and (ii) the absence of an intervening phase boundary
or DP between the two" (Polinsky & Preminger 2014: 160). For Marantz (2000 [1991])
structural case is what happens when two DPs are in the same domain. So, according to
Marantz's (2000 [1991]: 25) proposal (29):

(29) "Dependent case is assigned by V+I to a position governed by V+I when a distinct position

governed by V+I is:

   a. not "marked" (not part of a chain governed by a lexical case determiner)

   b. distinct from the chain being assigned dependent case

       Dependent case assigned up to subject: ergative

       Dependent case assigned down to object: accusative."

Though, in this formulation, it seems that the dependent case is assigned by V+I, i.e. two functional heads, in subsequent works (see, for instance, Baker 2015: 50), it has been shown that the dependent case is not contingent on the presence of any particular head. Functional heads merely help to "determine which particular case is assigned in a given configuration" (Baker 2015: 51). The algorithm of the assigning case is based on the Disjunctive Case Hierarchy (DCH) proposed by Marantz (2000 [1991]), see (30):

(30) *Marantz's disjunctive case hierarchy* (Marantz 2000 [1991]: 24)

   "lexically governed case > "dependent" case (accusative and ergative) > unmarked case
   (environment-sensitive) > default case."

According to this hierarchy, a lexically governed case is first to be assigned, then the algorithm assigns the dependent (ergative or accusative) case. This happens if there is another DP in the structure that has not yet acquired a lexical case. Then an unmarked case is realized in the opposition of the dependent and the last resource is the default case, which is taken to be operative if no other is specified. The crucial point is that the dependent case takes precedence over the unmarked case.

Preminger (2021) proposes two updates with regards to DCH. According to him, a lexically governed case must be substituted by the so-called *head case*, thus transferring the case assignment from lexical towards functional head (v^0, APPL^0, etc.). The examples

provided are those of dative quirky subjects in Icelandic or goal arguments in ditransitives, as they are associated with a particular thematic role. Both are usually thought of as lexically governed inherent cases. For Preminger, the assignment of Marantz's lexically governed case is just "the first structural relation that a noun phrase enters into" (Preminger 2014: 208). In doing so, Preminger proposes the mixed version of DCT and case assignment by the functional head, though different from the one, that was proposed by Baker (2015), where cases even in the same language can be assigned either by the functional head via an agreement relationship (in the Chomskyan way) or following the dependent case calculus. For Baker (2015) (see also Baker & Vinokurova 2010), these two ways of the case assignment are complementary. Thus, Baker's approach is sometimes referred to as a hybrid approach, as it accumulates both case assignment by the functional head and case assigned configurationally.

The main question that remains regarding Marantz's *lexically governed case* is whether it can be regarded as a structural or non-structural case. This question has also been addressed by Preminger (2021: 8), and he gives two possible solutions. One that needs to be mentioned is that even if this case (*head case* in Preminger's terminology) can be regarded as "inherent", i.e. as associated with a theta-position, it is still assigned by the head that also assigns the related thematic role, that is, it is structurally assigned. So, even an inherent case can be captured by the *head case.* If we consider Woolford's (2006) division of non-structural case into inherent and lexical, it becomes obvious that even an inherent case can be treated as a structural case assigned by a head. This is different from how the inherent case is traditionally treated in the literature.

This can be true for cases assigned by v^0 or $Appl^0$ head, but the question that remains open is how we can deal with cases assigned by P^0 heads, i.e. oblique cases. In other words, what do we do with *lexical cases* that are idiosyncratic to particular lexical items and thus different from the inherent case?

The second update concerns the default case included in Marantz's system as a separate case different from an unmarked case. According to Preminger (2021), it is redundant and must be treated as an *elsewhere* spell-out of an unmarked case. This assumption is based on the idea that "Both 'nominative' and 'genitive', per the original proposal, are the spell-out of an unmarked case. They differ only in the identity of the domain in which they occur: 'nominative' if the enclosing domain is a clause, and 'genitive' if the enclosing domain is itself a (separate) nominal" (Preminger 2021: 3). An unmarked case is the last resort case for other scholars as well (Baker 2015; Levin 2015; Andrews 2017; Zeijlstra 2020). I also adopt this idea and not the one which was proposed originally by Marantz (2000 [1991]) and then discussed in Preminger (2014) and Levin & Preminger (2015). In these previous studies, an unmarked case is one that is different from the default, it is not "contingent on the presence of any other particular lexical item or noun phrase" (Preminger 2014: 147) and it is a phonologically unmarked or less marked case in the language. The default case does not need to be obligatorily unmarked. The unmarked case is more like a morphological default than a syntactic default. In this dissertation, I assume the unmarked case to be a syntactic default, i.e. one that is taken to be operative if no other is specified as a last resource case.

Baker & Vinokurova (2010) provide a detailed study on the dependent case assignment, based on Sakha language (Turkic), and Baker (2014b) supports the above theory by providing examples from Shipibo (Panoan). Take example (31) from Shipibo where the subject of a transitive clause is ergative in comparison with the absolutive object of the transitive and the absolutive subject of the intransitive clause, which are unmarked in Shipibo.

        Shipibo (Baker 2014b: 342)

 (31)   a.   Maria-nin-ra   ochiti   noko-ke.

    Maria-**ERG**-PRT   dog   find-PRF

    'Maria found the dog.'

b.   Maria-ra   ka-ke.

    Maria-PRT   go-PRF

    'Maria went.'

Baker (2014b) shows that analysis of the same patterns under alternative approaches, agreement-based assignment or inherent case rule, are not compatible with the Shipibo facts. First, Shipibo has very limited agreement and it does not correlate with the morphological case; and, second, the theta-roles of an NP (agent or theme) are not primarily determinants of its case. Theoretically, the main difference here and also in Baker & Vinokurova (2010) with respect to Marantz's account, is that Marantz (2000 [1991]) uses the notion of a clause while speaking about domain, whereas the authors of these works propose the notion of a phase. According to their account, the assignment happens cyclically, phase by phase, with VP counting as a Spell-Out domain distinct from IP. Thus, according to Baker (2014b: 355), the proposal includes the following assumptions (32):

(32) "a.   C and *v* are phase heads.

    b.   Their complements (IP, VP) are Spell-Out domains.

    c.   Spell-Out involves mapping relevant c-command relations onto linear order statements, and so on.

    d.   CP is always a "hard phase" or a "soft phase". If it is soft, the contents of its complement do remain visible in the next stage of derivation, but only new c-command relationship are considered at later Spell-Outs."

In later work, Baker (2015: 233) updated the phase notion, suggesting that C^0 is always a hard phase head, while v^0 may be a hard phase head or a soft phase head. Baker (2015: 48, 230–251) thus reformulated the DC rule, substituting "phase" with "Spell-Out domain".

One very important point discussed by the authors (Baker & Vinokurova 2010; Baker 2014b; 2015) is the indication that in one language, two kinds of cases, those assigned by the head and those assigned configurationally, can co-exist. Thus, for some languages at least, a hybrid approach of assigning case can be applied. Using examples from Sakha, Baker & Vinokurova (2010) show that accusative and dative in this language are assigned by configurational rules (33a and b), with accusative being assigned in any phase, and dative only inside the VP-phase.

Sakha (Baker & Vinokurova 2010: 595)

(33) a. Masha   aqa-ta   yt-y   kör-dö.

           Masha(GEN)   father-3sP(NOM)   dog-**ACC**   see-PAST.3sS

           'Masha's father saw the dog.'

    b. Masha   Misha-qa   at-y   bier-de.

           Masha(NOM)   Misha-**DAT**   dog-ACC   give-PAST.3sS

           'Masha gave Misha a horse.'

Whereas nominative and genitive in the same language are assigned by functional heads (see (34a and b) for nominative and (34c) for genitive), as shown by the distribution of nominative case and the relationship between case marking and agreement.

Sakha (Vinokurova 2005, *apud* Baker & Vinokurova 2010: 630)

(34) a. En   aaq-a-qyn.

         You   read-AOR-2SS

         'You read.'

     b. En   aaq-ar-yŋ   bil-l-er.

         You   read-AOR-2SS   know-PASS-AOR-3SS

         'It is known that you read.'

         Sakha (Baker & Vinokurova 2010: 626)

     c. Masha   aqa-ty-n   atyylas-pyt   at-a.

         Masha   father-3SP-GEN   buy-PTPL   horse-3SP

         'the horse that Masha's father bought.'

It has been argued by Levin & Preminger (2015) that the examples provided by Baker & Vinokurova (2010) for Sakha can be analysed alternatively in terms of configurational case assignment without alluding to case assignment by functional heads, mostly based on the idea that agreement happens after the case has been already assigned (an idea fully developed in Bobaljik 2008). Thus, for Levin & Preminger (2015: 236) "the presence of nominative-/genitive-marked nominals [as indicated in examples (34)] conditions the application of agreement, rather than the other way around." For detailed argumentation and discussion about how these cases are actually assigned the reader is referred to Baker & Vinokurova (2010) and Levin & Preminger (2015).

According to Baker (2015: 51), a configurationally assigned case has an advantage over agreement-based theories of case, because the latter always have "to scramble in one way or another to get ergative patterns". So, for ergative languages, DCT is one of the more attractive theories.

As Georgian is an ergative language, for our purposes the most important thing is to see how ergative is assigned and DCT can account for instances of split-ergativity characteristic to Georgian. This was first pointed out by Marantz (2000 [1991]) and later by Baker (2015). Georgian ergative has been described in the lines of the dependent case assignment by Nash (2017), whose account is different from a pure DCT account, combining the configurational approach with the head's assignment. In Nash's approach an "ergative-absolutive layout appears in clauses where both the subject and direct object receive their cases from the same functional head T" (Ganenkov 2020) and licensing of the ergative happens inside of vP following the DC rule, where two nominals compete for the same case-checking source. So, the unmarked case is assigned by T^0, while the ergative is assigned configurationally as a dependent case inside vP. This account is more similar to the combined approach proposed by Bittner & Halle in the 1990ies (1996a; 1996b), with some configurations. For a detailed discussion about this approach see Chapter 5, Sub-section 5.1.2.

In pure DCT, transitivity and the existence of a second argument determines when to assign ergative. As already mentioned, some scholars have also included dative in that and at least some instances of datives can be regarded as structural dependent cases (Baker & Vinokurova 2010; Baker 2015). Many scholars have analyzed ergative along the lines of the DC rule assignment, thus coming up to postulate that in at least some ergative languages ergative is a dependent case (see Marantz 2000 [1991]; McFadden 2004; Bobaljik 2008; Baker 2013; 2014b; 2015; Preminger 2014; Levin & Preminger 2015; Baker & Bobaljik 2017 among others).

2.2.5 Interim summary

The main theories discussed in this chapter can be summarized as in (35).

(35)

a. Theories where the case is assigned by a functional head under φ-agreement in the Chomskyan way (2000; 2001) (cf. sections 2.1.1. for Chomsky's account and 2.1.3 for the ICT);

b. Theories that include configurational case assignment formulated in its more influential way, as in DCT by Marantz (2000 [1991]) (cf. Sub-section 2.1.4. for the DCT), in which case assignment is contingent on the existence of the second DP in the same domain, without alluding to agreement;

c. Hybrid approaches, which either presuppose that these two ways of assigning case are complementary even in the grammar of a single language (Baker & Vinokurova 2010; Baker 2015), or adopt a configurational approach, which includes "case competition" as in DCT, but where a functional head also plays an important role and is needed to check-off case features (Bittner & Hale 1996a; 1996b).

The relationship between case and agreement in the theories indicated in (35a) is viewed as two sides of the same coin, based on Chomsky's (2000; 2001) idea that "a functional head X assigns its distinctive brand of case to NP Y if and only if X enters into an Agree relationship with Y." However, a lot of ergative languages do not show this exact relationship between case and agreement; they may have either very limited agreement as indicated by Baker (2014b: 344) for Shipibo (36), or no relation between case assignment and agreement whatsoever, as indicated by Baker (2008; 2014a) for Burushaski (37).

Shipibo (Baker 2014b: 344)

(36) a. Ochiti-baon-ra   bake   natex-**kan**-ke.

        dog-PL.ERG-PRT   child   bite-pS-PRF

        'The dogs bit the child.'

   b.   Joni-bo-ra   mawa-**kan**-ke.

       person-PL-PRT   die-pS-PRF

       'The people died.'

   c.   Ochiti-nin-ra   bake-bo   natex-(***kan)**-ke.

       dog-ERG-PRT   child-PL   bite-(*pS)-PRF

       'The dogs bit the children.'

Examples in (36) indicate that from the limited agreement that Shipibo has, the ergative and absolutive subjects both show number agreement, while the absolutive object does not.

       Burushaski (Baker 2014a: 41)

(37) b. Jɛ   u:ɳɛ   xidmʌt   ɛč-**a**   b-**a.**

          I.NOM   your   service   do-1sS(IMPF)   be-1sS

          '(For these many years) I have been at your service.'

      c. Ja   be.ʌdʌpi.ɛn   ɛt-**a**   b-**a.**

          I.ERG   discourtesy   do-1sS(PERF)   be-1sS

          'I have committed a discourtesy.'

Examples in (37) indicate that Burushaski has the same type of the agreement for both nominative and ergative subjects. As such, the difference in the case-marking of the subject has no effect on the verbal agreement.

These inconsistences in relationship between agreement and case-marking lead to some accounts being developed that tried to identify which functional heads assign which structural cases to which DPs in ergative languages (see Baker 2014: 344 for different accounts including early minimalist works of Campana 1992, Bobaljik 1993 among others). The indicated literature shows thus that case assignment (at least in ergative languages) is not the result of feature-checking relations between the φ-probing head and a DP goal.

Theories that include DC assignment (35b) do not implicate dependency of the case assignment on the φ-agreement. On the contrary, following Marantz's (2000 [1991]) DCH (30), Bobaljik (2008) proposed that agreement is sensitive to the output of the morphological case (m-case), showing that some cases are accessible for agreement, while others are not. So, in configurational DC approaches, case is not assigned under the agreement, but agreement is *case-discriminating* (a term proposed by Preminger 2014: 150). As already indicated in Section 2.1, the assumptions within configurational approaches differ as to where both operations, case assignment and φ-agreement take place: in the postsyntactic PF branch (Marantz 2000 [1991]; Bobaljik 2008) or in the syntax proper (Preminger 2014; Baker 2015; Levin 2015).

As for hybrid approaches (35c), the one which allows both configurational and case-assignment under φ-agreement as developed extensively in Baker (2015), does not mix these two approaches in terms that one case may be assigned by different rules, but rather considers them complementary with the result different cases across languages or within one language to be assigned in different ways (see Baker vs. Legate 2021, where Baker

describes differences and provides examples for both types of case assignment cross-linguistically).

The hybrid approach, which includes "case competition" alongside the case assignment by functional head as proposed by Bittner & Halle (1996a; 1996b), on the contrary alludes to both configurational and case-assignment under φ-agreement for one case assignment. In Bittner & Halle (1996a), the functional head is activated by a Case competitor for the subject. It is the functional head I^0 that assigns ergative and is activated by the nominative object. This approach is not favored due to its intricate character, as a minimalist approach has to be as simple as possible (see Massam 2006; Legate 2008; and Baker 2014b for some critique on this theory).

Nowadays attention is paid to more prominent theories, i.e. DCT and ICT, as described above. However, these theories may be not sufficient, and there is already an attempt to find a more suitable theory of ergativity that will be more predictive and empirically adequate. Preminger (2012), on the examples of the Basque ergative with unergatives, points out that there is a need for a new theory of ergative case that is "compatible (at the very least) with: (i) the existence of ergative noun-phrases without a case-competitor; (ii) the assignment of ergative case in non-thematic positions; and (iii) a lexically determined distinction between unergatives and unaccusatives" (Preminger 2012: 278). That means, that such a new theory must cover all problematic issues that cannot be covered by DCT or ICT.

In what follows in the next chapters I will illustrate how Georgian subject cases: nominative, ergative, and dative, fit in this picture. Based on the existing two theories: ICT and DCT, I will show that DCT, unlike ICT, is capable of dealing with both ergative and dative subjects in Georgian.

2.3 Further reading on DSM and CT

As the main focus of this work is on DSM in terms of the differential case marking, this section provides a brief overview of the main literature on the issue, which encompass a bibliography on different approaches of Differential Argument Marking (DAM), analysed cross-linguistically, references on case assignment, and on the Georgian language.

DAM has been studied cross-linguistically in detail. More research has been done about DOM, as cross-linguistically DOM is more consistent than DSM. DOM is a widespread linguistic phenomenon that divides objects into two classes — a class that is overtly marked and a class that is not. The DSM phenomena are more complicated and can be studied through a broader perspective.

As there are different types of DSM effects, with diverse causes, and they cannot be covered by a unified theoretical account, the related literature differs with respect to approaches to analyzing DAM (see Sections 2.1 and 2.2 of the same chapter for discussion and the relevant statements of various approaches to the DSM analysis cross-linguistically). Here I merely provide the list of the most notable contributions. In functional approaches, among the most cited works are those of Silverstein (1976); Hopper & Thompson (1980); Croft (1988; 2003); Comrie (1989); Næss (2004), etc. Some of the functional approaches have been formalized in the generative framework as well, namely, in Optimality-Theoretic analyses. Here, the most influential is Aissen's (1999; 2003) contribution, which was lately argued and altered by others (de Swart 2003; 2007; de Hoop & Malchukov 2007; Woolford 2001; 2008 etc.). From the studies on the syntax-morphology interface, strict morphological or syntactic accounts those that should be mentioned either base their theory on impoverishment rules (DM accounts) or discuss differential case marking and case assignment based on different theories (IC vs. DC). I

merely provide list of some most-notable contributions, for instance Marantz (2000 [1991]); de Hoop (1996); Woolford (1997; 2006; 2008; 2017); Massam (2001; 2006); McFadden (2004); Butt (2006); Danon (2006); Bobaljik (2008); Keine & Müller (2008); Legate (2008; 2012); Keine (2010); Baker & Vinokurova (2010); Deal (2010; 2015; 2019); Richards (2010); Mahajan (2012); Preminger (2012; 2014; 2021); Baker (2013; 2014a; 2014b; 2015); Coon (2013a); Ormazabal & Romero (2013); Levin & Preminger (2015); Baker & Bobaljik (2017) and many others.

The literature on DSM also includes different case studies cross-linguistically, for instance, Lee (2008) investigates the phenomenon in the Korean language, De Hoop & Narasimhan (2008) and Mahajan (2012) in Hindi (Mahajan's account is on ergative case assignment), Kornfilt (2008; 2020) in Turkish (Kornfilt's account is a conciliatory approach to Case, based both on the assignment by a functional head and DCT), Błaszczak (2008) in Polish, Spyropoulos (2016; 2020) in Pontic Greek spoken in Turkey, Berikashvili (2022) in Pontic Greek spoken in Georgia, etc. Here, another empirical case study, this time of Georgian, can contribute to the whole picture of analyzing DSM and lead us to important theoretical assumptions and generalizations.

Georgian has been investigated in different theoretical frameworks from different perspectives. Works that should be mentioned with regards to the research questions (including descriptive, relational, reference grammars and works in the lexical-functional, computational and language processing approaches) are those of Chikobava (1950; 1956; 1968; 1980; 1981); Imnaishvili (1957); Shanidze (1961; 1976; 1980 [1973]; 1981); Gamkrelidze (1979); Apridonidze (1986; 1998); Kvatchadze (1996); Sarjveladze (1997); Asatiani (1982; 1998); Datukishvili (1992; 1997a; 1998); Melikishvili (2001; 2014); Uturgaidze (2002; 2016); Geguchadze (2004; 2010); and Tandashvili (2017) etc. in Georgian, and those of Boeder (1979; 2005); Harris (1981; 1982; 1985; 1990); Hollisky (1981); Aronson (2005 [1982]); Hewitt (1987; 1995; 2005 [1996]); Tuite (1984; 1987; 1998;

2017); Holmer (2001); Amiridze (2005; 2006); Gurevich (2006); Asatiani & Ivanishvili (2007); Melikishvili (2008); Melikishvili, Humphries & Kupunia (2008); Skopeteas, Fanselow & Asatiani (2011); Wier (2011a); Harris & Amiridze (2015), and Lobzhanidze (2022) etc. in English. Some of the most notable literature about Georgian language can be retrieved from the LACIM (Bulut et al. 2021) official web-site: https://spw.uni-goettingen.de/projects/lacim/.

Georgian case assignment has been less systematically investigated from a GG perspective, though in the international generative tradition, Georgian has been more thoroughly studied, along with Hindi and Basque, than many other ergative languages. Still, it is mostly restricted to several works on different issues. A detailed overview of relevant for the discussion previous accounts is provided in corresponding chapters, Chapter 5, Section 5.1 for the ergative and Chapter 6, Section 6.1 for the dative assignment. Works that should be mentioned about case assigning include but are not limited to those mentioned below. Some of them provide just examples from Georgian and are not specific studies, but are important for understanding the Georgian argument structure and related phenomena. First of all, I will mention works by Marantz (1989; 2000 [1991]), according to whom Georgian ergative can be used as an example of DCT, while Georgian dative can be analyzed as an inherent case; by Legate (2008), who uses Georgian examples in argumentation for ICT; by Ura (2006), who explores the syntactic mechanism of the aspectually conditioned split-ergativity and provides Georgian examples within Chosmsky's (1995; 2000) theory of feature-checking; by Nash (2017), who examines split ergativity in Georgian in order to understand the difference between ergative and nominative behavior, showing that it is formal-syntactic transitivity and not a theta-role, that determines case marking. As such, Nash (2017) provides a mixed configurational approach that includes "case competition" and case assignment by a functional head, though in her previous work, it was taken to be inherent (see Nash 1996);

and by McGinnis (1997; 1998a; 1998b; 2001; 2004), who investigates thoroughly Georgian datives from different perspectives. Her works (McGinnis 1997; 1998a; 1998b) provide an analysis of dative as an inherent case. The author distinguishes between dative arguments of subject experiencer (SubjExp) verbs, which in McGinnis's view have the quirky inherent case, i.e. a case capable of undergoing movement, and goal argument, which have a non-quirky inherent case, i.e. a case incapable of undergoing movement. A more detailed overview of McGinnis's works is provided in Chapter 6, Sub-section 6.1.1. Some other works include agreement-based accounts from both morphological and syntactic perspective and how dative arguments correlate with object agreement: Halle & Marantz (1993); Béjar (2003), Béjar & Rezac (2009), Lomashvili & Harley (2011), McGinnis (2008; 2013), Foley (2020a), Blix (2021).

Recently, an overview article about ergativity in the Caucasus from the generative perspective (mostly the Nach-Dagestanian languages) was written, which includes Georgian examples as well (Ganenkov 2020). One other attempt in 2020 was to describe case and agreement system of Georgian from the viewpoint of sentence processing based on the experimental study (Foley 2020b).

As it can be seen contradictions in previous accounts basically concern the case assignment analysis and it is not obvious what the real nature of subject cases is: structural or non-structural and how case assignment actually works in Georgian.

3. The morphosyntax of Georgian subject cases

This chapter aims to provide background information on the morphosyntax of Georgian subject cases and the main factors that trigger DSM in Georgian. Section 3.1 discusses Georgian ergativity; Section 3.2 looks at morphological cases and argument structure, with a focus on subject case distribution; and Section 3.3 explores factors responsible for the differential marking of subjects.

Before we start, some terms need clarification. We must distinguish syntactic cases, i.e. cases based on grammatical function (GF), position in the structure, or association with a thematic role (for, instance the label *accusative* case denotes internal theme/patient argument used for direct objects) from morphological cases, i.e. case marking of a dependent nominal for the type of its relationship. Syntactic case is what we see from the structure, while morphological case is a marker what we see on the surface.

In what follows I use two different labels from Georgian grammatical tradition, one to denote nominative and the other to denote the dative of patient/theme arguments. I will use the term nominative/absolutive (NOM/ABS), as the unmarked case shows mixed properties: those of nominative grouping together subjects of transitive verbs (A) and subjects of intransitive verbs (S) based on the split ergative property, and those of absolutive combining S with objects (O) (see Berikashvili & Lobzhanidze 2022 for mixed properties of nominative and absolutive in Georgian). The intransitive S is split into agent-like S_A=A and patient-like S_P=P, thus dividing cases of S in what is sometimes called agentive and patentive cases. No general solution has been found so-far for the labeling of this case (see Haspelmath 2011: 512–514 for problems of case labels in split systems). The case for internal arguments in Georgian grammatical tradition is labelled dative, which shows mixed properties of dative and accusative. It is used to denote goals, non-volitional actors and patient/themes, thus, bearing the grammatical functions of indirect

objects, subjects and direct objects. Henceforth, I indicate dative/accusative (DAT/ACC) for internal arguments, which are unambiguously patient/themes.

3.1 Ergativity

Georgian is a morphologically ergative language (Comrie 1978; Dixon 1979; 1994; Marantz 1984; Aldridge 2008; Polinsky 2016), one which shows patterns of split ergativity conditioned by the tense and aspect division. It also exhibits an argumental-structural property of ergativity, the so-called split S (see Deal 2015 for the properties of ergative languages), i.e. subjects of unergative verbs (S_A) group with transitive subjects, while unaccusative subjects (S_P) group with transitive objects.

3.1.1   The non-uniformity of ergativity

It has been revealed in the literature, (see Ura 2001; 2006; Legate 2008; Bobaljik & Wurmbrand 2011; Polinsky & Preminger 2014; Rezac, Albizu & Etxepare 2014; Deal 2015 among many others) that ergativity is not a unified phenomenon world-wide and that there is a considerable variation among languages with ergative case marking. Thus, ergative languages can be divided into: (a) syntactically and morphologically ergative; (b) pure ergative and split-ergative; (c) split ergativity can be based on a tense+aspect distinction or a full DP/pronouns distinction; (d) those which have nominative as an object case or absolutive (default) (see Legate 2008); (e) those which assign ergative with unergative predicates: obligatory (Georgian), optionally (Hindi, see Bobaljik 2008) or showing the dialectical variation (Basque, see Rezac, Albizu & Etxepare 2014) and those that do not (Samoan, see Tollan 2018).

Generally, all ergative languages can be subdivided into languages which show (a) the ergative, (b) the absolutive or (c) the argument-structural property. This is formulated in Deal (2015: 654), see (1).

(1)

"a. *The ergative property*

Subjects of transitive clauses behave differently from subjects of intransitive clauses for some grammatical generalization(s).

b.   *The absolutive property*

Objects of transitive clauses and subjects of intransitive clauses behave identically for some grammatical generalization(s).

c. *The argument-structural property*

Subjects of unaccusative verbs behave differently from subjects of unergatives and transitive verbs for some grammatical generalization(s)."

The differences occur even in genetically related languages. Thus, Georgian belongs to the South Caucasian or Kartvelian language group, alongside such languages as Megrelian, Svan and Laz (Figure 3.1).
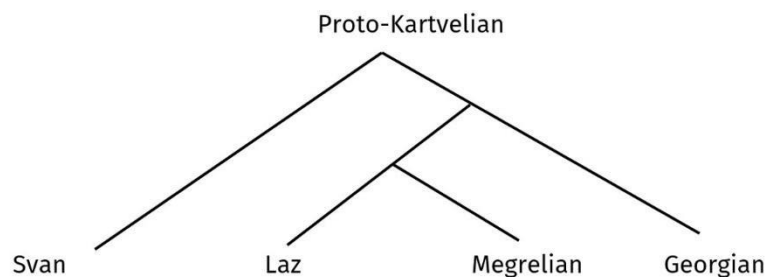
Figure 3.1: The Kartvelian languages (Deeters 1930: 2)

All these languages share some common features, among which is ergativity, though each is conditioned by different factors. Georgian and Svan are split ergativity languages, where several factors are decisive for assigning the ergative: predicate type (transitive/unergrative) and aspect+tense (argument is assigned ERG only in PFV.PST); Megrelian assigns ERG with all types of predicates, irrespective of transitivity in PFV.PST, i.e. ergativity is conditioned only by aspect+tense, while Laz shows ergativity patterns based on transitivity of verbs in all tense forms (Boeder 1979; 2005; Tuite 1998; 2017 for a description of Kartvelian languages; Oniani 1998; Chumburidze, Nizharadze & Kurdadze 2007; Topuria 2008 for Svan; and Amirejibi-Malen, Danelia & Dundua 2006; Kartozia et al. 2010; Kiria et al. 2015 for Megrelian and Laz). These patterns show that even in one group of languages ergativity is not a unified phenomenon. Subsequently, the assignment of the ergative case in different languages can be conditioned by different factors and must not be treated uniformly.

3.1.2   Split ergativity

Split-ergativity in Georgian is conditioned by tense-aspect specification and applies to a certain class of verbs, namely transitives and unergatives. In brief, perfective past tense (Aorist "Series II" in traditional grammar) requires ergative assigning, while so-called present tenses ("Series I" in traditional grammar), which comprise present and future sub-series, require nominative/absolutive assigning. For clarity, I include the traditional division of TAM combinations in Georgian (Table 3.1) as proposed by Shanidze (1980).

Table 3.1: TAM combinations in Georgian

Series	Sub-series	TAM paradigms
I	present	present indicative
		imperfective past
		present subjunctive
	future	future indicative
		future conditional
		future subjunctive
II		aorist indicative (perfective past)
		aorist subjunctive (optative)
III		perfect indicative
		pluperfect
		perfect subjunctive

It should be mentioned that the general principles of the TAM combination division in Georgian are (a) verbal stem formation (I series: stems with thematic suffixes (excluding some bare stems' forms), II series: bare stems, III series: both, stems that accommodate and do not accommodate thematic suffixes); and (b) case-variable subjects in transitive and unergative verbs (I series: nominative, II series: ergative, III series: dative). None of these principles is sufficient to get a unique picture of the TAM combination division in Georgian: the first principle fails for the III series TAM paradigms sub-division, while the second is designed solely to a certain class of verbs and cannot be applied without considering verb type based on transitivity (for the general principles of the TAM combination division in Georgian and the reasonability of such classification, see Shanidze 1930; 1980 [1973]; Chikobava 1948; 1950; 1968; Vogt 1971;

Jorbenadze 1980; Harris 1981; Holisky 1981; Gogolashvili 1988; 2010; Hewitt 1995; Gogolashvili et al. 2011; Melikishvili 2014 among many others).

Generally, argument structure in Georgian is contingent upon the type of predicates, and inflectional verb classes. There are several classifications of inflection classes (Chikobava 1950; 1968; Shanidze 1980; Harris 1981; Hewitt 1995; Melikishvili 2001; Melikishvili, Humphries & Kupunia 2008 etc.). The principles of classification differ in the literature from the syntactic criteria, such as transitivity and voice distinctions (Chikobava 1948; 1968; Shanidze 1980; Hewitt 1995), to semantic like stative vs. dynamic verbs (Chikobava 1950) and morphological criteria, like agreement markers and the existence of preverbs in future and aorist (Harris 1981). The number of inflectional classes varies between three, four and even five.

I adopt the classification of Melikishvili (2001; 2014; Melikishvili, Humphries & Kupunia 2008), according to which there are three predicate classes based on argument structure: (a) ergative construction class, verbs with changeable construction (case-variable subject according to TAM combinations: NOM – ERG – DAT): active transitive verbs, unergatives, one set of indirect transitives[8], a set of derived causatives; (b) nominative construction class: passives, unaccusatives, one set of indirect transitives; and, (c) dative construction class: inversional verbs, verbs with a non-volitional actor. Case-marking patterns of arguments (Table 3.2) are determined by the predicate type in interaction with its TAM properties.

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[8] These verbs are bi-personal, with a second argument in dative. Some scholars regard them as intransitive based on the argument that there is no direct object in the structure, and argument pairing nominative/absolutive dative is a feature of intransitive verbs (Chikobava 1950; 1968). I will return to transitivity in Section 3.3.

Table 3.2: Case-marking patterns of arguments

	subject	*direct object*	*indirect object*
Ergative construction	ERG	NOM/ABS	DAT
Nominative construction	NOM/ABS	DAT/ACC	DAT
Dative construction	DAT	NOM/ABS	(GEN+P)

The class, where split-ergativity is transparently manifested is an ergative construction class with case-variable subjects. Example (2a) illustrates the nominative/absolutive marking on nominal with IPFV.PRS in comparison with (2b) which shows the ergative marking with PFV.PST.

(2) a. masts'avlebel-i   amanat-s   a-gzavn-i-s.

       teacher-**NOM/ABS**   parcel-DAT/ACC   PV-send-THM-3SG.SBJ:**IPFV.PRS**

       'The teacher sends a parcel.'

    b. masts'avlebel-ma   amanat-i   ga-a-gzavn-a.

       teacher-**ERG**   parcel-NOM/ABS   PR-PV-send-3SG.SBJ:**PFV.PST**

       'The teacher sent a parcel.'

The key point is that the non-ergative forms appear alongside ergatives in Georgian.

3.1.3 Morphological ergativity

Ergativity in Georgian manifests itself in terms of morphological case marking on nominals and not in terms of patterns of agreement on the predicate. There are two sets of agreement markers in Georgian: *v*-set markers (Table 3.2), mostly used for subject agreement, and *m*-set markers (Table 3.3) for object agreement. The labels are given after

the 1ˢᵗ person prefixes (see Tuite 1998; 2017; Amiridze 2006 among others), and are traditionally called "subject" and "object" markers respectively (Chikobava 1950; Shanidze 1980; Melikishvili 2001; Melikishvili, Humphries & Kupunia 2008; Gogolashvili et al. 2011 etc.).

Table 3.3: *v*-set agreement markers

	singular		plural	
	NOM/ABS	ERG	NOM/ABS	ERG
1	*v-*		*v-* *-t*	
2	*kh-, h-, s-* Ø		*kh-, h-, s-* Ø	*-t*
3	*-s, -a*	*-a/o*	*-en, -an, -nen*	*-es*
		-s (SBJV)		*-n* (SBJV)

Table 3.4: *m*-set agreement markers

	singular	plural	
	DAT	NOM/ABS	
1	*m-*	*gv-*	
2	*g-*	*g-*	*-t*
3	*h-, s-,* Ø	*h-, s-,* Ø	*-t*

The combination of verbal agreement markers for nominative/absolutive, ergative and dative subject constructions are given in Table 3.4, Table 3.5 and Table 3.6 respectively. Nominative/absolutive subjects appear in the IPFV present and future tenses with transitive and unergative predicates, and in all TAM combinations in case of unaccusatives or derived passive subjects. Ergative subjects are conditioned by tense/aspect and are exclusively used in perfective past with transitive and unergative predicates. Dative subjects are used in perfect/evidential tenses with transitive and

unergative predicates, and in all TAM combinations of unaccusative experiencer/affective predicates.[9]

Table 3.5: Combination of verbal agreement markers for NOM/ABS subjects

	subject			*object*		
predicate type	*case*		*agreement*	*case*		*agreement*
Transitive	NOM/ABS	*-i*/Ø	*v*-set markers	DAT/ACC	*-s*	*m*-set markers
Unergative	NOM/ABS	*-i*/Ø	*v*-set markers			
Unaccusative	NOM/ABS	*-i*/Ø	*v*-set markers			

Table 3.6: Combination of verbal agreement markers for ERG subjects

	subject			*object*		
predicate type	*case*		*agreement*	*case*		*agreement*
Transitive	ERG	*-ma*/*-m*	*v*-set markers	NOM/ABS	*-i*/Ø	*m*-set markers
Unergative	ERG	*-ma*/*-m*	*v*-set markers			

Table 3.7: Combination of verbal agreement markers for DAT subjects

	subject			*object*		
predicate type	*case*		*agreement*	*case*		*agreement*
Transitive	DAT	*-s*	*m*-set markers	NOM/ABS	*-i*/Ø	*v*-set markers
Unergative	DAT	*-s*	*m*-set markers			
Unaccusative	DAT	*-s*	*m*-set markers			

---

[9] For a detailed discussion on the distribution of subject cases see Section 3.2. For the predicate types and transitivity scale, see Section 3.3. For the number of arguments used with the experiencer/affective predicates, see Sections 6.2 and 6.4.

As illustrated in Tables 3.4 and 3.5, *v*-set markers are always used with grammatical subjects, irrespective of whether the subject case is nominative/absolutive or ergative, unlike Table 3.6, where *m*-set markers are used to denote non-canonically marked dative subjects. Still, even in Tables 3.4 and 3.5, the morphological makeup of the agreement suffixes is not the same. The *v*-set markers that appear with ergative subjects are visibly different in the 3rd person in singular and plural: *-a* with its allomorph *-o* is mostly (but not exclusively) used in 3SG, while *-es* is exclusively used in 3PL (Table 3.2).

Compare the examples of transitive predicates provided by Marantz (2000 [1991]) in (3) with examples of intransitive predicates[10] indicated in (4).

PFV.PST transitive (Marantz 2000 [1991]: 14)[11]   *PFV.PST intransitive, unaccusative*

(3) a. da=v-[mal]-e.

     PreV=AGR-[hide₁]-INFLᵢᵢ

     'I hid something'.

     b. da=Ø-[mal]-e.

     PreV=AGR-[hide₁]-INFLᵢᵢ

(4) a. da-v-i-mal-e.

     PR-1SG.SBJ-PV-hide-PFV.PST

     'I hid'.

     b. da-Ø-i-mal-e.

     PR-2SG.SBJ-PV-hide-PFV.PST

---

[10] There is no consensus in the literature as to whether these predicates are unaccusatives or passives (see for references Chikobava 1950; 1952; Lomtatidze 1953; Nozadze 1958; 1961; Shanidze 1980; 1981; Harris 1981; Jorbenadze 1983; McGinnis 1998a; 1998b; Melikishvili 2001; Melikishvili, Humphries & Kupunia 2008; Harris & Amiridze 2015 among others). See also Chapter 6, Sub-section 6.3.1.2 for Georgian passives. Whichever theory we adopt, what matters here is that they are definitely generated *v*P internally and show a distinction between the marking of ergative and nominative/absolutive subjects on verbs.

[11] For Marantz brackets in gloss indicate a category neutral root (see also Marantz 1997), the AGR stands for the agreement prefixes, while INFLᵢᵢ is used for the inflection in PFV.PST, which corresponds to the so-called aorist TAM series in Georgian 'Series II' (see Table 3.1). Marantz (2000 [1991]) follows Harris's (1981) presentation of tense 'Series', who in her turn follows TAM division by Shanidze (1973), reprinted in Shanidze (1980).

'You hid something'.   'You hid'.

   c. da=[mal]-a.   c. da-i-mal-a.

      PreV=[hide₁]-INFLɪɪ   PR-PV-hide-3SG.SBJ:PFV.PST

      'He hid something'.   'He hid'.

   d. da=[mal]-**es**.   d. da-i-mal-**nen**.

      PreV=[hide₁]-INFLɪɪ   PR-PV-hide-3PL.SBJ

      'They hid something'.   'They hid'.

Examples in (3d) and (4d), i.e. those in 3PL, show the main difference of the subject marking on the predicate: *-es* is used to cross-reference with the ergative subject (either expressed as an overt DP or as a dropped null subject), while *-nen* – is used with the nominative/absolutive subject. Thus, the suffixal agreement for the ergative subject is not the same as that for a nominative/absolutive subject in other tenses. However, this does not change the whole picture: agreement alignment is nominative-accusative in Georgian in that it does not group together the intransitive subject (S) and the object (O) in opposition to the transitive subject (A).

Thus, Georgian shows mixed properties of ergativity and accusativity: it is ergative in a morphological respect, but accusative in the syntactic respect. Syntactic diagnostics such as argument extractions, reflexive binding, subjecthood diagnostics, relativization, etc. show that A groups with S. Illustration (5) shows, for instance, that argument omission in coordination is possible only if the common argument is a subject.[12]

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[12] Still, it is worth mentioning that this test is not very compelling for Georgian, since Georgian is a pro-drop language and allows the dropping of both subjects and objects if this can be indicated by the applicative or verb agreement morphology (see Berikashvili in progress for the validity of subjecthood tests in Georgian; Ura 2006; Malchukov 2018 for typological alignment preferences in ergative languages; and

(5)   a.   [deda$_k$ ts'avida]   da   [$\triangle_k$ uk'an   ar   moikheda].

           mother.NOM/ABS   went   and   back   not   looked_at

           'Mother went and did not look back.'

      b.   [dedam$_k$ nakha   shvili$_j$]   da   [$\triangle_{k/*j}$ otakhidan   gavida].

           mother.ERG   saw   child.NOM/ABS   and   from_room   went_out

           'Mother saw the child and left the room.'

This has been observed in other accusative languages, cf. example (6) for English provided from Ura (2006), where (6b) shows that the object cannot control an omitted argument.

English (Ura 2006: 114)

(6)   a.   [John$_k$ returned]   and   [$\triangle_k$ laughed].

      b.   [John$_k$ saw   Mary$_j$]   and   [$\triangle_{k/*j}$ laughed].

In syntactically ergative languages, on the contrary, S and O behave in the same way in the argument omission in coordinated clauses, in opposition to A. See the most quoted example from Dyibral in (7).

Dyibral (Dixon 1994: 161, *apud* Ura 2006: 115)

Barðdal & Eythórsson 2018 for the non-universality of subjecthood tests cross-linguistically and the necessity of an independent definition of subject).

(7) a. [ŋuma-Ø*k*   banaga-nʸu],   [△*k*   miyanda-nʸu].

        father-ABS   return-NONFUT   laugh-NONFUT

        'Father returned and laughed.'

    b. [ŋuma-Ø*k*   yabu-ŋgu*j*   bura-n],   [△*k/*j*   banaga-nʸu].

        father-ABS   mother-ERG   see-NONFUT   return-NONFUT

        'Mother saw father and returned.'

The ability to control the missing argument in a subordinate-adjunct clause is also indicative of subjecthood in syntactically accusative languages, which is exactly what is observed in Georgian (8).

(8) a. nik'a*k*   dabrunda [PRO*k*   amb-eb-is   mosaq'ol-ad].

        Nika.NOM/ABS   returned   news-PL-GEN   tell.PTCP-ADV

        'Nika returned to tell the news.'

    b. [nik'a-m*k*   daurek'a   mariam-s*j*]   [PRO*k/*j*   amb-eb-is   mosaq'ol-ad].

        Nika-ERG   called   Mariam-DAT   news-PL-GEN   tell.PTCP-ADV

        'Nika called Mariam to tell her the news.'

3.1.4 The argument-structural property

In ergative languages intransitive subjects (S) show the same patterns with transitive objects (O), baring "absolutive" or in some languages "nominative" case, while transitive subjects (A) differ from them by encoding the "ergative" case. See Figures 3.2 and 3.3 for ergative and accusative alignments respectively.
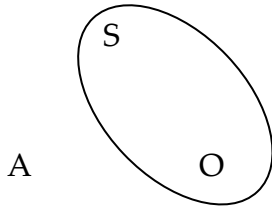
Figure 3.2: Ergative case alignment
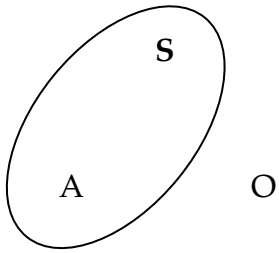
Figure 3.3: Accusative case alignment

Georgian follows the ergative alignment patterns in the past perfective with ergative case marking expressed on nominals. However, it differs in terms of case assignment to intransitive subjects in PFV.PST. Unaccusative subjects (S$_P$) group with objects, i.e. they show patterns of intransitive subjects, while unergatives (S$_A$) group with transitive subjects. See Figure 3.4.
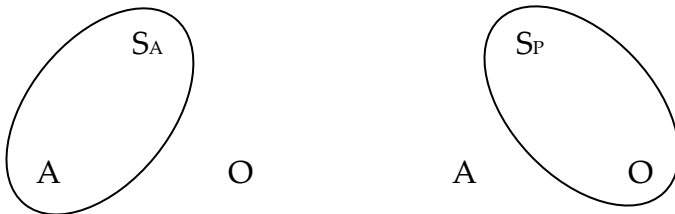
Figure 3.4: Split-S alignment

Thus, transitive (9a) and intransitive unergative subjects (9b) are both marked with the *-ma*/*-m* ergative marker in PFV.PST, depending on the nominal stem ending, while intransitive unaccusative subjects (9c) and objects are marked with the nominative/absolutive *-i*/*Ø* (9a) in imperfective tenses, depending on the nominal consonant or vowel stem ending respectively.

transitive (A) and (O) (GLC)

(9) a. gogo-**m**   tavisi   binis   k'ar-**i**   gaagho.

        girl-**ERG** her_own apartment door-**NOM/ABS** opened.

        'The girl opened the door of her apartment.'

    b. *unergative* (S_A) (GLC)

        gogo-m   gautsina.

        girl-ERG   laughed.

        'The girl laughed at sb.'

    c. *unaccusative* (S_P) (GLC)

        saidanghats   p'at'ara gogo-Ø   gachnda.

        from_somewhere   small   girl-**NOM/ABS**   appeared.

        'The small girl appeared out of the blue.'

Thus, it shows mostly so-called *split-S* or in other words active alignment (see Harris 1981; 1982; 1990; Amiridze 2006; Melikishvili 2008 about active alignment in Georgian). However, as we will see in the Chapter 5, this property is not based on a distinction between agents and patients, because unergative verbs will be treated underlyingly as transitives in Georgian. This is in lines with what has been postulated by Schuchardt

(1895), Hewitt (1987; 1995), Nash (1995; 2017) for Georgian (see also Tuite 2017: 1118–1120 for an overview on this issue).

3.2 Case system and argument structure in Georgian

Georgian expresses morphological cases on nominals in different ways, namely by adding case markers to the nominal's stem or by adding post-position, which is added either directly to the stem or after the case marker. Every nominal has seven forms of case. See Table 3.7 for the case markers.

Table 3.8: Morphological cases in Georgian

case	*case markers*
Nominative (NOM)	-i, Ø
Ergative (ERG)	-ma, -m
Dative (DAT)	-s
Genitive (GEN)	-is, -s(i)
Instrumental (INSTR)	-it, -t(i)
Adverbial (ADV)	-ad, -d
Vocative (VOC)	-o, -v

While all nominals show distinct morphologically forms for all seven cases, pronouns make a full distinction only for 3rd person singular, with suppletive forms for nominative and oblique cases (see for detailed presentation Martirosov 1964; Shanidze 1980; Kvatchadze 1996 among many others). Moreover, 3rd person plural forms show a binary distinction: nominative vs. non-nominative with suppletive syncretic forms (Table 3.9), while 1st and 2nd person, in both singular and plural, do not make any distinction at all

with the exception of genitive for the 1st person singular used with post-position (Table 3.8).

Table 3.9: 1st and 2nd personal pronouns in Georgian

	1SG	1PL	2SG	2PL
NOM	me	chven	shen	tkven
ERG	me	chven	shen	tkven
DAT	me	chven	shen	tkven
GEN	chem-	chven-	shen-	tkven-

Table 3.10: 3rd personal pronouns in Georgian

	3SG	3PL
NOM	is/igi	isini
ERG	man	mat
DAT	mas	mat
GEN	mis	mat
INSTR	mit	mat
ADV	mad	mat

This is different from what is observed in English, where only pronouns make distinction in terms of their morphological shapes. As such, the phenomenon of differential case-marking depends on the person scale in Georgian. The subjects are morphologically marked towards the lower end of the person/animacy hierarchy (as presented in (1) of Chapter 2 and repeated for convenience in (10) just for the person scale).

(10)   *Person Hierarchy* (Woolford 2008)

              1PL > 1SG > 2PL > 2SG > 3PL >3SG

Thus, the morphological spell-out of all subject cases (nominative/absolutive, ergative, dative) is blocked in combination with the marked person features, i.e. with 1st or 2nd person (11).

        (GNC)

(11) a. **me**   vkitkhulob   leks-s.

          1SG.NGEN   read.PR   poem-DAT/ACC

          'I read a poem.'

        (GNC)

b. **me**   ts'avik'itkhe   misi   idumali   sevdiani   leks-eb-i.

    1SG.NGEN   read.PFV.PST   3.POSS   mysterious   sad   poem-PL-NOM/ABS

    'I read his mysterious, sad poems.'

        (GNC)

c. **me**   ts'amik'itkhavs   arkimandrit   rapael-is   leks-eb-i.

    1SG.NGEN   read.PRF   archimandrite   Rafael-GEN   poem-PL-NOM/ABS

    'I have read the poems of Archimandrite Rafael.'

Still, all subject cases are morphologically realized in the 3rd person singular. If we substitute the 1st person with the 3rd in the given examples, the result is a morphologically realized case (12).

(12) a. **is**   kitkhulobs   leks-s.

        3SG.NOM/ABS   read.PR   poem-DAT/ACC

        '(S)he reads a poem.'

     b. **man**   ts'aik'itkha   misi   idumali   sevdiani   leks-eb-i.

        3SG.ERG   read.PFV.PST   3.POSS   mysterious   sad   poem-PL-NOM/ABS

        '(S)he read his mysterious, sad poems.'

     c. **mas**   ts'auk'itkhavs   arkimandrit   rapael-is   leks-eb-i.

        3SG.DAT   read.PRF   archimandrite   Rafael-GEN   poem-PL-NOM/ABS

        'S(he) has read the poems of Archimandrite Rafael.'

In plural, a DP is not overtly marked for morphological ergative or dative, but rather for non-nominative (NNOM/NABS), as there are two suppletive forms: one for the NOM/ABS and one syncretic form for other cases (13).

(13) a. **isini**   kitkhuloben   leks-s.

        3PL.NOM/ABS   read.PR   poem-DAT/ACC

        'They read a poem.'

     b. **mat**   ts'aik'itkhes   misi   idumali   sevdiani   leks-eb-i.

        3PL.NNOM/NABS   read.PFV.PST   3.POSS   mysterious   sad   poem-PL-NOM/ABS

        'They read his mysterious, sad poems.'

     c. **mat**   ts'auk'itkhavt   arkimandrit   rapael-is   leks-eb-i.

3PL.NNOM/NABS   read.PRF   archimandrite   Rafael-GEN   poem-PL-NOM/ABS

'They have read poems of Archimandrite Rafael.'

The important point is that, whether the morphological case is overtly displayed (as it is with nominal DPs) or not (as it is with pronominal DPs), the abstract Case is still assigned to all nominals, including pronouns. As we have seen, 1st and 2nd person pronouns have no distinct forms for nominative/absolutive, ergative and dative; the root form is used instead in all three contexts.[13] That 1st and 2nd person arguments are still assigned nominative/absolutive, ergative or dative can be checked by a variety of tests that have been thoroughly discussed in the literature (see Martirosov 1964; Shanidze 1980; Harris 1981; Kvatchadze 1996; Tuite 1998 among many others). The main tests include:

(a) substituting with the 3rd person pronoun, as indicated in (12), or with nominal DP in 3rd person (note that agreement patterns are for the 3rd person). See (14) for the ergative example;

(14)   **p'oet'-ma**   ts'aik'itkha   misi   idumali   sevdiani   leks-eb-i.

poet-**ERG**   read.PFV.PST   3.POSS   mysterious   sad   poem-PL-NOM/ABS

'The poet read his mysterious, sad poems.'

(b) adding of the depictive appositive 3rd person DP to a 1st or 2nd person pronoun (see Tuite 1998: 20 for examples from Old Georgian) or just substituting with

---

[13] Different terms have been used in traditional Georgian grammar to indicate this peculiarity of pronouns, among others: "indefinite", "unformed", "only-root formed", "unchanged", "caseless" pronouns (see Chikobava 1948; Martirosov 1964; Shanidze 1980; Kvatchadze 1996 among many others).

nominal DP (note in this case, agreement patterns are for the 1st or 2nd person). See

for instance (15) for the ergative case, where both possibilities are illustrated. The

sentence remains grammatical in both cases, either with a dropped or overt

pronoun;

(15) **(me)**   p'oet'-**ma** ts'avik'itkhe misi   idumali   sevdiani leks-eb-i.

  (1SG.NGEN) poet-**ERG**   read.PFV.PST 3.POSS mysterious   sad   poem-PL-NOM/ABS

  '(I), poet, read his mysterious, sad poems.'

(c) adding of the adjectival secondary predicate to the pronoun. See example (16)

provided from Nash (2017). Note that Nash (2017) postulates the additional case-

marked *pro,* when morphologically case-less pronouns exist in the structure.

Whether this is really the case is an independent question, and one which I do not

discuss here in detail. I regard the use of the root form in person pronouns to be

the PF effect of the case not-being realized at the surface level in combination with

marked 1st and 2nd person features, and do not view them as adjuncts to the marked

pro. Whichever assumption we follow, what matters for our purposes is that the

agreement patterns of adjectival predicate bear the ergative case, showing that

either full pronoun or *pro* is ergative;

(Nash 2017: 192)

(16) (me)   pro_erg   v-nax-e   vano-Ø   mtvral-ma.

  I   1-see-AOR   Vano-NOM   drunk-ERG.

  'I saw Vano drunk.'

(d) distributing of the pronoun with other DP in coordination. See an example (17) provided from Kvatchadze (1996); see also Martirosov (1964: 293) for Old Georgian examples. The same test can be used when there are multiple conjoined pronouns, one of which is in 3rd person.

(Kvatchadze 1996: 93)

(17) me   da   chem-ma   amkhanag-eb-**ma**   sitsili   davits'q'et.
      1SG.NGEN   and   1.SG.POSS-ERG   friend-PL-**ERG**   laugh   started.
      'My friends and I started to laugh.'

(e) from marking on the verb. See examples (18a and b) adopted from Tuite (1998), where the case marking for the 1st person plural does not change, although the agreement it controls does, thus showing that (18a) stands for the ergative, while (18b) for the dative argument.

(Tuite 1998: 20)[14]

(18) a. **čven**   ga-**v**-gzavn-e-**t**   is.
          we:ERG   send:IIa:S1pl:O3   it:NOM
          'We sent it.'

      b. **čven**   ga-**gv**-i-gzavn-i-**a**   is.
          we:DAT   send:IIIa:S3SG:O1pl   it:NOM

---

[14] In Tuite's terminology II and III stands for the 2nd and 3rd TAM series respectively (see Table 3.1), while *a* indicates class A verbs, which correspond to transitive and unergative verbs.

'We have sent it.'

Thus, even in the cases of nominal pronouns, we do not talk about case-less forms, but rather about morphologically not-realized or impoverished forms. See Sub-section 3.3.1 for a more detailed discussion.

I have shown that Georgian is a language with a rich case system, yet the number of argument cases is predictably small. Generally, it has been illustrated in the literature (see, for instance, Comrie & Polinsky 1998; Blake 2001; Polinsky & Preminger 2014), that even in languages with rich case systems, the number of argument cases can be reduced to three/four based on the GFs of the arguments involved. The implication hierarchy of argument cases is as follows (19):

(19) *The implicational hierarchy of m-cases based on GF* (Polinsky & Preminger 2014: 152)

   subject case/object case > possessor (genitive) case > indirect object (dative) case

Following this hierarchy, the subject case is assumed to be nominative (in ergative languages also ergative), object case – accusative, while indirect object – dative. However, not all languages show one-to-one correspondence between case and GFs. In Georgian, for instance, the nominative case is not always associated with GFs of a subject. There are also two 'non-canonically' used subject cases, namely: ergative and dative. The term 'non-canonical' has been adopted in related linguistic research either to denote 'quirky', oblique or non-nominative subjects (see Barðdal 2018 for discussion). The fact that syntactic subjects can be case-marked by other m-cases than nominative, has been proved for other languages. Empirical studies also reveal that there are a lot of problems for any approach that correlates case (either abstract or morphological) directly with GRs (see Ura 2001: 344 for a discussion about the relation of the abstract case to the argument's

GRs/GFs). In sum, Georgian employs three m-cases to show the GR of a subject: nominative/absolutive, ergative and dative. I present the functions of subject cases in the next sub-sections. Sub-section 3.2.1 is devoted to the nominative/absolutive, Sub-section 3.2.2 to the ergative, and Sub-section 3.2.3 to the dative subjects' distribution in Georgian. This part serves to exemplify general use of subjects in Georgian, while more detailed discussion is provided in the relevant parts of the thesis.

3.2.1   Nominative/absolutive

As indicated in Section 3.2, Georgian exhibits three cases which denote subjects: nominative/absolutive, ergative and dative. See (20a), (20b) and (20c) respectively.

        (GLC)

(20) a. masts'avlebel-**i**   mas   khshirad   direkt'ortan   agzavnis.

             teacher-**NOM/ABS**   him.DAT   often   director_to   sends.

             'The teacher sends him to the director often.'

        (GLC)

      b. upros-**ma**   guri-is   nap'irebis   gasamagreblad gaagzavna.

             chief-**ERG**   Guria-GEN   bank   to_strengthen   sent.

             'The chief sent him to strengthen the river banks of Guria.'

        (GLC)

      c. mepe-**s**   erti   ost'at'i   mkhat'var-i   venetsiashi gaugzavnia.

             king-**DAT**   one   master   painter-NOM/ABS Venice_in   has_sent

             'The king has sent one master painter to Venice.'

Nominative/absolutive is used to denote subjects in the non-active voice (21) i.e. with intransitive unaccusative verbs and passives (including synthetic, those created with the prefixes *i-* or *e-,* and suffix *-d,* and analytic passives). For distinction of unaccusative and synthetic passives, including controversial forms with the *i-* prefix, as well as for passive formation in Georgian, see Chikobava (1950; 1952), Nozadze (1958; 1961), Shanidze (1980; 1981), Jorbenadze (1983) among many others see also Chapter 4, Sub-section 4.2.1 and Chapter 6, Sub-section 6.3.1.2 and other references therein. Examples in (21) include intransitive unaccusative, passive of the transitive created with prefix *i-* and a deadjectival passive verb with suffix *-d.*

PRS

(21) a. bavsh-**i**   rch-eb-a /   i-mal-eb-a/   ts'itl-d-eb-a.

child-**NOM/ABS** stay-THM-3.SG.SBJ   PASS-hide-THM-3.SG.SBJ   red-PASS-THM-3SG.SBJ

'The child stays/hides/blushes.'

IPFV.PST

b. bavsh-**i**   rch-eb-od-a /   i-mal-eb-od-a/   ts'itl-d-eb-od-a.

child-**NOM/ABS**   stay-THM-IPFV-   PASS-hide-THM-IPFV   red-PASS-THM-IPFV-

3.SG.SBJ:PST   3.SG.SBJ:PST   3SG.SBJ:PST

'The child was staying/was hiding/was blushing.'

PFV.PST

c. bavsh-**i**   da-rch-a /   da-i-mal-a/   ga-ts'itl-d-a.

child-**NOM/ABS**   PR-stay-   PR-PASS-hide-   PR-red-PASS-

3.SG.SBJ:PFV.PST   3.SG.SBJ:PFV.PST   3SG.SBJ:PFV.PST

'The child stayed/hid himself /blushed.'

PRF

d. bavsh-**i**   darchenil-a /   damalul-a/   gats'itlebul-a.

   child-**NOM/ABS**   stay.PTCP-   hide.PTCP-   red.PTCP-

                        COP:3.SG.SBJ:PRF   COP:3.SG.SBJ:PRF   COP:3SG.SBJ:PRF

   'The child has stayed/has hidden himself /has blushed.'

Nominative/absolutive is also used with imperfective aspect both in transitive and intransitive verbs. See (22a) and (22b) respectively.

(GNC)

(22) a. ert   ts'ign-s   ramdenime k'ats-**i**   k'itkhul-ob-d-a.

         one   book-DAT/ACC   several   man-**NOM/ABS**   read-THM-IPFV-3SG.SBJ:PST

         'Several people were reading one book.'

(GNC)

b. gza-ze   erti   k'ats-**i**   mi-di-od-a.

    road_at   one   man- **NOM/ABS**   PR-go-IPFV-3.SG.SBJ:PST

    'One man was going on the road.'

3.2.2 Ergative

Ergative is used with transitive verbs, but only in combination with the perfective aspect, which is expressed in past tense. It should either be in the indicative or subjunctive mood. See (23a) and (23b) respectively.

(GLC)

(23) a. akhalgazrda   metsnier-**ma**   1778   ts'els   da-ts'er-a   didi   shroma.

young   scientist-**ERG**   1778   year   PR-write-   big   work.NOM/ABS

3SG.SBJ:**PFV.PST**

'The young scientist wrote a big work in 1778.'

(GLC)

b. tsal-tsalk'e   sheidzleba   q'vela-**m**   da-ts'er-o-s   anonimuri   ts'eril-i.

separtately   can   everyone-**ERG**   PR-write-**SBJV**-   anonymous   letter-NOM/ABS

3SG.SBJ:**PFV.PST**

'Everyone can separately write an anonymous letter.'

This is canonical use of ergative in Georgian; however, it is also used with intransitive unergative verbs in the perfective past. See (24a) and (24b).

(GNC)

(24) a. nino   ananiashvil-**ma**   iap'oniashi   i-tsek'v-a.

Nino   Ananiashvili-**ERG**   Japan_in   PV-dance-3.SG.SBJ:PFV.PST

'Nino Ananiashvili danced in Japan.'

(GNC)

b. amkhela   k'ats-**ma**   k'inagham   i-t'ir-a.

this_much   man-**ERG**   almost   PV-cry-3.SG.SBJ:PFV.PST

'Such a big man almost cried.'

Ergative is also used with indirect transitive verbs with two arguments, one of which is dative goal argument. See (25a) and (25b).

(25) a. k'ats-**ma**   she-khed-a   kal-**s.**

         man-**ERG**   PR-look-3SG.SBJ:PFV.PST   woman-**DAT.**

         'The man looked at the woman.'

         (Boeder 1979: 464)

     b. kuč-**ma**   gul-**s**   s-ʒli-a.

         stomach-**ERG**   heart-**DAT**   3O-overpower-3sg.S

         'The stomach overpowered the heart.'

Both types of these verbs are analyzed in Sub-section 5.3.1 and are assumed to have an implicit direct object. Ergative is also used with two cognitive verbs *itsis/uts'q'is* 'to know', in the present tense and imperfective aspect in past. See (26a) and (26b).

(26) a. ra   its-i-s   khalkh-**ma**   am-is   shesakheb?

         what   know-THM-3SG.SBJ:**PRS**   people-**ERG**   this-GEN   about

         'What do people know about this?'

     b. ra   its-od-a   khalkh-**ma**   am-is   shesakheb?

         what   know-**IPFV**-3SG.SBJ:**PST**   people-**ERG**   this-GEN   about

         'What did people know about this?'

Interestingly, the use of the same verbs in perfective past is prevented, and the verbs are substituted by the perfective past form of the other verb *'igebs*.PRS' 'to understand' *'gaigo*.PFV.PST' (26c)[15].

(26) c. ra   ga-ig-o   khalkh-ma   am-is   shesakheb?

          what   PR-know-3SG.SBJ:PFV.PST   people-ERG   this-GEN   about

          'What did people know about this?'

Ergative is also used in fixed phrases, in oaths, when the speaker tries to persuade his interlocutor that his talk denotes truth. See (27a) and (27b).

(27) a. me   da   chem-ma   ghmert-ma   martal-s   ambob-s.

          1SG.NGEN   and   my-ERG   god-ERG   truth-DAT/ACC   say-3.SG

          'He is telling the truth, I swear.'

      b. me-ts   eg   mind-od-a   shen-ma   mze-m.

          1SG.NGEN-PRT   that:SG.NGEN   want-IPFV-3.SG.SBJ:PST   your-ERG   sun-ERG

          'I wanted that too, I swear.'

However, these cases, though always mentioned in traditional grammars as something exceptional (see, for instance, Kvatchadze 1996; Gogolashvili et al. 2011 among others), do not change the whole picture of the ergative case distribution in Georgian, as there is an ellipsis of the verb *itsis/uts'q'is* 'knows.'

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[15] The verb should not be confused with the homonym *'igebs*.PRS' 'to win', which has different form for the perfective past with the preverb *mo- 'moigo*.PFV.PST'.

3.2.3 Dative

The distribution of dative in the subject position is restricted to denote (a) experiencers, non-volitional agents with affective verbs, irrespective of aspect and tense (28), and agents in the perfect tenses with transitive and unergative verbs (29) (see for more details Chapter 6, in particular Section 6.2).

(GLC)

(28) a. es   mas   sulats   ar   s-ts'q'in-s.

          this.NOM/ABS   him.**DAT**   completely   NEG   3SG.SBJ-upset-3SG.OBJ:**PRS**

          'This absolutely does not upset him.'

(GLC)

      b. olivia-s   srulebit   ar   s-ts'q'in-d-a   khumrobit   datsinva.

          Olivia-**DAT**   absolutely   NEG   3SG.SBJ-upset-**IPFV**-3SG.OBJ:**PST**   joking   mocking.NOM/ABS

          'Making fun of her absolutely did not upset Olivia.'

(GLC)

      c. did   mepe-s   dzalian   e-ts'q'in-a   nadir-mep-is   gadats'q'vet'ileba.

          great king-DAT   much   APPL-upset-3SG.OBJ:**PFV**.**PST**   Nadir-King-GEN   decision.NOM/ABS

          'The great king was upset by the decision of King Nadir.'

Example (29a) illustrates a dative subject with transitive, and (29b) with unergative verbs in the perfect.

(GNC)

(29) a. davit-**s**   u-targmn-i-a   ramdenime motkhroba.

          Davit-**DAT**   APPL-translate-**PRF**-3SG.OBJ   several   story.NOM/ABS

          'Davit has translated several short stories.'

(GNC)

      b. ilia-**s**   gulianad   ga-u-tsin-i-a.

          Ilia-**DAT**   from_the_heart   PR-APPL-laugh-**PRF**-3SG.OBJ

          'Ilia laughed from the heart.'

As already mentioned, dative denotes a non-volitional agent with affective verbs, some of which have their counterparts to denote volitional agent, which in the perfective past is expressed by ergative. See (30a) and (30b) respectively.

(30) a. k'ats-**s**   mo-u-nd-a   tsek'va.

          man-**DAT**   PR-APPL-want-3SG.OBJ:PFV.PST   dance.NOM/ABS

          'The man wanted to dance (non-volitionally)'

      b. k'ats-**ma**   mo-i-ndom-a   tsek'va.

          man-**ERG**   PR-PV-want-3SG.OBJ:PFV.PST   dance.NOM/ABS

          'The man wanted to dance (volitionally)'

Dative in Georgian is also capable of acting as a goal for Agree. This is not common cross-linguistically, as, in many languages, dative is regarded as an inherent case (see, for instance, Anagnostopoulou 2003; Woolford 2006; Pesetsky & Torrego 2011; Sigurðsson 2012 among many others) or a case with the [+obl] feature if the feature decomposition

theory is adopted (see McFadden 2004; Keine 2010 to name just a few).[16] As a consequence of this feature and following the Case Opacity (31), as presented by Rezac (2008), dative is assumed incapable of triggering verbal agreement.

(31) *Case Opacity* (Rezac 2008: 83)

"A DP with theta-related Case may not value a φ-probe."

However, that is not the case in Georgian, where dative agrees in all structural positions. For how dative actually agrees, see Chapter 6, in particular Sub-section 6.4.2.

Still, the dative renders different agreement patterns from other subjects. *m*-set agreement markers are assigned only with arguments used in dative. There are no cases of assigning *m*-set markers on a verb with any other, i.e. nominative/absolutive or ergative subject. See (32a and b) for dative subjects, and (32c and d) for nominative/absolutive and ergative subjects respectively. The consequence is that DSM on verbs does not show mismatches from the assigned case.

(32)   a.   me   motsek'vave-**s**   mo-**m-**ts'on-s   tsek'va.
            1SG.NGEN   dancer-**DAT**   like-**1SG.SBJ-**3SG.OBj   dance.NOM/ABS
            'I, dancer, like to dance.'

       b.   me   mkhat'var-**s**   da-**m**-i-khat'-av-s   surati.
            1SG.NGEN   painter-**DAT**   PR-**1SG.SBJ-**PV-draw-THM-**3SG.OBj   dance.NOM/ABS
            'I, painter, have drawn a picture.'

       c.   me   mt'seral-**i**   **v**-ts'er   ts'ign-s.

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[16] For other references about the dative case, see Chapter 6.

1SG.NGEN   writer-**NOM/ABS**   **1SG.SBJ-**write   book-DAT/ACC

'I, writer, write a book.'

d. me   momgheral-**ma** **v**-i-mgher-e   es   simghera.

1SG.NGEN   singer-**ERG**   **1SG.SBJ**-PV-SING-PFV.PST   this   song.NOM/ABS

'I, singer, sang this song.'

To sum up what we see on the surface morphological level, the main factors for assigning of the nominative/absolutive case in the subject position are formal factors (non-active voice and imperfective aspect), for assigning of the ergative case are formal features (tense/aspect and transitivity), while the assignment of datives in the subject position is conditioned on the one hand by formal factors (tense/aspect and transitivity), and on the other by semantic features (volitionality and affectedness). As a result, the important conditions for understanding the behavior of Georgian subject cases are as follows: (a) transitivity (type of predicate), including the mixed properties of some (in)transitive predicates, for instance unergatives; (b) perfectivity (aspect), which causes split patterns in the language; (c) agentivity (thematic role) of the subject and volitionality (expressed either in predicate or on subject). However, all these features are language-specific; they may hold for some but not for all ergative languages. In the next section, I turn to a discussion of the factors that trigger DSM in Georgian.

3.3 Factors that trigger DSM in Georgian

The main factors that trigger DSM in Georgian are not dependent on such properties of the subject, as definiteness, specificity or animacy. Moreover, DSM does not show an opposition of zero/non-zero alternation in terms of markedness (aside from the

pronouns), but rather shows the differentiation based on opposition more/less marked (i.e. two or more overt markers).

Hale/Silverstein markedness hierarchies highly applied to DSM analysis in functional and DM approaches (see Hale 1972; Silverstein 1976; Comrie 1989; Dahl 2000; Aissen 2003; Woolford 2008; Keine 2010; Bárány & Kalin 2020; Spyropoulos 2020 among many others) have not been adopted to Georgian facts. Yet, markedness scales can be used to address several properties of DSM in Georgian, for instance morphologically not-realized case forms in pronouns, but this is not the overall case.

I reproduce here some of the most prominent markedness scales (33), repeated here for convenience, this time from Keine (2010), where the main oppositions are included.

(33)   *Scales* (Keine 2010: 203)

    a. *Grammatical Function (GF) scale*

     Subject > Object

    b. *Object Scale*

    Indirect Object (IO) > Direct Object (DO)

    d. *Person scale*

     1st > 2nd > 3rd person

    e. *Animacy scale*

    Human > Animate > Inanimate

    f. *Definiteness scale*

    Personal pronoun > Proper noun > Definite > Indefinite specific > Non-specific

    g. *Tense scale*

    Non-present > Present

    h. *Aspect scale*

    Imperfective > Perfective

In terms of argument case-marking, markedness (i.e. opposition more/less marked) based on the mentioned scales may lead either to adding case marking (in functional approaches) or to deleting the case marker or some features of the case at the surface/morphological level, thus being a source for impoverishment (in DM approaches). No uniform solution has been proposed for the direction of case-marking of arguments, i.e. whether arguments at the more marked end of the hierarchy are more likely to be morphologically marked, or at the less marked end. Those accounts that treat DSM as a mirror image of DOM, assume that less prominent arguments are more likely to be assigned case, while other functional and more formal accounts (as, for instance, the OT or DM accounts) on the contrary show that more prominent arguments get marked (see Section 2.1, Chapter 2, for more details).

3.3.1   Differentiation based on form: PF effects on pronouns

DSM in Georgian in a narrower sense is manifested in a nominal/pronominal opposition as in many ergative languages, for instance the languages of Australia, some of Tibetan and the Caucasian languages (see for similar patterns in ergative languages Dixon 1972; Silverstein 1976; Comrie 1989; Woolford 2001; 2008; Malchukov 2017; Coon & Preminger 2017 among many others). However, not all ergative languages with noun/pronoun splits show differentiation based on 1st and 2nd person distinction in personal pronouns. A well-known example of a language that does is Dyibral (Dixon 1972; de Hoop & Narasimhan 2005; Woolford 2008; Malchukov 2017). Dyibral, however, possesses differentiation based on the argument's GF, and, 1st and 2nd personal pronouns are unmarked in subject position, but marked in object position. The blocking of the ergative case realization in the subject position in Dyibral is explained in the literature, following Aissen's (1999; 2003) harmony alignment and markedness & economy constraints. The Aissen-style constraints are also applied by Woolford (2008), who explains that case cannot be

morphologically realized in combination with marked features, because such constraint blocks the faithfulness constraint that requires the morphological marking of case. Another important point for ergative languages is highlighted by Coon & Preminger (2017), who assume that

"differential ergative marking on subjects (DSM) typically correlates with the 1st and 2nd person vs. 3rd person distinction, while differential case marking on objects (DOM) is typically sensitive to features like animacy, specificity, and definiteness" (Coon & Preminger 2017: 245).

This can be applied in a broader sense not just to ergative, but also to other non-canonically marked subjects, at least based on Georgian examples.

What we see in Georgian in terms of person scale (33d) is that DSM is differently encoded based on whether markedness affects a DP (i.e. case) or verb (i.e. agreement). Case features are unmarked on the morphological level in the presence of [+speaker] and [+addressee] features in the case of personal pronouns, thus showing that the most prominent arguments (i.e. 1st and 2nd person) in the person scale hierarchy are less likely to assign m-case, i.e. get marked (34).

(34)   *Person scale (pronouns)*

1st > 2nd > 3rd person

me_UNMARKED > shen_UNMARKED > *is_NOM/ABS/man_ERG/mas_DAT*

However, agreement features of the *v*P internally base-generated arguments, on the contrary show that the presence of the [+speaker] and [+addressee] features is more marked in opposition of the 3rd person, thus highlighting the opposite that the most

prominent arguments to the end of the person hierarchy are more likely to get marked (35).

(35)   *Person scale (vP internal agreement)*

   1st > 2nd > 3rd person

   m-enatreba 'I miss' > **g**-enatreba 'you miss' > enatreba$_{UNMARKED}$ '(s)he/it misses'

   (subject is *pro* in dative).

Subsequently, higher members of the person scale (i.e. arguments at the more marked end of the hierarchy) are unmarked in pronouns, while the lowest member (i.e. arguments at the less marked end of the hierarchy) is unmarked in verbs. The consequence of this is that case feature cannot be morphologically realized in combination with marked features, while agreement features on the contrary must. Thus, interpretable or adopting Zeijlstra's (2020) terminology[17] independent features are more likely to be morphologically unmarked in comparison with uninterpretable or dependent features.

The morphological blocking of case realization however, does not affect the syntactic structure or, assigning of syntactic or abstract Case; it is just a PF effect of the syntactic case not being realized on the surface level (as already discussed in Section 3.2).

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[17] For Zeijlstra (2014; 2020), unlike Chomsky (1995) "interpretable formal features are purely formal features that have the capacity to check off uninterpretable features, but that lack any semantic interpretation" (Zeijlstra 2020: 37). Thus, this terminology avoids the lookahead problem that syntax sees any kind of semantic content prior to the semantic interpretation. The idea behind the terms is that "Independent features determine the categorial status […]; dependent features encode dependencies on other features […]." (Zeijlstra 2020: 38). I will be adopting this terminology throughout the thesis.

3.3.2   Markedness scales and semantic features

In the same way as noted for person scale, grammatical function scale (34a) does not always imply that more prominent arguments i.e. subjects seem to be more marked or on the contrary less marked in terms of case assignment than objects. This is obvious from the cases assigned to the subjects. I repeat here in (36) case markedness hierarchy as presented by Woolford (2008) for ease of reference.

(36) *Case Markedness Hierarchy* (Woolford 2008: 31)

ergative > dative > accusative > nominative

If we follow case markedness hierarchy, where cases at the more marked end of the hierarchy are assumed to be more marked morphologically, then we would expect for subjects either to be more marked at the end of the hierarchy, i.e. by ergative, or on the contrary to be less marked at the end of the hierarchy, i.e. by nominative. However, this is not the case, as subjects can be assigned different cases, and depending on the case assigned to the subject, the object case also alters. See (37) for GF scale applied to Georgian.

(37)   *Grammatical Function (GF) scale*

Subject > Object

Subject$_{NOM/ABS-LESS\ MARKED}$ > Object$_{DAT/ACC-MORE\ MARKED}$

Subject$_{ERG-MORE\ MARKED}$ > Object$_{NOM/ABS-LESS\ MARKED}$

Subject$_{DAT-MORE\ MARKED}$ > Object$_{NOM/ABS-LESS\ MARKED}$

So, no unified direction in terms of morphological markedness can be seen. This alternation does not depend on such semantic properties of the subject, as definiteness, specificity or animacy. Referring to definiteness, I am excluding here personal pronouns,

because, first Georgian does not have a well-defined definiteness scale; it does not possess definite/indefinite articles; and it does not make any grammatical distinction based on definiteness or specificity of arguments: All arguments are assigned case in the same way. Further, the markedeness of personal pronouns can be captured better under the person scale than the definiteness hierarchy, as it includes just the 1st and 2nd person.

In many ergative languages, the animacy scale (33e) plays a role in that inanimate entities cannot receive ergative case as a consequence of the association of ergative with agentive thematic relations. This has been illustrated for Australian languages. See (38) for examples from Kuku Yalanji, where inanimate agents receive the instrumental case instead of ergative (see Fauconnier & Verstraete 2010 for a detailed discussion on animacy effects in Australian languages).

Kuku Yalanji (Patz 2002, *apud* Fauconnier & Verstraete 2010: 197)

(38) a. dingar-angka   kaya   kanban   kuni-ny.

man-**ERG**   dog   by.mistake   hit-PAST

'The man hit the dog by mistake.'

b. nganya   yuku-bu   kuni-ny.

1SG.ACC   tree-INSTR   hit-PAST

'A tree hit me.'

Other examples of animacy effects in ergative languages have been provided for Hindi (Mohanan 1990; 1994; de Hoop & Narasimhan 2005; Malchukov 2017 etc.), where a group of intransitive verbs shows optional ergative marking depending on the volitionality of the argument (39), and for Samoan, where animate arguments are

consistently ergative, while inanimates show optional marking (see Malchukov 2017 for a detailed discussion).

Hindi (de Hoop & Narasimhan 2005: 335)

(39) a. Raam=ne   chiikh-aa.

Raam=ERG   scream-PFV.SG.M.

'Raam screamed (purposefully).'

b. Raam-Ø   chiikh-aa.

Raam-NOM   scream-PFV.SG.M.

'Raam screamed.'

From the viewpoint of markedness based on animacy scale, the more prominent agentive animate arguments are marked with an ergative case in ergative languages. Though Georgian is an ergative language, animacy is not a restricting factor for assigning the ergative, see (40a and b) for animate and inanimate entities respectively.

(40) a. adamian-ma   k'ar-i   ga-a-gh-o.

man-ERG   door-NOM/ABS   PR-PV-open-3SG.SBJ:PFV.PST

'A man opened the door.'

b. gasagheb-ma   k'ar-i   ga-a-gh-o.

key-ERG   door-NOM/ABS   PR-PV-open-3SG.SBJ:PFV.PST

'The key opened the door.'

Moreover, all unergative verbs have ergative marking in the perfective past irrespectively of animacy. It has been proposed in the literature (Ura 2006), that it is possible for unergative verbs in Georgian to take agent arguments if they are animate, like they do in Japanese. This assumption is based on data from Holisky (1981), who discusses in detail medial verbs and lexical aspect in Georgian; however *pace* Holisky (1981), the given examples (Holisky 1981: 163; Ura 2006: 131) for inanimate subjects in nominative with medial verbs are either impossible and ungrammatical or indicate passive verbs from the same verb root. The ergative case is assigned in all unergative verbs, animate or inanimate. See (41a and b) for animate and inanimate entities respectively.

(41) a. k'ats-ma   i-saubr-a.

        man-ERG   PV-talk-3SG.SBJ:PFV.PST

    'A man talked.'

    b. iat'ak'-ma   i-k'rial-a.

        floor-ERG   PV-shine-3SG.SBJ:PFV.PST

    'The floor shone.'

Thus, markedness based on the animacy scale cannot be applied to Georgian. To some degree, the presence of an ergative marker on the subject can be treated as related to agentivity (see Sub-section 5.2.2, Chapter 5 for the theta-relatedness of ergative in Georgian) and properties of volitionality and control. And, as volitionality is mostly restricted to animate subjects, somehow this could be applied to the animacy scale. Cf. examples in (42), where (42a) with dative subject indicates a non-volitional action i.e. the subject undergoes the particular experience of loving somebody, while (42b), with an

ergative subject, is its volitional counterpart i.e. the subject is an agent of a loving relationship, deliberately making someone be loved.

(42)   a.   k'ats-s   she-u-q'var-d-a   kal-i.

man-**DAT**   PR-APPL-love-EM-3SG.OBJ:PFV.PST   woman-NOM/ABS

'Man loved woman (non-volitionally)'

b.   k'ats-ma   she-i-q'var-a   kal-i.

man-**ERG**   PR-PV-love-3SG.OBJ:PFV.PST   woman-NOM/ABS

'Man loved woman (volitionally)'

However, here, semantic animacy effects presented through volitionality are epiphenomenal, which is not unusual in DCM cross-linguistically and can be related to various functions or other related features (see Malchukov 2017 for discussion).

In Georgian, this differentiation can be explained by formal factors, such as transitivity. Example (42a) illustrates the unaccusative two-place verb *miq'vars* 'love', and (42b) the unergative verb *vq'varob* 'love' (see Melikishvili 2001: 124–132 for discussion on unergative verbs). Unergative verbs are underlyingly transitives in Georgian (see references in 3.1.4, and discussion in Chapter 5), thus allowing ergative marking on the subject. I turn to transitivity in the next sub-section.

3.3.3   Formal features

From the viewpoint of DCM, what triggers the assignment of different cases in the subject position are mainly formal/clausal factors, such as, type of predicate (transitive vs. intransitive), the existence of a second argument in the structure, tense/aspect/mood, and the structural position of the argument (i.e. where it is base-generated). But even in the

case of tense/aspect features, the opposition, as presented in scales (33g and h), does not always give a unified picture with regards to the direction of subject markedness. As indicated in (43), non-present, i.e. more marked arguments on the hierarchical scale, can also be more marked in terms of case markedness, as ergative or dative, but, depending on the type of verb, non-present arguments can also be nominative/absolutive, i.e. less marked.

(43)   *Tense scale*

    Non-present > Present

    ERG, DAT > NOM/ABS

    NOM/ABS > NOM/ABS

    DAT > DAT

    Aspect scale, on the contrary, shows that less marked arguments, i.e. those of perfective, are more marked in terms of case markedness than those on the more marked end of the hierarchy; here also depending on the type of predicate, as even perfective does not show a unified picture, with nominative/absolutive also available.

(44)   *Aspect scale*

    Imperfective > Perfective

    NOM/ABS < ERG (PFV.PST), DAT (PRF), NOM/ABS (FUT)

    NOM/ABS > NOM/ABS

    DAT > DAT

    Thus, the application of markedness scales to DSM in Georgian cannot lead us to full understanding of the differential case marking in the subject position. In the remainder of this work, I will not return to the markedness scales, but will analyze the phenomenon

from a purely morphosyntactic view in the minimalist framework. Two terms used in the thesis need further clarification: transitivity and aspect.

3.3.3.1   *The transitivity condition*

For the purposes of this work, transitivity is defined on purely syntactic and not semantic terms. Semantically defined transitivity lists/scales have been explicitly discussed in the literature (see Hopper & Thompson 1980; Tsunoda 1985; Lazard 1998; Malchukov 2006; de Swart 2007 among others). The main factors that are taken into account on semantic grounds are properties associated with the arguments and the verbs involved. These properties/parameters have been proposed by Hopper & Thompson (1980), lately represented in the form of scales by Malchukov (2006), and in the form of a transitivity triangle by de Swart (2007). I reprint here de Swart's transitivity triangle in Figure 3.5, as it involves the main parameters associated with arguments and verbs.
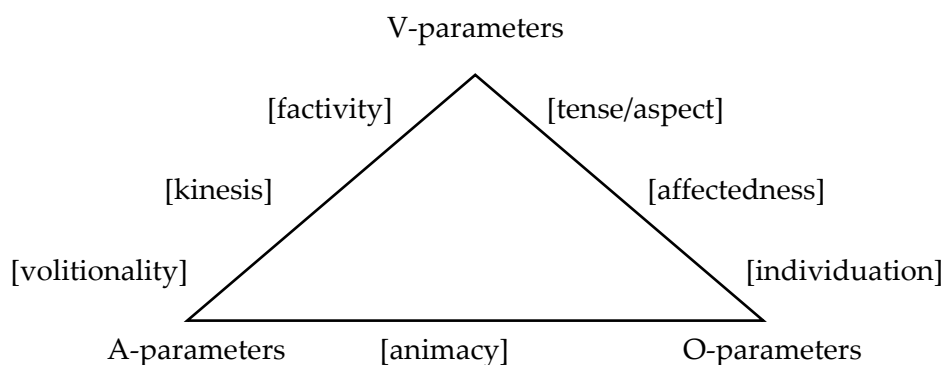
Figure 3.5: Transitivity triangle (de Swart 2007: 31)

Based on these semantic parameters transitivity has been analyzed as a gradient phenomenon and the degrees of high/low transitivity have been determined. The relation between meaning and form while defining transitivity has also been thoroughly discussed in the related literature (see de Swart 2007 and references therein).

For my purposes, the main point is to clarify the criteria I follow while defining transitivity for Georgian predicates, including language specific parameters. Generally, transitivity in Georgian based on case-marking patterns can be presented in the form of the following scale (45), where members on the left end of the hierarchy are high transitive, while those on the right end are lowest in transitivity. This is illustrated in Figure 3.6.

(45) *Transitivity scale for Georgian predicates*

ditransitive > monotransitive > indirect transitive > intransitive unergative > intransitive unaccusative/passive (two place predicates) > intransitive unaccusative/passive

(a) ditransitive > monotransitive > indirect transitive > intransitive unergative >

high transitive   low transitive

underlyingly transitive[18]

(b) intransitive unaccusative (two-place predicates) > intransitive unaccusative/passive

lowest in transitivity, intransitive
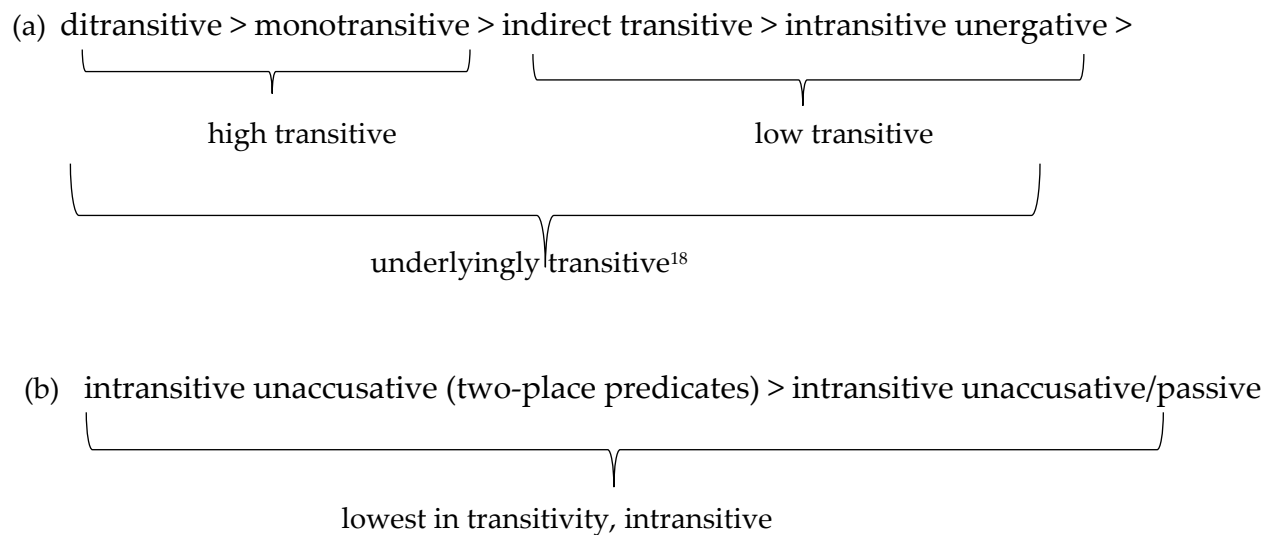
Figure 3.6: Transitivity scale for Georgian predicates

The usual definition of transitive case frames has also been thoroughly studied in the literature (see Comrie 1978; Tsunoda 1985 among many others). There are three main case

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[18] See Chapter 5, Sub-section 5.3.1, for arguments that unergative verbs are underlyingly transitive in Georgian, and the discussion therein.

patterns for transitive verbs widely attested cross-linguistically: (a) the nominative-accusative pattern; (b) the ergative-absolutive pattern; (c) the neutral pattern. Case-marking patterns used for transitive predicates in Georgian differentiate based on tense/aspect split; however, one generalized pattern for all transitive predicates is ergative case-marking on subjects in the perfective past, which highlights underlyingly transitive predicates. Argument case patterns based on transitivity scale are presented in (46).

(46) *Case patterns based on transitivity*

    (a) UNDERLYINGLY TRANSITIVE:

        ditransitive: NOM/ABS – DAT – DAT/ACC; ERG – DAT – NOM/ABS; DAT – GEN+P – NOM/ABS

        monotransitive: NOM/ABS – DAT/ACC; ERG – NOM/ABS; DAT – NOM/ABS

        indirect transitive: NOM/ABS – DAT; ERG – DAT; DAT – GEN+P

        unergative: NOM/ABS; ERG; DAT.

    (b) UNDERLYINGLY INTRANSITIVE:

        unaccusative/passive[19] (two-place predicates): DAT – NOM/ABS; NOM/ABS – DAT

        unaccusative/passive: NOM/ABS; DAT

As can be observed in (46), one of the main properties of differential ergative case marking is characteristic to transitive verbs alone. Thus, case-marking patterns of arguments can be used as a criterium to define transitivity in Georgian, and it has indeed been used in traditional grammars (see, for instance, Chikobava 1950: 052; Melikishvili, Humphries & Kupunia 2008: 45 among many others, see, also Sukhishvili 1986: 26–33 for

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[19] As already mentioned, there are different opinions about some verbs formed with *i-* and *-eb* markers for one-place predicates and *e-* and *-eb* markers for two-place predicates, whether they are intransitive unaccusatives or passives. See note 9 for references.

an overview about transitivity in Georgian). But, as our main aim is to understand why and how the differentiation in subject marking happens, it would be better to shift the angle of our view from case properties to other criteria with which transitivity can be defined.

The most widely used criteria in the related literature (see de Swart 2007 for an overview) to define (in)transitivity can be summarized as follows: (a) the number of arguments involved, based on the assumption that a predicate is transitive if it has two arguments and intransitive if it has only one (see Dixon 1979; Bowers 2002 *inter alia*); (b) case marking of arguments, for instance, nominative/absolutive (less marked case) on intransitive subject vs. ergative (or differential subject marking as in Georgian) on transitive subjects; (c) marking on verbs, for instance, use of transitivizers; (d) the existence of a direct object in the structure. This factor has been outlined as the main syntactic property for defining transitivity in Georgian (see Shanidze 1980: 172; Melikishvili, Humphries & Kupunia 2008: 45 *inter alia*); (e) semantic features, as affectedness associated mostly with intransitive subjects, or volitionality and control with transitive ones; (f) yet another semantic feature, the theta-relatedness of the argument, predicates that involve agents as subjects and patient/theme arguments as objects; (g) generation of the subject *v*P externally in Spec,*v*P as the subject of a transitive verb or *v*P internally as the subject of an intransitive verb.

I apply this latter syntactic criterium widely used in the generative grammar i.e. base-generation of the subject to define transitivity. According to this, subjects of underlyingly transitive verbs (including unergatives) are generated *v*P externally in Spec,*v*P (47), while intransitive unaccusative verbs (both two- and one-place) are generated *v*P internally (48).
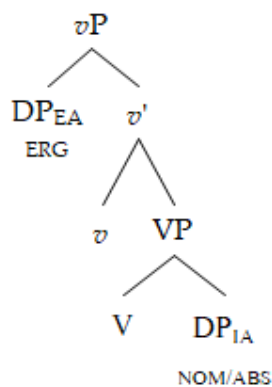
(47)   a. transitive   b. indirect transitive   c. unergative

```
                                              vP
                                            /    \
                                        DP_EA    v'
                                        ERG     /  \
                                              V+v   ApplP
          vP                              ↑        /    \                       vP
        /    \                         DP_GOAL   Appl'                        /    \
    DP_EA    v'                          DAT     /   \                    DP_EA    v'
    ERG     /  \                               Appl   VP                  ERG     /  \
           v    VP                              |      |                          v    VP
              /    \                                  <V>                              |
             V    DP_IA                                                                V
                  NOM/ABS
```
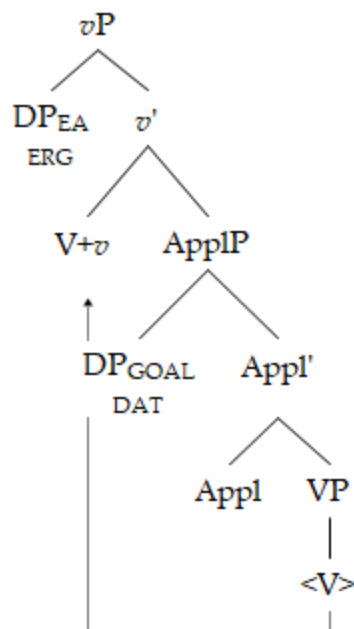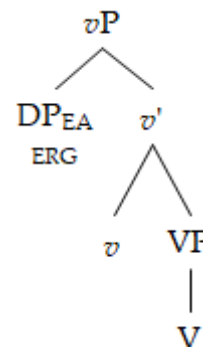
The properties of the subjects of transitive verbs can be defined as follows: subjects are base-generated in Spec,vP; case-marking patterns are differential according to TAM combinations: unmarked/ergative/dative (trees in (47) illustrate just ergative); ditransitive and monotransitive predicates involve the case-variable DO, while indirect transitive and unergatives have case-variable implicit argument (see Chapter 5, Sub-section 5.3.1 for the existence of implicit argument).

(48) a. two-place unaccusative   b. one-place unaccusative

```
              ApplP
             /     \
   DP_GOAL/EXPERIENCER   Appl'
        DAT             /    \
                    Appl    VP              VP
                           /  \            /  \
                          V   DP_IA        V   DP_IA
                             NOM/ABS          NOM/ABS
```
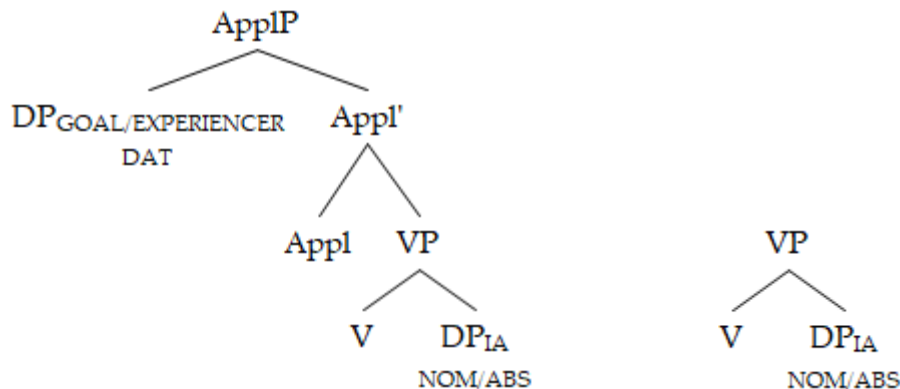
Subjects of unaccusative verbs are either base-generated in Spec,*v*ApplP (in case of experiencer two-place predicates), if this is the case, then the object is assigned unmarked nominative/absolutive, or base-generated in VP, and then raised to the subject position (both two-place and one-place predicates are possible), and as such, the case of the argument in the subject position is unmarked nominative/absolutive.

That transitivity, alongside the existence of the second argument in the structure is one of the main factors for assigning ergative in Georgian, was proved by the empirical data presented in Berikashvili (2019). The data revealed that the natural structure for assigning ergative is that of transitive predicates and strategies used by consultants to avoid problematic issues in intransitive predicates without a second argument involved valency increasing operations so that the structure can be read as transitive (for more details about ergative assignment see Chapter 5 and Berikashvili 2019).

3.3.3.2 Tense/aspect distinction

Besides the morphosyntactic sensitivity to transitivity, DCM also depends on tense/aspect split. It is commonly accepted that split ergativity shows mostly two distinctions: aspectual splits and person splits. In aspectually-conditioned splits,

perfective aspect is often associated with ergative alignment, and imperfective with accusative. It has also been noted that it is perfective past that requires subject marking in ergative, but it is still assumed more aspectual, than tense split (see for references on split ergativity Silverstein 1976; Comrie 1978; Dixon 1979; 1994; Mohanan 1994; Mahajan 1997; Anand & Nevins 2006; Ura 2006; Laka 2006; 2017; Coon 2013a; 2013b; Woolford 2017; Coon & Preminger 2017; Nash 2017; Bjorkman 2018 etc.).

Georgian shows the opposition perfective vs. imperfective. It is also commonly accepted that Georgian, where the accusative system coexists with the ergative one, switches to the ergative case system in perfective tenses. The main opposition is captured by the present sub-series of TAM combination (cf. Table 3.1.), which are imperfective, and the so-called aorist series, which are perfective (49 and 50).

	present sub-series			*aorist series*
(49)	a. v-ts'er.	(50)	a.	**da**-v-ts'er-e.
	1SG.SBJ-write:PRS			PR-1SG.SBJ-write-INFL:PFV.PST
	'I write something.'			'I wrote something.'
	b. v-ts'er-d-i.		b.	**da**-v-ts'er-o.
	1SG.SBJ-write-IPFV-INFL:PST			PR-1SG.SBJ-write-SBJV:PFV
	'I was writing something.'			'I would write.'
	c. v-ts'er-d-e.			
	1SG.SBJ-write-IPFV-SBJV:PRS			
	'(If only) I could write.'			

This opposition is the diachronic result of Old Georgian, where the distinction was even more precise: all TAM paradigms in I series[20] were imperfective, while in II series

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[20] In Modern Georgian I series also include future tenses, which are assumed to be perfective.

perfective (Shanidze 1980: 262–280; Imnaishvili & Imnaishvili 1996: 421; Sarjveladze 1997: 81).

In Modern Georgian, the grammatical literature (Shanidze 1980: 262) assumes the formation of perfective aspect to be strictly connected to preverbs (cf. example (50), where *da-* preverb can be connected to perfectivity), which among many other functions in Georgian (such as functions of denoting spatial relations, adding an argument to the structure, derivational function, future tense formation, etc.), have the function of expressing the perfective aspect (see Shanidze 1980: 239–260; Melikishvili, Humphries & Kupunia 2008: 54–64; Makharoblidze 2018 *inter alia*).

The linking of the opposition perfective vs. imperfective to the existence of verbs with and without preverbs did not occur in Old Georgian (Shanidze 1980; Imnaishvili & Imnaishvili 1996; Sarjveladze 1997) and is also controversial for Modern Georgian, as not all language data can be analyzed from this perspective. As noted by Chumburidze (1986: 22), preverbs seldom indicate aspect alone, and are always connected to other functions as well, such as change of lexical meaning, denoting of spatial relation, etc. Moreover, preverbs do not always indicate aspect and not all verbs can be used with preverbs. That is the reason why neutral aspect forms have been distinguished for various verbs (see Shanidze 1980; Chumburidze 1986 for discussion), namely, some intransitive and stative passive forms, and several verbs which either always have preverbs (not conditioned by aspect) (51), or on the contrary verbs that do not have preverbs at all (52).

(51) a. masts'avlebel-i   **mi-**di-s   samsakhur-shi.
          teacher-NOM/ABS   PR-go-3SG.SBJ:PRS   work-at
          'The teacher goes to work.'

      b. masts'avlebel-i   **mi-**vid-a   samsakhur-shi.

teacher-NOM/ABS	**PR**-go-3SG.SBJ:PFV.PST	work-at

'The teacher arrived at work.'

(52) p'oet-ma   ormotsdashvidi   ts'el-i   i-tskhovr-a.

poet-ERG   forty-seven   year-NOM/ABS   PV-live-3SG.SBJ:PFV.PST

'The poet lived forty-seven years.'

From the viewpoint of DSM, issues come up if we link on one hand ergative marking just to the perfective aspect (without tense) and on the other hand if we determine aspect based on the existence of preverbs.

The first issue, i.e. the linking of ergative marking to the perfective aspect alone, is problematic, as ergative is possible only in the perfective past[21], the so-called aorist, and not in the perfective future or perfective evidential/perfect tenses. Perfective future in transitive construction shows the case pattern: NOM/ABS – DAT/ACC, while perfective evidential/perfect tenses show DAT – NOM/ABS. Cf. (53a, b and c) for different case patterns with the perfective aspect.

(53) a. van   gog-**i**   avt'op'ort'ret'-s   da-khat'-av-s.

van   Gogh-**NOM/ABS**   self-portrait-DAT/ACC   PR-draw-THM-3SG.SBJ:**PFV.FUT**

'Van Gogh will paint a self-portrait.'

b. van   gog-**ma**   avt'op'ort'ret'-i   da-khat'-a.

van   Gogh-**ERG**   self-portrait-NOM/ABS   PR-draw-3SG.SBJ:**PFV.PST**

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[21] The only exception is the verb *itsis/uts'q'is* 'to know', as indicated in Sub-section 3.2.2 and exemplified in (26).

'Van Gogh painted a self-portrait.'

   c.   van   gog-**s**   avt'op'ort'ret'-i   da-u-khat'-av-s.

        van   Gogh-**DAT**   self-portrait-NOM/ABS   PR-APPL-draw-THM-3SG.SBJ:**PRF**

        'Van Gogh has painted a self-portrait.'

I illustrate a simplified version of the Georgian aspect system based on tense/aspect combinations (excluding subjunctive mood) in Table 3.11.[22] Note that I regard perfect to be a relative tense and not aspect (see Bjorkman 2018 for references to the existing debate in the literature about Perfect treated either as a higher aspect or as a relative tense, in particular, see note 8).

Table 3.11: The Georgian aspect system

| | **Aspect** | [+perfective] | [-perfective] |
Tense			
absolute	present	-	present
tense	future	future	-
	past	aorist (perfective past)	imperfective past
relative tense	present	perfect (evidential)	-
	future	future conditional	-
	past	pluperfect (evidential)	-

It has been proposed in the literature on ergative languages (see Bjorkman 2018 for an overview of different accounts, and references therein), that aspectual splits are due

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[22] Similar systems have been proposed for other languages as well, see for instance, Moser (2014) for Modern Greek.

either to special properties of imperfective syntax (Laka 2006; Coon 2013a; Coon & Preminger 2017; Nash 2017) or, on the contrary, that the perfective (Mahajan 1997; Ura 2006; Anand & Nevins 2006; Bjorkman 2018) contains a special source for the ergative case.

Based on this, scholars who allude to perfective as a source of ergative propose the existence of the special perfective aspectual head Asp^0, which licenses case (i.e. ergative) on a DP that has moved into its specifier (see Bjorkman 2018 for such a proposal for Hindi-Urdu), or without postulating the Asp^0 head, assume that it is the v^0 head that possesses the aspect-related features and requires DP at its Spec to check off this feature (see Ura 2006 for Georgian, see also Section 5.1 for a brief overview of Ura's account). However, if the source of the ergative was just an Asp^0 or v^0 head with aspect properties in Georgian, as proposed by Bjorkman (2018) for Hindi-Urdu, or by Ura (2006) for Georgian, we would not expect to have NOM/ABS in future perfective, or DAT in the perfective evidential/perfect tenses.

On the other hand, scholars who link ergative marking to the imperfective syntax assume the introduction of a complex syntactic structure in the imperfective, and not perfective aspect, which disrupts ergative alignment (see Coon 2013a for such a proposal based on the evidence of Chol; and Bjorkman 2018 for counterarguments on the imperfective-based approach; see also Nash 2017 for a similar proposal for Georgian, and Sub-section 5.1.2 for a brief overview of Nash's account).

As already noted, the second issue, the defining aspect based on the existence of preverbs in Georgian, creates a problem in aorist, as both verbs with and without preverbs are possible in such cases (54), and this is linked to the account that proposes a complex syntactic structure in imperfective (Nash 2017).

(Nash 2017: 179, 181)

(54) a. vano-m   xaT-a   mankana-Ø

vano-**ERG**   draw-AOR3SG   car-NOM

'Man drew a car'

b. vano-m   **da**=xaT-a   mankana-Ø

vano-**ERG**   **PREV**=draw-AOR3SG   car-NOM

'Man drew (and finished) the car'

A distinction of forms with and without preverbs (54a and b) semantically expresses telic and atelic events. In (54a), the event can be interpreted as non-culminated, completed without result (the result is that the painter finished drawing the car, but the picture is not complete), while (54b) is culminated, completed with a result (the result is a picture of a car, which has been drawn). Based on these examples, Nash (2017) proposes that aorist does not imply perfectivity, but is rather aspectually deficient – neither perfective nor imperfective. The main idea in Nash's account is that the aspectual functional projection is absent in aorist clauses, while present in imperfective sentences. This is illustrated in (55), where EV stands for Event⁰ head (following Ramchand 2013; Ramchand & Svenonius 2014), which is similar to Asp⁰ head.

(Nash 2017: 185)

(55) nominative systems: [$_{TP}$T..-..EV-vP]

ergative systems: [$_{TP}$T..-..~~EV~~-vP]

The difference from the perfective-based accounts is that this head is present in imperfective, rather than in perfective.

On one hand, if we link the perfective aspect to preverbs, perfective past is encoded in (54b), but not in (54a), which is imperfective. As such ergative should be unavailable, yet ergative is still assigned.

On the other hand, if we follow Nash's (2017) proposal that aspect in aorist is neutral, built also on Shanidze's (1980) claim that verbs with and without preverbs denote perfective and imperfective aspect respectively, then it becomes unclear why we do not have ergative case in evidential/perfect tenses, where both verbs with and without preverbs are possible. Following Nash's (2017) assumptions there must not be an Event functional head, and these tenses must be aspect neutral. Subsequently, we must have an ergative construction, but all of the sudden it is dative and not ergative (56).

(56) a. mts'eral-s   **da**-u-ts'er-i-a   ts'ign-i.

          writer-**DAT**   **PR**-APPL-write-PRF-3SG.SBJ:PST   book-NOM/ABS

          'The writer has written a book.'

      b. mts'eral-s   u-ts'er-i-a   ts'ign-i.

          writer-**DAT**   APPL-write-PRF-3SG.SBJ:PFV.PST   book-NOM/ABS

          'The writer has been writing a book.'

This means that the assumption based just on the preverb distinction, cannot be applied to the aspect system in Georgian.

In what follows, I do not link ergative assignment solely to the perfective aspect, and I do not adopt the idea of aspectual deficiency as structural impoverishment in aorist. I follow the assumption that aorist really entails perfective past in Georgian, and that the use of preverbs in aorist tenses cannot be solely tied to perfectivity. Both forms, with and without preverbs, in (54) still denote that the action before the reference time has been

completed, i.e. the main function of perfectivity. Here, I follow Altshuler (2013: 42–43), who assumes that, first:

> "The combination of an aspectual operator with a VP could (but need not) result in a telic predicate, but this is independent of (im)perfectivity",

and second,

> "perfective operators differ from imperfective ones in that only the former imposes a maximal stage requirement, which is satisfied when a VP-event culminated or ceases to develop in the actual world".

This is exactly what happens in Georgian aorist, which I call perfective past: both forms, with or without preverbs refer to the maximal stage requirement. In the former, this requirement is satisfied by a culminated telic event, while in the latter by a culminating event that ceases to develop in the actual world. This means that the Asp^0 head or $Event^0$ head in Nash's account (2017) is still present in aorist. Thus, the source of assigning ergative in Nash's account is simply demoted in my analysis.

With this short overview of the Georgian aspect system, I do not aim to present all controversial issues associated with Georgian aspect, grammatical vs. lexical aspect, and semantic details associated with these issues, but rather to outline what I assume by perfective aspect while building on my analysis.

3.3.4   Interim summary

In this section I have outlined the main factors that trigger DSM in Georgian. I have also applied markedness scales to address several properties of DSM in a narrower sense and illustrated that DSM is differently encoded based on whether markedness affects a DP (i.e. case) or verb (i.e. agreement). The key points that give rise to the differentiation can be summarized as follows:

   (a) Differentiation based on form. This can be regarded as a PF effect of DSM on 1st and 2nd person pronouns, when person marked features are not morphologically

realized on the surface level (see Chikobava 1948; Martirosov 1964; Shanidze 1980; Harris 1981; Kvatchadze 1996; Tuite 1998 among others on morphologically not marked pronominals in 1st and 2nd person). Thus, it gives opposition zero/non-zero alternation in terms of markedness, but is a morphological and not a syntactic effect;

(b) Differentiation based on semantic features. I have illustrated that such semantic properties of the subject as definiteness, specificity or animacy do not play a crucial role, nor are they restricting factors for case assignment in Georgian. Thus, markedness based on the animacy scale cannot be applied to Georgian. Moreover, I have shown that volitional features in several cases can be regarded as epiphenomenal and can be explained through formal features (for discussion and alternative view on volitionality effects in Georgian see Harris 1981; Holisky 1981; Hewitt 2018; but see also Gogolashvili et al. 2011; Melikishvili 2014 among others). Other semantic features, such as association with thematic roles were not discussed in detail, as detailed discussion is presented in the related parts of the thesis;

(c) Differentiation based on formal features. I outlined the widely acknowledged facts such as transitivity and tense/aspect distinction as the main formal features that trigger DSM in Georgian (see Chikobava 1950; Shanidze 1980; Harris 1981; Holisky 1981; Sukhishvili 1986; Chumburidze 1986; Kvatchadze 1996; Tuite 1998; Melikishvili, Humphries & Kupunia 2008; Gogolashvili et al. 2011 *inter alia*). I applied purely syntactic criterium for defining transitivity in Georgian based on the base-generation of the argument *v*P internally or *v*P externally. Thus, I have shown that subjects of underlyingly transitive verbs (including unergatives) are generated *v*P externally in Spec,*v*P and show differential ergative marking, while intransitive unaccusative verbs (both two- and one-place) are generated *v*P

internally and show differential dative and nominative/absolutive marking. Besides the morpho-syntactic sensitivity to transitivity, DCM is also conditioned by tense/aspect split. I have illustrated that linking the differential ergative marking solely to the aspect category is not possible due to the parametric properties of Georgian aorist, i.e. perfective past. As part of my argumentation, I have illustrated that the differentiation of the perfective vs. imperfective aspect cannot be tied exclusively to the existence of verbs with and without preverbs in Georgian and, hence, differential ergative marking is triggered by the perfective past and not by neutral aspect, contra to Nash (2017).

4. Diagnostics to test structural vs. non-structural cases

It is often not very clear in a particular language whether a case is structural or inherent due to the different criteria and parametric properties of a specific language. Thus, the diagnostics are not always applicable to all languages, which makes testing hard. Further, some might provide misleading results. This chapter is structured as follows. First, in Section 4.1, I explain the diagnostics that are discussed in the literature (Zaenen, Maling & Thráinsson 1985; Woolford 2006; Bobaljik 2008; Legate 2008; 2012; Bobaljik & Wurmbrand 2011; Sigurðsson 2012; Baker 2014b; 2015; Andrews 2017; Baker & Bobaljik 2017 among others), and afterwards, in Section 4.2, I show some limitations of the implementation of cross-linguistically applied diagnostics to Georgian, based on the parametric properties of the language. Diagnostics applicable to Georgian and theoretical analysis are given in the chapters related to subject cases, namely, Chapter 5 for ergative and Chapter 6 for dative.

4.1 Tests applied cross-linguistically

In most cases, diagnostics for testing structural vs. non-structural case can be sub-divided into three groups: (a) case preservation/alternation in different syntactic environments; (b) theta-relatedness/regularity; and, (c) controlling agreement.

4.1.1   Case preservation / alternation

There are different tests to check structural vs. non-structural case, which involve case preservation/alternation in different syntactic environments. However not all of these tests can be used to prove that both ergative and dative can be regarded as structural cases. The well-known tests include: (a) case preservation under A-movement (passive,

raising constructions); (b) case preservation in the external subject position; (c) allowance of nominative objects; (d) case alternation in non-finite environments; (e) case alternation under valency-changing operations (valency increasing, as causative, applicative, etc. or valency reducing, as antipassive, reflexive, noun incorporation etc.). The main idea with all these tests is that if the case of the argument remains invariant after the alternation of the syntactic environment, it is inherent, while if it covaries it is structural.

4.1.1.1 Case preservation under A-movement
One of the classic tests for checking structural vs. non-structural case under A-movement, is case preservation in passive constructions. If the case of the argument after the passivization remains the same, it is an inherent case, while if it changes, it is a structural case. This test can be used to check dative of goal arguments. See, for instance, (1a and b) for Icelandic.

> *Icelandic* (Zaenen, Maling & Thráinsson 1985: 111)

(1) a. Ég   skilaði   **henni**   peningunum.

I   returned   her (**DAT**)   the-money (DAT)

'I gave her back the money.'

b. **Henni**   var   skilað   peningunum.

she (**DAT**)   was   returned   the-money (DAT)

'She was given back the money.'

The given examples show that dative in Icelandic is a non-structural case, as it is preserved under passivization. This test works well for many languages; however, it is not very straightforward. In some languages, the case sometimes remains in passive and

sometimes does not, as observed for German. Although, it is assumed that German has a non-structural case for goal, there are also counterexamples of recipient passive constructions, which are used as evidence that goal dative in German is a structural case. See (2a and b) for examples and Chapter 6, in particular Section 6.3, for the mixed approach applied to the *kriegen/bekommen* 'get' and the *werden* 'be(come)' passives in German.

German (Haider 1985, *apud* Woolford 2006: 118)

(2) a.   …   dass **ihm**   ein   Buch   geschenkt   **wurde**.
          …   that him-**DAT** a   book-NOM   presented   was
          '… that he was presented a book.'

    b.   …   dass **er**   ein   Buch   geschenkt   **kriegte**.
          …   that he-**NOM**   a   book-ACC   presented   got
          '… that he got presented a book.'

The fact that goal dative is preserved can be analyzed in different ways and, in some languages, can even lead to equivocal results. This has been observed for Japanese by Woolford (2006: 119–120), where the dative case is generally prohibited in intransitive construction, and for Sakha by Baker & Vinokurova (2010: 599, 610), where dative is regarded as a structural case in spite of the fact that it remains unaffected by passivization (See Chapter 6, in particular Section 6.3 for more details on Japanese and Sakha examples and the passivization test applied to Georgian datives).

This diagnostic can also be used to check the accusative of an internal argument; however, it cannot be applied to test structural ergative because the external argument disappears in the passive.

The other diagnostic test is raising constructions. The idea is the same: If the case is preserved under raising, the case is non-structural. This test is also applicable for testing ergative, but not all ergative languages possess raising like the English *seem* constructions. Woolford (2006: 120–121) provides an example from Tongan (3a and b), where ergative is preserved under movement in the raising construction, thus showing that ergative is inherent in Tongan.

Tongan (Hendric 2004, *apud* Woolford 2006: 121)

(3) a. 'E   lava   ['o   ako   'e   Pita   'a   e   lea   faka-Tonga].
         AUX   possible/can   COMP learn   ERG   Peter   ABS   the   language   Tongan

    'Peter can learn Tongan.'

    b. 'E   lava   'e   Pita   ['o   ako   'a   e   lea   faka-Tonga].
        AUX   possible/can   **ERG**   Peter   COMP learn   ABS   the   language   Tongan

    'Peter can learn Tongan.'

ECM constructions are also provided as an example of subject to object raising in Icelandic to show that dative in Icelandic is an inherent case (4).

Icelandic (Sigurðsson 2012: 192)

(4) a. **Þeim**   virtist   ekki   hafa   verið hjálpað.
        them.**DAT**   seemed.DFT   not   have.INF been   helped. DFT

    'They did not seem to have been helped.'

    b. Við   töldum   **þeim**   ekki   hafa   verið hjálpað.
        we. NOM   believed.1PL   them.**DAT**   not   have.INF been   helped. DFT

'We did not believe them to have been helped.'

Case preservation under A-movement cannot be used to prove inherent status neither of ergative, nor of dative in Georgian. First, passivization is ruled out for ergative as external arguments disappear in the passive, and for dative as dative does not raise to the subject position, so there is no precondition for case alternation (see Chapter 6, Subsection 6.3.1 for a detailed discussion on preservation of dative under passivization). Second, raising cannot be applied as Georgian has no subject raising constructions, like the English *seem* constructions. Moreover, Georgian does not possess ECM constructions, but uses single-clause causatives, where a semantic embedded subject is the grammatical IO (5).

(5)	lana-m	tsnobil	pot'ograp-s	surat-i	gada-a-gheb-in-a.
	Lana-ERG	famous	photographer-**DAT**	photo-NOM/ABS	PR-PV-take-**CAUS**-3SG.SBJ:PFV.PST

'Lana made a famous photographer take a picture.'

In sum, the limitations of the case preservation/alternation diagnostic include: eligibility of inherent cases for A-movement, raising possibility of arguments under passivization, and parametric properties of the language which allow or on the contrary prohibit the preservation/alternation of case.

4.1.1.2 Case preservation in the external subject position and acceptability of nominative objects

Tests that support IC theory and are used as arguments to regard ergative or dative as inherent cases are: (a) acceptability for non-nominative subjects and (b) acceptability for nominative objects. These two diagnostics are mentioned by Woolford (2006: 121–123)

and are based on evidence from Icelandic. According to the first diagnostic, if case is preserved in the external subject position, where nominative is normally licensed, it is a non-structural case, because "no structural Case can ever take priority over nominative on the subject of a tensed clause" (Woolford 2006: 121). Another diagnostic which is in line with the first, and is even a stronger argument, is acceptability for nominative objects. Nominative objects are possible "only when subject has nonstructural Case" (Woolford 2006: 122). Being inherent does not block nominative on object, as the external argument does not work as an intervener for assigning nominative case by T^0. Thus, acceptance of the nominative object depends on the inherent case of the subject. The result is that any case which is above nominative (for instance, ergative or dative) is inherent. Woolford (2006: 122) provides Icelandic examples from ECM constructions to prove that nominative objects are possible only when the subject has a non-structural case. In Icelandic, when the ECM subject bears dative case, nominative objects are allowed, but when it bears accusative (i.e. structural case), nominative objects are blocked, see (6a and b).

      Icelandic (Jónsson 1996, *apud* Woolford 2006: 122)

(6) a. Hann   hafði talið   [Jóni   Hafa   verið gefnir þessir sokkar].

        he-NOM   had   believed [John-**DAT** to-have been given these socks-NOM]

        'He had believed John to have given these socks.'

     b. Ég   hafði talið   [Maríu   vita   svarið].

       I-NOM had   believed [Mary-**ACC** to-know answer-ACC]

       'I had believed Mary to know the answer.'

Conditioned upon such examples, and the assumption that ergative subjects behave like dative subjects, both cases are assumed to be inherent by proponents of ICT. However, this test can be applied only if we assume that structural case is *apriori* assigned by the functional head, and not configurationally. If structural cases (ergative and dative) are assigned by a dependent case rule in opposition to another argument which has unvalued case features, and after assigning dependent case gets a less specific/unmarked form, then ergative and dative can both be assigned above the nominative/absolutive unmarked case, even if it is structural. The crucial thing here is that two structural cases can appear in the same clause. For instance, ergative can appear in the clause where nominative/absolutive is, and ergative is above nominative/absolutive, as illustrated by the Georgian example (7). Hence, in (7), the ergative can still be structural.

(7)   gega-m   natia-s   samsakhur-i   shestavaza.

       Gega-**ERG**   Natia-DAT   job-**NOM/ABS**   offered.

       'Gega offered a job to Natia.'

Crucially, acceptability for non-nominative subjects and for nominative objects works only for languages with a nominative-accusative system, but it cannot be applied to ergative-absolutive or hybrid systems, that have both nominative-accusative and ergative-absolutive alignments. First, the ergative-absolutive systems with ABS=DEF distinction (following Legate's 2008 terminology), have no nominative case on objects, the lowest DP that gets assigned structural case is absolutive=default (as illustrated in example (8) for Hindi), and not absolutive=nominative.

Hindi (Mohanan 1994, *apud* Legate 2008: 65)

(8)   ...   mãã-ne   usko   khaanaa   diyaa.

… mother-ERG   him.DAT   food.**ABS**   give.PERF

'… Mother gave him food.'

According to Legate (2008), such ergative languages lack nominative and accusative case morphology, and show ergative-absolutive patterns, where T^0 assigns nominative case to the intransitive subject, and v^0 assigns accusative case to the transitive object. So, what looks like one absolutive case, is not the same. ABS*s* and ABS*o* are two different cases: ABS*s*=NOM and ABS*o*=DEF.

Second, this should not work either for languages that have a hybrid system, where absolutive and nominative cases are not easily distinguishable. Georgian happens to be such a language. From morphological marking (which is not null, unlike many other ergative languages) it is not clear if something that looks like nominative is really nominative or absolutive (see, for merged functionality of absolutive and nominative in Georgian Berikashvili & Lobzhanidze 2022). Yet, it is assumed in the literature (see Legate 2008 for a discussion) that Georgian belongs to ABS=NOM languages (see Chapter 5, Sub-section 5.1.1 for a brief overview of Legate's account and also for some counter-arguments for the assignment of Georgian to the ABS=NOM group of languages). If Legate's (2008) analysis is right, then Georgian ergative must be either an inherent case, because nominative on object is not independent from finite T^0, or if it is assigned configurationally in opposition to a dependent case, then it is simply independent from an assignment by a functional head, thus getting the result where structural ergative is above structural nominative/absolutive. So, since Georgian is a hybrid language, this test does not apply to Georgian either.

4.1.1.3 Case alternation in non-finite environments

If case is non-structural it should be kept in non-finite environments. In some ergative languages nominative of subject is lost in a non-finite environment, as it is structural and is dependent upon finite T^0, and therefore unavailable in non-finite clauses. Ergative, on the contrary, as an instance of inherent case is unaffected by finiteness and remains. Consider example (9) for Walpiri with a non-finite embedded clause with an ergative subject discussed by Legate (2008), or (10) for Chukchi.

     Walpiri (Laughren 1989, *apud* Legate 2008: 63)

(9)   Kurdu-lpa   manyu-karri-ja,   [ngati-nyanu-rlu   karla-nja-rlarni].

     child.ABS-PAST.IMPERF   play-stand-PAST   mother-POSS-**ERG**   dig-NONFIN-OBV.C]

     'The child was playing while his mother was digging (for something).'

     Chukchi (Dunn 1999: 243)

(10)   ik-wʔe-t   ɣət   moryənan   leŋ-kə   nʔ-enqet-ə-n?

     say-TH-3PL   2.SG.ABS   1PL.**ERG**   take.as-INF   2SG.COND-desire-E-2SG

     'They said, "Do you desire us to take you [in]?

    This is not the case for all ergative languages, thus ergative is not possible in a non-finite environment in Hindi (11) where genitive is used. However, ergative in Hindi is still assumed to be inherent (Mahajan 1990; 2000; 2012; Anand & Nevins 2006, among many others), and the variation is explained by the presence of the perfective aspect in finite clauses.

     Hindi (Mohanan 1994, *apud* Legate 2008: 65)

(11)   [ilaa-ke   anuu-ko   ciDhaane]-par   …

[Ila-**GEN**   Anu-DAT   tease.NONFIN]-LOC   …

'When Ila teased Anu,…'

As such, the test may result in a misleading interpretation based on the parametric properties of the language. According to the test, if ergative or dative are inherent cases, they should be unaffected by finiteness and in principle be allowed in non-finite clauses. Georgian does not allow either ergative or dative subject cases in a non-finite environment. Prima facie this argument supports the structural case hypothesis. However, this happens because Georgian does not exhibit the infinitive as such, so this test is not very straight for Georgian. Finite verb forms with *that* clauses are always preferred in environments where infinitives occur in other languages. However, Georgian does use verbal nouns (traditionally termed "masdar"). One thing that can be definitely observed is that ergative is not kept with nominalizations or verbal nouns/derived nominals. Georgian nominalizations are akin to the so-called "POSS-ing" gerunds in English, where the subject of gerund is like a possessor and gets genitive case (see Abney 1987). As illustrated in (12), *masdar* in Georgian after the nominalization combines with arguments as a noun, and not as a verb, meaning nominalization does not apply at a higher level.

(12) a. adamian-ma   i-tskhovr-a   mizn-is   gareshe.

       man-**ERG**   PV-live-3SG.SBJ:PFV.PST   aim-GEN   without

       'The man lived without purpose.'

      b. adamian-is   tskhovreba-m   mizn-is   gareshe   cha-i-ar-a.

       man-**GEN**   life-ERG   aim-GEN   without   PR-PV-pass-3SG.SBJ:PFV.PST

       'The life of the man passed without purpose.'

The derived nominal has nominal and not verbal properties in that it is unable to introduce external argument and assign structural accusative, because it lacks v^0. Syntactically speaking, nominalization lacks verbal properties which are important for assigning arguments, and semantic arguments get unmarked case in the DP domain, which is genitive.

Although the test is not straightforward, it shows that ergative is not kept in the non-finite environment in Georgian. This has been used as an argument in the literature either to show that the Georgian ergative is structural (see Nash 2017) or on the contrary to show that Georgian belongs to ABS=NOM languages, and both nominative subjects and objects are assigned by the T^0 head. The T^0 head is absent in the non-finite environment and, subsequently, ergative is an inherent case, as otherwise it would work as an intervener for assigning nominative (see Legate 2008).

It has also been mentioned for other languages that nominalization is a process akin to passivization in demoting external argument (see Alexiadou 2017 for a discussion on nominalizations), so *apriori*, testing whether the subject case changes in a non-finite environment cannot be applied to external arguments, as in some languages they disappear in nominalizations, like passives, and can be assigned optionally as PPs (13).

Greek (Alexiadou 2017: 355)

(13) I katastrofi   tis polis   apo tus varvarus   mesa se tris meres

      the destruction   the city.GEN   by   the barbarians   within three days

      'The destruction of the city by the barbarians within three days'

This is exactly what happens in Georgian passive constructions and partially in nominalizations: ergatives and datives of the external arguments disappear and are

assigned optionally by the postposition. See (14a) for an active clause with an ergative subject and (14 b and c) for the respective passives (both synthetic and analytic), and (15a and b) for a finite clause with a dative subject and a corresponding clause with nominalization.

(GDSMC)

(14) a. nino-m   ts'auk'itkha   ts'ign-i   mariam-s.

Nino-**ERG**   read   book-NOM/ABS   Mariam-DAT

'Nino read a book to Mariam.'

b. ts'ign-i   ts'aek'itkha   mariam-s   nino-s-gan.

book-NOM/ABS   was_read   Mariam-DAT   Nino-**GEN-from**

'The book was read to Mariam by Nino.'

c. ts'ign-i   ts'ak'itkhuli=a[23]   mariam-is-tvis   nino-s   mier.

book-NOM/ABS   was_read   Mariam-GEN-for   Nino-**GEN**   **by**

''The book is read to Mariam by Nino.'

(GDSMQ)

(15) a.   monadire-s mouk'lavs iremi   t'q'e-shi. am   pakt'ma q'vela gagvaotsa.

hunter-**DAT** killed   deer   forest-in   this   fact   all   surprised

'The hunter killed a deer in the forest. This surprised us all.'

---

[23] The form with copula in present was produced by the questionnaire participants.

b. monadir-is   mier   t'q'e-shi   irm-is   mok'vla-m q'vela   gagvaotsa.

hunter-**GEN**   **by**   forest-in   deer-GEN   killing- **ERG** all   surprised

'The killing of the deer by the hunter in the forest surprised us all.'

Crucially, this test cannot be applied as a diagnostic to test the structural vs. non-structural case of the external argument, because in these cases external arguments are assigned optionally and receive their case from adposition. Consider the passivization example from English in (16).

English

(16)   a. **He** wrote a book.

b. The book was written **by him.**

We do not use this diagnostic to show that the nominative of *he* in the active clause syntactically is a structural case, because in the passive it is substituted by *him; him* is assigned by the preposition *by* in passive, and the same is seen in Georgian. It is assigned by the postpositions *mier, -gan* (14 b, c and 15 b). PPs are not syntactic arguments, they are semantic arguments. As such, testing whether case alternates in a non-finite environment (akin to passive constructions) might not give us the result we are looking for, based on the parametric variation, and can cause misleading results.

4.1.1.4 *Case alternation under valency-changing operations*

Non-structural case must be insensitive to the changes of syntactic environment. So, valency-changing operations, which include valency increasing (for instance, causatives, applicatives) and valency reducing operations (for instance, anti-passives, noun-incorporation) should not affect the case marking of the argument.

This test mainly concerns ergative subjects. Causative and applicative verbs are created in many languages out of transitive or unergative verbs (see, for instance, Baker 2014b: 351 for Shipibo), following the assumption that unergatives have implicit argument and behave like ordinary transitive verbs. Thus, whenever causative and applicative verbs are created, it cannot be checked whether ergative is structural or inherent, as ergative must be present in a transitive construction anyway. However, there are examples of applicative verbs which are formed out of unaccusative verbs and these provide a crucial test for the inherent case view of ergativity. Such verbs have two internal arguments, and if the inherent case theory holds, the subject should not bear ergative case, despite the presence of two DP arguments (Legate 2012: 183). The counterexamples for this view were presented by Baker (2014b; 2015) for Shipibo (17) and Deal (2019) for Nez Perce (18).

Shipibo (Baker 2014b: 366)

(17) Nato   yapa-n-ra   Maria   payo-xon-ke.
      this   fish-**ERG**-PRT   me-ABS   spoil-APPL-PRF
      'This fish spoiled on Maria.'

Nez Perce (Deal 2019: 390)

(18) Ha-'aayat-om   nuun-e   hi-pa-naas-pay-noo-yo'-kom.
      PL-woman-**ERG**   1PL-ACC   3SBJ-S.PL-O.PL-come-APPL-FUT-CIS
      'The women will come to us'

In examples (17 and 18), case is changed from absolutive (Shipibo) and nominative (Nez Perce) to ergative after adding the applicative argument. So, here are two internal arguments, one of which gets ergative case. This test is also crucial for checking the theta-

relatedness of ergative. Inherent ergative is predicted to be associated with the external subject position (see Sub-section 4.1.2), while in examples (17 and 18), the thematic role of the subject is that of internal argument. According to the ICT this would be impossible as internal arguments with a theme/patient role cannot receive ergative case.

Valency-reducing operations, such as incorporation of the objects into the verb, can also affect case marking of the argument. Some ergative languages show such incorporations. Baker & Bobaljik (2017) point out examples for Chukchi (19a and b), where ergative is lost after noun incorporation, something that would not be possible if ergative were a non-structural case.

Chukchi (Polinskaja & Nedjalkov 1987, *apud* Baker & Bobaljik 2017: 122)

(19) a. ətləg-e   mətqəmet   (kawkaw-ək)   kili-nin.

Father-**ERG**   butter.**ABS**   bread-LOC   spread.ON-3SG>3SG

'The father spread the butter (on the bread).'

 b. ətləg-en   (kawkaw-ək)   mətqə-rkele-nen.

Father-**ABS**   bread-LOC   butter-spread.on-3SG>3SG

'The father spread butter (on the bread).'

In these examples, the incorporated object is inaccessible to the rule of dependent case, so the case competitor is lost and that is why ergative is altered to absolutive. Georgian exhibits different valency-increasing operations, which are discussed in Chapter 5, Sub-section 5.2.1. No valency-reducing case alternation diagnostics like noun incorporation, anti-passives, etc. that are mentioned for other ergative languages (see, for instance, (19) for Chukchi discussed by Baker & Bobaljik 2017) are applicable to Georgian.

4.1.2   Theta-relatedness / regularity

There are two interpretations of the theta-relatedness test: one is associated with the thematic role of the argument, yet other with the thematic structural position. Inherent cases are licensed in connection with theta marking, while structural cases are not. Thus, ergative is assumed to be inherent due to its association with the agentive thematic role or thematic position in Spec,*v*P, and dative due to its association with the goal thematic role or thematic position in Spec,ApplP.

I will show how this test works on ergative (but see also examples for dative thematic roles in Chapter 6, Sub-section 6.2.1). For the weak version of theta diagnostic, the main factor for ergative is an agentive theta-role. However, ergative is not always restricted to semantic agents and can bear different thematic roles such as agents, causers, experiencers of certain psych-predicates, instruments etc. This was already illustrated in Chapter 2, Sub-section 2.2.3, in (24) with Basque, Hindi and Tzes examples. Here I provide only two examples to show the main opposition, one for the semantic agent (20) and the other for instrument (21), expressed by an inanimate DP, which denotes natural forces.

Chukchi (Dunn 1999: 113)

(20)   ajwe   muri   na-n-qame-twa-a-mək   tekicɣ-e   ŋewəcqet-te.
       yesterday   1PLABS   3A-CS-eat-RESULT-CS-1PLO   meat-INSTR   girl-**ERG**
       'Yesterday the girl fed us with meat.'

Samoan (Mosel & Hovdhaugen 1992, *apud* Tollan 2018: 16)

(21)   Na   tapuni   e   le   matagi   le   faitoto'a.
       PST   close   **ERG**   DET   wind   DET   door.ABS
       'The wind closed the door.'

So, according to the weak version of the theta-relatedness diagnostic, if ergative case is inherent, it must be more restrictive to a particular meaning. However, empirical evidence shows that ergative is not restricted to an agentive meaning in most ergative languages. As such, it is likely that the weak version can be ruled out. Still the majority of examples are consistent with the identification of ergative as an external argument. This is a strong version of theta-relatedness, where the main factor is not a semantic agent, but the theta-position associated with external argument.

Given the ECG proposed by Marantz (2000 [1991]), see Chapter 2, (25) for the exact formulation, the ergative cannot be assigned to a non-thematic position, as it cannot appear on a derived subject. Derived subjects are "underlyingly theme/patient arguments" (Bobaljik 1993: 79). So, it is predicted that ergative case is never able to occur on internal arguments, which bear a theme role. This prediction is borne out for many ergative languages. See, for example, (22) in Niuean, discussed by Massam (2006). Here, an applicative construction is created out of an intransitive sentence which contains two arguments, neither of which is an agent and, as predicted, neither of them is expressed by ergative.

   Niuean (Massam 2006: 34)

(22)   Fakamafana   aki   e   poko   e   hita.
       Cause-warm   with   ABSC   room   ABSC   heater
       'The room is warm with the heater.'

As pointed out by Legate (2012), it is difficult to test whether a derived subject could bear ergative, as in general transitive verbs have a thematic subject. The environment where this test could be applied "would be a two-argument verb in which both

arguments are internal, for example, the passive of object construction, or the applicative of unaccusative verbs" (Legate 2012: 183). Baker (2014b; 2015) has provided such examples for Shipibo, where it is clear that derived, non-agentive subjects can get ergative case because of the productive, morphologically overt applicative constructions. See (23a and b) for examples from Shipibo.

Shipibo (Baker & Bobaljik 2017: 117)

(23) a. Bimi-n-ra   Rosa   joshin-xon-ke.

fruit-ERG-PRT   Rosa   rippen-APPL-PRF

'The fruit ripened for Rosa.'

Shipibo (Valenzuela 2003: 694)

b. Nokon   shino-n-ra   e-a   mawa-xon-ke.

my.GEN   monkey-ERG-PRT   me-ABS   die-APPL-PRF

'My monkey died on me.'

The theta-relatedness of ergative subjects in Georgian is discussed in Chapter 5, Subsection 5.2.2.

One other diagnostic applied in the literature was the regularity and predictability of the ergative use to denote agentive subjects. According to this assumption, if case has a regular and predictable use, it is regarded as structural. For instance, the predictable use of datives is to denote goal arguments, in contrast to irregular lexical datives. However, this diagnostic has been ruled out by Woolford (2006: 125) as a diagnostic to separate lexical case from other type of non-structural, i.e. inherent case (see also Barðdal 2011 about the predictable use of dative subjects and objects in Icelandic, dismissing the

regularity diagnostic). As such, it cannot be applied to check structural vs. non-structural case.

4.1.3   Controlling agreement

Only structural cases can control agreement (Bobaljik 2008; Bobaljik & Wurmbrand 2011; Andrews 2017 among others), so, if case is capable of acting as a goal for Agree it is by all means structural and not inherent. This is widely accepted in related literature, and has even been formulated as Case Opacity, which states that theta-related cases cannot value the φ-probe (see Rezac 2008 and (31) in Chapter 3 for the exact formulation). But there are also several attempts (see Woolford 1997; Anand & Nevins 2006; Lomashvili & Harley 2011, among others) to show that inherently-case marked DPs can be visible to Agree due to a microparametric variation. This has been formulated as the Visibility of Inherent-Case to Verbal Agreement (VIVA) Parameter by Anand & Nevis (2006: 6), which states that "A language will differ as to whether the verb can agree with an inherently case-marked DP". This assumption is based on the view that ergative and dative are inherent cases, but in some languages, for instance, Georgian, Walpiri and Basque, they still enter into an Agree relationship, and thus must obey to the VIVA parameter – this in opposition to other ergative languages which do not show such agreement, like, for instance, Hindi-Urdu.

In many ergative languages, it is unmarked case that controls agreement and not ergative. See examples (24a and b) for Hindi-Urdu, where (24a) represents an imperfective with the subject in nominative case that controls agreement, while (24b) subsequently represents a perfective with the object in the absolute case, which controls agreement.

Hindi/Urdu (Butt & King 2004: 161)

(24) a. nadya   gaṛi   cɑla-ti   hɛ.

          Nadya.**F.SG.NOM**   car.F.SG.NOM   drive-IMPFV.F.SG   be.PRES.3.SG

          'Nadya drives a car.'

      b. nadya=ne   gaṛi   cɑla-yi   hɛ.

          Nadya.F.SG=ERG   car.**F.SG.NOM**   drive-PERF.F.SG   be.PRES.3.SG

          'Nadya has driven a car.'

Other ergative languages, on the contrary, show, that ergative is accessible for agreement. In terms of Bobaljik (2008) and given the disjunctive case hierarchy of Marantz (2000 [1991]), there are two types of ergative languages: one where only unmarked case controls both person and number agreement, and a second, where dependent cases are also included in accessible cases that control agreement (Figure 4.1).

Unmarked Case > Dependent Case > Lexical/Oblique Case

Type 1 (Hindi)

Type 2 (Nepali)
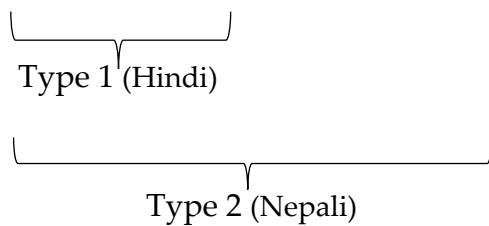
Figure 4.1: m-case accessibility (Bobaljik 2008: 310)

In Type 2 languages, it is the highest accessible NP that controls agreement, and this is the subject of transitive and intransitive clauses. This is attested in split ergative languages, which show an ergative-absolutive case alignment, but a nominative-

accusative agreement alignment. See example (25) for Nepali, where both the unmarked nominative/absolutive (25a) and dependent ergative (25b) are accessible for agreement.

Nepali (Bickel & Yādava 2000, *apud* Bobaljik 2008: 309)

(25) a. ma   yas   pasal-mā   patrikā   kin-ch-u.

1SG.NOM   DEM.OBL   store-LOC   newspaper.NOM   buy-NPST-1SG

'I buy the newspaper in this store.'

b. maile   yas   pasal-mā   patrikā   kin-ē

1SG.ERG   DEM.OBL   store-LOC   newspaper.NOM   buy-PST1SG

'I bought the newspaper in this store.'

As mentioned by Bobaljik (2008), the situation might look different in languages with complex agreement, i.e. agreement with more than one argument on a single verb, and thus such languages might also require reference to GF. Yet, the main point here is that only a structural case can control agreement. See example (26) for inherent ergative case in Hindi/Urdu that shows default agreement (masculine, singular), and (27) for the lexical dative case in Nepali which does not control agreement.

Hindi/Urdu (Butt & King 2004: 161)

(26) nadya=ne   gaṛi=ko   cɑla-ya   hɛ.

Nadya.F.SG=ERG   car.F.SG=ACC   drive-PERF.M.SG   be.PRES.3.SG

'Nadya has driven the car.'

Nepali (Bickel & Yādava 2000, *apud* Bobaljik 2008: 311)

(27) malāī   timī   man   par-ch-au.

1SG.DAT   2MASC.HON.NOM   liking   occur-NPST-2MASC.HON

'I like you.'

Strictly speaking, agreement happens with the highest c-commanded DP which bears the structural case, thus, if ergative and dative agree they must be structural and not inherent. Georgian shows agreement with both ergative and dative subjects, highlighting that both are structural cases. This is discussed in detail in the corresponding parts of the thesis, namely, Chapter 5 for ergative and Chapter 6 for dative agreement.

4.2 Some limitations of testing in Georgian

This section serves to show some limitations of the implementation of cross-linguistically applied diagnostics to test structural vs. non-structural case, based on the parametric properties of Georgian.

Generally, implementation of tests can be limited by the following factors: (a) the absence of the corresponding constructions in the language under study; (b) parametric properties of the language which cause misleading/equivocal results; and, (c) the fact that designed tests are contingent upon adopted theoretical analysis.

From already introduced diagnostics (Section 4.1), such traditional tests as case preservation/alternation in raising constructions (similar to English *seem* constructions), ECM constructions and case preservation/alternation under valency decreasing operations (i.e. antipassives and noun incorporations) cannot be applied to Georgian, as no such constructions/operations are available in the language.

Tests on case preservation in the external subject position and acceptability of nominative objects depend on the analysis we adopt and thus, must be ruled out. In particular, case preservation in the external subject position is based on the theoretical

assumption that nominative is a canonical case in the subject position and thus, "no structural Case can ever take priority over nominative on the subject of a tensed clause" (Woolford 2006: 121), while the acceptability of nominal objects can be used only for languages, where nominative objects are assigned by the T^0 head, but if they are assigned configurationally and/or are default cases, then the test fails (see Sub-section 4.1.1.2 for more discussion).

In what follows, I focus on the application of tests related to passivization and non-finite environments in Georgian, as those may cause misleading interpretations.

4.2.1   Passivization test

One test that provides misleading/equivocal results is case preservation under A-movement in passive DOC constructions. In brief, this happens because Georgian exhibits asymmetric passives in the sense that only one object can passivize and the passivized object is always a theme argument (see Chapter 6, in particular, Sub-section 6.3.1 for a detailed discussion). This language property leads to misanalysis of dative as an inherent case (prevailing opinion in related literature, see for instance Marantz 2000 [1991]; McGinnis 1997; Béjar 2003; Lomashvili & Harley 2011) because it is kept under passivization. The reason though for case preservation in DOC passives is that dative does not raise to the subject position, but simply scrambles to the left of the subject. So, there is no precondition of case alternation.

Before starting the discussion, let me present in brief the formation of a non-active voice in Georgian in order to get a clearer idea about the possibilities of passivization, especially with ditransitives. There are several ways of getting a non-active voice. In traditional Georgian grammar, all these constructions are called passives. These ways are: (a) by using the *i-* and *e-* prefixes as passive markers (*i-* is reflexive in other contexts, while

e- is an applicative marker); (b) by using the *-d* suffix (also used for deadjectival passives); (c) by adding auxiliary verbs (i.e. periphrastic formation).

There are controversial accounts about the type of verbs that create non-active constructions by using the *i-* and *e-* prefixes. These forms are either regarded as unaccusatives or passives (see for references Chikobava 1950; 1952; Lomtatidze 1953; Nozadze 1958; 1961; Shanidze 1980; 1981; Jorbenadze 1983; Melikishvili 2001; Melikishvili, Humphries & Kupunia 2008 among others). Scholars who regard these types of verbs as unaccusatives, restrict their discussion to analytic passive forms (see Harris 1981; Shanidze 1981; McGinnis 1998b; McGinnis 1998a; Harris & Amiridze 2015 among others).

They show that the two structures differ in that the "passive applies to transitive structures, while the unaccusative applies to a direct object in the absence of subject" (Harris & Amiridze 2015: 1597) and that some verbs have both passive and unaccusative forms with distinct syntax and semantics. However, even they acknowledge that there are forms with *i-* marker which have the syntax and semantics of the passive and that the distinction is not always so straightforward (see Harris 1981; Harris & Amiridze 2015 for detailed discussion). For our purposes non-active construction with the *i-* marker is not so crucial, as it is mostly applied to monotransitive verbs. However, construction with an *e-* prefix or *-d* suffix is important because it is applied to the DOC passives. The restricting of the passive forms just to the analytic formation (*pace* McGinnis 1998a) can cause misleading results in the discussion about raising in ditransitive construction. Passives with auxiliary verbs never allow goal arguments in dative; like perfect tenses the goal argument here is demoted to PP, which is genitive + postposition *-tvis* 'for'.

In what follows, I do not restrict my discussion to the analytic formation, but also include non-active voice examples with different morphological markers. I regard them as synthetic passives if they have the syntax and semantics of passives and satisfy the

universal criteria for determining passive constructions as defined by Dixon (1994). According to these criteria, the passive

> "(a) applies to underlyingly transitive clause and forms a derived intransitive;
>
> (b) the underlying O NP becomes S of the passive;
>
> (c) the underlying A NP goes into a peripheral function, being marked by a non-core case, preposition, etc.; this NP can be omitted, although there is always the option of including it;
>
> (d) there is some explicit formal marking of a passive construction (generally, by a verbal affix or else by a periphrastic element in the verb phrase – such as English *be… -en* – although it could be marked elsewhere in the clause)" (Dixon 1994: 146).

Georgian examples of non-periphrastic passives show derived intransitive forms from underlying transitive clauses, where the patient/theme of a transitive clause becomes the subject. The agent can be added optionally as an adpositional phrase and there is an explicit morphological marker on the verb if the latter is not accompanied by an auxiliary. Further, Georgian passives distinguish dynamic and static passives (the latter generally periphrastic). See (28, 29 and 30) for passives with *i-, e-* and *-d* affixes respectively. (28c) and (30c) provide examples for periphrastic passives.

passive with i- prefix

(28) a. levan-i   ts'er-s   ts'eril-s.

Levan-NOM/ABS   write-3.SG.SBJ   letter-DAT/ACC

'Levan writes a letter.'

b. ts'eril-i   **i**-ts'er-eb-a.   (levan-is mier)

letter-NOM/ABS   PASS-write-THM-3.SG.SBJ   (Levan-GEN by)

'A letter is being written. (by Levan)'

c. ts'eril-i   dats'eril-i=a.   (levan-is mier)

letter-NOM/ABS   write.PTCP-NOM=COP.3.SG   (Levan-GEN by)

'A letter is written. (by Levan)'

passive with e- prefix

(29) a. p'olitsiel-eb-i   mat   miats'er-en   am   danashaul-s.

policeman-PL-   them.DAT   attribute-   this.NNOM/NABS crime-DAT/ACC

NOM/ABS   3.PL.SBJ:FUT

'The police will charge them with the crime.'

b. es   danashaul-i   mat   mi-**e**-ts'er-eb-a-t.   (politsiel-eb-is-gan)

this.NOM/ABS   crime-NOM/ASB   them.DAT   attribute-PASS-THM-   policeman-PL-GEN-

3.SG.SBJ-3.PL.OBJ:FUT   from

'This crime will be attributed to them. (by the police)'

passive with -d suffix

(30) a. mariam-i   amzadeb-s   sach'mel-s.

Mariam-NOM/ABS   cook-3.SG.SBJ   food-DAT/ACC

'Mariam cooks food.'

b. sach'mel-i   mzad-**d**-eb-a.   (mariam-is mier)

food-NOM/ABS   cook-PASS-THM-3.SG.SBJ   (Mariam-GEN by)

'Food is being cooked. (by Mariam)'

c. sach'mel-i   damzadebul-i=a.   (mariam-is mier)

    food-NOM/ABS   write.PTCP-NOM=COP.3.SG   (Mariam-GEN by)

    'Food is cooked. (by Mariam)'

Overall, the passive voice in Georgian is not indicated by verb conjugation (as for instance, in Greek). It has the same shape as the active voice across tenses (but with the addition of passive markers) and is not restricted to only being accompanied by an auxiliary verb.

Moreover, the passives are not very natural in Georgian. Native speakers usually avoid passives by using various strategies. The most applied in these cases is the active voice with the generic covert *pro* subject (31) to indicate passive meaning.

(31)   mariam-s   ts'eril-i   (*mat)   mi-s-ts'er-**es.**

        Mariam-DAT   letter-NOM/ABS   (*they)   PR-3SG.OBJ-write-3PL.SBJ.PFV.PST.**ERG**

        Lit.: '(They) have written a letter to Mariam.'

        Meaning: 'A letter was written to Mariam (by somebody).'

In (31), the 3.PL *pro* does not refer to a concrete person, but has a generic meaning and is obligatorily omitted, hence the subject does not receive a specific interpretation. I will call this strategy "semantic passive", but it is also regarded as an "autonomous construction" with an unexpressed generic *pro* subject, as per Maling & Sigurjósdóttir (2002), who discuss similar examples in Icelandic passives (see also Eythórsson (2008) for the view that these constructions are real passives and Andrews (2017) for discussion).

Based on these language properties, empirical results and analyses, I provide below my argumentation as to why the passivization test cannot be applied to check structural vs. non-structural subject cases in Georgian.

First, as already mentioned, passives are not very natural in Georgian. The avoidance strategies, except for the generic *pro* subject in 3.PL, encompass DP dropping, the use of the reflexive marking in verb and lexical substitution. The incorporation of various avoidance strategies shows that passive formation is not very natural to native speakers. This was also proved by the questionnaire study, where most participants produced sentences avoiding the passive formation, with the more frequent use of the *pro* subject as expected (see (32) for examples with DOC passives, produced by consultants).

(GDSMC)

active clause

(32) a. most'savle-eb-ma   mast'savlebel-s   ts'ign-i   da-u-brun-es.

        pupil-PL-ERG   teacher-DAT   book-NOM/ABS   PR-APPL-return-3PL.SBJ:PFV.PST

        'The pupils returned the book to the teacher.'

synthetic passive with -d

b. mast'savlebel-s   ts'ign-i   da-u-brun-**d**-a.

    teacher-**DAT**   book-NOM/ABS   PR-APPL-return-**PASS**-3SG.SBJ:PFV.PST

    'The book was returned to the teacher.'

analytic passive

c. mast'savlebl-is-tvis   ts'ign-i   dabrunebuli=a   mosts'avle-eb-is mier.

    teacher-**GEN-for**   book-NOM/ABS   returned=**COP**:3.SG   pupil-PL-**GEN by**

'The book is returned to the teacher by the pupils.'

avoidance strategy: substitution with reflexive

d.   mast'savlebel-ma   ts'ign-i   da-**i**-brun-a.

teacher-**ERG**   book-NOM/ABS   PR-**REFL**-return-3SG.SBJ:PFV.PST

'The teacher returned his/her book (by himself/herself).'

avoidance strategy: generic *pro* subject in 3.PL

e.   mast'savlebel-s   ts'ign-i   da-u-brun-**es**.

teacher-**DAT**   book-NOM/ABS   PR-APPL-return-**3PL.SBJ**:PFV.PST

'(They) returned the book to the teacher.'

Thus, as grammatical passives are not very natural in Georgian (at least in speech production), the test using passivization to check structural vs. non-structural cases may cause misleading results.

Second, the passivization test cannot be applied to external arguments, as those disappear in passive. Semantic external arguments are used optionally, when used having a genitive form +P (mostly *mier,* or *-gan,* both equivalent to the English *by* phrases) (33).

(33) a.   sakhelmts'ipo   a-khortsiel-eb-s   tsvlileb-eb-s

government:NOM/ABS   PR-realize-THM-3SG.SBJ   change-PL-DAT/ACC

'The government implements changes.'

b.   tsvlileb-eb-i   khortsiel-d-eb-a   sakhelmts'ipo-**s**   **mier**

change-PL-NOM/ABS   realize-PASS-THM-3SG.SBJ   government-**GEN** **by**

'The changes are implemented by the government.'

b.   tsvlileb-eb-i   khortsiel-d-eb-a   sakhelmts'ipo-**s-gan**

change-PL-NOM/ABS   realize-PASS-THM-3SG.SBJ   government-**GEN-by**

'The changes are implemented by the government.'

So *apriori* checking of non-canonically marked subjects of external arguments (both Georgian ergative and dative of perfect tenses) is impossible. The syntactic external subject disappears in passive, and the semantic external subject is assigned optionally by postpositions: *mier* and *-gan.* Moreover, the experiencer verbs with dative subjects are unaccusatives and not transitives in Georgian, thus they disallow passives (see for details Chapter 6).

And third, the preservation/alternation of dative of the goal arguments under passivization in DOC constructions shows the opposition DP vs. PP based on the type of passive, i.e. synthetic vs. analytic passives, as those show different cases on goal arguments. Thus, synthetic passives preserve dative on goal argument but do not raise that to the subject position (see for details Chapter 6, in particular, Sub-section 6.3.1), therefore there is no pre-condition for case alternation, while analytic passives alternate dative to the genitive, but as a PP (with postpositions *-tvis* and *-gan*, both translated as *from*) (34), i.e. semantic and not syntactic argument, thus making the checking of structural vs. inherent dative inapplicable.

(GDSMC)

(34)   a.   irak'li   u-mal-av-s   satamasho-s   lela-s.

              Irakli.NOM/ABS APPL-hide-THM-3SG.SBJ   toy-DAT/ACC   Lela-DAT

'Irakli hides a toy from Lela.'

b.   damaluli=a   satamasho   irak'li-s   mier lela-**s-gan.**

       hidden.PTCP=COP   toy.NOM/ABS   Irakli-GEN   by   Lela-**GEN-from**

       'The toy is hidden from Lela by Irakli.'

c.   satamasho   damaluli=a   lela-**s-tvis**   irak'li-s   mier

       toy.NOM/ABS   hidden.PTCP=COP Lela-**GEN-from** Irakli-GEN   by

       'The toy is hidden from Lela by Irakli.'

Based on the presented material, the passivization test must be ruled out for checking structural vs. inherent subject cases in Georgian.

4.2.2   Case alternation in non-finite environments

The second test with equivocal results is case alternation in non-finite environments. In brief, this test is not applicable, based on the following: First, non-finite environments, which are expressed by nominalizations are not natural for Georgian; Second, nominalization happens at V-level and not at vP level, it lacks verbal properties in that it is unable to introduce external argument and assign structural accusative; Third, nominalization is a process akin to passivization in demoting external argument. So, when the argument is generated vP externally it is assigned optionally as PP (GEN+P) in a non-finite environment.

Now, let me present these properties in more detail. As already mentioned, non-finite environments are expressed by nominalizations in Georgian; more precisely, by verbal

nouns and participles[24] which have nominal properties from the viewpoint of syntactic structure, i.e. grammatically, they are derived nominals and not nominal verbs (35). To a certain degree, these are akin to passives.

(GDSMQ)

(35) a. potograp-ma   saint'ereso   surat-eb-i   gada-i-gh-o.

photograph-**ERG**   interesting   picture-PL-NOM/ABS   PR-PV-take-3SG.SBJ:PFV.PST

'The photographer took interesting shots.'

b. potograp-is   mier   surat-eb-is   gadagheba   saint'ereso iq'o.

photograph-**GEN** **by**   picture-PL-GEN   take.**NMLZ.**NOM/ABS   interesting was

'The photographer's taking of photos was interesting.'

c. potograp-is   mier   gadaghebul-i   surat-eb-i   saint'ereso iq'o.

photograph-**GEN** **by**   take.**PTCP**-NOM/ABS   picture-PL-NOM/ABS   interesting was

'The pictures taken by the photographer were interesting.'

---

[24] No purpose clauses with future participle in adverbial case, sometimes referred to as embedded infinitival clauses in the international literature (see, for instance, Legate 2008: 66) are mentioned here, as the external subject case cannot be checked by this construction (i).

(i)   nik'a   ts'q'l-is   dasalev-ad   gavida.

Nika.NOM/ABS   water-GEN   drink.FUT.PTCP-ADV   went_out

'Nika went out to drink water.'

All arguments after converting to non-finite environments are assigned genitive either with one of the postpositions: *-gan, mier, -tvis,* or without it as GEN.POSS in the DP domain, with the GEN.POSS form preferred for nominative/absolutive intransitive subjects and transitive objects. Sometimes, the produced sentences in non-finite environments seem not to be very natural to the native speakers and avoidance strategies for using semantic arguments with nominalizations are seen in most produced sentences, thus indicating that the application of such non-finite environments is not natural to the language.

Generally, external semantic subjects receive genitive with post-position and not bare genitive. Neither the word order nor the same m-case in different syntactic positions affect sentence production or the assignment of the argument case in a non-finite environment (see Appendix C for some examples from GDSMQ, including those with m-datives in the subject or object position, with a different word order SVO vs. OVS). What does affect this is the predicate type, i.e. transitive verb, and the existence of a second DP in the finite clause in the same case assignment domain, which in a non-finite clause, after being nominalized, receives genitive. So, to avoid any kind of ambiguity between subjects and objects because of the two genitives in a non-finite environment, the subject must take P, either in the form *mier* (preferred choice) or *-gan*. This can also explain why the subjects in nominative/absolutive are generally given without postpositions, because they are mostly unaccusative intransitive (one-place and two-place) verbs.

Moreover, given that the nominalization is low, and happens at V-level and not at vP level, thus creating simple possessive DP construction, it lacks the verbal properties which are important for assigning arguments. This is to say, it is unable to assign external arguments akin to passives, which are assigned optionally by P^0. See (36), where the preferred form for vP internally generated arguments (theme argument and unaccusative theme argument raised to the subject position) is genitive (36a and b), while for the vP externally generated is genitive with postposition (36d).

theme argument

FIN		NFIN	
(36) a. k'itkhul-ob-s	ts'ign-s.	ts'ign-is	(ts'a)k'ithva
read-THM-3SG.SBJ	book-DAT/ACC	book-**GEN**	(PR)-reading.NOM/ABS
'(He/she) reads a book.'		'the reading of a book'	

unaccusative theme argument raised to the subject position

FIN		NFIN	
b. k'ats-i	mi-di-s.	k'ats-is	(ts'a)svla / (mi)svla
man-NOM/ABS	PR-go-3SG.SBJ	man-**GEN**	(PR)-going.NOM/ABS
			(PR)-arriving.NOM/ABS
'A man goes.'		'going/arrival of a man'	

external argument

FIN		NFIN	
c. k'ats-i	a-k'et-eb-s.	k'ats-is mier	(ga)k'eteba
man-DAT	PV-do-THM-3SG.SBJ	man-**GEN by**	doing.NOM/ABS
'A man does (sth).'		'doing by a man'	

Furthermore, the second DP of the finite clause is very important for the case assignment, as both arguments in non-finite environments are assigned genitive as unmarked/default case in DP domain. Thus, when the second argument is added, the language applies various strategies to avoid GF ambiguity; in particular, when argument is generated either *v*P externally or *v*P internally (in case of two-place unaccusative

experiencer subjects), the postposition is added to the semantic subject (37) in non-finite
environments. Another strategy is to drop the semantic subject, mostly characteristic to
intransitive two-place verbs.

external argument

FIN

(37) a.   k'ats-i   k'itkhul-ob-s   ts'ign-s.
           man-NOM/ABS   read-THM-3SG.SBJ   book-DAT/ACC
           'A man reads a book.'

     NFIN

     b.   k'ats-is-(gan) / mier   ts'ign-is   (ts'a)k'ithva.
          man-GEN **by**   book-GEN   (PR)-reading.NOM/ABS
          'The reading of a book by a man.'

two-place unaccusative experiencer subject

FIN

     c.   k'ats-s   u-nd-a   am-is   gak'eteba.
          man-DAT   APPL-want-3SG.SBJ   this-GEN   doing.NOM/ABS
          'A man wants to do this.'

     NFIN

     b.   k'ats-is(-gan) / mier   am-is   gak'eteb-is   mondomeba.
          man-GEN **by**   this-GEN   doing-GEN   desire.NOM/ABS

'The desire of a man to do this.'

Thus, checking of structural vs. non-structural case in non-finite environments cannot be applied straightforwardly to external arguments, because similar to passivization, those are assigned optionally in the majority of cases by Ps, when nominalizations are derived from transitive predicates. And, both ergative and dative (of perfect tenses) in Georgian are external arguments. Moreover, it cannot be applied either to *v*P internally generated dative experiencer subjects for the same reason, as mostly those are also assigned by Ps in non-finite environments. For the examples with bare genitive, the key point is that the semantic argument is assigned unmarked/default case in the DP domain.

Even if we applied this diagnostic, it is not against my theory that all subject cases in Georgian are structural; on the contrary, then the results can be used as an additional argument to prove that both dative and ergative are structural cases in Georgian (and, as already mentioned, the alternation to genitive in non-finite environments was used by other scholars to prove the structural status of ergative, see Nash 2017). However, I will put this test to one side, as it is not straightforward and may cause misleading interpretations.

My argumentation as to why this diagnostic is inappropriate can be summarized as follows: First, non-finite environments are not natural to the language. Second, nominalization is low, lacks verbal properties and cannot assign syntactic arguments. The result of this is a possessive DP, where the semantic argument gets unmarked/default case in the DP domain. And last, the test cannot be applied straightforwardly to external arguments, as external arguments in the majority of cases are assigned optionally by postposition. Thus, these are already semantic and not syntactic arguments (PPs). As such, I rule out this test.

4.2.3 Interim summary

To sum up the information given to date, not all of the existing diagnostics can be applied to check the structural vs. inherent status of subject cases in Georgian. Given the various parametric properties of the language some of the traditional tests, such as case preservation under A-movement in passive or case alternation in non-finite environments must be ruled out. The acceptability of diagnostics for Georgian is summarized in Table 4.1.

Table 4.1: Diagnostics for testing structural vs. inherent cases and their acceptability

case preservation /alternation	case preservation under A-movement	passivization		NA
		raising in *seem* constructions		NA
		ECM constructions		NA
	acceptability	for non-nominative subjects		NA
		for nominative objects		NA
	case alternation in non-finite environments			NA
	case alternation under valency- changing operations	valency-increasing operations	transitivization	applicable

		causatives	applicable
		applicatives	applicable
	valency-decreasing operations	anti-passives	NA
		noun-incorporation	NA
θ-relatedness	*weak version*		applicable
	strong version		applicable
agreement			applicable

Thus, from the traditional tests to check structural vs. inherent cases, in sum 14, only 6 tests can be applied to Georgian. Applicable diagnostics, alongside the theoretical analysis of both ergative and dative subjects, are provided in the next chapters

It is worth mentioning that the conditions under which this or that test can be informative in many cases cannot be stated clearly and precisely. This, of course, on the one hand, blurs the results of testing and relativizes most diagnostics, on the other hand, points out that there is a need for new diagnostics more compatible with testing structural vs. inherent cases in the languages with other (more difficult) parametric properties different from what has been assumed at the initial stage.

5. Non-canonically marked subjects in Georgian: ergative

In this chapter, I discuss ergative marked subjects in Georgian. The chapter consists of the following sections: Section 5.1 presents previous accounts on Georgian ergative, including those that use evidence from Georgian solely to support general theoretical claims; Section 5.2 applies a number of widely accepted diagnostics to test structural vs. non-structural case in order to determine the status of ergative being inherent or structural in Georgian; and, Section 5.3 provides an analysis of the Georgian ergative as a dependent case. It includes two sub-sections where I discuss unergative verbs, which seem to be problematic for DCT as they lack a second DP in the unmarked case (like indirect transitives). Here I claim that these verbs actually involve an implicit argument and show that cross-linguistic counter-arguments (based on Preminger's 2012 assumptions on Basque unergatives) do not hold for Georgian.

5.1 Previous accounts of the Georgian ergative

As Georgian shows mixed properties of nominative-accusative and ergative-absolutive alignment (including split-ergativity based on Tense/Aspect distinction, split-S system marking unergative verbs with ergative, and, morphological ergativity that is indicated only in case assigning, but not in agreement patterns [agreement is still nominative-accusative]), Georgian examples have been used in the generative literature to support different theories of assigning ergative case. See, for instance the influential paper of Marantz (2000 [1991]) that proposes DCT. The author provides Georgian examples based on the Georgian Relational Grammar of Harris (1981) including Harris's presentation of Tense "Series" and verb "classes" to support the theory of the dependent case calculus. The main claims of this paper were already discussed in Chapter 2.

The other representative papers, which are not dedicated directly and specifically to analyzing Georgian ergative assignment provide Georgian examples to support more general theoretical claims are that of Legate (2008) and Ura (2006).

Legate's paper (2008) is discussed in Sub-section 5.1.1 and is important for understanding whether absolutive is really nominative, assigned by the T^0 head, in Georgian. This question seems to be independent from the ergative case assignment, but it is very important for clarifying whether ergative can be treated as an inherent case.

The main focus of Ura's paper (2006), on the other hand, is on the syntactic mechanism of the aspectually conditioned split-ergativity. The addressed question also seems to be broader and to some degree independent from whether ergative is structural or inherent, but it is very important to understand what it is that conditions the assigning of the ergative in perfective past.

Many works that deal with aspectually conditioned ergativity (see Ramchand 1997; Ritter & Rosen 1998; 2000; Travis 2000; and other works referred to in Ura 2006) postulate a functional Asp^0 head that requires DP as its Spec to check the aspect-related feature. Based on Chosmsky's (1995; 2000) theory of feature-checking (i.e. Agr-less theory), Ura (2006) proposes that it is v^0 that possess the aspect-related feature and that v^0 requires DP at its Spec to check off this feature in overt syntax. For the theory, the main question addressed in Ura's (2006) work is how aspectually conditioned split-ergativity can be explained in some languages where the ergative system coexists with the accusative. Georgian happens to be such a language. I will not discuss this analysis and split ergativity in detail, but rather refer the reader to Ura's (2006) original paper and to the rich theoretical cross-linguistic works on split ergativity in general (Silverstein 1976; Comrie 1978; Dixon 1979; 1994; Laka 2006; 2017; Coon 2013a; 2013b; Woolford 2017; Coon & Preminger 2017 etc.).

The majority of works that present Georgian data on ergative do not discuss diagnostics to test structural vs. non-structural cases and do not provide specific analysis of ergative case assignment in Georgian, but rather focus on more theoretical questions, which can be summarized under two headings: (a) those that deal with the differentiation of ergative and accusative systems based on split ergativity, and (b) differentiation of ergative languages into ABS=DEF and ABS=NOM languages.

In the language-specific literature, given the mixed properties of ergative and ergativity in Georgian, ergative is treated either as an inherent or as a structural case. Thus, Nash, in her earlier work (1996), presents the internal ergative subject hypothesis and analyzes ergative as a lexical/inherent case focusing on the projection of ergative VP internally. In her later paper, though, Nash (2017) already applies a configurational approach to ergative assignment, similar to DC account, but not a pure DC, rather a hybrid approach, in order to analyze ergative.

In what follows, I will present one characteristic paper for each theory (even if it merely provides examples from Georgian) to put Georgian ergative in the broad theoretical picture and to highlight the main topics being discussed in the literature with regards to the Georgian ergative.

5.1.1 Ergative as an inherent case based on ABS=NOM distinction (Legate 2008)

In this sub-section, I summarize Legate's (2008) main claims important for discussion, which support the idea that Georgian is an ABS=NOM language. For Legate (2008), Georgian provides an example that ergative can be treated as an inherent, because otherwise absolutive, which is really nominative, assigned by the T^0 head, would be impossible on the object.

For the theory, Legate's main proposal is that all ergative languages are either ABS=DEF or ABS=NOM (see Chapter 2 for a brief overview of Legate's proposal). Yet, it has been

illustrated in the literature that not all ergative languages show these distinctions, and some of them share mixed properties of both ergative types. See, for instance, Rudnev (2021) for a discussion on Avar, where absolutive is neither default, nor nominative assigned by the T^0 head. Based on examples of the (un)availability of multiple absolutive DPs within the same sentence and in no-finite environments, Rudnev (2021: 81–86) shows that Avar does not belong to either ABS=DEF or ABS=NOM languages, as Legate (2008) claims, but "belongs to a third class of ergative-absolutive languages." Thus, the distinction is not clear for all languages.

According to Legate (2008), the main properties of ABS=DEF languages are that they: (a) lack case morphemes for nominative and accusative, (b) use absolutive case on caseless DPs (examples of hanging-topic left-dislocation), (c) employ a wider distribution of absolutive on the complements of adpositions, (d) use two absolutives in DOCs, (e) preserve absolutive case on transitive objects in non-finite environments, and (f) have multiple absolutives in split-ergative constructions.

The main properties of the ABS=NOM languages (to which Legate assigns Georgian) on the contrary demonstrate that they limit absolutive just to one DP per clause: (a) no two absolutives in DOCs, (b) no absolutive on the complements of adpositions and (c) no multiple absolutives in split-ergative constructions are seen; Moreover, (d) no absolutive is preserved on either the transitive object or intransitive subject in non-finite environments. The main argumentation of Legate's proposal (2008: 69–70) is summarized in Table 5.1.

Table 5.1: Ergative language distinction in ABS=DEF and ABS=NOM (Legate 2008)

	ABS=DEF	ABS=NOM
Case morphemes for nominative and accusative	lack case morphology	no claims
Absolutive case on caseless DPs	+	no claims

Absolutive case on the complements of adpositions	+	-
Absolutive case on the objects in DOCs	+	-
Preservation of case in non-finite environments	ABS on S - ABS on O +	ABS on S - ABS on O -
Triggering alternation of case on objects under split-ergativity	-	+

In brief, in ABS=DEF languages, absolutive is a morphological default, but syntactically different on intransitive subjects and transitive objects. That is to say, the abstract case in the subject position is assigned by the T^0 head (i.e. nominative), while the abstract case in the object position receives its case from the v^0 head (i.e. accusative). In ABS=NOM languages, however, both subjects and objects receive their case from T^0 head, i.e. are abstract nominatives.

It is worth mentioning that Legate's assumptions for ABS=DEF languages are based on a sample of different languages, namely, Walpiri, Niuean, Enga and Hindi (but see also Mahajan (2017) on the universal validity of absolutive-as-accusative type theories and for an alternative account for Hindi, where the absolutive on transitive objects is not assumed to be accusative). For ABS=NOM languages, the only discussed example is Georgian.

For our purposes, an important piece of argumentation is that if an absolutive in the object position is licensed by a T^0 head (i.e. if ABS=NOM), the ergative cannot be structural, as, otherwise, it would intervene and there would be no possibility for the T^0 head to license the absolutive case.

On the one hand, the unavailability of multiple DPs in DOC (1) and split-ergative constructions (2), as correctly observed by Legate (2008: 69–70), groups Georgian with ABS=NOM ergative languages.

(Harris 1981, *apud* Legate 2008: 69)

(1)   Nino-m   ăcvena   surateb-i   gia-s.

      Nino-ERG   she.showed.him.it.II.2   pictures-NOM   Gia-DAT

      'Nino showed the pictures to Gia.'

      (Legate 2008: 70)

(2)   a.   glex-i   tesavs   simind-s

           peasant-NOM   he.sows.it   corn-DAT

           'The peasant is sowing corn.'

      b.   glex-ma   datesa   simind-i

           peasant-ERG   he.sowed.it   corn-NOM

           'The peasant sowed corn.'

     Yet, unlike ABS=NOM ergative languages, *pace* Legate (2008), Georgian allows absolutive compliments of post-positions (3), and multiple absolutive DPs within the same sentence (as time adjuncts) (4).

(3)   nik'a-m   mariam-i-vit   lamaz-i   kal-i   nakha.
      Nika-ERG   Mariam-**NOM/ABS**-as   beautiful-NOM/ABS   woman-**NOM/ABS**   see.PFV.PST
      'Nika saw a woman as beautiful as Mariam.'

(4) a. sam-i   ts'el-i   kveq'ana-shi   aghar   gaimarteba   archevn-eb-i.
      three-NOM/ABS   year-**NOM/ABS**   country-in   no_longer   will_be_held   elections-PL-
                                                                                     NOM/ABS
      'No elections will be held in the country for three years.'

(Ilia, *apud* Gogolashvili et al. 2011: 131)

b. sakartvelo   dghe   da   ghame   iaraghit   khel-shi   idga.

Georgia.**NOM/ABS** day.NOM/ABS and night.**NOM/ABS** weapon-INSTR hand-in   stood.

'Georgia stood with weapons in hand all days long.'

See other examples for two absolutives per clause and not only in the subject or object position in Kvatchadze (1996), Gogolashvili et al. (2011), etc. Such examples would be impossible if absolutive was nominative. ABS=NOM, as predicted by Legate's analysis, must be limited only to subject and object. Georgian, however, shows a wider distribution of absolutive, than simply appearing on S and O, thus grouping Georgian with ABS=DEF ergative languages.

As such, *pace* Legate (2008), Georgian exhibits mixed properties of both ABS=DEF and ABS=NOM languages. Moreover, as already demonstrated in Chapter 4, Sub-section 4.2.2, case preservation/alternation in non-finite environments in Georgian cannot be used straightforwardly to make theoretical claims, as they are not natural to the language and are expressed by nominalizations which lack verbal properties important for argument assignment. Thus, non-finite clauses have special case-assignment mechanisms.

One other important point in Legate's analysis as indicated by Rudnev (2021: 82), is the key notion of morphological and not syntactic default, i.e. "a morpheme that is inserted in a number of syntactically distinct contexts." The distinction between morphological and syntactic defaults is also very straight in Georgian. Old Georgian diachronically had two cases: the absolutive (root form, morphological default) and nominative, the functions of which are merged in Modern Georgian. Examples of two morphological absolutives (but syntactically two different cases) per clause are common in Old Georgian. See (5), where syntactic cases are indicated in square brackets. See, also, Berikashvili & Lobzhanidze (2022) for a more detailed discussion.

(Mt, 2v., Berikashvili & Lobzhanidze 2022: 139)

(5) abraham-Ø   šva   isak-Ø.

     Abraham-**ABS**[ERG]   give_birth:3SG.SBJ.AOR.IND   Issak-**ABS**[NOM/ABS]

     'Abraham gave birth to Isaak.'

In the same spirit, using Legate's tools, if we base our assumptions on the argument that ABS=DEF languages lack case morphemes for nominative and accusative, we can regard the root of the 1st and 2nd person pronouns as an unmarked (morphologically default) case in Modern Georgian (as those lack case morpheme for nominative, dative/accusative and ergative) and can be used in the subject and object position, thus giving us two morphologically default, but syntactically distinct, cases per clause (6). Such logic may lead us to false interpretation.

(6) me-Ø   shen-Ø   g-khed-av.

     1SG-**DEF**[NOM/ABS]   2SG-**DEF**[DAT/ACC]   2SG.OBJ-see-THM

     'I see you.'

To Legate's mind (2008), it is the morphological and not syntactic default that matters. As mentioned by Rudnev (2021: 82), while manipulating with case alternation in non-finite environments, it is the morphological default that remains on objects, but if manipulating does not reveal that distinction, then "the notion of morphological default is inapplicable, and speaking of syntactic defaults becomes more appropriate".

Given this, I assume that in Georgian, nominative/absolutive is a syntactic unmarked/default case realized in opposition to the dependent case (DC) (ergative and dative) and is not a morphological default. It is not contingent on T[0] head, as the pre-

requisite for its realization is the existence of the DC. As a syntactic default, i.e. a kind of "elsewhere" case, it is expected in the position where the conditions for case assigning, for instance of structural accusative (morphologically identical to dative in Georgian) are not met. And this is what happens in perfective past, when the ergative dependent case is assigned, the second DP in the same case assignment domain must be unmarked. Structural, not default, case cannot be realized on the second DP in opposition of DC. The idea that nominative is not contingent on the T^0 head is not new and has been presented in the literature. See McFadden & Sundaressan (2011) for advocating of this idea, where the authors, based on examples from Tamil, Middle English, Icelandic and Brazilian Portuguese, claim, that "even in prototypical subject position it [nominative] is the default case, showing up when the conditions for the assignment of all other cases are not met" (McFadden & Sundaresan 2011: 1).

5.1.2 Ergative as a structural case assigned configurationally (Nash 2017)

In this sub-section, I present the language-specific account of the ergative as a structural case assigned configurationally. This account (Nash 2017) deals with the theoretical issues associated with split ergativity, mainly with a difference between assigning nominative in present tenses and ergative in aorist tenses, and is based on the aspectual deficiency as structural impoverishment in aorist tenses. Nash (2017) uses the neutral notion of aspect to show that the aspectual functional category is absent in aorist clauses, which are regarded by her to be aspect neutral. This idea is controversial for Georgian. See Chapter 3, Sub-section 3.3.3.2 for a related discussion and for an overview of the contradictory imperfective- and perfective-based approaches for ergative assignment.

In brief, attention in Nash's account (2017) is paid to the existence of the Event functional projection (similar to Asp^0 or v^0 head with aspect-related features in other accounts), which is generated in between T^0 and vP in imperfective tenses and is absent

in aorist tenses. The main idea is that the argument in Spec,EventP is marked as nominative by the c-commanding functional category T^0 in nominative construction, while it is thematically licensed by v^0 in Spec,vP and marked as ergative by dependent case rule in ergative construction.

Nash (2017), justifiably assumes that the Georgian ergative is a structural case based on the language properties, such as ergative nominals being DPs, occurring only in finite contexts, and triggering number agreement (see Chikobava 1950; Shanidze 1980; Kvatchadze 1996; Geguchadze 2010; Gogolashvili et al. 2011 among many others, for the grammatical properties of the ergative subjects in Georgian). Ergative subjects also appear with "transitivized" unergatives, which are assumed by Nash (2017: 191) to have a non-monoargumental structure, based on the evidence that they have the voice marker *i-* with reflexive/benefactive meaning. I return to this point in Section 5.3.

Nash (2017) analyses ergative as a structural case, but combines different theoretical approaches, namely, (a) structural head assignment, (b) configurational (DC) and, (c) semantically motivated (IC). In particular, nominative both on subject (in nominative-subject tenses) and direct object (in ergative-subject cases) is assigned by the functional T^0 head (i.e. head assignment approach), while ergative is thematically licensed (i.e. inherently [semantically] licensed) and assigned by the dependent case rule (configurational approach). Thus, it is a hybrid approach, sometimes referred to in the literature as a DCT-style approach (see Baker & Bobaljik 2017), but not a pure DC account.

Furthermore, in Nash's account (2017), ergative is assigned within vP to the highest of vP arguments, and is licensed by v^0 in Spec,vP. This is compatible with the analysis of ergative as an inherent case assigned by v^0 and, even more, it gives the impression that inherent case assignment is supplemented with the dependent case rule (cf. Nash 1996, where ergative is regarded as a lexical inherent case "projected VP internally, as the highest adjunct (specifier) of the lexical VP projection"). Moreover, if nominative in the

object position is a structural case assigned by the functional head under a c-commanding relationship, namely by T^0 head, ergative simply must be inherent otherwise it will block the assigning of the nominative.

For Nash (2017), ergative gets its case by the dependent case rule inside vP, where two nominals compete for the same case-checking source (see also Ganenkov 2020 about Nash's proposal). In the pure DC account, the dependent case is not contingent on the presence of any particular head. Nominals do not need licensing/checking by the "case-checking source". Functional heads just help to "determine which particular case is assigned in a given configuration" (Baker 2015: 51).

Nash's approach can be linked to Bittner & Hale's (1996a) approach, where, as mentioned by Nash herself (2017: 193): "two nominals in the same domain that have no other structural/lexical means to have their case licensed compete for the same case-checking source". Moreover, in Nash's approach DC algorithm is activated by the functional head in the same spirit as in Bittner & Hale's (1996a), where the functional head is activated by a Case competitor for the subject. In Bittner & Hale (1996a), this functional head is I^0, which assigns ergative and is activated by the nominative object. This is not what happens in the pure DCT, where DC takes precedence over the unmarked case. Ergative is assigned up if there is another DP in the same assignment domain that has not acquired a case yet. Only then is unmarked case realized in opposition to the dependent.

In Nash's approach, dependent case entails one functional case assigner/checker, but two case-seekers. This happens in configuration, where "T sees two arguments with unvalued case features in the same vP domain and marks the higher of the two with the dependent case" (Nash 2017: 195). This means that T^0 head is activated by the presence of the two arguments within vP just as I^0 is activated by the nominative object in Bittner & Hale's approach (1996a). Yet, unlike Bittner & Halle, it does not assign ergative to the

highest argument, but nominative to the object and causes activation of the additional DC rule. The whole process happens when the Event head is absent. So, Nash's account is a combined approach that includes "case competition" (DC) alongside the functional head's assignment. This is in the same spirit as Bittner & Hale (1996a; 1996b), who proposed the combined approach in the 1990s, which included "case competition" (like DC) alongside the functional head's assignment.

Note that, Nash's approach (2017), although a hybrid one, should not be confused with that proposed by Baker & Vinokurova (2010), who also assume that both case assignment by a head and configurationally can co-occur within the same language (but see Levin & Preminger 2015 for an alternative view). The crucial difference is that in Baker & Vinokurova's approach (2010), accusative and dative cases in Sakha are assigned by the dependent case rule and do not refer directly to functional categories, while in Nash's approach, the T^0 head sees two arguments and marks the higher of the two with the dependent case. Thus, Nash's hybrid configurational approach lacks simplicity and minimality due to its intricate character, but provides intriguing insights on controversial issues in Georgian grammar.

5.2 Diagnostics to test structural vs. non-structural ergative

In this section, I apply several tests in order to determine the status of ergative being structural or inherent in Georgian. These tests include: case assignment under valency increasing operations, theta-relatedness and accessibility of ergative arguments to the Agree operation.

5.2.1 Case assignment under valency increasing operations

In this sub-section, I discuss case assignment under valency increasing operations; namely, I talk about creating transitive, causative and applicative constructions. The main purpose of this test is to show that the addition of the second argument to the structure may trigger case alternation. I assume both ergative and dative to be assigned by the dependent case rule. And, as the main property for the activation of the DC algorithm is to have two DPs in the same case assignment domain, the increasing or decreasing of the verb valency should influence case assignment. If this is the case, then both ergative and dative are dependent, and hence structural.

Let us turn to ergative arguments. Georgian exhibits different valency-increasing operations. Two examples are transitivization and causative formation from intransitive verbs, which are regarded to be initial forms for transitive, causative and applicative predicates in Georgian grammar, based on the fact that the derived forms have their own morphological markers (see Shanidze 1980; Gogolashvili et al. 2011; Melikishvili 2014 among many others).

The difference between these two operations is that the result of transitivization is a monotransitive clause (i.e. directly derived from intransitive), while the result of causative formation is a ditransitive clause (i.e. directly derived from transitive), where the semantic subject is the grammatical IO.

Morphologically, transitivized verbs include the neutral version marker *a-*[25], while causative verbs are used with causative markers: *-ev*, *-in* and *-evin*, either with the *a-*, or

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[25] Version markers, generally, mark the presence of a verb's object and specify its relativity or orientation with another argument (either the subject or another object). They are sometimes referred to as object correlation markers in related literature. The marker *a-* has various distributions, including version marker, location marker, transitivizer, and part of a circumfix that generates the so-called "morphological

rarely with the *e-* marker as a part of a circumfix. See Shanidze (1980), Asatiani (1989), Hewitt (1995), Makharoblidze (2009), Baratashvili (2019), Lobzhanidze (2022) a.o. for morphological causativity in Georgian, sometimes referred to as the category of contact, and Shanidze (1980), Sukhishvili (2011), Melikishvili (2014) for a detailed discussion of both operations and the nomenclature, especially Sukhishvili (2011: 569–579) for argumentation, on both formal and semantics grounds, that tranzitiviation with the *a-* marker is not a morphological causative, but see also Hewitt (1987) and Nash (2020) for the alternative assumption that both are morphological causatives in Georgian. Semantically, Georgian causative constructions are similar to ECM constructions in English.

If transitive and causative variants are created out of intransitive unergative verbs, the ergative case is obligatory assigned to the higher argument after adding an additional argument similarly to unergative, see (7a, b and c).

       unergative

(7) a. bavshv-ma   da-i-dzin-a.

        child-**ERG**   PR-PV-sleep-3SG.SBJ:PFV.PST

        'The child slept.'

       transitive

    b. deda-m   bavshv-i   da-a-dzin-a.[26]

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causatives" from nominal roots (see Shanidze 1980; Jorbenadze 1983; Machavariani 1987; Hewitt 1995; Aronson 2005; Gurevich 2006; Sukhishvili 2011; Melikishvili 2014; Asatiani 2019; Lobzhanidze 2022 etc.).

[26] Semantically, both constructions show that one person causes another to do something. The difference is that in (7b), the external argument causes the patient "to sleep" (i.e. acts directly), while in (7c) the external

mother-**ERG**   child-NOM/ABS   PR-PV-sleep-3SG.SBJ:PFV.PST

'The mother made her child sleep.'

causative

c.   bebia-m   bavshv-i   deda-s   da-a-dzin-ebin-a.

   grandmother-**ERG**   child-NOM/ABS   nurse-DAT   PR-PV-sleep-CAUS-3SG.SBJ:PFV.PST

   'The grandmother forced the mother to make the child sleep.'

Arguably this is the case because unergative verbs behave like ordinary transitive verbs in Georgian (see Section 5.3). They have a covert argument and subsequently assign ergative as transitive verbs.

Moreover, the argument denoting the "child" who sleeps in (7a) does show different case-marking from that of (7b), suggesting that ergative may not be inherent, as the case of the same semantic argument is changed. However, here, some may argue that these two arguments are different in terms of agentivity.

The second possibility is to create transitives and causatives out of unaccusative verbs. Unaccusative verbs have an internal argument (IA) in nominative/absolutive. After increasing the valency of the verb, the higher argument is assigned ergative, as expected. See (8a, b and c).

unaccusative

(8)   a.   dzaghl-i   ga-i-kts-a.

      boy-**NOM/ABS**   PR-PV-run-3SG.SBJ:PFV.PST

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argument causes the goal argument (who is the real performer of action) to act to "make" the patient argument "to sleep."

'The dog ran away.'

transitive

b. bich'-ma   dzaghl-i   ga-a-ktsi-a.

boy-**ERG**   dog-NOM/ABS   PR-PV-run-3SG.SBJ:PFV.PST

'The boy made the dog run off.'

causative

c. deda-m   bich'-s   dzaghl-i   ga-a-kts-evin-a.

mother-**ERG**   boy-DAT   dog-NOM/ABS   PR-PV-run-CAUS-3SG.SBJ:PFV.PST

'The mother forced the boy to rush the dog away.'

The examples in (8) show that nominative/absolutive cannot be kept in the subject position[27] when the second argument is added to the structure. The existence of the second argument is thus a precondition for assigning ergative case. The key point here is that in monotransitive or causative construction, contrary to unaccusative, ergative is obligatory assigned in the subject position, and there is already unmarked nominative/absolutive in the structure. So, transitivity is the main factor for assigning ergative in Georgian.

The test that provides us the possibility to check the status of ergative is applicativization from a particular set of intransitive verbs. There are several ways to add the applicative category to VP in Georgian, mainly by adding version markers. It has been mentioned in the literature, that "version can be compared to applicative constructions in Georgian, which involve a participant that would not normally be instantiated in a

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[27] Note that all discussed examples in this section are of PFV.PST, as ergative can be checked only in this environment.

core object relation but rather as an oblique of one sort or another" (Lobzhanidze 2022: 83). It has also been reported that version markers can be compared to applicatives only partially (Gurevich 2006), and that their different functions are contingent upon varying understandings of the Voice category (see Datukishvili 1996; Gurevich 2006; Melikishvili, Humphries & Kupunia 2008; Gogolashvili 2011; Tuite 2021, etc.).

The common accepted applicatives are the *u-* and *e-* prefixes (see Jorbenadze 1983 for the employed strategies of adding applicatives in Georgian; see, also Lobzhanidze 2022 for the different sets of object correlation markers). The prefix *u-* is mostly (but not solely) used for transitives and one particular set of unergative verbs (9a and b).

transitive

(9) a. mts'eral-ma   ts'a-**u**-kitkh-a   ts'ign-i   bavshv-eb-s.

         writer-**ERG**   PR-**APPL**-read-3SG.SBJ:PFV.PST   book-NOM/ABS   child-PL-DAT

         'The writer read the book to the children.'

unergative

     b. masts'avlebel-ma   da-**u**-q'vir-a   bavshv-eb-s.

         teacher-**ERG**   PR-**APPL**-shout-3SG.SBJ:PFV.PST   child-PL-DAT

         'The teacher yelled at the children.'

So, these constructions already have ergative case in the structure and can thus not be used to check whether ergative is a structural case.

The prefix *e-* on the other hand widely used to form applicative constructions, illustrates quite striking examples. These applicative verbs are regarded either to be made out of unergatives or to share the same root with unergatives (see Melikishvili 2014: 75–76 for the assumption that the basic form for *e- -eb* formation is that from unergative verbs

by adding the applicative marker). If this proposal is correct, then, strikingly, after adding the second argument, such verbs assign nominative/absolutive case to the subject (see 10 for the unergative verb and the respected applicative form).

      unergative

(10) a. bavshv-ma i-tamash-a.

          child-**ERG**   PV-play-3SG.SBJ:PFV.PST

          'The child played.'

      b. *applicative*

          bavshv-i   **e**-tamash-a   megobr-eb-s.

          child-**NOM/ABS**   APPL-play-3SG.SBJ:PFV.PST   friend-PL-DAT

          'The child played with (his) friends.'

The ergative EA here is substituted by a nominative/absolutive IA, showing that syntactic environment alters case assigning, thus supporting the idea that ergative is a structural case. When an intransitive applicative verb is transitivized and the result is a ditransitive clause, the addition of the second argument again restores ergative case marking on the subject, as expected, because there is already a DP with the unmarked case in the structure, which can be counted as a case competitor for assigning ergative (11).

      ditransitive

(11) bavshv-ma   e-tamash-a   megobr-eb-s   pekhburt-i.

      child-**ERG**   APPL-play-3SG.SBJ:PFV.PST   friend-PL-DAT   football-NOM/ABS

      'The child played football with (his) friends.'

Note that there is a variation among speakers as to whether to use ergative or nominative/absolutive in examples like (10b). Most commonly, nominative/absolutive is preferred,[28] but crucially not in examples like (11), when the second argument is in nominative/absolutive. Hence, there are instances of case alternation, thus indicating that the ergative case is a structural case.

It is problematic to determine which class these verbs belong to, though morphologically they show patterns of unaccusative verbs, this can be tested by agreement markers: transitive and unergatives have *-es* marker for 3rd person plural in PFV.PST, while unaccusatives *-nen*, syntactically they behave like transitive verbs in case assigning properties and the formation of perfect tenses (see Harris 1981: 271–273 for a related discussion). As such, it is not very clear whether the ergative of (10a) is substituted by nominative/absolutive in (10b). Moreover, as applicative introduces an extra argument, it cannot reduce the verb valency; yet, it could be the case that (10b) is the result of demotion of the implicit argument of (10a), keeping in mind that unergatives are underlyingly transitives in Georgian. Thus, it would be the result of a process akin to antipassive in other languages, where the S of the intransitive clause is equivalent to the A of the transitive. This is a very natural phenomenon, that ergative demotes to nominative/absolutive in languages which do possess antipassive. See example (12) for Chukchi, which uses two strategies: AP markers on verb and noun incorporation

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[28] Examples with similar two-place verbs, *echkhuba* '(s)he quarreled with sb.', *daelap'arak'a* '(s)he talked to sb.', etc. with ergative marking, were seen as errors by most of the linguist consultants in the questionnaire study. However, the consultants' comments included information that there is a tendency nowadays to use ergative marking in such cases in colloquial speech, and similar examples can be encountered in dialects and other Kartvelian languages.

(regarded by Baker 1988 as a morphological realization of antipassivization; see, also Dunn 1999; Baker & Bobaljik 2017; Polinsky 2017 for a related discussion).

(12)   *Chukchi* (Kurebito 2012, *apud* Polinsky 2017: 314)

    a.   ʔətt-e   melota-lɣən   piri-nin.

        dog-**ERG**   hare-ABS   catch-AOR.3SG:3SG

        'The dog caught a/the hare.'

    b.   ʔətt-ən   ine-piri-ɣʔi   (melot-etə).

        dog-**ABS**   AP-catch-AOR.3SG   hare-DAT

        'The dog caught (a/the hare/something).'

    c.   ʔətt-ən   milute-piri-ɣʔi.

        dog-**ABS**   hare-catch-AOR.3SG

        'The dog caught a/the hare.'

In these examples (recall also example (19) from Chapter 4, discussed by Baker & Bobaljik 2017), the demoted or incorporated object is inaccessible to the rule of dependent case, so the case competitor is lost and that is why ergative is altered to absolutive.

Even, if we do not adopt the idea that the initial form of the *e- -eb* applicative verbs is that of unergative, and assume that these are unaccusative verbs, the crucial thing for proving that ergative is structural, is that the nominative/absolutive of (10b) is substituted by ergative in (11) at the moment when the clause becomes ditransitive, and the second argument appears in the case assignment domain with the unmarked nominative/absolutive case, serving as a case competitor for DC calculus.

Other indirect pointers to the fact that the number of arguments and transitive constructions matter in assigning ergative case were observed with the *i- -eb* intransitive verbs (for instance, *ipitseba* 'to swear/ to speak an oath; to go on strike', *ilandzgheba* 'to swear/to abuse', *igineba* 'to curse', etc.), which in the same spirit with *e- -eb* applicatives are problematic with regards the predicate type. Structurally, they are unaccusatives, but semantically they express an agentive activity, thus denoting the property of unergative verbs. The problem with these verbs arises in the PFV.PST, where the form either does not exist at all, or is assumed to be substituted by the reflexive version of the transitive verb, and as a consequence of this substitution, the ergative is assigned to the subject. The main strategies used by the study participants to substitute the gap of the PFV.PST all involved transitive, causative and applicative constructions (see Berikashvili 2019: 43–48 for the reported results), with the result being canonical monotransitive or ditransitive clauses, with the higher argument in ergative.

Summing up, valency changing operations are very important for assigning ergative and show that ergative is a structural case, as it needs a second DP in the unmarked case, the main factor for being counted as a dependent, hence structural case. Moreover, some marginal examples of applicative constructions, as illustrated in (10) and (11), show that ergative is interchangeable with nominative/absolutive and thus is not kept in all syntactic environments, making it impossible to analyze ergative as an inherent.

5.2.2 Theta-relatedness

As already mentioned in Chapter 4, Sub-section 4.1.2, there are two interpretations of theta-relatedness test: one is associated with agentive theta-role, i.e. ergative if inherent is restricted just to semantic agents, and the second one is associated with identification of ergative as an external argument in general. The first interpretation is not borne out cross-linguistically, as ergative is not always restricted to agentive meaning and can bear

different thematic roles. In Georgian, these thematic roles are: agent (13), causer (14) in experiencer object constructions, experiencer (15) or even instrument (16). Mostly, these roles can be taken to be proto-agents.

agent

(13) k'ats-ma   ts'ign-i   ts'a-i-k'itkh-a.

man-ERG   book-NOM/ABS   PR-PV-read-3SG.SBJ:PFV.PST

'The man read the book.'

causer

(14) nika-m   ga-m-a-braz-a.

Nika-ERG   PR-1SG.OBJ-PV-angry-3SG.SBJ:PFV.PST

'Nika angered me.'

experiencer

(15) q'vela-m   ga-i-gon-a   akhal-i   ambav-i.

man-ERG   PR-PV-hear-3SG.SBJ:PFV.PST   new-NOM/ABS   story-NOM/ABS

'Everybody heard the news.'

instrument

(16) nav-i   ts'qa'l-ma   ga-a-vs-o.

boat-NOM/ABS   water-ERG   PR-PV-fill-3SG.SBJ:PFV.PST

'Water filled the boat.'

Note, that inanimate objects in many ergative languages cannot receive ergative case. This happens mostly in languages where ergative is typically associated with agentive

thematic relation, thus excluding inanimate entities (see Chapter 3, Sub-section 3.3.2 for some examples cross-linguistically). However, animacy is not restricting factor for assigning ergative in Georgian, see example (17) with causative object-experience predicate or example with instrument thematic role in (16).

(17)   ts'ign-ma   m-a-siamovn-a.

      book-ERG   1SG.OBJ-PV-please-3SG.SBJ:PFV.PST

      'The book pleased me.'

Still, in all these examples ergative case is consistent with its identification as an external argument. All mentioned theta-roles can be regarded to be proto-agents in the sense of Dowty (1991), i.e. they typically show (a) volition, (b) sentience and/or perception, (c) movement or (d) cause event. As a result, the fact that ergative bears other thematic roles alongside typical agents shows on the one hand that weak version of the theta-relatedness test must be ruled out, but on the other hand, does not provide counter-examples to the strong version of the IC theory, as they still are consistent with the identification of the external arguments.

Thus, one of the predictions of ICT that ergative will occur on arguments externally merged in Spec,*v*P is borne out for Georgian. However, it is unclear why some externally merged arguments do bear ergative case, while others do not, cf. (18a and b) for examples of split-ergativity.

(18)   a.   k'argi   ikneba   nik'a   tu   ts'a-i-k'itkh-av-s   am   ts'eril-s.

          good   will_be   Nika.**NOM/ABS**   if   PR-PV-read-THM-   this   letter-DAT/ACC

                                      3SG.SBJ:FUT.PFV

      'It will be good if Nika reads this letter.'

b. k'argi   ikneba   nik'a-m   rom   ts'a-i-k'itkh-o-s   es   ts'eril-i.

   good   will_be Nika-**ERG** that PR-PV-read-SBJV-3SG.SBJ:PFV   this   letter-NOM/ABS

   'It will be good for Nika to read this letter.'

Though, it can be postulated that it is a TAM distinction what matters in such a case, ICT, however, does not make any prediction of why this could be the case. Both arguments are still externally assigned in Spec,*v*P, thus both if ergative is inherent must be assigned ergative.

Moreover, as subjects of transitive clauses are by definition, externally merged thematic arguments (proto-agents in Dowty's sense), it can be assumed, that ergative assignment is tied to transitivity as such and not to argument's theta-role. This has been mentioned by the DCT opponents, who note that according to the DCT "the main factor in ergative assignment is how many NPs are in the same case assignment domain", so "It should not matter (much) what the thematic roles of those NPs are" (Baker & Bobaljik 2017: 115).

If transitivity is what matters, and not theta-roles, then, we would not expect ergative subjects without object in nominative/absolutive case. And, this is borne out for Georgian, as, problematic at first sight for the DC rule, verbs without a second DP (such as unergatives), are underlyingly transitives in Georgian and involve implicit argument in nominative/absolutive. This is illustrated in Section 5.3. So, the second prediction of the IC theory, that "the presence of ergative may be independent of transitivity, so we might find ergative subjects without absolutive objects" (Sheehan 2017: 60) is not borne out for Georgian.

The next prediction of regarding ergative as an inherent case mentioned by the ICT opponents is, that ergative cannot be assigned to non-thematic position. So, ergative

should not appear on: (a) expletive subjects, (b) subjects in the *seem* raising constructions, and (c) subjects in passive. This is difficult to test for Georgian, first Georgian does not feature expletive subjects (they are always dropped), second Georgian does not have raising constructions, similar to the English *seem* constructions. The only thing that works for Georgian are subjects in passive, which never get ergative case. Some marginal examples can be mentioned with regards to the expletive subjects. Expletive subjects in Georgian are limited to the verbs denoting weather conditions, which can be subdivided into two groups: (a) those that have *-a* marker formed from the auxiliary verb *aris* 'is' and (b) those that have the *-s* marker for 3SG in present tenses. From the second group (19) there are several verbs which may use subject, cognate or not, in the place of expletive one and in perfective past receive ergative, see examples in (20a, b and c).

(19) ts'vims 'it rains', tovs 'it snows', kris 'blows', kukhs 'thunders', elavs 'lightens', etc.

(20) a. kar-ma   i-krol-a.

          wind-ERG   PV-blow-3SG.SBJ:PFV.PST

          'The wind blew.'

     b. tovl-ma   gz-eb-i   da-tov-a.

          snow-ERG   road-PL-NOM/ABS   PR-snow-3SG.SBJ:PFV.PST

          Lit.: 'The snow snowed the streets.'

          Meaning: 'The snow covered the streets.'

     c. madl-ma/tsreml-ma i-ts'vim-a.

          grace-ERG/tear-ERG   PV-rain-3SG.SBJ:PFV.PST

          Lit.: 'The grace/the tear rained.'

Meaning: 'The grace was spread.'

'The tears dropped.'

Of course, these examples do not provide a strong argument against ICT, but what they show is that substitution of the dropped expletive with (non-)cognate argument gives a possibility of assigning ergative.

It has been mentioned though that generally it is difficult to test whether a derived subject could bear ergative, as in general transitive verbs have a thematic subject (see Legate 2012). So, once again, it is transitivity what matters and not thematic roles.

In the same spirit, Marantz's generalization (I repeat it in (21) for clarity of discussion), though regarded, by many proponents of ICT as an additional argument for ergative being inherent (see Woolford 2006; Legate 2012; Sheehan 2017), can be reinterpreted by DCT, without alluding to the thematic roles of arguments.

(21) *Ergative Case Generalization* (Marantz 2000 [1991]: 13)

   "Even when ergative case may go on the subject of an intransitive clause, ergative case will not
      appear on a derived subject."

Legate (2012) argues that as ergative is typically assigned by a v^0 head to the DP base-generated in its specifier, i.e. to a thematic subject, ICT predicts that it should not appear on derived subjects, unlike DCT, where "ergative case is triggered simply by the number of arguments that require licensing" (Legate 2012: 183). *Pace* Legate (2012), the same generalization can be interpreted from the viewpoint of DCT, thus postulating that DCT makes the same prediction. Ergative does not appear on derived subjects, as the derived subjects start from the position, which is low in the structure, and ergative, as predicted by DCT, can be assigned only up. Thus, while interpreting language facts, we allude not

to the thematic position as such, but to the fact that in passives and unaccusatives, the ergative can be assigned only up if there are two DPs in the same case-assignment domain (i.e. CP). As this precondition is not satisfied, ergative cannot be assigned. So, here, both theories make the same predictions, and we can allude both to the DC assignment rule and to the thematic role.

Moreover, Legate's claim (2008: 90) that Marantz's system predicts exceptions to the ECG based on the Georgian example (22), which according to Legate seem to exhibit the requisite properties, but do not bear out the prediction, is wrong.

(Marantz 1991, *apud* Legate 2008: 90)[29]

(22) es   saxl-i   ivane-s   a-u-šendeb-a.

      this   house.**NOM**   Ivan-DAT   PREVERB-built-INFL

      'This house was built for Ivan.'

First, in example (22), no ergative is seen on a derived subject, it is nominative, thus it is not against the ECG; Second, dative on *Ivanes* is assumed to be accusative, but this is not the case, dative/accusative never appears on goal arguments in Georgian; and, finally, if by providing this example, Legate assumes, that Marantz's system fails, as there are two internal arguments, which might serve as case competitors for one another, and thus one of this arguments must bear ergative, this is also false.

The main point here is that DCT predicts that two internal arguments may serve as case competitors in *v*P, and not in CP domain (these are two different case-assignment domains); thus, one of these arguments may have dependent case, however, not ergative, but dative (as both are internal) and not on derived subjects, i.e. unambiguously

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[29] The gloss of the example is not adapted, it follows Legate (2008), though the translation must be in FUT: 'The house will be built for Ivane.'

(theme/patient) arguments. Georgian allows only asymmetric passives, where only direct object (i.e. theme/patient) can passivize thus, excluding dative subjects in passives (see Chapter 6, Section 6.3.1 on DOC passives in Georgian). What Georgian allows, are unaccusative affective constructions, where dative is dependent case assigned in vP domain to the higher argument, but not derived subject. This means, that there is no exception to the ECG, at least based on Georgian examples. And, ECG does not predict ergative to be inherent, it can be analyzed from the viewpoint of the DCT as well.

And, the main thing with the theta-relatedness test which has not been pointed so far, is that if ergative is inherent, it has not to be solely associated with the external subject position, i.e. Spec,vP where it is base generated, but it is also assigned by the same v^0 head, which introduces its thematic role. So, the association with the external merge in Spec,vP has not necessary to correlate with the case assignment by the same head. Logically speaking, these are two independent properties. Nothing forbids to analyze the assignment of the external argument by the dependent case rule, without alluding to the head assignment. So, that's not a language property, but the analysis which we adopt.

In sum, ergative case is used in Georgian for proto-agentive theta-roles, that canonically can be analyzed both as structural and as inherent. The crucial thing is that the association of ergative with the external argument, does not predict, that it must be inherent, as the main idea of the IC is that it is assigned by the same head which introduces its thematic role. So, for the ICT, it is a head assignment what matters. And, this latter, is not a language property, and cannot be checked. It is already a theoretical analysis, which can be alternatively analyzed in terms of the DC.

5.2.3   Controlling agreement

The next diagnostic that can be applied to ergative subjects is controlling agreement. As mentioned in Chapter 4, Sub-section 4.1.3, non-structural cases cannot control agreement,

while structural cases can (see references in the mentioned sub-section). Ergative as well as nominative/absolutive and dative subjects control agreement in Georgian, indicating that all three are structural cases (23, 24 and 25). I return to dative subjects in Chapter 6, Sub-section 6.3.2.

(23)   ts'ign-i   magida-ze   dev-**s.**
       book-**NOM/ABS**   table-at   lie-**3SG.SBJ**:PRS
       'The book lies on the table.'

(24)   masts'avlebel-ma   mosts'avle-s   ts'eril-i   mi-s-ts'er-**a.**
       teacher-**ERG**   pupil-DAT   letter-NOM/ABS   PR-3SG.IOBJ-write-**3SG.SBJ**:PFV.PST
       'The teacher wrote a letter to (his/her) pupil.'

(25)   mariam-s   mo-s-ts'on-s   khat'va-Ø.
       Mariam-**DAT**   PR-**3SG.SBJ**-like-3SG.OBJ:PRS   drawing-NOM/ABS
       'Mariam likes drawing.'

Following the assumption of Bobaljik (2008) that both unmarked and dependent cases can be accessible for φ-agreement (see Chapter 4, Sub-section 4.1.3, in particular Figure 4.1), Georgian belongs to the second Nepali-type languages, where dependent cases (in our case ergative) are included among the accessible cases. Although, as Georgian is a language with complex agreement, i.e. agreement with more than one on a single verb, the situation is different because two DPs may control agreement, not just the highest accessible (see Chapter 6 for object agreement).

The question now is if the case of the subject is decisive for φ-agreement in Georgian, or is it that GF defines the accessibility of agreement? According to the DCT, the

morphological case is a necessary pre-condition for φ-agreement and not GF. Generally, it can be observed that subjects in Georgian agree with a verb regardless of the case, as was illustrated in (23) for nominative/absolutive, (24) for ergative and (25) for dative subjects.

Thus, *prima facie*, the Georgian ergative shows that the GF is decisive. However, the morphological patterns of agreement are different. Nominative and ergative arguments show *v*-set agreement markers (in traditional grammar terms "subject markers"), while dative arguments *m*-set markers (in traditional grammar terms "object markers"). See Chapter 3, Sub-Section 3.1.3 for agreement markers, in particular Tables 3.2 and 3.3. From the morphological make-up of the agreement markers it can be observed that in perfect tenses with dative argument, *m*-set markers ("object markers") are used to denote subjects and vice versa *v*-set markers ("subject markers") are used to denote objects. For our purposes, what is relevant is that there is evidence that nominative arguments, irrespective of their GF, are cross-referenced by *v*-set markers, see suffix *-s* (*v*-set marker) for 3SG, used to indicate GF of subject in (23) and GF of object in (25), while dative arguments, irrespective of their GF, are cross-referenced by *m*-set markers, see prefix *s-* (*m*-set marker) for 3SG used to indicate GF of subject in (25) and to indicate GF of indirect object in (24). So, following the DC theory assumption proposed by Bobaljik (2008: 303) "When case and GF diverge, it is m-case, not GF, that defines accessibility for agreement".

This proposal in addition predicts that nominative/absolutive objects should also control agreement, but only when the subjects bear an inaccessible case. This was illustrated by Bobaljik (2008: 311) on examples, where nominative/absolutive object triggers agreement, because subject bears inherent dative case.

Unfortunately, this cannot be tested from structures with dative subjects in Georgian, because dative in the subject position is structural and, as a result, accessible for φ-

agreement. So, what Georgian shows in examples similar to Nepali, with dative subjects, is that both subjects and nominative/absolutive objects are accessible for φ-agreement. See (26) for Georgian.

(26)   mo-**m**-ts'on-**khar.**

PR-**1SG.SBJ**-like-COP:**2SG.OBJ**:PRS

'I like you.'

Agreement is probably the strongest argument showing that the Georgian ergative is a structural case.

5.2.4   **Interim summary on diagnostics**

Based on different diagnostics presented in this section, it is evident that it is not often very clear what the nature of the Georgian ergative is. This is partially because not all of the classical tests are available for the concrete language. For instance, such diagnostics as case preservation under A-movement (i.e. raising constructions) or case alternation upon valency reducing operations (for instance, noun incorporation, deletion of IA by antipassive, etc.) cannot be used in Georgian to test structural vs. non-structural cases. It is also partially because of the mixed parametric features, which on the one hand may lead to ambiguous interpretation, as for instance, case alternation in non-finite environments, which does reflect the structural properties of ergative (see Chapter 4 for a detailed discussion), and on the other hand cause complication for CT, which is basically designed only for nominative-accusative alignment.

Still, most of the provided arguments in this section: the ability to control agreement, the need for a second DP in the same case-assignment domain, and case alternation upon

valency-increasing operations lead to the conclusion that the Georgian ergative is a structural case. All diagnostics discussed in this section are summarized in Table 5.2.

Table 5.2: Diagnostics for testing structural vs. inherent ergative

case preservation /alternation	case alternation under valency- changing operations	valency- increasing operations	transitivization	structural
			causatives	structural
			applicatives	structural
θ-relatedness	*weak version*			structural
	strong version			structural / inherent
agreement				structural

As can be seen in Table 5.2, the only argument that gives us ambiguous results in favor of ergative being inherent is theta-relatedness, namely, proto-agentive thematic roles and no ergative in the non-thematic position. However, I have explicitly discussed that, association of the ergative with the external thematic position can be alternatively analyzed adopting DCT. The most important is that ergative controls agreement, showing underlyingly that it is a structural case. Given that ergative is structural, and arguably DC, the next question that arises is how to account for ergative DPs without an absolutive DP. This question is addressed in the following section, where Georgian unergative and indirect transitive verbs are discussed, which are problematic for both inherent and dependent case theories.

5.3 DC analysis of ergative

I adopt the view that Georgian shows case structures in perfective past tenses, including subjunctives and imperatives, that are best analysed under the dependent case theory: ergative is assigned to the higher DP in a clause with transitive verbs, when the lower DP bears an unmarked case (27).

(27) p'ropesor-ma   ts'eril-i   da-ts'er-a.
      professor-**ERG**   letter-**NOM/ABS**   PR-write-3SG.SBJ:PFV.PST
      'The professor wrote a letter.'

The single argument in intransitives on the contrary is "unmarked" in nominative/absolutive case because there is no dependent case (28).

(28) sakhl-i   ga-tb-a.
      house-NOM/ABS   PR-heat-3SG.SBJ:PFV.PST
      'The house was heated.'

Problematic for this theory, however are verbs, which have no second DP or an unmarked case on a second DP that can be counted as a case competitor for assigning ergative.

There are two types of such verbs in Georgian: (a) indirect transitive verbs without a second unmarked DP which have only a DP dative goal argument (29), and (b) unergative intransitive verbs lacking a second DP whatsoever (30).

(29) k'ats-ma   she-khed-a   kal-s.

      man-**ERG**   PR-look-3SG.SBJ:PFV.PST   woman-**DAT**

      'The man looked at the woman.'

(30) jarisk'ats-ma   bolomde   i-brdzol-a.

      soldier-**ERG**   end_till.ADV   PV-fight-3SG.SBJ:PFV.PST

      'The soldier fought till the end.'

Now, consider structures in (31) for indirect transitives and unergative verbs respectively.

(31) a. *indirect transitives*   b. *unergatives*
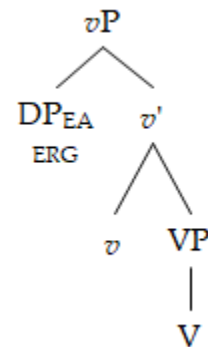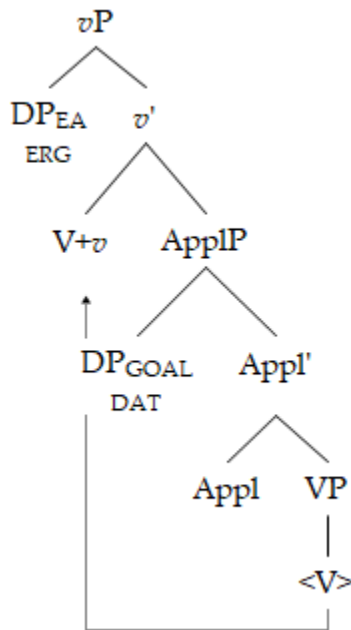
With these structures ergative case assignment is hard to understand under dependent case theory, however, this problem can be solved if we assume that both these cases involve a covert object in the nominative/absolutive. I present three arguments that actually support this claim:

(a) Both indirect transitives and unergatives behave in the same way as transitives in perfect formation, in alternation of subject case assignment and to some degree in the creation of applicatives and causatives. So, they have the same structure, which includes a NOM/ABS object;

(b) The presence of the implicit object is reflected by agreement morphology in perfect tenses. This suggests that despite the fact that unergatives have one overt argument, there is also an implicit one in the structure;

(c) Both types of verbs have an ability to add a D^0 head as a residual of a DP with the cognate object in NOM/ABS case, which also counts as a case competitor for assigning ergative.

It has also been claimed for other languages that unergatives involve a phonologically null cognate object (i.e., an implicit direct object). Best discussed from this point of view are Basque unergatives (Bobaljik 1993; Laka 1993 among others). Preminger (2012) argues on the basis of Basque that not for all unergative constructions covert an absolutive object can be postulated. However, I will show that these counter-arguments do not hold for Georgian. In Sub-section 5.3.2 I will discuss properties in which Georgian is different from Basque.

Note that ergative-marked subjects with unergative verbs are not only problematic for dependent case theory, but also for inherent case theory. They are not always associated with an agentive theta-role and have no volitional control over the process of the action, i.e. they are problematic for any account of ergative as an inherent case. For

instance, in (32) *'water'* is not animate, it has no volitional control over the process of boiling and it is not associated with an agentive theta-role; still it receives ergative case.

(32)   ts'q'al-ma   i-dugh-a.

      water-ERG   PV-boil-3SG.SBJ:PFV.PST

      'The water boiled.'

Hence, the problem of ergative case assignment in Georgian unergative / indirect transitives is not an only problematic for dependent case theory. It has also been claimed for Georgian, Basque, Hindi and Kashmiri unergatives, that subjects assign ergative case inherently, as the "*v* head assigns ergative case to all external arguments, regardless of verb transitivity" (Tollan 2018; see also Sheehan 2014; 2017). This is definitely not the case for Georgian, as transitivity is one of the decisive factors for assigning ergative and unergatives are underlyingly transitives, as has been postulated by many scholars for Georgian (Schuchardt 1895; Hewitt 1987; 1995; Nash 1995; 2017; Melikishvili 2001; 2014; Melikishvili, Humphries & Kupunia 2008; see also Tuite 2017: 1118–1120 for an overview on this issue).

It was also indicated in related literature, that unergatives have a complex, not mono-argumental structure in Georgian. For instance, Nash (2017: 191–192) analyzes voice marker *i-* as an indicator of the Reflexive Implicit Argument Marking (RIAM) (33) and assumes that in unergatives the causer is coreferential with the argument of the process.

     RIAM (Nash 2017: 191)

(33)   nino-m   i-lap'arak'-a,   i-varjish-a,   i-sisin-a.

      Nino-ERG   RIAM-talk-AOR3S   RIAM-exercise-AOR3S   RIAM-hiss-AOR3S

      literally, 'Nino caused her talking, exercising, hissing.'

'Nino had herself talk, exercise, hiss.'

I do not adopt the notion of RIAM, and claim that *i-* is not a reflexive marker for implicit arguments. First, the idea that *i-* in unergatives stands for a reflexive argument is controversial (as *i-* appears in different contexts), and second, even if it is a reflexive, it cannot be tied to the implicit argument in terms of the dependent case calculus.

That *i-* is not directly tied to ergativity has been mentioned by Nash herself (2017), because this *i-* is also used in other contexts, even with nominative subjects. With the same unergative verbs it appears in the future tense as well, for instance see (34).

perfective past		*future*	
(34) st'udent'-ma	**i**-nerviul-a.	st'udent'-i	**i**-nerviul-eb-s.
student-**ERG**	PV-get_nervous-3SG.SBJ	student-**NOM/ABS**	PV-get_nervous-3SG.SBJ
'A student got nervous.'		'A student will get nervous.'	

Additionally, it is not related to the implicit argument, because *i-* also appears with transitive verbs in the perfective past (35), where there is no implicit argument in the structure.

(35) nik'a-m   ts'ign-i   ts'a-**i**-k'itkh-a.

Nika-ERG   book-NOM/ABS   PR-PV-read-3SG.SBJ:PFV.PST

'Nika read a book.'

More important is that the *i-* marker cannot be linked to the DC calculus. This is due to the several facts: first of all, if a reflexive morpheme is incorporated into the verb and co-references theme argument, it must have a detransitivizing effect removing the

opposition required for the dependent case assignment. This fact has also been observed for other ergative languages. Mahajan (1997), for instance, discusses Inuit examples (cf. Bok-Bennema 1991), where a reflexive morpheme incorporated into a verb blocks ergative case assignment and thus is "viewed as having a detransitivizing effect (cf. Marantz 1984) removing the opposition required for the dependent Case assignment" (Mahajan 1997: 47–48). Additionally, in transitive predicates with an uncontroversial reflexive marker *i-*, this *i-* never co-references internal theme arguments in Georgian. If we add a reflexive pronoun which is co-referenced by *i-*, semantically it is a goal argument, while syntactically it is a PP and not DP. Thus, when the truly reflexive marker is incorporated into a verb (36), the only possibility to add the reflexive pronouns is with postposition, and PP, by all means, cannot be visible for DC calculus.

(36) irak'li-m   sakhl-i   a-i-shen-a.   (tav-is-tvis)

      Irakli-ERG   house-NOM/ABS   PV-REFL-build-3SG.SBJ   (himself-GEN-for)

      'Irakli built a house for himself.'

In unergatives, on the contrary, there is the possibility to add an additional theme argument, which bears nominative/absolutive case when the subject is ergative. This can be either a cognate object or another theme argument, see (37) and (38) respectively. I provide just these two examples here, but will discuss other possibilities while presenting my account.

(37) a. nik'a-m   i-mgher-a.

          Nika-ERG   PV-sing-3.SG.SBJ:PFV.F

          'Nika sang.'

  b. nik'a-m   akhal-i   simghera   i-mgher-a.

      Nika-ERG   new-NOM/ABS   song.NOM/ABS   PV-sing-3.SG.SBJ:PFV.PST

      'Nika sang a new song.'

(38) a. mk'itkhav-ma   q'ava-ze   m-i-mk'itkh-av-a.

          fortune-teller-ERG   coffee-at   1SG.OBJ-PV-fortune-telling-THM-3.SG.SBJ:PFV.PST

          'A fortune-teller told (me) my fortune by coffee scrying.'

  b. mk'itkhav-ma   q'ava-ze   momaval-i   m-i-mk'itkh-av-a.

      fortune-teller-ERG   coffee-at   future-NOM/ABS   1SG.OBJ-PV-fortune-telling-THM-

                                                        3.SG.SBJ:PFV.PST

-         'A fortune-teller told (me) my future by coffee scrying.'

If the *i-* marker co-referenced theme argument visible for DC calculus, there would be no possibility to add an additional argument in nominative/absolutive.

The idea that *i-* can be analyzed as a RIAM, was abandoned by Nash in her subsequent work (2021), where *i-* is already assumed to stand for the reflexive medio-passive marker, which does not co-reference the theme argument. Further, in that work, Nash (2021) assumes that unergatives cannot involve hidden theme covert or overt, and that DC is realized in perfective tenses because of the causativization of the core stative structure, based on Chikobava's assumption (1950) that unergative verbs should be classified as stative verbs in Georgian, which borrow *i-* forms in perfective tenses from the reflexive-benefactive variants of causatives.

Other assumptions about Georgian unergatives include that unergatives are treated as intransitives that borrow aorist forms from transitive verbs (see Vogt 1971; Shanidze

1980) or that they are anti-impersonal constructions that have implicit cognate objects (Lazard 1998; see, also Berikashvili 2021 for basic references).

Aside from transitivity, the second important factor for assigning ergative is aspect. It is commonly accepted that Georgian switches to the ergative case system in perfective past tenses, traditionally called "aorist". I adopt the view that aorist implies perfective aspect in Georgian, denoting a culminated or non-culminated event, therefore, I will be using the term perfective past for aorist tenses in what follows (see Chapter 3, Sub-section 3.3.3.2 for a detailed discussion and alternative views). Moreover, unlike Holisky (1981), I do not claim that aktionsart is the best characterization of the split intransitivity in Georgian; rather opposite, in my view, it is the argument structure that matters for case assignment.

In the next sub-sections I will illustrate that unergative verbs do really involve an implicit argument and that counter-arguments for the absence of the implicit argument do not hold for Georgian.[30]

5.3.1   Evidence for the existence of an implicit object in Georgian

5.3.1.1   *Unergatives are underlyingly transitives*

It has been claimed in the literature that intransitive verbs can be of hybrid properties, semantically agentive, which structurally behave like unaccusatives and semantically patentive, which structurally behave like unergatives (see Pinneda & Berro 2020 for Basque unergatives). Similar behavior is attested to in Georgian intransitive verbs. See, for instance, the verbs *ts'avida* 'to go' or *gaiktsa* 'to run', where the subject is agentive, initiating the process and undergoing it, but the case assigned to the external argument in PFV.PST is nevertheless nominative/absolutive and not ergative (39a and b).

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[30] See also presentation of some claims in Berikashvili (2023).

(39) a.   st'udent'-i   tsa-vid-a.

           student-**NOM/ABS**   PR-go-3SG.SBJ:PFV.PST

           'The student went.'

      b.   st'udent'-i   ga-i-kts-a.

           student-**NOM/ABS**   PR-PV-run-3SG.SBJ:PFV.PST

           'The student ran away.'

Vice versa, the verbs *itskriala* 'to glitter' and *ik'riala* 'to shine' are verbs of light emission with a non-voluntary patentive subject, but, nevertheless, they assign ergative case to the subject and structurally behave like unergatives (40a and b).

(40) a.   ghvino-m   i-tskrial-a.

           wine-ERG   PV-glitter-3SG.SBJ:PFV.PST

           'The wine glittered.'

      b.   iat'ak'-ma   i-k'rial-a.

           floor-ERG   PV-shine-3SG.SBJ:PFV.PST

           'The floor shone.'

As semantic differentiation is not a reliable predictor of the syntactic behavior of intransitive verbs in Georgian, in what follows, I will use a structural diagnostic to test whether an intransitive verb is unergative or unaccusative, regardless of the semantic meaning expressed by the verb. It has been mentioned in the literature (see, for instance, Harris 1981; Hewitt 1987 a.o.) that agreement markers are good predictors for testing whether the verb is unaccusative or unergative. Thus, the agreement markers for 3PL in

PFV.PST give us the possibility, on the one hand to clarify the verb type, and on the other to indicate what case is assigned in the subject position.

The diagnostic which I will follow includes agreement morphology and a choice of auxiliary in the perfect tenses. If an intransitive unergative verb is used in perfect tenses, it changes the agreement morphology from *v*-set markers to *m*-set (41).

	PRS.IND	*PRF.IND*
(41)	**v**-saubr-ob.	**m**-i-saubr-i-a.
	1SG.SBJ-talk-THM	**1SG.SBJ**-PV-talk-PRF-3SG.OBJ
	'I talk.'	'I have talked.'

Unaccusative verbs, by contrast, create perfect tenses out of a participle with the auxiliary verb *var* 'to be' added as a clitic to the non-finite form (42), without changing the agreement morphology.

	PRS.IND	*PRF.IND*
(42)	**v**-tb-eb-i.	ga-**v**-m-tb-ar=**var.**
	1SG.SBJ-warm_up-THM-INFL	PR-**1SG.SBJ**-PTCP-warm_up-PTCP=**COP:1SG.SBJ**
	'I warm up.'	'I have warmed up.'

Thus, intransitive unergative verbs have the so-called inversionally used subject agreement markers on verbs in all three perfect tenses: perfect indicative, pluperfect and perfect subjunctive (43a), while intransitive unaccusatives and passives form these tenses using a participle with an auxiliary verb (43b).

  perfect tenses of unergatives

(43)   a.   PRF.IND   m-i-saubr-i-a 'I have talked'

                        1SG.SBJ[OBJ]-PV-talk-PRF-3SG.OBJ[SBJ]

         PLUPRF   m-e-saubr-a

                        1SG.SBJ[OBJ]-PV-talk-3SG.OBJ[SBJ]

         PRF.SBJV   m-e-saubr-o-s

                        1SG.SBJ[OBJ]-PV-talk-SBJV-3SG.OBJ[SBJ]

         perfect tenses of unaccusatives and passives

     b.   PRF.IND   ga-v-m-tb-ar=var 'I was warmed'

                        PR-1SG.SBJ-PTCP-warm-PTCP=COP:1SG.SBJ:PRF

         PLUPRF   ga-v-m-tb-ar=iq'av

                        PR-1SG.SBJ-PTCP-warm-PTCP=COP:1SG.SBJ.PST:PLUPRF

         PRF.SBJV   ga-v-m-tb-ar=iq'o

                        PR-1SG.SBJ-PTCP-warm-PTCP=COP:1SG.SBJ.PST:PRF.SBJ

The diagnostics for testing unergative vs. unaccusative verbs also show that unergative verbs in the perfect tenses structurally behave exactly like transitive verbs when it comes to agreement morphology and the choice of "no-auxiliary". So, they have the same form particularly with inversionally used agreement markers, cf. (43a) with (44) for transitive verbs and they do not use auxiliaries as unaccusatives and passives do, cf. (43b).

         perfect tenses of transitives

(44)   PRF.IND   da-m-i-ts'er-i-a 'I have written'

                        PR-1SG.SBJ[OBJ]-PV-write-PRF-3SG.OBJ[SBJ]

         PLUPRF   da-m-e-ts'er-a

PR-1SG.SBJ[OBJ]-PV-write-3SG.OBJ[SBJ]

PRF.SBJV   da-m-e-ts'er-o-s

PR-1SG.SBJ[OBJ]-PV-write-SBJV-3SG.OBJ[SBJ]

It has been claimed in the literature (Burzio 1986; Preminger 2012 among others) that the choice of auxiliary verb (between *have*-type and *be*-type auxiliaries) with unergatives is regulated by transitivity and this is what we see in Georgian. Consider, for instance, the example from Basque (45), where auxiliary selection can be analyzed as an indicator for the transitivity of a verb.

Basque (Preminger 2012: 278–279)

light-verb construction

(45) a. Jon-ek   dantza   egin   d-Ø-u- Ø.

Jon-ERG   dance   do   3.ABS-SG.ABS-have-3SG.ERG

'Jon danced.'

simplex unergative verb

b. Jon-ek   dantzatu   d-Ø-u- Ø.

Jon-ERG   dance-PRT   3.ABS-SG.ABS-have-3SG.ERG

'Jon danced.'

In Basque **edun(/ukan)* 'to have' (the so-called 'transitive auxiliary') is used with transitive and unergative verbs, while *izan* 'to be' (the so-called 'intransitive auxiliary') with intransitives. Preminger (2012), following Laka (1996) and Arregi (2004), analyzes such examples differently, based on the presence of ergative agreement-morphology and not transitivity. In Georgian, this choice cannot be explained by the existence of the

ergative agreement-morphology, as ergative is substituted by dative in perfect tenses. This highlights that ergative agreement-morphology cannot be a trigger for the auxiliary choice.

These are not the only properties that unergatives share with transitive verbs to the exclusion of unaccusatives. Unergative verbs have case-variable subjects: nominative/absolutive in present, future and past imperfective tenses, ergative in perfective past tenses and dative in perfect tenses (46).

	unergatives		*transitives*	
	IPFV.PRS		*IPFV.PRS*	
(46) a.	momkhsenebel-**i**	saubr-ob-s.	momkhsenebel-**i**	ts'er-s.
	presenter-**NOM/ABS**	talk-THM-3SG.SBJ	presenter-**NOM/ABS**	write -3SG.SBJ
	'The presenter talks.'		'The presenter writes.'	
	PFV.PST		*PFV.PST*	
b.	momkhsenebel-**ma**	i-saubr-a.	momkhsenebel-**ma**	da-ts'er-a.
	presenter-**ERG**	PV-talk-3SG.SBJ:PFV.PST	presenter-**ERG**	PR-write-3SG.SBJ:PFV.PST
	'The presenter talked.'		'The presenter wrote.'	
	PRF		*PRF*	
c.	momkhsenebel-**s**	u-saubr-i-a.	momkhsenebel-**s**	da-u-ts'er-i-a.
	presenter-**DAT**	APPL-talk-PRF-3SG.SBJ:PST	presenter-**DAT**	PR-APPL-read-PRF-3SG.SBJ:PST
	'The presenter has talked.'		'The presenter has written.'	

That unergatives have a structure similar to transitives, and therefore, must have an implicit object slot for the IA which can count as a case-competitor for assigning ergative case, can be proved by the fact, that certain unergative verbs involve overt cognate objects or employ different strategies for adding arguments.

With regards to the second argument in the structure, three types of unergative verbs[31] can be defined: (a) one set of verbs that involves overt cognate objects (47);

(47) motsekvave-eb-ma   kartul-i   tsekva   i-tsekv-es.

      dancer-PL-ERG   Georgian-NOM/ABS   dance.**NOM/ABS**   PV-dance-3PL.SBJ:PFV.PST

      'The dancers danced a Georgian dance.'

(b) verbs that have the possibility to add an internal argument by transitivizing the clause (48);

(48) a. nik'a-m   okspord-is   universit'et'-shi   i-sts'avl-a.

         Nika-ERG   Oxford-GEN   university-in   PV-study-3SG.SBJ:PFV.PST

         'Nika studied at Oxford University.'

     b. nik'a-m   selp-is   gadagheba   i-sts'avl-a.

         Nika-ERG   selfie-GEN   taking.**NOM/ABS**   PV-study-3SG.SBJ:PFV.PST

         'Nika learned how to take selfies.'

---

[31] Note that all examples of unergatives are included without preverbs, as this is their initial form and not all of them have counterparts with preverbs. The difference, of verbs with and without preverbs generally is assumed to be due to the indication of the telic and atelic events accordingly. See Chapter 3, Sub-section 3.3.3.2 for aspect and expression of telic and atelic events in Georgian, see also Holisky 1981 for the full lexical description of Georgian medial verbs.

(c) verbs that, by adding the preverb, change the valency of the verb (49).

(49) a. jarisk'ats-ma   i-t'ir-a.

          soldier-ERG   PV-cry-3SG.SBJ:PFV.PST

          'A soldier cried.'

      b. jarisk'ats-ma   megobar-**i**   **da**-i-t'ir-a.

          soldier-ERG   friend-**NOM/ABS**   **PR**-PV-cry-3SG.SBJ:PFV.PST

          'A soldier mourned his friend.'

Thus, there is a possibility to have (cognate) objects with Georgian unergatives.

5.3.1.2 Agreement morphology for the implicit object in perfect tenses

As mentioned in Sub-section 5.3.1.1, unergative verbs create perfect tenses with inversionally used agreement markers (see Chapter 3, Sub-section 3.1.3 for the sets of agreement markers in Georgian, in particular see Tables 3.2 and 3.3). In brief, the "inversive" distribution of agreement markers in perfect tenses implies that *v*-set markers are used to denote objects, and *m*-set markers to denote subjects (see Chapter 6, Sub-sections 6.3.2 and 6.4.2 for inversion in perfect tenses and references therein). This way both agreement markers are visible on the verb (50), otherwise it would be impossible to see object agreement markers, which for the 3rd person by definition are null.

          perfect tenses of unergatives

(50) PRF.IND   m-i-k'amat-i-**a** 'I have argued'

       1SG.SBJ-PV-argue-PRF-**3SG.OBJ**

   PLUPRF   m-e-k'amat-**a**

       1SG.SBJ-PV-argue-**3SG.OBJ**

   PRF.SBJV   m-e-k'amat-o-**s**

       1SG.SBJ-PV-argue-SBJV-**3SG.OBJ**

All unergative verbs have a direct object marker in the perfect tense, either -*a* or -*s*, as indicated in (50), thus highlighting that there is an implicit argument in the structure.

The same markers are indicated in indirect transitive verbs (51).

perfect tenses of indirect transitives

(51) PRF.IND   she-m-i-khed-av-**s** 'I have looked at'

       PR-1SG.SBJ-PV-look_at-THM-**3SG.OBJ**

   PLUPRF   she-m-e-khed-**a**

       PR-1SG.SBJ-PV-look-at-**3SG.OBJ**

   PRF.SBJV   she-m-e-khed-o-**s**

       1SG.SBJ-PV-look_at-SBJV-**3SG.OBJ**

This can be taken as evidence for the presence of an implicit object both in unergatives and in indirect transitives. Other supportive evidence that agreement markers in indirect transitives are controlled by the implicit object and not by the goal argument, is that the indirect object is converted into a PP in perfect tenses and PPs cannot be targeted for agreement (52).

(52) a. she-v-khed-e   k'ats-s.

PR-1SG.SBJ-look_at-PFV.PST   man-DAT

'I looked at the man.'

(subject is *pro*:1SG.ERG)

b.   she-m-i-khed-av-**s**   k'ats-is-tvis.

PR-1SG.SBJ-PV-look_at-THM-**3SG.OBJ:PRF**   man-GEN-for

'I have looked at the man.'

(subject is *pro*:1SG.DAT)

However, as a cognate object is always 3SG, one may wonder whether, alternatively, it could be analyzed as an instance of a default agreement. Unfortunately, it is impossible to check whether the agreement morphology in perfect tenses is the result of successful agreement with the 3rd person or default. The environments where this could be checked are 3SG agreement with 1st and 2nd person and with plural forms; however, cognate objects are always 3rd person, while plurality is ruled out based on the parametric property of the language, which has a preference for singular agreement with quantifiers, determiners, inanimate entities, etc. Two indirect hints that this is not default agreement would be: (a) the same inversive markers used in dative experiencer constructions, which definitely show agreement with 1st and 2nd person and (b) null and not morphologically realized 3rd SG default agreement in other tenses for 3rd person objects. Logically speaking, nothing would forbid inversive patterns from also having null default agreement. This indicates that it is more likely to be the result of successful agreement with the 3rd person than a default.

The key here is still that there are two different slots for agreement patterns and both of them are realized morphologically, thus highlighting the existence of the second argument.

Further, the agreement-morphology does not show directly that the second argument is in nominative/absolute. The argument structure for the perfect tenses, nevertheless implies that the subject is always dative and the object nominative/absolute. The most important factor for our purposes is that the agreement-morphology in perfect tenses forms independent evidence for the existence of a covert object both in unergative and indirect transitive verbs. Hence, it can be taken as a convincing indicator that IA is in the structure.

5.3.1.3 The D head as an indicator of the implicit object

In this section, I put forward a novel piece of evidence for the existence of an implicit object. It is possible to add the quantifier *bevri/tsota* 'many/few' to all unergative verbs, which do not imply the theme argument. Crucially, this quantifier has the same case marking as a direct object (53).

(53)   *IPFV.PRS*

    a.   momkhsenebel-i   bevr**-s**   saubr-ob-s.

         presenter-NOM/ABS   a_lot**-DAT/ACC**   talk-THM-3SG.SBJ

         'The presenter talks a lot.'

        PFV.PST

    b.   momkhsenebel-ma   bevr**-i**   i-saubr-a.

         presenter-ERG   a-lot**-NOM/ABS**   PV-talk-3SG.SBJ:PFV.PST

         'The presenter talked a lot.'

        PRF

    c.   momkhsenebel-s   bevr**-i**   u-saubr-i-a.

presenter-DAT   a_lot-**NOM/ABS**   APPL-talk-PRF-3SG.SBJ:PST

'The presenter has talked a lot.'

It is generally characteristic for Georgian that quantifiers and determiners when used with null nouns get the same case marking as the noun. Subsequently, in perfective past, the quantifier *bevri/tsota* 'many/few' has nominative/absolutive case, which can be counted as a case competitor to assign ergative. It has the function of internal argument in the structure, thus transforming the intransitive structure into canonical transitive (54).

(54)

```
                        TP
                     ╱      ╲
            DP_EA.ERG          T'
         momkhsenebelma      ╱  ╲
           'presenter'      ╱    ╲
                      ┌    ╱      ╲
                      │  T_PFV.PST   vP
                      │           ╱   ╲
                      │     <DP_EA.ERG>   v'
                      └────────────   ╱  ╲
                                     v    VP
                                        ╱    ╲
                              DP_IA.NOM/ABS    V
                                   bevri     isaubra
                                   'a lot'    'talk'
```
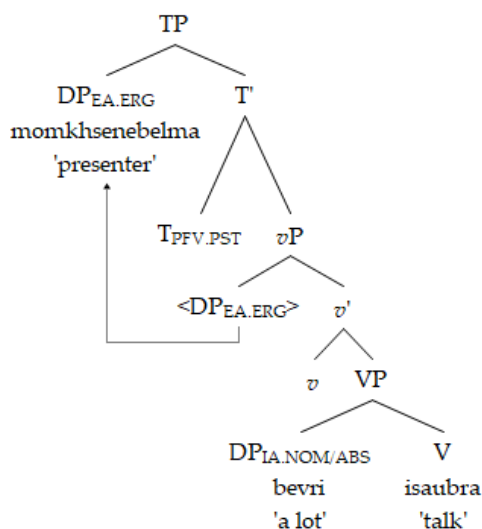
What these D^0 heads show is that unergatives must have a slot for an IA, which is phonologically null and whose D^0 head can be occupied by the residual determiner of a DP. This can be used as another diagnostic to test whether an intransitive verb is unergative or unaccusative. Unaccusative verbs do not allow the adding of a quantifier, being able to add only adverbs/adverbials (55).

(55)   otakh-i   dzalian/**bevr-s/*bevr-i**   ga-tb-a.

       room-NOM/ABS   very.ADV/*a_lot-**DAT/ACC**/*a_lot-**NOM/ABS**   PR-heat-3SG.SBJ

       'The room was heated very much.'

The crucial point is that *bevri/tsot'a* 'many/few' is a determiner, which is head of the DP with the cognate object. For instance, with the unergative verb *itsina* 'to laugh', the cognate object would be *sitsili* 'laugh' (56).

(56) *covert argument in Georgian unergatives*
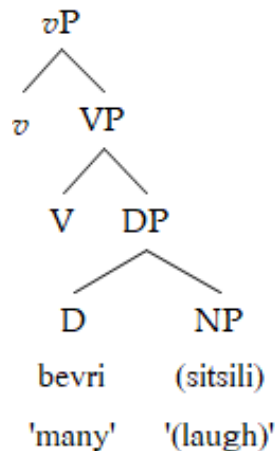
Even if there is no cognate object, the quantifier itself can be counted as an implicit argument visible for the DC calculus, as it receives the same case-marking. Moreover, the residual D^0 is the head that shows directly that there is an internal argument in the structure, as only DPs can function as an internal argument. It has been mentioned in the literature that as case is a property of DPs and case inflection is primarily visible on [D] elements, the implicit direct object must contain the [D] feature (see Landau 2010), and this is exactly what we observe in the Georgian unergative structure by inserting *bevri/tsota* 'many/few'. Thus, the [D] feature is what matters for DC calculus.

The same can be stated for indirect transitive verbs, i.e. predicates with ergative-dative pairings. Indirect transitive verbs with the applicative *u-* have been analysed by Nash (2017) as constructions where dative is related via the applicative *u-* to a cognate implicit argument (57).

(Nash 2017: 194)

(57) vano-m   u-k'bin-a   [Nino-s   u̶–pro]
      vano-ERG   APPL-bite-AOR3S   Nino-DAT   APPL
      Lit.: 'Vano caused Nino to have a bite.'

Independent proof provided by Nash (2017) to show that there is a hidden nominal is that these predicates can add the demonstrative pronoun *iseti* 'such', which only modifies nominals (58).

(Nash 2017: 194)

(58) a. nino-m   [iset-i   k'aba-Ø]   i-q'id-a   […].
          Nino-ERG   such-NOM   dress-NOM   PV-BUY-AOR3SG
          'Nino bought such a dress that […].'

      b. suares-ma   [iset-i   pro] u-k'bin-a   vano-s […].
          Suares-ERG   such-NOM   APPL-bite-AOR3S   Vano-DAT
          'Suares bit Vano 'such' that […].'

My observation is that this intensifier is possible only when there is no argument with unmarked case in the structure. Consider (59a) and (59b).

(59) a.   dzhaghl-ma   k'at'-eb-s   iset-i   **u**-k'bin-a …

dog-ERG   cat-PL-**DAT**   such-NOM/ABS   **APPL**-bite-3SG.SBJ:PFV.PST

'The dog bit cats so.'

b.   dzhaghl-ma   k'at'-eb-i   ise/*iset-i   **da**-k'bin-a …

dog-ERG   cat-PL-**NOM/ABS**   so.ADV/*such-NOM/ABS   **PR**-bite-3SG.SBJ:PFV.PST

'The dog bit cats so.'

The difference between (59a) and (59b) is that (59a) has a dative goal argument introduced by the applicative marker *u-*, while (59b) has a nominative/absolutive patient/theme argument. What is important is that there is still an implicit argument in (59a), while in (59b) there is already an object in an unmarked case, so there is no need to adding an additional unmarked argument to the structure, and the language forbids it. In the latter case, the only thing one can do is to add the adverb *ise* 'so', which is adjunct and is not assigned case.

So, the demonstrative pronoun *iseti* 'such' is used in indirect transitives with the same function as the quantifier *bevri/tsota* 'many/few' in unergative verbs.

5.3.1.4 Concluding remarks

The main findings provided in this section show that there is an implicit argument in the unergative verb structure. There is a second argument in the same domain, which is used in an unmarked case and can be counted as a case competitor for assigning ergative in perfective past. All unergative, as well as indirect transitive, verbs in Georgian show this complex internal structure. The arguments in favor of the implicit argument and subsequently in favor of DCT are presented in Table 5.3.

Table 5.3: Arguments in favor of having implicit arguments

Transitive structure, including (a) PRF formation, (b) case-variable subject, (c) possibility to add objects

Implicit object **agreement-morphology** on predicate;

Use of the **determiners** as a residual of a DP with cognate object.

The strongest point in favor of the presence of an implicit argument is the existence of the D^0 head, which can be checked by inserting *bevri/tsota* 'many/few' and analyzed either as a residual of a DP with a cognate object, or as an independent determiner, which at the moment of derivation has unvalued case features, and after assigning DC, is realized as nominative/absolutive. Thus, it can be counted as a case competitor for DC calculus.

Agreement morphology is more controversial, as the cognate object is always 3SG, as such alternatively, it may be analyzed as an instance of a default agreement. However, I have shown that it is more likely to be the result of successful agreement with the 3rd person than a default. Moreover, the quantifier used as a D^0 head in unergatives, which encodes implicit argument, requires restriction to a singular, based on the parametric property of the language. So, even agreement morphology can be used as an additional argument for the existence of the implicit argument.

5.3.2 Countering evidence for the absence of an implicit object

The existence of the implicit argument is not uncontroversial cross-linguistically. Some counter-arguments have been presented for Basque unergatives by Preminger (2012), showing that the unergative verbs lack an implicit object.

5.3.2.1 Lack of corresponding nominals

The first of the arguments is the existence of unergative verbs that can appear in simplex unergative verbs constructions for which there is no corresponding nominal in the language. The discussed examples show that in Basque there are certain unergative verbs (though as noted the set of such verbs is relatively small) that do not have a nominal counterpart, thus creating a problem for the existence of implicit cognate object. These verbs cannot be used in the verb or transitive construction, as they lack nominal counterparts. Preminger (2012) provides two examples of such verbs *eskiatu* 'ski' and *disdiratu* 'shine'. The same examples are discussed in Laka (2006), as presented in (60).

       Basque (Laka 2006: 380)

(60) a. Eguzki-a-k   disdira-tzen du.

        sun-DET-ERG   shine-IMPF   have

        'The sun shines.'

      b. *Eguzki-a-k   itsaso-a   disdira-tzen du.

        sun-DET-ERG   sea-DET   shine-IMPF   have

        Intended: 'The sun shines the sea.'

Although not all the scholars agree that *disdiratu* 'shine' has no analytic counterparts (Berro & Etxepare 2017: 796–798 provide examples with close nominal counterparts *distira* and *dirdira*), no one argues about the verb like *eskiatu* 'ski', which is borrowed from the Spanish unergative, as shown by Alberdi (2003) and Laka (2006). Thus, potentially, according to Preminger's claim, it is doubtful that language can exhibit implicit nominal objects if some unergative verbs lack nominals corresponding to these verbs.

This argument does not work for Georgian, as all unergatives have nominal counterparts, either nouns or verbal nouns. So, there is a possibility to have an implicit cognate object and a potential problem in the inability to have an implicit argument because the cognate nominal's absence is ruled out for Georgian.

5.3.2.2 Adpositional complement of the verb

The second argument is that unergative verbs do not depend on the nominal complement of the verb in light verb construction. This verbal complement can be either nominal or adpositional. In such cases, an adpositional phrase is out of the competition for case assigning and is invisible for the agreement. This is demonstrated by iterative/repetitive construction, where unergative verbs are able to appear with the locative/adverbial complement of the light verb (61).

Basque (Berro & Etxepare 2017: 797)

(61)   a.   Dantza-n   egin   d-u.

           dance-INESS   do.PRF   TNS-root.

           '(S)he has danced.'

       b.   Pilota-n   egin   d-u-te.

           ball-INESS   do.PRF   TNS-root-PL

           'They have played handball.'

The important thing, as noted by Preminger (2012: 282), is that the form of auxiliary remains the same, and absolutive-agreement morphology is the same. As such, the agreement morphology does not depend on the nature of verb's complement and is not a result of agreement with an overt nominal.

Such examples, with absolute agreement on the verb, cannot be found in Georgian. First of all, Georgian does not exhibit light verb constructions, and does not have auxiliaries in the perfective past that allow the form of auxiliary to indicate any change in the structure. Second, there is no overt object agreement morphology for the third person (and a cognate object, overt or covert, is always third person). However, there are examples of some unergative verbs which at first glance take a complement in the instrumental case. See (62).

(62) a. ghrma   dzil-**it**   da-i-dzin-a.

      deep   sleep-**INSTR**   PR-PV-sleep-3SG.SBJ:PFV.PST

      '(He/she) slept a deep sleep.'

      (subject is *pro*:3SG.ERG)

   b. arachveulebrivi   ghimil-**it**   ga-i-ghim-a.

      remarkable   smile-**INSTR**   PR-PV-smile-3SG.SBJ:PFV.PST

      '(He/she) smiled with a remarkable smile.'

      (subject is *pro*:3SG.ERG)

If a nominal in instrumental case is the complement of an unergative verb, this causes a problem for the dependent case theory and the existence of a cognate implicit object in the structure. However, diachronically, these verbs had an overt cognate object in nominative/absolutive. See (63) for examples from the *Georgian Chronicles (*medieval Georgian historic texts 9th – 14th centuries). Thus, these examples could be the result of object demotion and conversion to PP.

   Georgian Chronicles, 135 (GLC)

(63)   da-i-dzin-a   dzil-i   tvis-i.

       PR-PV-sleep-3SG.SBJ:PFV.PST   sleep-NOM   own-NOM

       'Lit.: (He/she) slept his sleep.'

What is important for our purposes, however, is that in these examples, the adpositional phrases are not the complement of unergative verbs, but PP adjuncts. This can be tested either by omission, without affecting the grammaticality of the clause, or by substitution with an adverb. Moreover, examples of the use of corresponding-to-verb nominal with unergative verbs in the instrumental case are rare. Some of them, though acceptable, are not very natural to the language (64a), and are mostly used with other nominals, not with cognates (64b).

(64)   a.   ?nika-m   t'iril-**it**   i-t'ir-a.

            Nika-ERG   cry-**INSTR**   PV-cry-3SG.SBJ:PFV.PST

            'Lit.: Nika cried with a cry.'

       b.   nika-m   tskhare   tsreml-**it**   i-t'ir-a.

            Nika-ERG   bitter   tear-**INSTR**   PV-cry-3SG.SBJ:PFV.PST

            'Nika cried bitter tears.'

       c.   nika-m   tskhare   tsreml-it   bevr-**i**   i-t'ir-a.

            Nika-ERG   bitter   tear-INSTR   many-**NOM/ABS**   PV-cry-3SG.SBJ:PFV.PST

            'Nika cried a lot with bitter tears.'

The residual of the DP, the quantifier *bevri/tsot'a* 'many/few', can still be added to the structure, as example (64c) shows, thus highlighting that the implicit cognate object exists

and is assigned unmarked case, which can be counted as a case competitor in the dependency calculus. So, the use of instrumental nominals is not the result of object demotion and its conversion into PP. The covert object is still in the structure, as the *bevri/tsot'a* diagnostic shows.

5.3.2.3 *Agreement with low absolutives in LDA-unergatives*

The final argument by Preminger (2012) is the ability of subordinating verbs that take an ergative subject to co-index the absolutive arguments of embedded verbs on the upstairs auxiliary. Consider the example for Basque (65), with long distance agreement (LDA), where the PL.ABS on the auxiliary is co-indexed with an absolutive argument in the embedded clause.

Basque (Extepare 2006, *apud* Preminger 2012: 283)

(65) [Harri horiek   altxa-tze-n]   probatu   d-**it**-u-zte.

     stonethose.**PL**(ABS)   lift-NMZ-LOC   attempted   3.ABS-**PL.ABS**-have-3PL.ERG

     'They have attempted to lift those stones.'

     (subject is [*pro*-3PL.ERG])

According to Preminger (2012), if an unergative needs a direct object – overt or covert, then the only way to assign ergative in (65) would be to have an implicit object in the matrix clause. Consequently, the verb should agree with that object and not with the embedded object.

Such examples are impossible in Georgian, however. First, there is no long-distance agreement in the embedded clauses and second, nominalization in Georgian happens at V-level and not at *v*P-level, thus creating simple possessive construction: a noun in genitive+ nominalized verb in nominative/absolutive (66). So, the result with

nominalizations is not an embedded clause, but a second DP with an unmarked case in the same clause.

(66)   mo-i-pikr-es   ts'ign-is   ts'ak'itkhva.
       PR-PV-think-3PL.ERG:PFV.PST   book-GEN   read.NMZ.**NOM/ABS**
       'They decided to read a book.'
       (subject is *pro*-3PL.ERG)

If we create an embedded clause out of the same example, the embedded object is co-indexed on the embedded verb and not on the matrix verb (67).

(67)   mo-i-pikr-es   [ts'a-Ø-e-kitkh-a-t   ts'ign-i].
       PR-PV-think-3PL.**ERG**:PFV.PST   PR-3SBJ-SBJV-read-**3OBJ**-PL   book-**NOM/ABS**
       'They decided to read a book.'
       (subject is *pro*:3PL.ERG)

However, what we observe is that the subject is still ergative, and there is still ergative-agreement morphology on the verb in spite of the fact that there is no absolutive DP, but CP as an argument. That means that a whole clause is visible for dependent case computation. This has also been observed for other languages. It has been claimed that in terms of dependent case assignment, CPs behave exactly like DPs (see Zeijlstra 2020 and others referred to therein).

Zeijlstra (2020: 46) provides several arguments to show the correspondence between CP- and DP-arguments: (a) CPs can control 3rd-person-singular (default) agreement; (b) every CP-argument can be referred to by a single pronoun; and, (c) CPs behave like DPs in terms of (morphological) case computation. That is exactly what we observe in

Georgian. CPs can control agreement; they behave like DPs in case assignment; and, they can be referred to by a single pronoun (68) or substituted by a DP (66). In both examples, the case of a DP (either of a single pronoun or nominal) is nominative/absolutive, i.e. an unmarked case, as would be expected with the dependent case assignment rule.

(68) mo-i-pikr-es   es.

      PR-PV-think-3PL.**ERG**:PFV.PST   that.**NOM/ABS**

      'They decided that.'

      (subject is *pro*:3PL.ERG)

As such, Georgian has the ability to mark ergative on a subject, even when the object position is occupied not by nominal, but by a whole clause. Moreover, if the verb in the matrix clause requires a case other than nominative/absolutive in the object position, the strategy is to add a case marker to the last constituent of the embedded clause, even if that constituent is a verb (69). This demonstrates that CP-arguments can be overtly marked with morphological case.

    Georgian (Kvatchadze 1996: 96)

(69) sadats   she-vdi=var   [q'velgan   da-brdzand-i-**s**]

      wherever   PR-enter=COP:1SG   everywhere PR-sit_down-2SG-**DAT/ACC**:IMP

      m-eubn-eb-ian.

      1SG.OBJ-say-THM-3PL.SBJ

      'Wherever I go, everywhere (they) invite me to sit down.'

Therefore, the dependent case rule applies not only to DPs, but to CPs as well. This is in line with Nash's (2017: 193) assumption for Georgian that not only nominals, i.e. DPs per se, but also implicit and clausal arguments participate in the dependency calculus.

5.3.2.4 Concluding remarks

None of the counterarguments presented for other languages (particularly, Basque) holds for Georgian. This is indicated in Table 5.4.

Table 5.4: Counterarguments of having implicit argument in an unergative structure

No cognate nominal in the language	NA
Adpositional adverbial complement of the light-verb	NA
Absolutive agreement morphology	NA
Long Distance Agreement (LDA)	NA

5.3.3 Interim summary on the analysis of ergative as a DC

In this section, I provided analysis of the Georgian ergative as a dependent case, when ergative is assigned to the higher DP in a clause with transitive verbs, when the lower DP bears an unmarked case. Problematic for this view verbs those which either have no second DP (unergative verbs) or no unmarked case on the second DP (predicates with ergative-dative pairings) have been analysed in detail. I have argued that both these cases involve a covert object in the nominative/absolutive. As part of my argumentation, I have illustrated that Georgian unergative verbs have a transitive structure, show agreement-morphology for the implicit argument and use a D^0 head as a residual of a DP with null or cognate objects. Although, such a view in terms of null objects may not apply cross-linguistically, I have shown that existing counter-arguments for the absence of an implicit argument in the structure of unergatives in other languages do not extend to Georgian.

6. Non-canonically marked subjects in Georgian: dative

In this chapter, I turn to dative marked subjects in Georgian. The chapter consists of the following sections: Section 6.1 presents previous accounts on Georgian datives, section 6.2 introduces some generalizations for dative arguments based on the empirical data, section 6.3 includes diagnostics to test structural vs. non-structural datives with a focus on case preservation under passivization and dative agreement, and section 6.4 provides an analysis of dative as a dependent case.

6.1 Previous accounts of the Georgian dative

This section provides several accounts which are important for the purposes of understanding the nature of the dative case in Georgian. Sub-section 6.1.1 includes McGinnis's accounts (1997; 1998a; 1998b) where Georgian dative is analyzed as an inherent case. McGinnis (1997; 1998a; 1998b; 2001; 2004; 2013; 2017 etc.) has thoroughly analyzed applicative constructions from different perspectives and provided important evidence on the nature of constraints on syntactic movement, based on locality and syntactic licensing. Georgian also serves as evidence for her assumptions among other languages (McGinnis 1997; 1998a; 1998b; 2001; 2004 etc.). I concentrate on that part of her work that provides argumentation for the status of dative being inherent or structural in Georgian.

Sub-section 6.1.2 provides Lomashvili & Harley's (2011) agreement-based account with a focus on dative case properties. Georgian agreement, mainly the fact that it exhibits person asymmetry and omnivorous number, has been analyzed through different perspectives in several works, the syntactic ones include Béjar (2003), Béjar & Rezac (2009), Lomashvili & Harley (2011), Nevins (2011), McGinnis (2008; 2013), Blix (2021). I

focus just on Lomashvili & Harley's (2011) agreement-based account, which proposes an analysis of person and number agreement in Georgian, following Béjar (2003), Béjar & Rezac's (2009) assumptions of locality and markedness of features, and supplementing of that with the constraint of morphological template. However, unlike previous accounts, Lomashvili & Harley (2011) also discuss properties of the dative case involved in agreement and thus it can be helpful for the main purpose of this work, in particular DCM analysis in Georgian.

6.1.1   Dative as an inherent case (McGinnis 1997; 1998a; 1998b)

Georgian dative is analyzed as an inherent case in McGinnis (1997; 1998a; 1998b). The idea here is that case is assigned/checked by a particular head, i.e. in the Chomskyan way. The author distinguishes between dative arguments of Subject Experiencer (SubjExp) verbs, which in McGinnis's view, have a quirky inherent case, i.e. a case capable of undergoing movement; and goal argument, which have a non-quirky inherent case, i.e. a case incapable of undergoing movement. Both of them are still inherent for McGinnis. In her subsequent work McGinnis (2001; 2004) proposes a phase-based analysis of applicatives, based on distinguishing between high and low applicatives as proposed by Pylkkänen (2002/2008). Under this view, a high applicative is a phase, and as a phase it has an EPP feature that allows the theme argument to move above the goal argument. Though McGinnis does not state explicitly that Georgian has high applicatives, and mentions this is difficult to test (McGinnis 2004: 78), she already allows the possibility that the Georgian dative can be compatible with the structural case.

    The difference between inherent and structural case for McGinnis is based on several properties, namely: (a) structural case is checked without any necessary theta-relation between the checker and the checkee; inherent case on the contrary appears in association with its theta-role; (b) structural case alternates morphologically under changing

syntactic environment, while theta-related argument always has the same case regardless of its structural position; (c) structural case can trigger verb agreement, while the inherent case cannot. As we have seen already in Chapter 4, these are the main properties that distinguish structural and inherent cases.

McGinnis's (1997; 1998a; 1998b) main argumentation for dative being inherent in Georgian, therefore, lies in the above-mentioned properties.

First, she assumes that dative is associated with one thematic role and is therefore inherent. Quirky and non-quirky inherent datives differ merely in the assignment of their theta roles. Following Marantz (1984; 1989), McGinnis (1997) argues that in the first case, i.e. in SubjExp constructions, the argument is assigned a compositional theta-role by the VP that is complement to the head that introduces argument,[32] and is thus eligible for a quirky inherent case, while in the latter case, i.e. in datives with goal/benefactive interpretation the theta-role is assigned directly from the head it merges with, and is thus ineligible for a quirky inherent case. In both cases, the thematic role is the same as that of the goal/experiencer/benefactive, but is received from different sources. McGinnis (1997) though, does not analyze perfect/evidential datives, which have the thematic role of agent.

Second, according to McGinnis (1997), the fact that dative case is invariant under tense/aspect alternation, in comparison with syntactic accusative (morphological dative of direct objects), and under passivization as well, is an indication that dative is inherent. Although her view about Georgian passives is different from that of Béjar (2003) and Lomashvili & Harley (2011), who assume dative arguments to be derived subjects in DOC passives, she still regards dative to be inherent due to its preservation in different syntactic environments. Under McGinnis's view (1998a), being inherent is what makes a

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[32] In McGinnis's account (1997), following Marantz (1989), this head is abbreviated as R from *relative prefix* and stands for the light verb head: In today's terminology, this would be Appl head.

higher argument ineligible for movement, thus allowing the lower argument to cross over a higher one. Note that Georgian examples provided as evidence for this are restricted to analytical passives that *pace* to McGinnis (1998a) have not dative at all, but are marked with genitive plus postposition.

Additionally, by distinguishing two types of inherent cases McGinnis (1998a) opposes the initial idea about inherent case as proposed by Chomsky (1986), that an inherent case must remain in the minimal domain of its theta-assigning case. This contradicts the established distinction in the literature of the time that the structural case is eligible for A-movement, while inherent case in ineligible (Baker 1988). However, in subsequent work, it has been shown mostly on the examples of Icelandic, but also of the other languages (see, for instance, Zaenen, Maling & Thráinsson 1985; Sigurðsson 1989; 2012; McFadden 2004 among many others), that inherently case-marked arguments can move just like structural cases. So, an A-movement cannot be regarded as a diagnostic to test structural vs. non-structural cases. We will also see in the next sections, that not all datives remain invariant under tense/aspect alternation, and the passivization test is not applicable to Georgian due to the fact that dative does not raise to the subject position. As such, there is no pre-condition to case alternation.

Finally, what inherent cases cannot do is enter into an Agree relationship. If they agree, they must be structural cases. McGinnis (1998a) acknowledges this and highlights that the structural case differs from inherent in that it can trigger verb agreement. On McGinnis's view (1997; 1998a; 1998b) arguments with quirky and inert cases fail to trigger agreement and that is for her, the case of Georgian. Still, she notes she is aware of the fact that dative arguments show the full number agreement patterns, and this fact in McGinnis (1997) is explained following Nash-Haran's (1994) controversial assumption that "verbal suffixes for person and number are pronominal and do not represent agreement" (see also Nevins 2011 for the same view). In the applicative phase-based

account, McGinnis (2004: 78) shows that dative in Georgian is compatible with structural case, based on the assumption that SubjExps trigger number agreement. Georgian dative's agreement is explained differently by Lomashvili & Harley (2011) as a parametric property of the language, which allows the inherent cases to agree. I turn to this account in the next sub-section.

6.1.2   Dative in Lomashvili & Harley's (2011) agreement-based account

Lomashvili & Harley (2011) discuss Georgian dative in perfect tenses and SubjExp construction. Though their primary goal is to analyse agreement patterns and not case, Case, if structural, in their account is treated as checked under Agree either with T^0 or v^0 depending on the GF of the argument. Under this view, the difference from the Chomskian way of case assignment is that case for them is a bundle of different Case features, in which "certain surface Case categories share different subset of these features" (Lomashvili & Harley 2011: 242), following Halle (1994) and Müller (2004). Thus, Lomashvili & Harley (2011) adopt a feature decomposition analysis of case, which is widely used in the DM framework (see, for a syntactically motivated analysis of case sub-features Halle 1994; Halle & Vaux 1998; Müller 2002; 2004; McFadden 2004; Bobaljik 2008; Keine 2010; Spyropoulos 2020 among others). Following this view, Lomashvili & Harley (2011) assume that both dative and accusative share the [+gov] feature, while nominative and ergative [-gov], and as a result [+gov] cases can be checked and valued by v^0, while [-gov] cases by T^0.

While analyzing the dative arguments as accessible for an Agree relationship, Lomashvili & Harley (2011) do not adopt the idea that only structural cases can undergo Agree. For them, the dative Goal argument is merged in the Spec,ApplP below v^0, but above the theme argument (following Marantz 1989; McGinnis 1998a; 1998b; Pylkkänen 2002/2008 among others) and, while establishing an Agree relationship, it checks the Case

and φ-features of this head. Even though it agrees, and checks its Case feature as a structural case, Lomashvili & Harley (2011) assume that dative is still inherent case and they explain this by the parametric property of Georgian, resulting from the fact that marked dative arguments can enter into an Agree relationship with v^0 by virtue of their [+gov] case feature.

Note that the dative argument in their account also has to be marked obligatory for a [+participant] feature to enter into an Agree relationship, following Béjar's (2003) Markedness theorem, although that is not always the case in Georgian, as third person dative arguments, if phonologically possible, also show agreement (see for instance, example (1) of the experiencer dative subject). Still, marked person features play a crucial role in analyzing person asymmetry in Georgian agreement.

(1) nik'a-s   **s-**ts'q'in-s   es   lap'arak'-i.

     Nika-DAT   **3SG.SBJ**-upset-3SG.OBJ   this   conversation-NOM/ABS

     'Nika is upset by this conversation.'

The *s*-marker for 3rd person is obligatory in this case, and always indicates dative arguments either in the subject or in the object position (see Apridonidze 2009: 114–116 for details).

Dative subjects in psych verbs in Lomashvili & Harley's analyses (2011) are also base-generated *v*P internally similar to goal arguments, c-commanding the nominative theme with the experiencer in the higher position and receiving an inherent dative case. Lomashvili & Harley (2011) assume this structure to be similar to the two-place passives of ditransitive verbs in Georgian. The latter, in their view, are assumed to have derived subjects. I do not adopt the idea that dative arguments in two-place passives are derived subjects, and I will show in the next sections that under passivization, dative arguments

do not raise to the subject position, but rather are indirect objects which scramble to the left of the subject.

Perfect tense transitive verbs, though not discussed in detail by Lomashvili & Harley (2011), are also assumed to have a dative subject base-generated internal to vP and following the same sequence of the Agree and Case checking steps.

Following Halle (1997), Lomashvili & Harley (2011: 264) propose the inclusion of a second binary feature [±inherent] in the case bundles in order to address Georgian case distinction, where the [+inherent] feature stands for both ergative and dative arguments, as a case "assigned to the DP by the particular functional head in whose specifier it appears (e.g. the Aorist v^0 head or the Appl^0 head)". This is summarized in (2), reproduced from Lomashvili & Harley (2011: 264).

(2)

	[-gov]	[+gov]
[-inher]	NOM	ACC
[+inher]	ERG	DAT

Their claim is that agreement markers are sensitive to the [±gov] feature, while case markers also to the [±inher] feature. The idea that inherent case features play a role is not new in the case decomposition approach. Thus, McFadden (2004) assumes that structural nominative and accusative cases are differentiated from oblique/inherent cases by the [±oblique] feature, where [+oblique] stands for case assigned by certain heads to their arguments, in particular vAppl^0 assigns it to DP introduced in its specifier, or P^0 head to its complement. This is exactly what inherent/lexical case is. McFadden (2004) also proposes the [±inferior] feature, which is similar to the [±gov] adopted by Lomashvili & Harley (2011), but rather associated with the dependent case mechanism (i.e. the existence of the local case competitor), than to government as such.

In sum, the dative case in all structural positions (including goal/experiencer and agent of Perfect tenses) is inherent for Lomashvili & Harley (2011), even though it enters into an Agree relationship. I regard agreement to be applicable just to structural cases, and as such dative arguments must be structural and not inherent. This is illustrated in the next sections of the current Chapter, but first, let us turn to the types of dative arguments in Georgian.

6.2 Dative arguments in Georgian

This section provides a description of the important issues associated with dative arguments and the assignment of dative to the subject position in Georgian. The main points here are that dative is not associated with any particular grammatical function (GF) or with any particular thematic role in Georgian. The main factors that play role for having dative in the structure are summarized under three points: (a) semantic features: volitionality and affectedness; (b) formal morphological features: tense and aspect of the verb; and (c) formal syntactic features: valency changing operations.

6.2.1   Types of dative arguments

It is commonly accepted that the dative in many languages is associated with the thematic role of the goal/recipient arguments and, based on different syntactic diagnostics, is assumed to be an inherent case. See, for instance, (3) for a German example, where goal dative is kept after A-movement.

German (Czeplush 1988, *apud* Woolford 2006: 118)

(3) a. Dann   hat   Hans   **der**   **Erna**   einen   Kuss   gegeben.
         then   has   Hans   the   Erna-**DAT**   a   kiss-ACC   given

'Then Hans gave Erna a kiss'.

b.	Dann	ist	**der**	**Erna**	ein	Kuss	gegeben	worden.
	then	is	the	Erna-**DAT**	a	kiss-NOM	given	been

'Then Erna was given a kiss'.

The other use of dative is that of oblique subjects that mainly appear with affective and/or experiential verbs, thus signaling mostly experiencer subjects. See (4) for an Icelandic example.

Icelandic (Van Valin 2018: 117)

(4)	**Mér**	Þótti	Ólaf-ur	leiðinleg-ur.
	1SG.DAT	thought	Olaf-NOM	boring-NOM

'I considered Olaf boring.'

In both cases, the dative is associated with thematic roles, namely those of the goals and of the experiencers. This is the reason why dative is often analyzed as a lexical and/or inherent case, i.e. a case where case marking is assigned on the basis of a specific thematic relation. In what follows, I present the main types of dative in Georgian, and argue that Georgian dative reflects mostly structural relations.

There are several types of dative in Georgian. Concretely, the dative is associated with three functions: dative for internal theme arguments, that is identical to the accusative case in English and other European languages, like the direct object in (5); dative for the goal/recipient arguments function that is labeled as a prototypical for datives in many languages, i.e. that of the indirect object (6); and, dative for experiencers and external arguments related to perfect and modality/evidentiality, i.e. the subject, as in (7a and b).

direct object

(5) p'ropesor-i   **lektsia-s**   k'itkhulobs.

     professor-NOM/ABS   lecture-DAT/ACC   reads

     'The professor delivers a lecture.'

indirect object

(6) p'ropesor-i   **st'udent'eb-s**   lektsia-s   uk'itkhavs.

     professor-NOM/ABS   to_students-DAT   lecture-DAT/ACC   reads

     'The professor delivers a lecture to the students.'

subject

(7) (a) **p'ropesor-s**   mosts'ons   st'udent'-i/ lektsia.

          professor-DAT   likes   student-NOM/ABS / lecture.NOM/ABS

          'The professor likes the student / lecture.'

     (b) **p'ropesor-s**   ts'auk'itkhavs   lektsia.

          professor-DAT   read   lecture.NOM/ABS

          'The professor has delivered a lecture.'

Thematic relations associated with dative arguments are also different. This is exemplified below in (8) for indirect objects, (9) for direct objects and (10) for subjects or subject-like arguments.

indirect objects

recipients

(8) (a) masts'avlebel-ma **mosts'avle-s** ts'ign-i   mistsa.

teacher-ERG   pupil-DAT   book-NOM/ABS gave

'The teacher gave a book to the pupil.'

goals

(b) mosts'avle-m   **sk'ola-s**   miashura.

pupil-ERG   school-DAT   rushed_off

'The pupil rushed off to school.'

beneficiaries

(c) man   **mas**   gemrieli   sach'mel-i   moumzada.

3SG.ERG   3SG.DAT   tasty   food-NOM/ABS   cooked

'She/he cooked tasty food for him/her.'

patients

(d) man   **mas**   ak'otsa.

3SG.ERG 3SG.DAT kissed

'He/she kissed her/him.'

direct objects

themes

(9) (a) mk'vlevar-i   **mokhseneba-s**   ts'ers.

researcher-NOM/ABS presentation-DAT/ACC   writes

'A researcher writes a presentation.'

patients

(b) gudiashvil-i   khshirad   gamochenil   **adamian-eb-s**   khat'avda.

Gudiashvili-NOM/ABS   often   notable   people-PL-DAT/ACC   was_drawing

'Gudiashvili often painted notable people.'

subjects / subject-like arguments

experiencers

(10) (a) **Gega-s**   ukharoda   mshobliur   kalakshi   dabruneba.

Gega-DAT   was_glad   native   to_city   return.NOM/ABS

'Gega was glad to return to his home town.'

recipients (subjects)	*recipients* (subject-like arguments)
(b) **lana-s** miughia ts'eril-i.	**lana-s** daubrunda ts'eril-i.
Lana-DAT got letter-NOM/ABS	Lana-DAT received letter-NOM/ABS
'Lana got a letter.'	'Lana was returned a letter.'

agents (in Perfect)

(c) **aleksandre-s**   bevri   ts'ign-i   ts'aukitkhavs.

Aleksander-DAT   many   book-NOM/ABS   read.

'Aleksander (has) read many books.'

non-volitional agents

(d) maghaziashi   mteli   pul-i   shemomekharja.

shop_in   all   money-NOM/ABS   I_spent (not intentionally)

'I spent all the money in the shop.''

(Subject is *pro:***1SG.DAT**)

possessors

(e) **kats'-s**   hq'avs   mankana.

man-DAT   has   car.NOM/ABS

'The man has a car.

causees (subject-like arguments)

(f)   upros-ma   **aleksandre-s**   daats'erina   gantskhadeba.

boss-ERG   Aleksander-DAT   caused_him_write   application

'The boss made Aleksander write an application.'

In the next sub-section, I will discuss the dative subject arguments, their thematic roles, and their distribution in the syntactic environment.

6.2.2   Subjects in dative

The use of the dative subject arguments in Georgian can be summarized under three main characteristics: (a) subjects associated with semantic features, mainly those of volitionality and affectedness, like experiencers and non-volitional agents; (b) subjects associated with formal features: tense and aspect of the verbs (so-called perfect tenses); and (c) subject-like arguments associated with valency changing operations, either derived or a kind of embedded subject. These properties of dative subjects do not lead to any unified conclusions about the "status" of the dative in Georgian, as they show mixed properties. Before discussing the issue as to whether the Georgian dative is a structural or inherent case, let me present these features of dative subjects in detail.

The first to be described are the semantic features associated with dative subjects. From this point of view, verbs used with dative subjects include: (a) those that denote possession, (b) psychological i.e. experiencer verbs, and (c) non-volitional verbs (see Table B.1, in Appendix B for a list of dative subject verbs).

There are just two verbs that denote possession: *makvs* and *mq'avs* 'I have', the former used for [-human] and the latter for [+human] entities. These verbs can also express spatial relations by adding different preverbs, but this does not affect the assigning of dative to the subject (11).

(11) she-m-akv-s   masala   gak'vetil-ze.

 PR.in-1SG.SBJ-have-3SG.OBJ   material-NOM/ABS   lesson-at

 'I am bringing materials to class.'

 (Subject is *pro:***1SG.DAT**)

In the same spirit, the use of the experiencer as well as non-volitional subjects is not affected either by the tense or aspect of the verb (unlike the ergative) (12).

PRS

(12) a. **k'ats-s**   mo-s-ts'on-s   ts'ign-i.

 man-DAT   like-3SG.SBJ-3SG.OBJ:**PRS**   book-NOM/ABS

 'The man likes a book.'

IPFV.PST

 b. **k'ats-s**   mo-s-ts'on-d-a   ts'ign-i.

 man-DAT   like-3SG.SBJ-**IPFV.PST**-3SG.OBJ   book-NOM/ABS

 'The man liked a book.'

PFV.PST

c. **k'ats-s**   mo-e-ts'on-a   ts'ign-i.

man-DAT   like-APPL-3SG.OBJ:**PFV.PST**   book-NOM/ABS

'The man liked a book.'

PRF

d. **k'ats-s**   mo-s-ts'on-eb-i-a   ts'ign-i.

man-DAT   like-3SG.SBJ-THM-**PRF**-3SG.OBJ:PST   book-NOM/ABS

'The man has liked a book.'

Affective or experiencer verbs form the largest group used with dative subjects, some of which are verbs that do not exercise volitional control on the event. One small set of verbs that create their perfective aspect with the preverb *shemo-* also attain the meaning of an unintended action, thus denoting a non-volitional agent expressed by the dative (13).

(13) chems **dzma-s**   mteli   sach'meli   shemo-e-ch'am-a.

my   brother-DAT whole   food.NOM/ABS   PR-APPL-eat-3OBJ.SG

'My brother ate all the food (unintentionally).'

In sum, the dative that expresses experiencer and non-volitional subjects can be thought of as the "irresponsible for the action" case in the language. In what follows, under the label SubjExp I include all different types of psychological verbs, which have the same syntactic structure.

The second characteristic of licensers of dative subjects are formal features of verbs, such as tense, aspect and mood. Transitive and unergative verbs change their subjects in perfect tenses from NOM/ABS (of present and future tenses) and ERG (of perfective past tenses) to dative. (14) and (15) depict examples of transitive and unergative verbs respectively.

(14) **k'ats-s**   ts'eril-i   da-u-ts'er-i-a.

     man-DAT   letter-NOM/ABS   PR-APPL-write-PRF-3SG.OBJ

     'The man has written a letter.'

(15) **k'ats-s**   u-tsek'v-i-a.

     man-DAT   APPL-dance-PRF-3SG.OBJ

     'The man danced.'

Dative subjects with transitive and unergative verbs are always used in all perfect tenses: perfect indicative, pluperfect, and perfect subjunctive (16).

perfect tenses of unergatives

PRF.IND

(16) a. me   **Aleksandre-s**   bevr-i   m-i-saubr-i-a.

       1SG.NGEN   Alexander-DAT   a_lot-NOM/ABS   1SG.SBJ-PV-talk-PRF-3SG.OBJ

       'I, Alexander, (have) talked a lot.'

PLUPRF

    b. me   **Aleksandre-s**   bevr-i   m-e-saubr-a.

       1SG.NGEN   Alexander-DAT   a_lot-NOM/ABS   1SG.SBJ-PV-talk-3SG.OBJ:PLUPRF

'I, Alexander, (had) talked a lot.'

PRF.SBJV

c. me   **Aleksandre-s**   bevr-i   m-e-saubr-o-s.

1SG.NGEN   Alexander-DAT   a_lot-NOM/ABS   1SG.SBJ-PV-talk-SBJV-3SG.OBJ:PRF

'I, Alexander, (would have) talked a lot.'

Perfect tenses give rise to further discussion regarding several issues, such as demoting of the dative goal argument in the structure, modality/evidentiality expressed by the verb, and the so-called "inversive" use of agreement markers (this is discussed in Sub-section 6.4.2). For now, it is enough to state that this may have the following consequences for dative assignment on subjects: datives can be either external arguments (agents) or internal arguments that are raised to the subject position.

The final phenomenon that is important for the whole picture of dative subjects is the assigning of the case after valency changing operations, which could be either a valency decreasing operation, the result of which is a derived subject, or a valency increasing operation with the consequence of having a kind of embedded subject in the structure. I do not regard them as subjects, and this is shown in Sub-section 6.3.1 on the examples of DOC passives, however, as the interpretation of these subject-like arguments may cause additional questions about dative use in Georgian, I prefer to put them to discussion. The constructions to be discussed here are: recipient subject-like arguments in passive ditransitive double object constructions (DOC) (see (17a and b) for active and passive voice respectively) and, causees of causative constructions (see (18) for an example), which are semantically similar to ECM constructions in English.

(17) a. nik'a-m   da-u-brun-a   Mariam-s   ts'eril-i.

Nika-ERG   PR-APPL-return-3SG.SBJ   Mariam-DAT   letter-NOM/ABS

'Nika returned a letter to Mariam.'

b.   **Mariam-s**   da-u-brun-d-a   ts'eril-i.

Mariam-**DAT**   PR-APPL-return-PASS-3SG.SBJ   letter-NOM/ABS

'Mariam was returned a letter.'

(18) khelmdzghvanel-ma   **st'udent'-s**   k'argi   disert'atsia   da-a-ts'er-in-a.

supervisor-ERG   student-DAT   good   thesis.NOM/ABS   PR-PV-write-CAUS-3SG.SBJ

'The supervisor made the student write a good thesis.'

In this Sub-section, I have illuastrated several issues that are important for dative analysis in Georgian. The next section adds some supplementary generalizations based on the empirical data.

6.2.3   Generalizations associated with m-datives

This Sub-section aims to provide the most important generalizations for dative arguments in various syntactic positions based on the empirical data. These generalizations are important to understand the behavior of dative arguments and distinguish m- from s-datives. One thing that should be mentioned is that there is no unified picture for m-datives in all positions, thus highlighting that m-dative arguments are different from the syntactic point of view. The main properties can be summarized under the following headings (19):

(19) (a) types of predicates: two-place or three-place predicates (excluding some monoargumental subject experience predicates);

  (b) second DP in the structure with nominative/absolutive (generated high or low in the structure depending on the type of arguments involved);

  (c) transitivity: mostly transitive construction, including monotransitives, ditransitives and unergatives (excluding subject experience predicates);

  (d) object agreement/applicative morphology (excluding theme m-datives);

  (e) restriction by TAM;

  (f) inability to have dative goal arguments in Perfect tenses;

  (g) no person constraint (excluding theme arguments in DOCs);

  (h) *pro* possible with all m-datives (still not preferred with theme arguments).

Some of these generalizations lead to the already known facts, such as the distribution of datives with two- and three-place predicates, the inability to have a dative for goals in perfect, or the accessibility of dative arguments to establish Agree relationship (see Shanidze 1980; Harris 1981; Hewitt 1995; Kvatchadze 1996; Melikishvili, Humphries & Kupunia 2008; Gogolashvili et al. 2011 *inter alia*). Still, the key point here is to put the main properties of dative arguments in a broader, more generalized picture to all m-datives.

Now let me present these properties in more detail. *Types of predicates* used with dative arguments are generally two-place or three-place, excluding some monoargumental

subject experiencer predicates (see Appendix B, Table B1 for a list of experiencer verbs and a discussion on their structure in Section 6.4). The predicates with m-datives are mostly compatible with transitive construction, including monotransitive, ditransitive and unergative verbs, which are underlyingly transitives in Georgian. Aside from this rule are some two-place predicates which constitute a mixed group of verbs, some of which are unaccusative experiencer predicates, while others though semantically seem like unacussatives as they do not involve an agent, syntactically pass tests for transitive structure, thus showing asymmetry between formal and semantic transitivity. In the same line we have seen in Chapter 5, some verbs with the *e- -eb* formation in Georgian which are thought of as unaccusatives, in fact have mixed properties of transitive and intransitive structure (see Sub-section 5.2.1 for a detailed discussion). What matters here is on what criteria we define transitivity: on formal (for instance, the existence of the DO in the structure) or on semantic (for instance, the thematic role of the arguments involved). I regard this group of verbs to be low in transitivity, but higher than monoargumental unaccusatives (see Chapter 3, Sub-section 3.3.3.1 for discussion).

The main observation for all dative arguments is that the morphological dative in the majority of cases *needs nominative/absolutive* high or low in the structure depending on the type of the arguments involved. See (20a) for a dative subject example, features of the subject: experiencer subject, perfect tense, and (20b) for a dative object example, DOC construction with both objects in morphological dative.

(20) a. gega-s   turme   h-q'vareb-i-a   lana.

          Gega-DAT   supposedly   3SG.SBJ-love-PRF-3SG.OBJ   Lana.**NOM/ABS**

          'It turns out that Gega was in love with Lana.'

      b. net'av   irak'li   am   uazrob-eb-s

if_only	Irakli.**NOM/ABS**	this	meaninglessness-PL-DAT/ACC
tavis	megobr-eb-s	ar	s-ts'er-d-e-s.
his_own	friend-PL-DAT	NEG	3IND.OBJ-write-IPFV-SBJV-3.SG.SBJ

'If only Irakli would not write these meaningless things to his friends.'

Exceptions from this rule on the surface level include: (a) dyadic, so-called indirect transitive verbs, when either the subject position is occupied by the ergative argument showing ergative/dative pairs, or the dative argument is in the subject position in perfect tenses (see 21); (b) unergative verbs in perfect (see 22), and (c) some dyadic unaccusative verbs with *e-* applicative marker (see 23). I have already shown in Chapter 5, that all these cases involve an implicit object in the structure, based on different diagnostics.[33]

indirect transitve verbs

(21)	nik'a-s	(iset-i)	she-u-khed-av-s	mariam-is-tvis…
	Nika-DAT	(such-**NOM/ABS**)	PR-APPL-look_at-THM-3SG.SBJ	Mariam-gen-for…
	'Nika looked at Mariam in such (a way), that… '

unergative verbs

(22)	gega-s	(bevr-i	rame)	u-pikr-i-a.
	Gega-DAT	(many-**NOM/ABS**	something.**NOM/ABS**)	APPL-think-PRF-3SG.SBJ
	'Gega thought a lot of stuff.'

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[33] Independent proof for the existence of the implicit argument in indirect transitives, based on the addition of the *iseti*, was proposed by Nash (2017). The *bevri/tsota* diagnostic for checking the existence of the implicit argument with unergative verbs has not been provided elsewhere and is therefore, my contribution. See Chapter 5 for detailed discussion, see also Berikashvili (2023).

unaccusative verbs

(23) %?p'ropesor-ma   st'udent'-s   bevr-i   e-lap'arak'-a.[34]

professor-ERG   student-DAT   many-**NOM/ABS**   APPL-talk-3SG.SBJ:PFV.PST

'The professor talked a lot to the student.'

Examples (21), (22) and (23) indicate that the D^0 functional head as a residual of the cognate object expressed either by the demonstrative pronoun *iseti* 'such' or the quantifier *bevri/tsota* 'many/few' in nominative/absolutive can be used in the place of the implicit argument. So, even in these cases nominative/absolutive is present in the structure.

Thus, the distribution of m-datives with two- and three-place predicates is on the one hand well-known and established (although not uncontroversial) fact, on the other hand, the key point that the second DP in nominative/absolutive is always present in the structure with all m-datives (including themes and debatable examples with one-place predicates) in Georgian has not been generalized in this way. This property illustrates that dative is compatible with the structural dependent case analysis.

It has also been thoroughly discussed in the literature that dative arguments cannot be used for goals in perfect (see Shanidze 1980; Harris 1981; Hewitt 1995; Kvatchadze 1996; Gogolashvili et al. 2011 etc.). The *inability to have dative goal arguments in perfect tenses* includes two basic properties: (a) goal arguments of DOCs are demoted to PPs; and, (b) goal arguments are generally impossible with experiencers (no DOC constructions).[35] This property is discussed in section 6.4. Putting that in a broader sense not discussed in the literature, it must be highlighted that dative arguments are not only restricted by

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[34] Ergative generally is unacceptable with unaccusative verbs, but see discussion in Chapter 5 about verbs *etamasha* 'to play to sb.', *elap'arak'a* 'to talk to sb.' and their acceptability by the speakers.

[35] This property holds cross-linguistically. See Béjar (2003), who indicates that ditransitive psych-verbs are simply unattested.

perfect tense, but generally the *TAM restriction* is a common property for all m-datives whichever thematic role they have: (a) goals cannot be used in perfect tenses; (b) experiencers are unattested in future subjunctive and perfective past subjunctive (these TAM combinations are filled by *v*-set volitional counterparts, if applicable); (c) agents are restricted to perfect tenses; while (d) themes are possible just in PRS and FUT. This indicates that agreement with dative arguments happens in a different way than with nominative/absolutive and ergative. The difference is due to the probe head, which is not associated with the T⁰ head. The fact that dative-marked arguments enter the Agree relationship is important, as only structural cases can agree. How agreement actually happens is discussed in section 6.4.

The key point about agreement facts I put forward here is that predicates used with dative arguments always *have either object agreement or applicative markers* excluding theme arguments (if the latter are not marked for person features). See for instance (24a) for an agreement marker with a dative experiencer subject and (24b) for an applicative marker with a dative agentive subject in perfect.

(24) a. gega-s   rtuli   dghe   **h**-kon-d-a.

          Gega-DAT   difficult   day.NOM/ABS   **3SG.SBJ**-have-PST-3SG.OBJ

          'Gega had a difficult day.'

     b. lana-s   gega-s-tvis   tval-i   ga-**u**-sts'oreb-i-a.

          Lana-DAT   Gega-GEN-for   eye-NOM/ABS   PR-**APPL**-straighten-PFR-3SG.OBJ

          'Lana met Gega's gaze.'

The exclusion of theme datives (if not marked for person features) from the agreement/applicative morphology leads us to the generalization that the dative of

themes is a syntactically different case. The fact, that dative shows mixed properties with accusative, has also been noticed by other scholars (see Marantz 2000 [1991]; Skopeteas, Fanselow & Asatiani 2011; Nash 2017).

I will put forward already-known language facts as an additional argumentation to support the difference between m- and s- datives. In brief, theme dative differs from other dative arguments in the following: (a) it shows case alternation under passivization; (b) is base-generated low in the structure, not in the higher argument position in vP; (c) if the 3rd person does not show agreement morphology; (d) is not dependent on the $Appl^0$ head; and, (e) exhibits person constraint in DOCs. Dative on themes can coexist with dative on goals in DOCs, this also indicates that we have two different syntactic cases, which are syncretical. On the contrary in perfect tenses two datives cannot cooccur on subjects and indirect objects, goal argument is blocked and realized as PP, because it is in a complementary distribution with the other dative argument. This suggests that dative on theme is syntactic accusative, just the syncretic form with the dative, while all other datives have a unique base structural position.

The next generalization shows that there is *no person constraint* on dative arguments. All arguments are equally assigned the dative, however, this is not obvious from the surface morphology of pronouns, as the 1st and 2nd person have no overt morphological markers (see 25a, b & c for pronominal arguments). Still, that the 1st and 2nd person are assigned dative is evident from the agreement morphology and by substituting of a pronoun with a noun.

(25) a. mokhuts-ma   kal-ma   **(chven)**   tseril-i   mo-**gv**-ts'er-a.

          old-ERG   woman-ERG   **(1PL.NGEN)** letter-NOM/ABS PR-**1PL.OBJ**-write-3SG.SBJ:PFV.PST

          'The old woman wrote a letter to us.'

b. **(shen)**   lamazi   surat-i   da-**g**-i-khat-av-s.

    (2SG.NGEN) beautiful   picture-NOM/ABS   PR-**2SG.OBJ**-PV-draw-THM-3SG.SBJ:PRF.PST

    'You have drawn a beautiful picture.'

c. **(mas)**   mo-**u**-nd-eb-a   k'idev   tsnobil

    (3SG.DAT)   want-**APPL**-THM-3SG.SBJ:FUT   again   well-known

    mts'eral-tan   tanamshromloba.

    writer-with   collaboration.NOM/ABS

    'He would like to collaborate with the well-known writer (in the future).'

There is also no restriction to any kind of dative arguments being omitted: *pro is available for all dative arguments* (still not preferred with theme arguments). This happens because dative arguments always have either overt agreement or applicative morphology, which indicates the existence of the applied argument, excluding themes. This proves that *pro* is dependent on agreement/applicatve morphology and that it values its unvalued φ-features by agreement/applicative markers (see Koeneman & Zeijlstra (to appear) on how agreement markers value *pro*'s φ-features).

In sum the properties discussed in this sub-chapter, such as the existence of the second DP in the structure with nominative/absolutive, agreement facts and TAM restriction, are compatible with the analysis of the dative as a structural dependent case.

In the next section, I discuss the available diagnostics to test structural vs. non-structural case with regards to dative arguments and answer the question as to whether the Georgian dative is a structural or inherent case.

6.3 Diagnostics to test structural vs. non-structural dative

The main questions that arise with regards to dative arguments are as follows: (a) Is there only one dative in Georgian? (b) If so, is that dative a structural case? If no, what is the "status" of the attested datives: do they all reflect structural relations? (c) If the dative can be analysed as a structural case, how it is assigned by functional heads and/or configurationally?

There is not much consensus in the literature about the nature of the dative case. In many languages, datives are regarded either to be non-structural lexical or inherent based on Woolford's (2006) differentiation, or structural, assigned by virtue of being in a particular structural position. Non-structural cases include lexical datives assigned by lexical properties of the governing head, such as, the dative assigned by the German verb *helfen* 'help' (26); inherent datives associated with the particular theta-role, for instance, goal datives associated with $Appl^0$ head in Russian (27); and quirky datives which are used to denote the displacement of structural case marking on subjects or objects, for instance, the dative used in the subject position in Icelandic (28).

German

(26) Sie   hilft   ihm.

3SG.F.NOM   help   3SG.M.**DAT**

'She helps him.'

Russian

(27) On   napisal   emu   pis'mo.

3SG.M.NOM   wrote   3SG.M.**DAT**   letter

'He wrote him a letter.'

Icelandic (Sigurðsson 1989: 204)

(28) Mér   leiðist   Haraldur.

me.**DAT**   bores   Harold.NOM

'I am bored by Harold.'

The distinction of lexical datives as inherent and quirky cases is based on the fact that the inherent case is incapable of undergoing movement, while the quirky case is capable of EPP-driven movement. See Russian examples as instances of the inherent dative (29), where the passive construction and raising to Spec,TP is disallowed and Icelandic examples as instances of the quirky case (30), which show that dative morphology remains after passivization provided here from Pesetsky & Torrego (2011).

Russian (Pesetsky & Torrego 2011: 62)

(29) a. Ivan   pomog   studentam.

Ivan   helped   students.**DAT.PL**

'Ivan helped students.'

  b. *Bylo   pomoženo   studentam.

was   helped   students.**DAT.PL**

Intended translation: 'Students were helped.'

Icelandic (Andrews 1982, *apud* Pesetsky & Torrego 2011: 61)

(30) a. Ðeir   luku   kirkjunni.

They   finished   the-church.**DAT**

'They finished the church.'

b. Kirkjunni   var   lokið.

the-church.**DAT**   was   finished.

'The church was finished.'

Structural datives are mostly analyzed as dependent cases (see, for instance, Baker & Vinokurova 2010; Alexiadou, Anagnostopoulou & Sevdali 2014 *inter alia*). The main arguments presented in the literature in favor of dative being a structural case are that structural dative shows case-alternations (mostly under passivization) and enters Agree relations. There is also a mixed approach that shows that dative has a double status (structural or inherent) not only across languages but also within one language (see Fanselow 2000 for German; Alexiadou, Anagnostopoulou & Sevdali 2014 for the mixed status of dative in general, and references therein, for different languages). Some more radical approaches regard all argument cases in language to be structural (see Svenonius 2006) or dispense with the distinction between structural and lexical cases and propose the default elsewhere case in opposition to dative or genitive (Sigurðsson 2008) (see Barðdal 2011 for detailed discussion).

In what follows I will run through some of the possible diagnostics for testing inherent vs. structural cases to see whether dative reflects structural relations in Georgian. The main focus will be on the two diagnostics that at first glance show conflicting results. These diagnostics are: A-movement under passivization and agreement, and are crucial for providing my analysis of dative as a structural case.

6.3.1   Case alternation/preservation under passivization

The main diagnostic to test structural vs. non-structural cases thoroughly discussed in the literature (see references in Chapter 4) is case preservation/alternation in the different syntactic environments. The crucial test for dative arguments is a case preservation/alternation under passivization. The main idea of this test, repeated here for the purpose of clarity, is that if the case of the argument after passivization remains the same, it is an inherent case (31-32), while, if it changes it is a structural case (33-34). This test can be applied both for monotransitive and ditransitive clauses.

Icelandic; Inherent dative in monotransitives (Sigurðsson 2012: 201)

(31) a.   Ðeir   breyttu   henni.

      They   changed   her/it.**DAT**

      'They changed her/it.'

   b.   Henni   var   breytt.

      her/it.**DAT**   was   changed.

      'It/she was changed/altered (by somebody).'

Icelandic; Inherent dative in ditransitives (Jónsson 1996 *apud* Woolford 2006: 118)

(32) a. Ðeir   skiluðu   Maríu   bókinni.

      They   returned   Mary-**DAT**   book-the-DAT

      'They returned the book to Mary.'

   b. Maríu   var   skilað   þessari   bók.

      Mary-**DAT**   was   returned   this   book-DAT

'Mary was returned this book.'

Ancient Greek; Structural dative in monotransitives (Alexiadou, Anagnostopoulou & Sevdali 2014: 5)

(33) a. Athe:naioi   epibouleouousin   he:min

    Athenians.NOM   betray.3SG.PRES.ACT   us.**DAT**

    'The Athenians are betraying us.'

   b. He:meis   hup'   Athe:naio:n   epibouleuometha.

    We.**NOM**   by   Athenians.GEN   betray.1PL.PRES.PASS

    'We are betrayed by the Athenians.'

Ancient Greek; Structural dative in ditransitives (Alexiadou, Anagnostopoulou & Sevdali 2014: 5)

(34) a. Allo   ti   meizon   humin   epitaksousin.

    Something   else.ACC   bigger.ACC   you.**DAT**   order.3PL.PRES.ACT

    'They will order you to do something else bigger/greater.'

   b. Allo   ti   meizon   humeis   epitachthe:sesthe

    Something   else.ACC   bigger.ACC   you.**NOM**   order.2PL.PRES.PASS

    'You will be ordered to do something else, bigger.'

It has also been mentioned in the literature (Andrews 2017: 576) that though several scholars, for instance, Woolford (2006), regard case preservation as an indication of case

marking being inherent, they do not hold that "the failure of case preservation indicates that a case is necessarily structural". In the same spirit, some scholars rule out case preservation under passivization as an indication of being inherent, based on the parametric properties of this or that language (see, for instance, Baker & Vinokurova (2010) for Sakha, which is assumed to have a structural dative case even though it remains unaffected by passivization). Further, the mixed approach shows, that even within one language some instances of dative can be regarded as structural, while others as inherent. Thus, the German *kriegen/bekommen* 'get' passive indicates that the dative is structural, as it is substituted by the nominative after passivization (35), while the *werden* 'be(come)' passive on the contrary shows that dative is inherent (36).

(35)   *German; Structural dative* (Fanselow 2000: 182)

   a. Er   stiehlt   mir   ein   Buch.

      he   steals   me.**DAT**   a   book.

      'He steals a book from me.'

   b. Ich   bekomme   ein   Buch gestohlen.

      I.**NOM**   get   a   book stolen.

      'A book was stolen from me.'

(36)   *German; Inherent dative* (Haider 1985, *apud* Woolford 2006: 118)

   a. Sie   hielft   ihm.

      she   helps   him-**DAT**

      'She helps him.'

b. Ihm   wird   geholfen.

    he-**DAT**   is   helped

    'He is helped.'

Thus, the variation in case preservation may indicate that some datives are inherent, while others are structural. Andrews (2017: 576–577) mentions that although this is really the case for some languages (see, for instance, Eythórsson et al. 2012 for Norwegian and Faroese), purely structural cases (nominative and accusative) are never preserved under raising in passive.

To sum up, the test of case preservation/alternation under passivization is not straightforward, however, it can be used in various languages to check datives of goal and patient arguments, and accusative of theme arguments, providing that no other parametric properties are involved. Only the latter is important for Georgian, as there is no accusative morphology in the language, and theme arguments are morphologically marked as datives. The preservation of dative in DOC constructions cannot be used as evidence for dative being inherent based on the parametric properties of Georgian. This happens because dative arguments do not raise to the subject position, so there is no pre-condition for case alternation (see Sub-section 6.3.1.3 for details). The misanalysis of an object as a subject in the Georgian DOC passives is a prevailing opinion in the linguistic literature on the matter (Harris 1981; Marantz 2000 [1991]; Béjar 2003; Lomashvili & Harley 2011) and hence, the reason for many misleading conclusions.

6.3.1.1 Passivization test results

The results of the passivization test are different for the theme, agent and goal datives in Georgian. The test for case preservation under passivization shows that dative on theme

arguments is a structural case, as it is changed after A-movement to the subject position from dative to nominative/absolutive, as exemplified in (37).

(37) a. mts'eral-i   k'itkhulobs   ts'ign-s.

   writer-NOM/ABS   reads   book-**DAT/ACC**

   'The writer reads a book.'

b. ts'ign-i   ik'itkheba.   (mts'erlis mier / mts'erlisgan)

   book-**NOM/ABS**   is_read   (by the writer)

   'The book is read by the writer.'

Case alternation with regards to theme datives is also observed from dative to nominative/absolutive after changing the TAM combination of the verb from PRS, FUT or IPFV.PST (38a) to PFV.PST (38b) or PRF (38c).

(38) a. mts'eral-i   k'itkhulobs / k'itkhulobda / ts'aik'itkhavs   ts'ign-s.

   writer-NOM/ABS   reads.3SG.PRS / was reading.3 SG.IPFV.PST /   book-**DAT/ACC**

                will read.3SG.FUT

   'The writer reads / was reading / will read a book.'

b. mts'eral-ma   ts'aik'itkha   ts'ign-i.

   writer-ERG   reads.3SG.PFV.PST   book-**NOM/ABS**

   'The writer read a book.'

c. mts'eral-s   ts'auk'itkhavs   ts'ign-i.

| writer-DAT | reads.3SG.PRF | book-**NOM/ABS** |

'The writer (has) read a book.'

Thus, dative on theme arguments is by all means structural. Note that morphological dative on theme arguments is really syntactic accusative.

With regards to dative subjects, the passivization test is not applicable, as external arguments, i.e. datives of perfect tenses, disappear in the passive (39).

(39) a. mts'eral-s   ts'auk'itkhavs   ts'ign-i.

           writer-DAT   reads.3SG.PRF   book-NOM/ABS

           'The writer (has) read a book.'

      b. ts'ign-i   ts'ak'itkhul   iqna.   (mts'erlis mier / mt'erlisgan)

           book-NOM/ABS read.PTCP   be.PRF.3.SG (writer.GEN by)

           'The book has been read (by the writer).'

In such cases, subjects are optional, bear a genitive case, and are assigned by the adposition, just like *by*-phrases are in English. Though semantically they are still external arguments, syntactically they are PPs. Moreover, such arguments cross-linguistically are assigned optionally and get their case from an adposition, either a preposition, for instance *by* in English, or a postposition, for instance *mier, -gan* in Georgian. So, this cannot be applied as a diagnostic to test structural vs. non-structural cases.

However, case alternation with regards to dative subjects is observed from dative to nominative/absolutive and ergative after changing the TAM combination of the verb from PRF to PRS, FUT or IPFV.PST (NOM/ABS, see 38a) or to PFV.PST (ERG, see 38b). Thus, reflecting mostly structural properties of the case.

Experiencer subjects generally disallow the passive in Georgian, if applicable, dative arguments are demoted (40). McGinnis (1997: 277) points out that "the fact that these verbs cannot passivize is taken as evidence that they lack an external causer argument."

(40) a. mts'eral-s   mosts'ons   ts'ign-i.

      writer-DAT   like.3SG   book-NOM/ABS

      'The writer likes the book.'

   b. ?ts'ign-i   mots'onebuli=a.   (mts'erlis mier / mt'erlisgan)

      book-NOM/ABS   like.PTCP=be:3.SG (writer.GEN by)

      'The book was liked (by the writer).'[36]

The only time where case preservation under passivization gives the impression that dative is an inherent case is the dative of goal arguments in ditransitive predicates. Monotransitives disallow the passives in Georgian. However, this happens because dative does not raise to the subject position. Example (41) indicates that goal dative is kept after passivization in ditransitives.

(41) a. nik'a-m   mariam-s   daubruna   ts'eril-i.

      Nika-ERG   Mariam-**DAT**   returned.3.SG.PFV.PST letter-NOM/ABS

      'Nika returned the letter to Mariam.'

   b. mariam-s   ts'eril-i   daubrunda.   (nikasgan)

      Mariam-**DAT**   letter-NOM/ABS   returned.3.SG.PASS.PFV.PST (Nika.GEN.from)

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[36] Some speakers marginally accept such examples.

'The letter was returned to Mariam (by Nika).'

The results of the passivization test for dative arguments are presented in Table 6.1.

Table 6.1: Passivization test results for the dative m-case

	m-case dative			
GF	DO	SBJ		INDO
theta-role	THEME	AGENT	EXPERIENCER	GOAL
case alternation/preservation	DAT → NOM/ABS	NA	NA	DAT
		(due to SBJ demotion)	(disallows passives)	

Of course, the fact that the dative of goal arguments remains unaffected by passivization does not mean that dative has to be non-structural. As already mentioned, the preservation/alternation of goal datives in some languages may cause misleading results, based on the parametric variation. Dative can still be structural even when presented under passivization, or, on the contrary, it can be inherent, but the alternation of the case can be interpreted differently. Woolford (2006: 118–120), for instance, provides examples for Japanese, which prohibits the dative case in intransitive constructions (42), but allows it in ditransitive passives.

Japanese (Kuno 1973, *apud* Woolford 2006: 120)

(42) a. John-ga   Mary-ni   soodansita.

         John-NOM   Mary-DAT   consult-PAST

         'John consulted Mary.'

b. Mary-ga   John-ni   soodans-(r)are-ta.

Mary-NOM   John-DAT   consult-PASS-PAST

'Mary was consulted by John.'

Thus, as mentioned by Woolford (2006), applying the passivization test to check structural vs. non-structural in Japanese may result in a misleading interpretation that the case is structural because dative is altered to nominative. However, this happens because the language rules out datives in intransitives and not because the dative is structural.

In the same spirit, the dative is regarded as a structural case, for instance, in Sakha (Baker & Vinokurova 2010), although it is unaffected by passivization. See (43a) for an active and (43b) for a passive sentence of ditransitive construction in Sakha.

Sakha (Baker & Vinokurova 2010: 595, 610)

(43)   a. Masha   Misha-qa   at-y   bier-de.

Masha(NOM)   Misha-**DAT**   dog-ACC   give-PAST.3sS

'Masha gave Misha a horse.'

b. Suruk/surug-u   Masha-qa   yyt-ylyn-na.

Letter/letter-ACC   Masha-**DAT**   send-PASS-PAST.3sS

'The letter was sent to Masha.'

According to Baker & Vinokurova (2010), the dative case of goal arguments is assigned in Spec,VP (VP counting as a phase, later substituted by Baker (2015) as spell-out domain) by the dependent case rule (Baker & Vinokurova 2010: 595) which says:

"If there are two distinct argumental NPs in the same **VP**-phase such that NP1 c-commands NP2, then value the case feature of NP1 as dative unless NP2 has already been marked for case."

As such, the dative case is assigned to the higher argument on the VP phase, i.e. prior to when an active or passive v^0 is merged. As noted by Baker &Vinokurova (2010: 610), "using passive v can affect whether there is an agent argument in vP. However, it has no effect on the internal structure of VP." Thus, dative remains unaffected in both active and passive sentences. For more details and argumentation the reader is referred to Baker & Vinokurova's (2010) work.

Such inconsistencies in the languages cross-linguistically prevent the passivization diagnostic from being straightforward for checking structural vs. non-structural cases and may necessitate additional parametric explanations. This, in turn, gives rise to alternative analysis of datives in many languages. Thus, based on Rezac's (2008) proposal, derived from different agreement patterns in Basque dialects that datives are really PPs, Alexiadou, Anagnostopoulou & Sevdali (2014) show that datives are mixed in the sense that some datives alternate, while others do not in the passive. Moreover, alternating datives are in some languages limited to ditransitives, while in others they also occur in monotransitives. In sum, some instances are inherent/lexical and hence invisible for agreement, while others are structural and as a result transparent to Agree. But this mixed approach mainly regards alternated datives as structural (analyzed as a dependent case), and invariant datives as inherent. As such, it takes the passivization diagnostic as straightforward evidence for opposition structural vs. non-structural.

6.3.1.2 *Georgian synthetic DOC passives*

Now let us, turn to Georgian. As already discussed in Sub-section 4.2.1., Georgian shows opposition synthetic vs. analytic passives. For our purposes, crucial is to see what happens with ditransitive synthetic passives (formed by *e-* prefix and *-d* suffix), because those keep dative after passivization. Here, two main questions arise: (a) can we regard the dative of goals as inherent based just on the assumption of case preservation under passivization; and (b) how should we analyze datives in ditransitive passives as derived subjects, i.e. indirect objects raised to a subject position or as indirect objects (goal arguments) that are kept without raising.

I start with the second question. Georgian exhibits asymmetric passives in the sense that only one object can passivize and the passivized object is always a theme argument. Symmetric and asymmetric passives have been widely discussed in the literature (Baker 1988; Woolford 1993; McGinnis 1997; 1998a; 1998b; 2001; 2004; Anagnostopoulou 2003; Citko 2011; Haddican & Holmberg 2019; An-Nashef 2020 among many others). Different patterns of languages have been highlighted and various accounts have been proposed to deal with symmetric and asymmetric passives cross-linguistically. In short, symmetric languages are those languages that allow either object to passivize, such as British English, Norwegian, Swedish, Icelandic and others discussed in the literature, see (44) for an example.

       Norwegian (Afarli, *apud* Woolford 1993: 682)

(44) a. Jon   gav   Marit   ei   klokke.

         John   gave   Mary   a   watch.

     b. Jon   vart   gitt   ei   klokke.

         John   was   given   a   watch.

c. Ei   klokke   vart   gitt   Jon.

A   watch   was   given   John.

Asymmetric languages include two sets of languages:

(a) one that allows only goal arguments to passivize, like American English, Modern Standard Arabic, Danish, Shwahili and others, see (45) for an example.

Modern Standard Arabic (An-Nashef 2020: 13)

(45) a. ʔaʕTaa   ʕali-un   ʔal-fataat-a   l-kitaab-a

gave.3.S.M   Ali-NOM   the-girl-ACC   the-book-ACC

'Ali gave the girl the book.'

b. ʔuʕTiyati   il-fataat-u   l-kitaab-a

gave.PASS.3.S.F   the-girl-NOM   the-book-ACC

'The girl was given a book.'

c. *ʔuʕTiya   l-kitaab-u   l-fataat-a

gave.PASS.3.S.M   the-book-NOM   the-girl-ACC

'*The book was given the girl.'

(b) another, to which Georgian belongs, which includes languages where only theme arguments can passivize, among them Hindi/Urdu, Polish, Turkish, etc., see (46) for an example.

Polish (Citko 2011: 146)

(46) a. Maria   dała   Janowi   kwiaty.

        Maria.NOM   gave   Jan.DAT   flowers.ACC

        'Maria gave Jan flowers.'

    b. Kwiaty   zostały   dane   Janowi.

        flowers.NOM   became   given   Jan.DAT

        'Flowers were given to Jan.'

    c. *Jan   został   dany   kwiaty.

        Jan.NOM   became   given   flowers.ACC

        '*Jan was given flowers.'

Several accounts discuss what causes this variation cross-linguistically, and how we can explain the patterns. The main assumptions are based either on the nature of one case of internal arguments: i.e. inherent vs. structural, that subsequently allows or disallows the raising in passive, or on the locality condition, explaining the instances of theme argument movement over the goal argument by successive cyclic movement to T^0, or by preconditioned movement of the higher argument (see Baker 1988; Pesetsky 1995; Ura 1996; McGinnis 1997; 1998a; 1998b; 2001; 2004; Anagnostopoulou 2003 among others).

McGinnis (1997; 1998a) has explicitly argued for Georgian that in passivized double object construction (analytic passives), only the lower argument can raise to the subject position. For her, the higher object has an inert inherent case, which prevents the goal argument from undergoing movement and allows the theme argument to move over the indirect object. In McGinnis's account, the type of inherent dative is what matters for asymmetric passivization and the raising of the theme argument. Lately, based on

Pylkkänen's (2001; 2002/2008) distinction of high and low applicatives, McGinnis (2001; 2004) proposes that high applicative is a phase, and as a phase it has an EPP feature that allows the theme argument to cross over the goal argument. That said, McGinnis (2004) does not assume Georgian definitely has high applicatives, as she acknowledges this is difficult to test (McGinnis 2004: 78), but within her analysis (2004), based on the phases notion, the indirect object in Georgian can be compatible with the structural case.

The main aim here is to show that passive diagnostics that test the structural vs. non-structural dative of goal arguments in ditransitive construction cannot be used for Georgian, as there is no raising of the dative goal argument to the subject position so as to cause case alternation.

6.3.1.3 *Are datives in ditransitive passives derived subjects?*

First of all, we must ensure that the dative in the passivized clause is not a subject. This can be proved by different factors. The main diagnostics to check subject status cross-linguistically, include the position of the DP in the clause, reflexivization, control infinitives, argument omission in coordinated clauses and subject agreement. Of course, not all these diagnostics are applicable to Georgian. In what follows I apply several diagnostics to passive examples, and add some additional tests which can be used in Georgian.

As Georgian has free word order, no fixed position of the DP in the clause can be tied to the subject. Moreover, the object can scramble to the left of the subject, as indicated in example (47).

(47) a. masts'avlebel-i   mosts'avle-s   akebs.
          teacher-NOM/ABS   pupil-DAT   praises
          'The teacher praises (his/her) pupil.'

b. mosts'avle-s   masts'avlebel-i   akebs.

pupil-DAT   teacher-NOM/ABS   praises

'The teacher praises (his/her) pupil.'

There is no consensus in the literature as to whether scrambling illustrates A-movement or A'-movement. Based on binding relations, it has been argued by McGinnis (1999; 2004) that Georgian is an A-scrambling language because it has an effect on binding relations: Unscrambled objects cannot bind a possessive anaphor *tavis-* embedded either in the subject or in the indirect object (see examples in McGinnis (1999; 2004) and Amiridze (2006) for discussion on the issue). Amiridze (2006) has argued, that this is true in the case of the anaphoric possessive *tavis-* embedded in an argument DP (see example (48) for a scrambled indirect object over a subject provided by Amiridze 2006), but not for the complex reflexive phrase *tavis tavi*, where "whether there is an unscrambled direct object or a scrambled one, the result is grammatical, unless the reflexive ends up in subject position" (Amiridze 2006: 54), example (49).[37]

Georgian (Amiridze 2006: 54)

(48) a. *tavis-ma$_i$ da-m   gela-s$_i$ ċeril-i   mi-s-ċer-a.

3REFL.POSS.SG-ERG   sister-ERG   Gela-DAT   letter-NOM   PV-3BDAT.SG-write-

3AERG.SG.AOR.INDIC

---

[37] Amiridze (2006) follows different glossing in the case of agreement markers, dividing those into the Set A vs. Set B affixes instead of subject and object agreement. This nomenclature, already mentioned in the related literature (see Boeder 1989; Hewitt 1995), for Amiridze (2006) is descriptively more accurate, as agreement marking does not reflect a simple subject vs. object distinction in Georgian.

'Gela's*i* sister wrote him*i* a letter.'

b. gela-s*i*   tavis-ma*i*   da-m   c̣eril-i   mi-s-c̣er-a.

Gela-DAT   3REFL.POSS.SG-ERG   sister-ERG   letter-NOM   PV-3BDAT.SG-write-

3AERG.SG.AOR.INDIC

'Gela's*i* sister wrote him*i* a letter.'

Georgian (Amiridze 2006: 54)

(49) a. ḳac̣-i*i*   Ø-a-k-eb-s   [tavis   tav-s]*i*.

man-NOM   3BDAT.SG-PRV-praise-TS-3ANOM.SG   3REFL.POSS.SG self-DAT

'The man praises himself.'

b. [tavis   tav-s]*i*   Ø-a-k-eb-s   ḳac̣-i*i*.

3REFL.POSS.SG   self-DAT   3BDAT.SG-PRV-praise-TS-3ANOM.SG   man-NOM

'The man praises himself.'

c. *[tavis-i   tav-i]*i*   Ø-a-k-eb-s   ḳac̣-s*i*.

3REFL.POSS.SG-NOM   self-NOM   3BDAT.SG-PRV-praise-TS-3ANOM.SG   man-DAT

'The man praises himself.'

d. * ḳac̣-s*i*   Ø-a-k-eb-s   [tavis-i   tav-i]*i*.

man-DAT   3BDAT.SG-PRV-praise-TS-3ANOM.SG   3REFL.POSS.SG-NOM self-NOM

'The man praises himself.'

The reflexivization strategy is crucial in Georgian for understanding whether an argument is in the subject position; however, not all strategies can be applied in the passive. Generally, only the subject argument (no matter what case it has) can serve as an antecedent for a reflexive POSS+*tavi* in Georgian (49), irrespective of what the order of the argument is. Moreover, if there is binding between the subject and a direct object, the only possessive which can be used is *tavisi* 'his own' as a determiner of DP, and not *misi* 'his', which is used to show binding between objects (see Amiridze 2006 for discussion). A non-subject DP cannot bind the reflexive possessive *tavisi* 'his own'. This reflexivization strategy can be used as a reliable diagnostic for checking the status of the dative, whether it is a subject or not in the passive clause. See, examples (50-51) for synthetic passives with -*d* and *e-* affixes respectively. Periphrastic passives do not have a goal argument in the dative.

        passive with -d suffix

(50) a. nik'a-m$_i$ mariam-s$_j$ tavis-i$_{i/*j}$ ts'eril-i   daubruna.

         Nika-ERG   Mariam-DAT 3REFL.POSS.SG-   letter-NOM/ABS   returned.

                                      NOM/ABS

      'Nika returned his letter to Mariam.'

    b. *mariam-s   tavis-i   ts'eril-i   daubrun-d-a.

        Mariam-DAT   3REFL.POSS.SG-   letter-NOM/ABS   return-PASS-3SG.SBJ

                      NOM/ABS

      'Mariam was returned her letter.'

    c. mariam-s   mis-i   ts'eril-i   daubrun-d-a.

	Mariam-DAT	3POSS.SG-NOM/ABS	letter-NOM/ABS	return-PASS-3SG.SBJ

'Mariam was returned her letter.'

passive with e- prefix

(51) a. p'olitsiel-eb-ma*i*   taviant-i*i/*j*   p'roblema   ech'vmit'anil-eb-s*j* miats'eres.

policeman-PL-ERG   3REFL.POSS.PL-   problem.NOM/ABS   suspect-PL-DAT   attributed.

NOM/ABS

'Police attributed the problem to the suspects.'

b. *ech'mit'anil-eb-s   taviant-i   p'roblema   mi-e-ts'er-a-t.

suspect-PL-DAT   3REFL.POSS.PL-   problem.NOM/ABS   attributed-PASS-3SG.SBJ-

NOM/ABS   3.PL.OBJ:PFV.PST

'The(ir) problem was attributed to the suspects.'

c. ech'mit'anil-eb-s   mat-i   p'roblema   mi-e-ts'er-a-t.

suspect-PL-DAT   3POSS.PL-   problem.NOM/ABS   attributed-PASS-3SG.SBJ-

NOM/ABS   3.PL.OBJ:PFV.PST

'The(ir) problem was attributed to the suspects.'

Example (55a) illustrates an active sentence, where the antecedent for *tavisi* 'his own' is *Nika*, who is the subject of the clause, i.e. *The letter* is *Nika's*. Examples (55b & c) illustrate the passive clause, where the *letter* belongs to *Mariam*. If *Mariam* is supposed to be a derived subject, *tavisi* 'his own' must be possible; if not, then *misi* 'his' has to be used instead. (55b) indicates that passive with *tavisi* 'his own' is ungrammatical.

The passive with an *e-* prefix in (56b) has ambiguous reading with perfect forms (evidential), where dative is a real subject. In (56b) *tavisi* 'his own' is possible with evidential reading, but impossible in the passive reading. So, both passives with a *d-* suffix and *e-* prefix become ungrammatical with the possessive pronoun *tavisi* 'his own', this shows that dative is not a subject. The evidential and passive readings can also be checked by the additional test of inserting postpositions, see (52a, b & c).

passive with -e prefix in ditransitives

(52) a. mivetsi   ts'ign-i   masts'avlebel-s.

       I_gave   book-NOM/ABS   teacher-DAT

       'I gave the teacher a book.'

   b. masts'avlebel-s   mi-e-ts-a   ts'ign-i.   (chem-**gan**)

      teacher-**DAT**   give-PASS-3.SG.SBJ   book-NOM/ABS   (1SG.GEN-from)

      'The book was given to the teacher (by me).'

   c. masts'avlebel-s   mi-e-ts-a   ts'ign-i.   (chem-**tvis**)

      teacher-**DAT**   give-APPL-3.SG.SBJ   book-NOM/ABS   (1SG.GEN-to)

      'The teacher has given the book (to me).'

In (52b), there is a demotion of the subject and conversion of it into a PP, and, subsequently, a passive sentence, while in (52c) there is a demotion of the indirect object, and a conversion into PP, giving perfect (evidential) meaning to the verb. The key point is that the dative argument in (52b) remains in the object position and is not raised to the subject position, while the dative argument in (52c) is subject. This can be proved also by the use of postpositions with demoted arguments. In the passive, it is *-gan* 'from'

equivalent to the *by*-phrase in English, while in perfect, it is *-tvis* 'for'. So, in synthetic passives with the *e-* prefix, the test is not so transparent, without alluding to the additional diagnostic.[38]

One other diagnostic that can be used in Georgian for testing the subjecthood of the dative arguments is a valency decreasing operation. If we can remove the applicative/agreement marker from the verb and subsequently a dative argument from the passive clause can be substituted either by the genitive (Kvatchadze 1996: 109) i.e. possessive construction or genitive + postposition *-tvis* 'for', then it is an indirect object, if not, it is a subject (53). However, this diagnostic cannot be applied to passives with the *e-* prefix.

passive with d- suffix

(53) a. mezobel-s   sakhl-i   a-u-shen-d-a.

       neighbour-DAT   house-NOM/ABS   PR-APPL-build-**PASS**-3.SG.SBJ:PFV.PST

       'The house was built for a neighbor.'

    b. mezobl-is   sakhl-i   a-shen-d-a.

       neighbour-GEN   house-NOM/ABS   PR-build-**PASS**-3.SG.SBJ:PFV.PST

---

[38] Generally, synthetic passives with the *-d* suffix are more frequently used in the language, than those with the *e-* prefix. This is why tests are more transparent in the case of synthetic passives with a *-d* suffix than with an *e-* prefix. This difference between *-d* and *e-* synthetic passives can be attributed to the fact, that the *e-* suffix was diachronically used in the language to denote passives, while in Modern Georgian, there is a strong tendency to substitute this passive with the *-d* suffix. See for instance, *moegona – moagonda* 'to remember', *sheerta – sheuertda* 'to join', *moets'q'ura – mosts'q'urda* 'to be thirsty' etc. (see Jorbenadze (1983) for these examples and generally synthetic passives in Georgian).

'The house of a neighbor was built.'

   c.   mezobl-is-tvis   sakhl-i   a-shen-d-a.

       neighbour-GEN-for   house-NOM/ABS   PR-build-**PASS**-3.SG.SBJ:PFV.PST

       'The house was built for a neighbor.'

(cf.)   *perfect tense*

       mezobel-s   sakhl-i   a-u-shen-eb-i-a.

       neighbour-DAT   house-NOM/ABS   PR-APPL-build-THM-**PRF**-3.SG.SBJ:PFV.PST

       'The neighbor built a house (for someone).'

Control in infinitives and subject omission in coordinated clauses is possible, but not very natural and straightforward for Georgian. So, I will put these tests aside for the moment.

Some languages show φ-agreement only with subjects, and this can be provided as an additional subjecthood diagnostic to test whether an argument is the syntactic subject. It has also been mentioned for Georgian that number agreement is subject-oriented (McGinnis 1998a: 278; Nash 2017: 191), however, this test is not applicable to Georgian due to the parametric properties of the language. First, objects with the marked person features ([+speaker] and [+addressee]), like subjects show number agreement; and, second, not all subjects show plural agreement. Example (54) illustrates on the one hand number agreement with the second-person object, and on the other the absence of the subject agreement.

(54)   g-khatav-t   me   tqven.

2-draw-PL   I   you(PL)

'I draw you.'

The restriction on subject number agreement in Georgian is conditioned by different factors, the majority of which are animacy, a form of the plural morphological markers on subject DP (-*eb* or -*n*/-*t*), and active vs. passive voice. Inanimate nouns in the subject position tend not to agree in number, with an exception when they are personified in the active voice, but this generally does not happen in the passive (see Kvatchadze 1996: 124–129).

The provided diagnostics show that the dative in ditransitive passives is not the syntactic subject. As such, it does not raise to the subject position but scrambles to the left of the subject. Based on this, the diagnostic of case preservation under passivization cannot be applied to check whether dative is inherent in Georgian. After passivization of ditransitives, the syntactic environment for the goal arguments is not changed, and there is no raising of dative argument to the subject position that may cause case alternation. Thus, the fact that the dative in ditransitive constructions remains unaffected under passivization does not show either that it is an inherent case, or that it is structural. This diagnostic is simply not applicable to Georgian.

6.3.2 Controlling agreement

The next diagnostic that should be applied to dative arguments is controlling agreement. As mentioned in Chapter 4 and Chapter 5, if a case controls agreement, it must be a structural case. Non-structural cases cannot control agreement, though it has been reported in related literature that inherent cases can either enter into checking relations with a probe, but not value the φ-probe due to the Case Opacity (Rezac 2008), or control the same agreement morphology as structural cases in some languages due to

microparametric variation (Woolford 1997 for Nez Perce) (see Chapter 4 for other references). It has been claimed for Georgian as well, that inherent datives do really control agreement and this is a parametric property of the language (Anand & Nevins 2006; Lomashvili & Harley 2011). In Lomashvili & Harley's (2011) view, experiencer datives in the subject position receive inherent case in the higher position of VP from V^0.[39] And, this inherent case enters into a relationship with v^o by virtue of a [+gov] case feature. Lomashvili & Harley (2011: 259) mention that though the agreement with inherently-marked datives is impossible in other Indo-European languages, in Georgian it is "a parametric property, resulting from the fact that v^o has an active φ-feature probe, i.e. from the fact that Georgian has agreement with internal arguments." In my view, inherent cases cannot enter into an Agree relationship, if they agree, they are structural and not inherent. In what follows, I will show that the dative is best analysed as a structural case and the main property of the structural case is that it enters an Agree relationship with the φ-probe.

As already mentioned (Chapter 5), ergative as well as dative subjects control agreement in Georgian, thus underlying that both ergative (55) and dative (56) used in the subject position are structural cases.

(55) st'udent'-eb-ma   mo-i-ts'on-es   zoom-is   ap'lik'atsia.
       student-PL-**ERG**   PR-PV-like-3SBJ.PL:PFV.PST   zoom-GEN   application.NOM/ABS
       'Students liked (volitionally) the zoom application.'

(56) st'udent'-eb-s   mo-e-ts'on-at   zoom-is   ap'lik'atsia.

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[39] Dative subjects of perfect, in Lomashvili & Harley's (2011) terminology perfective, tenses are not discussed in detail, but the authors claim that the structure is the same as with experiencer verbs and dative subject is base-generated internal to vP, in SpecApplP following McGinnis's (1997) proposal.

student-PL-**DAT**   PR-APPL-like-3SBJ.PL:PFV.PST   zoom-GEN   application.NOM/ABS

'Students liked (non-volitionally) the zoom application.'

In this sub-section, I discuss agreement of dative arguments and their marking on verbs, focusing mostly on dative agreement in the subject position. Under dative subjects, I assume just subjects of experiencer/affective predicates and dative arguments of active transitive and unergative verbs of perfect tenses (see Sub-section 6.2.2). Subject-like arguments in passive ditransitive constructions, though referred to in the literature as dative subjects (see, for instance, Lomashvili & Harley 2011: 238 who regard two-place passive verbs to have dative subjects in Georgian), under detailed scrutiny (as already shown in Sub-section 6.3.1) have a GF of indirect objects and not subjects. In the same spirit, causees of causative constructions in Georgian, semantically similar to ECM in English are not subjects, but indirect objects. I will not discuss causative constructions in detail here; I will only mention that Georgian has single-clause (and not two-clause) causatives, where a semantic embedded subject is grammatical IO, and will refer the reader to Harris (1981), in particular Chapter 5, for a more detailed discussion.

The agreement markers, as already shown (see Sub-section 3.1.3 for detailed discussion) include two sets in Georgian: *v*-set markers and *m*-set markers. Nominative/absolutive and ergative subjects show *v*-set markers, while dative subjects are exclusively used with *m*-set markers. For concreteness, I provide once more the set of *m*-set markers in Table 6.2.

Table 6.2: *m*-set agreement markers

	singular		*plural*	
1	*m-*	*gv-*		
2	*g-*	*g-*		*-t*

| 3 | *h-, s-, Ø* | *h-, s-, Ø* | *-t* |

It has been claimed in the literature that *v*-set markers are used to denote external arguments, while *m*-set markers internal ones (see, for instance, McGinnis 2008; Thivierge 2021 among others) or in traditional grammar terms subjects and objects respectively (Chikobava 1950; Shanidze 1980 [1973]; Melikishvili 2001; Melikishvili, Humphries & Kupunia 2008; Gogolashvili 2011, etc.). However, both these divisions encounter problems. The first one because *v*-set markers are not used only for the external arguments, as passives, unaccusatives and internal arguments of perfect tenses show (57 and 58).[40]

passive

(57) a. ts'eril-i   da-i-ts'er-**a.**

       letter-NOM/ABS   PR-PV-write-**3SBJ.SG**:PFV.PST

       'The letter was written.'

    b. *unaccusative*

       otakh-i   ga-tb-**a**.

       room-NOM/ABS   PR-warm-**3SBJ.SG**:PFV.PST

       'The room was warmed up.'

(58) (me)   da-**m**-i-ts'er-i-**a**   ts'eril-i.

       (1SG.DAT)   PR-**1SG.SBJ**-PV-write-PRF-**3SG.OBJ**   letter-NOM/ABS

---

[40] Agreement of internal theme argument can be regarded as default, as 3person theme argument does not agree in plural, however the marker used in singular is of *v*-set and not *m*-set.

'I have written a letter.'

m-set markers can also be used for an external argument as indicated in (71). Semantically, on the synchronic level dative arguments in the perfect indicate initiators to an event, characteristic to the agents, and have an agentive thematic role. Syntactically, they allow passivization, thus highlighting the existence of the external thematic position. If we regard the subjects of perfect tenses to be external arguments with an agentive theta-position, then the *m*-set markers can also be associated with external arguments.

The second division based on GF distinction is also problematic as perfect tenses show the so-called "inversive" use of subject and object markers: *v*-set markers are used to denote objects, while *m*-set markers accordingly to denote subjects. See (59) for perfect tenses of transitive verbs, where the square brackets indicate the initial GF of the markers.

(59) a. *PRF.IND*

da-**m**-i-ts'er-i-a.

PR-**1SG.SBJ**[OBJ]-PV-write-PRF-3SG.OBJ[SBJ]

'I have written.'

b. *PLUPRF*

da-**m**-e-ts'er-a.

PR-**1SG.SBJ**[OBJ]-PV-write-3SG.OBJ[SBJ]

'I had written.'

c. *PRF.SBJV*

da-**m**-e-ts'er-o-s.

PR-**1SG.SBJ**[OBJ]-PV-write-SBJV-3SG.OBJ[SBJ]

'I would have written.'

Although traditional grammars of Georgian (see Shanidze 1980 [1973]; Harris 1981; Melikishvili, Humphries & Kupunia 2008 among others) usually refer to this phenomenon as an inversion of grammatical functions of subjects and objects in perfect tenses, on the synchronic level there is no evidence that the GFs are changed. As indicated by Lobzhanidze (2022: 81), there are three mainstream assumptions in the literature about the inversion process in Georgian perfect tenses. The first one considers it as a pure morphological process on the synchronic level (Shanidze 1961; 1980 [1973]); the second as a morphosyntactic alternation of GFs either on the synchronic (Harris 1981) or the diachronic level (Chikobava 1946); and the last one assumes that *v*-set and *m*-set markers just have the ability to indicate each other's features (Datukishvili 1992; 1997a; 1997b; Uturgaidze 2002). Several scholars working in different frameworks argue against the inversion in Georgian perfect tenses, to mention just two of them Gurevich (2006) and Wier (2011a; 2011b). For both, the inversion in perfect tenses is not syntactic and does not apply on a synchronic level (see Lobzhanidze 2022: 81–88 for inversion in Georgian and references therein).

In the same line, I also assume that there is no evidence of GF alternation on the synchronic level. Moreover, I associate the morphological makeup of the agreement markers with the m-case of arguments. Dative arguments exclusively show *m*-set agreement markers; however, this does not mean that *m*-set markers cannot appear with non-dative arguments. The main point is that the morphological dative never appears with *v*-set agreement markers. Schematically, the division based on the agreement markers is presented in Table 6.3.

Table 6.3: Agreement markers and their association with arguments

	v-set agreement markers	*m*-set agreement markers
GF	subject / object	object / subject
theta-role	external / internal	internal / external
m-case	nominative / ergative	dative / nominative

As discussed in Chapter 5, Sub-section 5.2.3, based on Bobaljik's (2008) assumptions, it is m-case and not the GF that defines the accessibility of agreement in Georgian (at least this is what we can observe from the morphological makeup of agreement markers), and agreement markers are not associated with GFs, but with a case of argument. This is illustrated again in (60), where *v*-set markers are canonically used to denote nominative arguments (no matter external or internal) and *m*-set markers are used to denote dative arguments.

(60) a. nik'a   k'ithkul-ob-**s**   ts'ign-s.
          Nika.**NOM/ABS**   read-THM-**3SG.SBJ**:PRS   book-DAT/ACC
          'Nika reads a book.'

      b. mariam-s   mo-**s**-ts'on-**s**   nik'a
          Mariam-**DAT**   PR-**3SG.SBJ**-like-**3SG.OBJ**:PRS   Nika.**NOM/ABS**
          'Mariam likes Nika.'

      c. nik'a   mariam-s   **s**-ts'er-**s.**
          Nika.**NOM/ABS**   Mariam-**DAT**   **3SG.OBJ**-wrtie-**3SG.SBJ**:PRS
          'Nika writes to Mariam.'

In (60a), the nominative/absolutive argument in the subject position has an *-s* suffix agreement marker for the 3ʳᵈ person (*v*-set agreement marker), while in (60b), the same agreement marker denotes agreement with the nominative/absolutive argument in object position. The same is observed in the case of dative arguments: in (60b), the dative subject argument has the *s-* prefix agreement marker (*m*-set agreement markers), while in (60c) the same marker is used to mark the dative goal argument.

As *m*-set markers appear with dative arguments, it is obvious that marking on verbs does not depend either on the function of the arguments or on what theta-roles they have. The main factor for the agreement is the m-case of the argument. See (61, 62 and 63) for different functions and different theta-roles. This is in line with Bobaljik's (2008) claim that the *φ*-agreement operates on the basis of the morphological case and not the GF as such.

direct object, theme/patient arguments

(61)   mkhat'var-i   **m-**khat'-av-s.

painter-NOM/ABS   **1SG.DOBJ**-draw-THM-3SG.SBJ:PRS

'The painter draws me.'

(Direct object is ***pro:*1SG.DAT**)

indirect object, goal/recipient arguments

(62)   megobar-i   **m-**tser-s   ts'eril-s.

friend-NOM/ABS   **1SG.INDOBJ**-write-3SG.SBJ:PRS   letter-DAT

'A friend writes me a letter.'

(Indirect object is ***pro:*1SG.DAT**)

subject, agent/experiencer arguments

(63) (a) **me**   **m**-i-tamash-i-a   es   tamashi.

           1SG.DAT **1SG.SBJ**-PV-play-PRF-3SG.OBJ   this play-NOM/ABS

           'I have played this play.'

      (b) **me**   **m**-e-amaq'-eb-a   chemi   st'udent'-eb-i.

           1SG.DAT **1SG.SBJ**-APPL-proud-of-THM-3SG.OBJ:PRS   my   student-PL-NOM/ABS

           'I am proud of my students.'

Thus, the inversive use of agreement markers seems not to be problematic once we adopt the assumption that the m-case of argument and not grammatical functions trigger φ-agreement.

The only instances where *m*-set markers appear with non-dative arguments are 1st and 2nd person patient arguments. Example (64) illustrates patient arguments which are realized as an unmarked case in the presence of ergative external arguments.

(64) mkhat'var-ma   da-**m**-khat'-a.

      painter-ERG   PR-**1SG.DOBJ**-draw-3SG.SBJ:PFV.PST

      'The painter drew me.'

      (patient argument is ***pro:*1SG.NOM/ABS**)

In this case, ergative as a dependent case blocks the realization of the second dependent case in the same spell-put domain (CP), because it has to be obligatorily unmarked. The unmarked case is the absolutive default for the syntactic accusative, otherwise realized as a morphological dative. The agreement still shows up, though, as both unmarked and dependent cases are accessible for agreement. The unmarked case is

environment sensitive: an unmarked case realized down in the structure follows the agreement rules for the dependent accusative (morphological dative), i.e. *m*-set agreement in case of more marked features in person hierarchy, while an unmarked case realized up in the structure follows the agreement rules for the dependent ergative, i.e. *v*-set agreement. That is why the unmarked case shows both agreement patterns.

Theme arguments appear in the nominative/absolutive or dative/accusative in Georgian, with both transitive and ditransitive verbs. Thus, in transitives in the present tense, the combination of arguments' m-cases is: NOM + DAT/ACC, while in ditransitives it is NOM/ABS + DAT + DAT/ACC. Of course, these combinations change according to the TAM alternations. What is important for our purposes is that two morphological datives are possible in one clause: one for goals and one for themes (65) only if one of these arguments is syntactic accusative, but agreement in such a case happens just with goals and not theme arguments, i.e. with higher argument in the structure.

(65) is   **mas**   **ts'eril-s**   **s**-ts'er-s.

      3SG.NOM/ABS   3SG.**DAT**   letter-**DAT/ACC**   **3SG.INDOBJ**-write-3SG.SBJ:PRS

      'He/she writes her/him a letter.'

A similar situation, but with the accusative case, has been described by Baker (2012) in Amharic, where in triadic verbs in the presence of a goal argument, the theme argument cannot agree with the verb, but both arguments can bear one morphological case: in Amharic, that is accusative (66).

      Amharic (Baker 2012: 258)

(66) Ləmma   **Aster-in**   **hıs'an-u-n**   **asaj**-at.

      Lemma   Aster-**ACC**   baby-DEF-**ACC**   show-(3mS)-3fO

'Lemma showed Aster the baby.'

Cross-linguistically it is a common phenomenon when the higher (i.e. goal) argument in the structure agrees with the verb in ditransitive constructions (see Baker 2013: 26 for the assumption that many languages if not all show that it is the goal that is agreed with rather than the theme). Note, in Georgian ditransitives, the theme argument is always third person, as a result of the strong Person Case Constraint (PCC) effect. The presence of the goal/recipient argument forces the theme to be 3rd person, and 3rd person agreement is always null. The strategy to which the language thus turns in order to indicate semantical 1st or 2nd person is use of the reflexive POSS+*tavi* (67).

(67)   ghmert-ma   ***shen / shen-i**   **tav-i**   m-a-chuk-a.

god-ERG   *2.SG / POSS:2.SG-NOM/ABS   head-NOM/ABS   1**SG.INDOBJ**-PV-present-3**SG.SBJ**

'God gave me you as a present.'

PCC effects on Georgian object agreement have been observed and discussed from different perspectives and different approaches in the literature (to mention just some of them, Shanidze 1980; Harris 1981; Kvatchadze 1996; Béjar 2003; Amiridze 2006; Melikishvili, Humphries & Kupunia 2008; McGinnis 2008; 2013; Béjar & Rezac 2009; Gogolashvili 2011; Lomashvili & Harley 2011; Nevins 2011; Foley 2020; Blix 2021; Thivierge 2021, etc.). I will leave aside PCC effects in object agreement for the moment, as this has been explicitly discussed in the literature through different perspectives, and various solutions have been proposed, among them Cyclic Agreement (Béjar 2003; Béjar & Rezac 2009), Multiple Agree (Nevins 2011), or Fusion mechanism which is reduced to Matching, i.e. a Vocabulary interpretation of abstract syntactic structure (under the nano-syntax approach by Blix 2021). For our purposes what matters is that the dative subject

definitely agrees and this Agree relationship is established in the *v*P domain; and, that as a result of person constraint, *m*-set marking of the argument on the ditransitive verb indicates a goal/recipient dative argument and not a theme argument, irrespective of whether it has a morphological nominative or dative case. See (65) for an example with a dative theme argument and (68) for the same example with nominative.

(68) man   **mas**   **ts'eril-i**   mi-**s**-ts'er-a.

3SG.ERG   3SG.**DAT**   letter-NOM/ABS   PR-**3SG.INDOBJ**-write-3SG.SBJ:PFV.PST

'He/she wrote her/him a letter.'

Datives agree in all structural positions, including those of subjects. The main question to address is why dative subjects show different agreement markers from the nominative and ergative. There can be different interpretations depending on the theory, but one obvious thing is that dative subjects get their case in a different spell-out domain than absolutive or ergative. For the latter, the spell-out domain is CP, and for the dative *v*P. The agreement subsequently also happens in a different way. There are two different φ-probes to establish an Agree relationship. The T^0 functional head enters into an Agree relationship with the ergative and absolutive subjects, while v^0 or v^0Appl (depending on what we assume) with datives. In a standard Downwards Agree (DA) relationship, the Agree in ditransitives would be as indicated in (69).[41]

---

[41] In trees that include the Agree operation, a dotted arrow is used to show probing and a solid arrow to show movement.

(69)

```
                    TP
                   /  \
                 DP    T'
                agent  / \
                [ERG] /   \
                  ↑  /     \
                 Tφ        vP
               [T: PST]    / \
               [Asp: PFV] /   \
                        <DP>    v'
                       <agent>  / \
                              vφ   vApplP
                                   /   \
                                 DP     vAppl'
                                goal    / \
                                [DAT]  /   \
                                   vAppl    VP
                                           /  \
                                          V    DP
                                             theme
                                          [NOM/ABS]
```
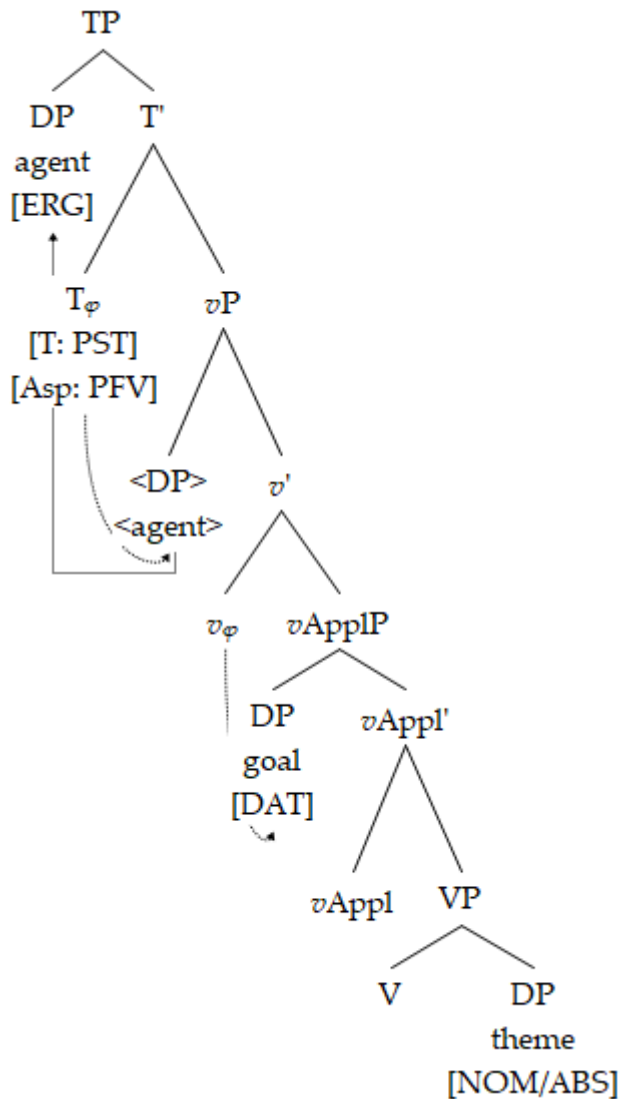
The Theme argument in ditransitives does not agree due to the PCC. The Agent DP moves to Spec,TP to satisfy the EPP feature. The dative in the subject position also moves from the *v*P internal position to satisfy the EPP feature. It could be either to satisfy the EPP feature of high applicative (if we regard high applicative to be a phase, as proposed by McGinnis 2001, 2004) or via cyclic movement, first to Spec,*v*P and then to Spec,TP. I

will present my view for the dative agreement in section 6.4 without postulating that this is the only possible analysis.

To sum up, the dative case in all positions shows the same agreement patterns. The dative in the subject position always agrees with the verb in both person and number. Thus, the agreement diagnostic highlights that dative is a structural case. The analysis of dative as a structural case and how agreement actually happens is provided in section 6.4.

6.3.3   Interim summary on diagnostics

Most of the tests show that the Georgian dative is best analyzed as a structural case. The main points can be summarized as follows:

(a) case preservation under passivization as discussed in Sub-section 6.3.1 is not applicable to Georgian ditransitive passives. I have argued explicitly that dative argument does not raise to the subject position, but scrambles to the left of the subject, thus highlighting that there is no alternation of the syntactic environment for the goal argument that could result in case alternation;

(b) case preservation in tense/aspect alternation can be applied only to the experiencer subjects, but not to dative subjects of perfect tenses, where dative substitutes nominative/absolutive of present/future and imperfective tenses, or the ergative of perfective past tenses, thus showing that dative can alternate, and as a result cannot be an inherent case;

(c) the thematic roles of dative arguments are not associated with one thematic position, but include goals, experiencers, agents, etc.

(d) the dative in all positions enters in an Agree relationship, thus it simply
cannot be a non-structural case, as only structural cases can agree or be
accessible for agreement.

The results for the test checking whether dative is structural or inherent are summarized
in Table 6.4.

Table 6.4: Diagnostics for testing structural vs. inherent dative

case	case preservation	passivization	NA	
preservation	under A-movement			
/alternation	TAM alternations			structural
θ-relatedness	*weak version*		applicable	structural
	strong version		applicable	structural / inherent
agreement			applicable	structural

6.4 Dependent case analysis of dative

Based on the above diagnostics, I regard dative to be a structural case assigned
configurationally by the dependent case rule in terms of Marantz's (2000 [1991])
dependent case assignment. Thus, the dative, alongside the ergative is analyzed as a pure
dependent case following DC rules, as presented in (Marantz 2000 [1991]; McFadden
2004; Bobaljik 2008; Baker & Vinokurova 2010; Baker 2013; 2014b; 2015; Preminger 2011;
2014; Levin & Preminger 2015; Baker & Bobaljik 2017 among many others). Under this
view, crucial for case assignment is the existence of the second DP with an unvalued case

feature in the same case assignment domain. There is no need to allude to functional categories in terms that functional heads play any role in checking-off case features. Within the DC view, Case assignment is not a result of a feature-checking relation between the φ-probing head and a goal. As such, it is independent of feature-checking. What matters here is the domain where the case is assigned. In the same spirit, as pointed out by Baker (2015: 47–53), DC assignment is not contingent on whether there is a particular functional head in the case-assignment domain. But, "different functional heads can help determine which particular case is assigned in a given configuration" (Baker 2015: 51). In Chapter 5 we have seen that the ergative case is assigned up in CP domain. In the same manner, the dative is assigned up in the vP domain. The assignment of dative under the configurational view is not new and has been proposed and discussed explicitly in the literature. The ideas presented in the literature differ as to whether dative is assigned up in VP (Baker & Vinokurova 2010; Baker 2015), where VP is the complement of the vP phase (whether vP is a phase is an independent question, for the case assignment we can simply assume to have a vP domain), or down in the CP domain as an accusative (Alexiadou, Anagnostopoulou & Sevdali 2014). In the latter's view, the parametric possibility of assigning dative, genitive and any other case in the place of the accusative is tied to the Agree condition, as presented by Rezac (2008), where the theta-related dative is regarded as a PP shell around DP, where P^0 is a phase head and may itself have a φ-probe that agrees with DP. The result is that PP can either be transparent or opaque to Agree (see Rezac 2008; and Alexiadou, Anagnostopoulou & Sevdali 2014 for more detailed discussion). The modification of Marantz's (2000 [1991]) dependent case rule by Alexiadou, Anagnostopoulou & Sevdali (2014: 24) is presented as follows:

"… Dependent case assigned up to subject: ergative

Dependent case assigned down to object: any case realized on an argument entering

complete Agree (e.g., accusative, dative, genitive…)"

I mainly follow Baker's assumptions (2015) for the dative case assignment, which states that dependent case assignment can be in the VP domain when one DP is inside and another outside. According to Baker (2015), this can result either in a form of DOM or in distinct case assignments in TP and VP. Distinct cases that can be assigned to configurations inside VP are dative, oblique, and partitive, while those assigned to similar configurations inside TP are ergative, accusative, and nominative-absolutive (see Baker 2015: 111–181 Chapter 4 about domains of dependent case assignment). For Baker (2015), *v*P is a phase, and VP a spelled out domain. I do not touch upon the question of whether *v*P is a phase or not, in my account *apriori* cannot be a phase, because then ergative case assignment would be blocked, as the case competitor would be invisible for the dependent case, bearing in mind that the case competitor is not located at the edge of the phase. As such, ergative case assignment would violate the Phase Impenetrability Condition (PIC) proposed by Chomsky (2000: 108; Chomsky 2001: 13; Chomsky 2004: 108). See (70) which includes formulation as presented in MI (Chomsky 2000: 108).

(70) *Phase Impenetrability Condition*

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

The fact that dependent case assignment causes a problem for regarding *v*P as a phase has been addressed in the literature and used as one argument for showing that *v*P is not a phase, see Poole (to appear), who argues that dependent case assignment may cross *v*P, but not CP, see also Keine & Zeijlstra (to appear), who claim that *v*P is not a phase by providing various arguments, including that of dependent case assignment.

If the dative assigned to the subject position is a dependent case, it must meet the following requirements: (a) the first and main one is to have a second DP in the same domain with unvalued case features; (b) the second is that as a DC, it must be accessible for agreement based on the fact that Georgian belongs to the type of languages where dependent cases are also accessible for agreement (following Bobaljik's 2008 division of languages cross-linguistically) and as was already shown in Chapter 5, the ergative case in Georgian is borne out for that prediction; (c) the last one is that dative must not be associated with one thematic position. In what follows, I will show that these three requirements are met by the Georgian dative.

6.4.1 Second DP in the same case-assignment domain

Based on the dative case generalizations for Georgian (as discussed in Sub-section 6.2.3), one of the main properties that we see is that dative needs an unmarked nominative/absolutive case in the domain. Thus, one precondition on empirical grounds for having a dative in the structure is to have an unmarked case, and this is the main requirement of the DC. The prediction, therefore, is that dative should never appear with monoargumental predicates, and to some degree, this is really the case: dative is never used with monoargumental passives or intransitive unaccusative verbs, see (71).

passive

(71) a. ts'ign-i (*s)   i-ts'er-eb-a.

         book-**NOM/ABS (*DAT)**   PASS-write-THM-3SG.SBJ

         'The book is being written.'

b.   *unaccusative*

sakhl-i (*s)   tb-eb-a.

book-**NOM/ABS** (***DAT**)   warm_up-THM-3SG.SBJ

'The house is warmed up.'

The fact that structural datives never appear with monadic predicates, but are only possible with dyadic ones, has also been observed in other languages, see, for instance, Baker & Vinokurova (2010) for Sakha. In Sakha, dative in the subject position is assigned in possessive constructions, where no agent role is generated in Spec,*v*P, and dative is assigned to the highest thematic position in the clause (72).

Sakha (Baker & Vinokurova 2010: 605)

(72)   Ejiexe   massyyna   tiij-bet/baar/naada.

you.DAT   car   reach-NEG.AOR.3sS/exist/need

'You lack/have/need a car.'

In Georgian datives are also possible with biargumental verbs in the subject position, both in perfect tenses and with experiencer predicates. This is expected by the DC rule. Experiencers can be used in the subject position (73) when two DPs are generated inside the *v*P domain and there is no agent in the clause, and subsequently, the dative is assigned to the highest thematic position.

(73)   gega-s   lana   mo-e-nat'r-a.[42]

Gega-DAT   Lana.NOM/ABS   PR-APPL-miss-3SG.SBJ:PFV.PST

---

[42] See some other examples of SubjExp predicates in Appendix B, Table B.2.

'Gega missed Lana.'

That dative arguments used with experiencer/affective verbs are really subjects can be proven through a variety of tests. I mention here just one diagnostic that indicates dative subjecthood; namely, that only subjects can serve as an antecedent for a reflexive possessive *tavisi* 'his own' (79a and 80a). If a non-subject DP is an antecedent then the possessive pronoun *misi* 'his' is used (79b and 80b) (see also Amiridze 2006 on reflexive strategies in Georgian, and examples provided in Sub-section 6.3.1.3).

DOC

(74) a. nik'a-m$_i$ mariam-s$_j$ tavis-i$_{i/*j}$ ts'ign-i   mistsa.

Nika-ERG   Mariam-DAT   3REFL.POSS.SG-NOM/ABS   book-NOM/ABS gave.

'Nika gave his book to Mariam.'

b. nik'a-m$_i$ mariam-s$_j$ mis-i$_{*i/j}$ ts'ign-i   mistsa.

Nika-ERG   Mariam-DAT   3POSS.SG-NOM/ABS   book-NOM/ABS gave.

'Nika gave Mariam her book.'

SubjExp

(75) a. mariam-s$_i$ tavis-i$_i$ ts'ign-i   most'sons.

mariam-DAT   3REFL.POSS.SG-NOM/ABS   book-NOM/ABS   likes.

'Mariam likes her book.'

b. mariam-s$_i$ mis-i$_{*i}$ ts'ign-i   most'sons.

mariam-DAT   3POSS.SG-NOM/ABS   book-NOM/ABS   likes.

'Mariam likes his book.'

(with the reading where Mariam likes X's book).

Problematic for the DC rule, however, are several verbs in the SubjExp predicate constructions that on the surface level appear without a nominative/absolutive object, although the number of these verbs is low (see Appendix B, Table B.1, where several verbs are monoargumental). This can be rescued by postulating the existence of the (implicit) objects. Some verbs can add objects and thus, become transitive as indicated in (76)[43], or can be interpreted as having an implicit cognate object by using the D residual (77). The implicit argument and tests on how to check its existence in the structure are discussed in the unergatives section (5.3.1) which are assumed to have an implicit argument.

(76)   ts'q'al-i   m-ts'q'uria.

           water-**NOM/ABS**   1SG-be_thirsty

           'I'm thirsty for water.'

           (Subject experiencer argument is *pro:***1SG.DAT**)

(77)   bevr-i   m-edzina.

           many-**NOM/ABS**   1SG-sleep:PFV.PST

           'I slept a lot.'

           (Subject experiencer argument is *pro:***1SG.DAT**)

---

[43] Such verbs are known as ergative verbs, as they can sometimes be transitive, and sometimes intransitive.

Moreover, some of these verbs are the diachronic result of real argument demotion, which is indicated by the marker *a-* (either transitivizer or causative marker depending on the theory) in the verb and can even be added in several cases, see for instance (78), where the verb *m-a-k'ank'alebs* 'I am shaking', though on the synchronic level regarded as monoargumental, has the meaning that 'X is shaking me', where X can stand both for a cognate and a non-cognate object (see Melikishvili, Humphries & Kupunia 2008 for the verbs that have undergone the same process).

(78)   ra   g-a-k'ank'al-eb-s?

             what.**NOM/ABS**   2SG.SBJ-CAUS-shake-THM-3SG.OBJ

             'What makes you shake?'

             (Subject experiencer argument is ***pro:2SG.DAT***)

6.4.2 Accessibility of dative for Agree

The other generalization for the dative case in Georgian (as discussed in Sub-section 6.2.3), is that dative is used with two- or three-place predicates that have either an applicative or an agreement marker. There are instances when both markers are present, but keeping in mind that the applicative marker in 3rd person often substitutes the agreement marker and the functions of agreement and applicative markers are complementary, it seems that both occupy one slot. See Table 6.5 for the main slots of Georgian verb markers, where I present only 10 slots and give examples for agreement, tense and applicative markers. For the whole list see Lobzhanidze (2022: 63) and references therein. See also Hewitt (1995) and Boeder (2005).

Table 6.5: Verb frame slots in Georgian

preverb (PR)	agreement markers (P/Num)	applicative, version markers (Appl/PV)	root (R)	passive voice marker (PASS)	thematic suffix (THM)	causative (CAUS)	extension marker (EM/IPFV)[44]	tense, mood (T/M/Infl)	agreement markers (P/Num/Aux)
	v-	u-						-i	-s
	kh-	a-						-e	-a
	h-	e-						-o	-o
	s-	i-							-en
	m-								-an
	gv-								-nen
	g-								-n
									-es
									-t
									-var
									-khar etc.

It can be postulated that agreement in Georgian is linked either to tense or applicative. Thus, the marker *-es* for 3PL is used only with ergative subjects in the perfective past, showing that the agreement marker is parasitic on tense and subsequently that the φ-probe for the ergative arguments must be T^0. The applicative *u-* is not exactly an instance of parasitic morpheme on the agreement marker or vice versa, but still, the position of the marker is the same, and *s-* 3SG.OBJ always disappears in the presence of the

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[44] The labels of the slots differ in different grammars based on the assumptions of the scholars, thus, imperfective (IPFV) aspect by some scholars is assumed to be encoded in the EM slot (see for instance Aronson 1991), while by others in the THM slot (see, for instance, Nash 2017). I include IPFV as an extension marker and also add terms like Appl and Infl for the slots based on the function of some markers. See Boeder (2005: 22) for the nomenclature of the slots.

applicative, as they are in complementary distribution. The fact that applicative and agreement markers compete for the same slot and are in a complementary distribution one with the other (at least in 3rd person), can be taken as an indirect indication of the existence of the parasitic marker and as evidence that the φ-probe for the dative arguments must be $Appl^0$.

For the dative agreement analysis, I adopt Upwards Agree (UA) as proposed by Zeijlstra (2012) and further extended in Bjorkman & Zeijlstra (2019). It has been claimed in the literature that UA does not work perfectly with object agreement (see Bárány & Van der Wal 2021; see also Preminger 2013; Preminger & Polinsky 2015 for some critique on UA). The priority of this approach for me is in the fact that it does not allude to the specific requirements of the goal, i.e. case licensing (which even if it exists, is established independently from Agree), and that, second, it does not need the EPP feature as a trigger of argument movement. Separating case licensing from the DC assignment is important for analyzing dative as a DC.

My analysis does not extend at this point to other languages, but presents only Georgian dative argument agreement (not discussing in detail some peculiarities based on the PCC, see Sub-section 6.1.3 for different accounts that have been proposed for this) from the viewpoint of the DCM on the verb. The tree (69) for the dative agreement in ditransitives presented in the traditional DA fashion, can be presented differently for the UA, see (79). Note that the UA in Zeijlstra's (2012), and Bjorkman & Zeijlstra's formulation (2019), includes upward selection and valuation dependent on accessibility, in most cases downward.

(79)

TP
├── DP — agent [ERG]
└── T'
    ├── T⁰_φ [T: PST] [Asp: PFV]
    └── vP
        ├── <DP> <agent>
        └── v'
            ├── v⁰
            └── vApplP
                ├── DP — goal [DAT]
                └── vAppl'
                    ├── v⁰Appl_φ
                    └── VP
                        ├── V
                        └── DP — theme [NOM/ABS]
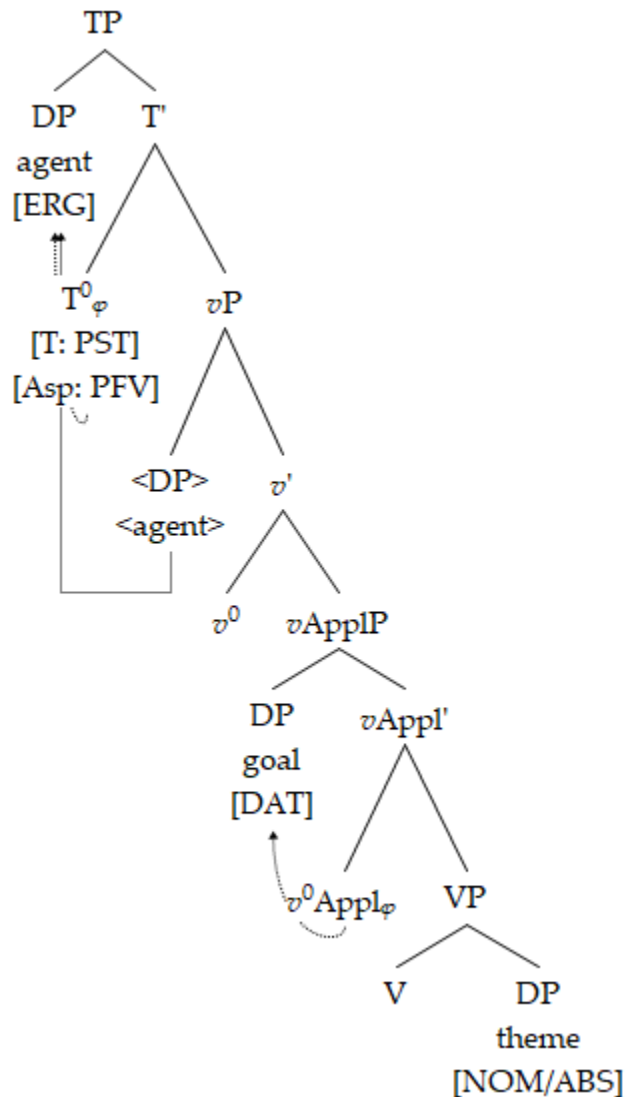
The difference from the structure in the DA fashion (86) is that the probe for the goal argument is v^0Appl and not v^0, which introduces an external argument. The theme argument does not agree due to the PCC, because it always lacks features of speaker and addressee, while the agent DP moves to Spec,TP for agreement purposes and not to satisfy the EPP feature. In monotransitives that have a dative case, which is both morphologically and syntactically dative and not that of a patient/theme argument which is morphologically dative, but syntactically accusative, it happens in the same way, as I

assume them to have an implicit argument in the structure. Even if it did not have an implicit argument, the structure for the agreement would be the same with the vAppl[0] head higher VP, and the goal that c-commands probe. The structure I am assuming here for goal arguments is that of high applicatives as proposed by Pylkkänen (2002/2008).[45]

6.4.2.1 Dative subject construction

Let us turn now to the dative subject agreement, and recall there are two syntactic structures with dative subjects: first, dative subjects in perfect tenses and second, dative experiencer subjects.

First of all, I will provide a small excurse in the diachronic stages of Georgian to understand the emergence of both structures more precisely. The emergence of dative subject constructions in perfect tenses has been discussed in related literature as the development of stative verb forms into dynamic ones (Melikishvili 2009 [1978]: 126–138; Melikishvili, Humphries & Kupunia 2008: 72–79). As a result of this development the indirect object of stative verbs, becomes a subject in dynamic ones, showing the inversion of the grammatical relations of the arguments involved. The grammaticalization of the process started in Old Georgian. The difference between the two forms can be seen in examples (80), where in the stative meaning (80a) the grammatical subject is indicated by

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[45] The question as to whether high and low applicatives distinction (as proposed by Pylkkänen 2002/2008), i.e. that applicatives are generated higher or below the main VP, is on the right track is an independent question and has been addressed in the literature from both a syntactic and semantic point of view, with the result that some scholars find the distinction plausible and do apply it to their analyses (see Legate 2002; McGinnis 2002; 2004; 2013; 2017; Cuervo 2003; Nevins 2011 among others). Others assume that low applicatives cannot exist (see Georgala, Paul & Whitman 2008; Boneh & Nash 2011; Michelioudakis 2012 among others). A variety of authors have proposed a third class, too, known as the high-low or affected applicative (see Cuervo 2003; Marantz 2013; Wood 2015 among others). See also McGinnis (2017) for a brief overview on the issue.

the nominative/absolute *is/igi* '(s)he', while in the dynamic one (80b) the grammatical subject is indicated by the dative *me* 'I', Old Georgian examples are provided from (Melikishvili, Humphries & Kupunia 2008: 73).

	Modern Georgian (stative)			*Old Georgian* (stative)		
(80) a.	mits'eria	is	me.	igi	me	mits'eries.
	is_written	3:NOM/ABS	1:DAT	3:NOM/ABS	1:DAT	is_written
	'Something is written for/by me.'					

	Modern Georgian (dynamic)			*Old Georgian* (dynamic)		
b.	(da)mits'eria	me	is.	me	igi	mits'eries.
	is_written	1:DAT	3:NOM/ABS	1:DAT	3:NOM/ABS	is_written
	'I have been writing/ I have written something.'					

Thus, dynamic forms are diachronically inversive forms of the stative verbs and not of the corresponding dynamic transitive verbs. That is the reason why perfect tenses cannot have three arguments (for detailed discussion see Melikishvili 2009 [1978]; Melikishvili, Humphries & Kupunia 2008). It has been pointed out in Sub-section 6.3.3 that not all scholars agree with the existence of inversion in these verbs (see references indicated therein), at least on the synchronic level. What we see on the synchronic level, is merely a canonical transitive construction with the agentive subject in the dative.

In both structures (those of perfect tenses and experiencers), dative subjects are generated *v*P internally as the specifiers of an Appl[0] head, similarly to the external arguments which are generated as the specifiers of v^0 head. If an external argument is presented, it becomes a syntactic subject, while in the absence of the external argument, the highest internal argument becomes a subject. The perfect tense subject is different

from the experiencer subject in that on synchronic level it is an external subject, but not in the terms that it is a result of an external merge, but that following the internal merge, it is moved to the external subject position and receives its thematic role of agent.

The case assignment in the perfect tense ditransitives happens as following: First, the PP with the goal role (down of the theme) is assigned a lexical case. As a lexical case assigned before structural cases, it is invisible for the subsequent structural assignment of the dependent case inside *v*P, but bears the semantic thematic role of the goal. Second, one of the two DPs generated inside *v*P (VP internal theme and the other VP external, in Spec,ApplP), receives its case, namely dative which is assigned to the highest argument. However, this argument cannot receive a thematic role due to the fact that PP down in the structure has been already assigned for the goal theta-role, so it moves up to the external argument position in Spec,*v*P, and receives the thematic role of the agent. The last step is the assignment of the unmarked case to the theme (see figure 6.2).
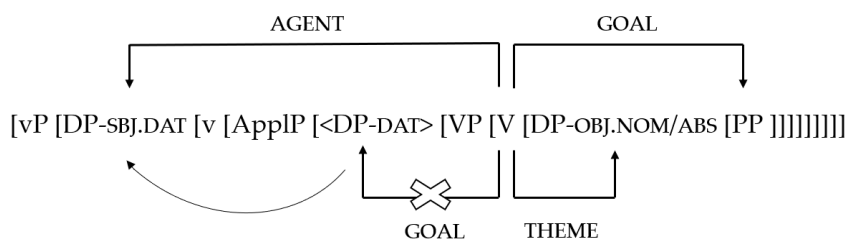
Figure 6.1: Assignment of theta-roles in Perfect

I am assuming here that the hierarchy of theta-roles is as presented in (81), reproduced from Koeneman & Zeijlstra (2017: 65), where the recipient holds for the experiencers as well (or rather, the goals, which are not PPs), while the goal is presented as a PP and not a DP.

(81) AGENT > RECIPIENT > PATIENT/THEME > GOAL

Obeying the Theta Criterion, which states that every theta-role must be assigned to a unique argument, predicates may introduce either a goal or recipient role, not both together (with the same semantic interpretation). If we regard the recipient/experiencer theta-role in a higher position than patient/theme, then it can definitely become a subject, because it is the highest in the absence of an agent. But if we have already a goal PP argument (and not PP adjunct), and the thematic role of the goal is assigned lower than the theme theta-role, then the dative, even if assigned vP internally, cannot get the thematic role of the experiencer/recipient, as goal role is already assigned to the PP. So, it moves to Spec,vP and gets the thematic role of agent. This never happens with the experiencer verbs, as experiencer verbs do not allow PPs in the goal thematic position. This holds cross-linguistically, as ditransitive psych verbs are unattested (see, for instance, Béjar 2003: 134 and references therein), and subsequently, cannot add a PP goal argument either.

The independent proof that case is assigned vP internally in a non-thematic position is the dative agreement markings on the verb, i.e. the m-set agreement markers. If it agreed after raising to the agentive thematic position, it would have a v-set agreement, as nominative/absolutive and ergative agentive arguments show. The agreement in the non-thematic position has been observed for other languages as well (although in different terms), see, for instance, ergative assignment in the non-thematic position in raising constructions in Basque (Artiagoitia 2001; Rezac 2004; 2008; Rezac, Albizu & Etxepare 2014 among others). This is regarded the main argument to show that ergative in Basque is structural and is not theta-related.

6.4.2.2 Dative subject agreement in Perfect tenses

The agreement in perfect tenses happens in the same way, as in ditransitives with the only difference being that the external subject position in the process of derivation is null

and fills after the Agree relation is already established *v*P internally with the dative argument (82).

(82)
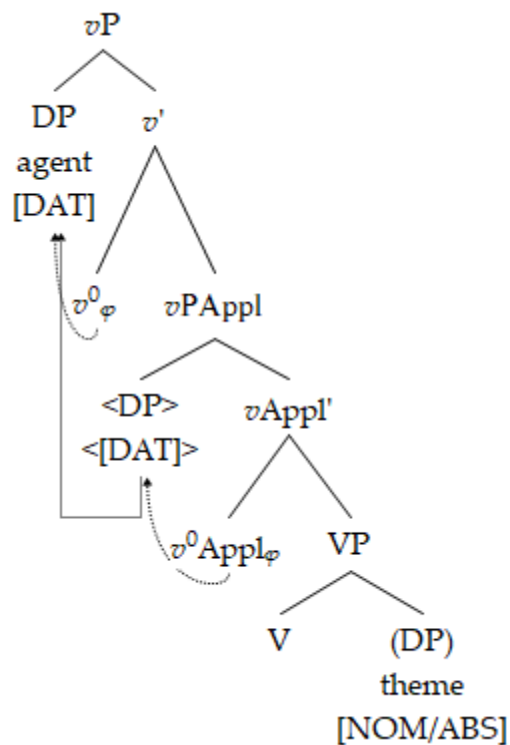
Note that dative subjects in perfect are possible only with transitive verbs (corresponding either to monotransitive or to ditransitives in other tenses), and unergatives (which are assumed to have a transitive structure in Georgian). The unergative structure thus includes an implicit theme argument and theme argument is always 3rd person, showing default agreement. If the patient arguments have marked person features, DO agrees as well, and there is an additional *v*P layer (83).

(83)
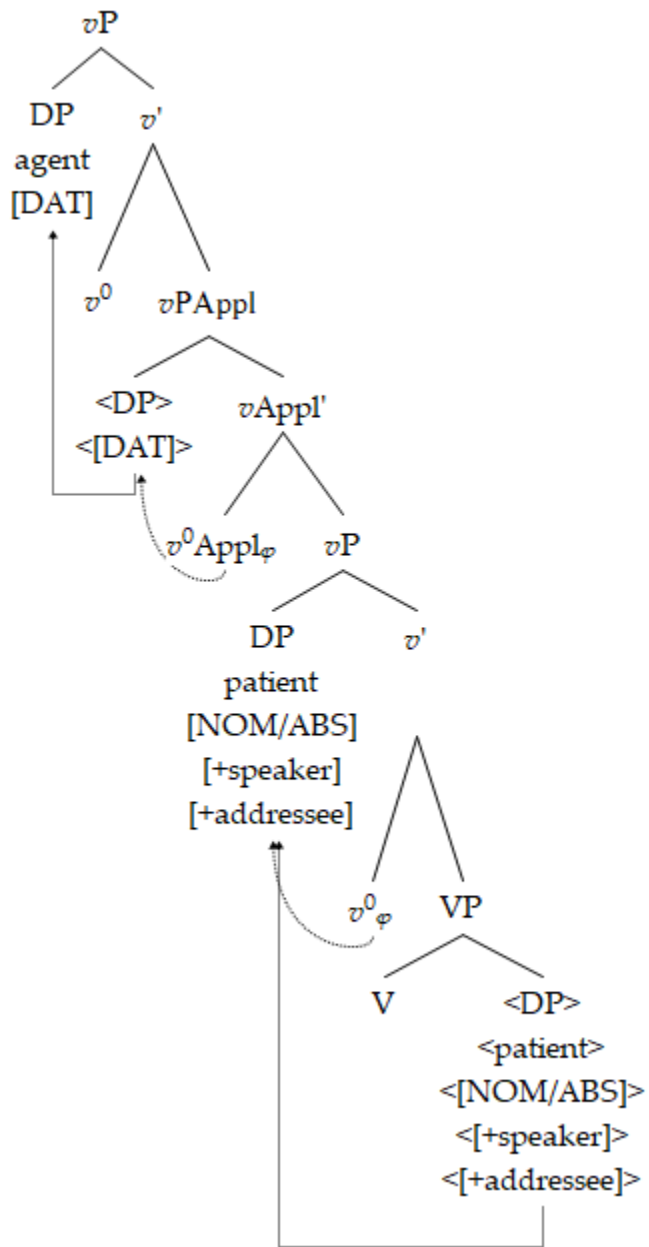
The patient argument in (83) moves for Agree to Spec,*v*P of an additional *v*P layer, but the open question is why the dative argument would move to Spec,*v*P of the *v*P that introduces external argument if it has already established an Agree relation *v*P internally. One possible explanation would be to get the agentive thematic role. However, as

thematic roles are more semantic, than syntactic they cannot be triggers for the subject movement. Another possibility is to assume that dative subjects in Perfect tenses have dependent or in traditional terminology uninterpretable Aspect features [uPRF] (if we assume perfect to be an aspect) or [uPFV] (if we assume perfect to be a tense) that can be checked off only after moving to Spec,vP (84).

(84)
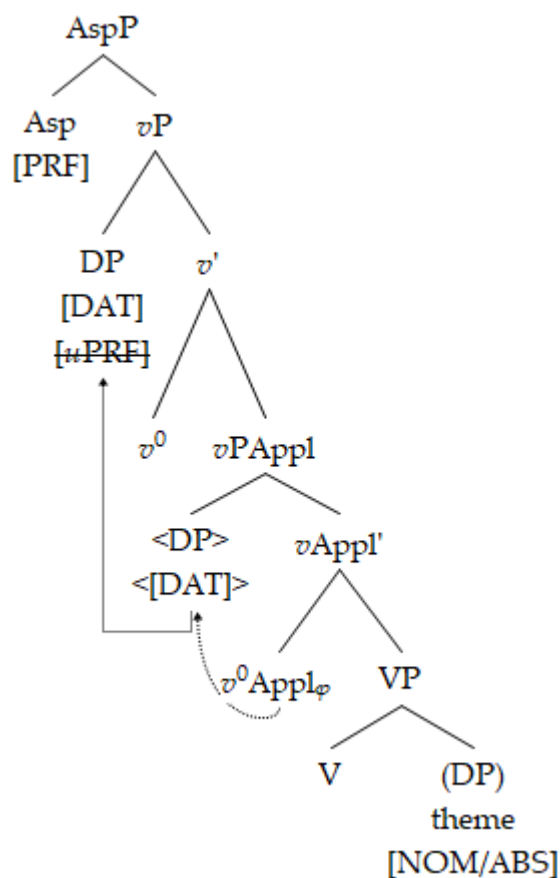
Yet, another possible explanation, probably the most plausible one, would be to assume that, unlike goal or experiencer dative arguments, agent datives enter an Agree relation not with v^0Appl, but with the higher v^0, which introduces the external argument, thus leading to the m-set agreement (generally characteristic to "objects") with an external

argument. In such a case, the dependent dative case already assigned *v*P internally is accessible for Agree, and the movement to Spec,*v*P can be explained simply as a result of establishing an Agree relation (85).

(85)
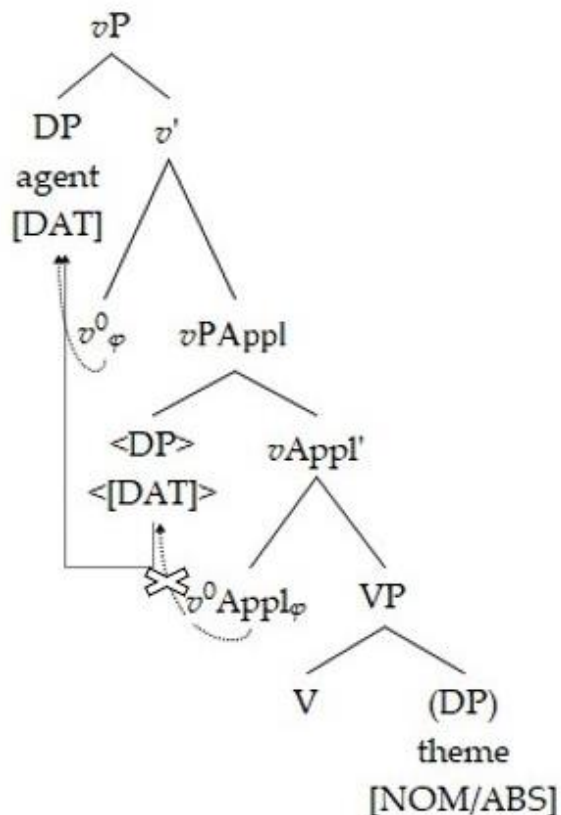
For my purposes, whichever hypothesis we follow, the main point still is the same: dative subjects in perfect tenses show agreement with v^0 heads, not with T^0, leading to *m*-set agreement markers on the surface level and showing that dative, or more precisely a dependent case assigned to the higher argument in *v*P, is accessible for Agree.

6.4.2.3 *Dative experiencer subject agreement*

It has been mentioned in the literature that the experiencer subjects behave in a similar way and have a similar structure to dative subjects of perfect/evidential tenses (see, for instance, Marantz 1989). Even if we do not regard them to be the same, the experiencer subjects show the same *m*-set agreement patterns and that Agree relationship is established *v*P internally. The difference with the perfect subjects is that they do not get the agentive thematic role and that both experiencers and theme arguments remain in the *v*P internal position, and agree *v*P internally. As already outlined in Sub-section 6.3.2, different proposals have been made in the literature on how object agreement actually happens in Georgian, focusing mostly on person asymmetry (see Sub-section 6.3.2 for some accounts). Still, most of the *Agree*-based approaches (see also Blix 2021 for the nano-syntax account, who proposes that *Fusion* is the only operation needed to address person constraints in Georgian agreement), assume that the probe for the object agreement, and subsequently for experiencers is v^0 (see Béjar & Rezac 2009 for the cyclic agree account; Lomashvili & Harley 2011 for the morphological template account; Nevins 2011 for the multiple agree account). For instance, in Lomashvili & Harley's account (2011), as in Bejar's analysis (2003), the goal/experiencer is base-generated higher than theme, and triggers agreement on v^0, which is the highest v^0 also introducing the external argument, Agreement happens between a φ-probe and the goal c-commanded by the probe.

In my account, the probe in the experiencers is the $v\text{Appl}^0$ for the dative arguments, and the agreement happens *v*P internally in an Upwards Agree fashion (following Zeijlstra 2012 and other UA accounts). Note that some experiencer verbs show agreement for both *v*P internal arguments if the lowest argument is indicated by the marked person features. It has been shown in the literature (see, for instance, Béjar 2003; Lomashvili & Harley 2011) that in such cases, the agreement depends on the person markedness, based on the assumption proposed by Béjar (2003: 35) that "an unmarked feature cannot satisfy

a probe". We already observed the same situation in perfect tenses (88), thus we need two v^0 probes to establish an Agree relationship. The structure is similar to the one presented in (96), without moving the dative argument to the Spec,vP (86).

(86)

```
        vP
       /\
         v'
        /\
      v⁰   vPAppl
           /\
         DP    vAppl'
        [DAT]   /\
            v⁰Applφ   vP
                     /\
                   DP      v'
                 patient   /\
                [NOM/ABS]
                [+speaker]
                [+addressee]
                          v⁰φ    VP
                               /\
                             V      <DP>
                                  <patient>
                                  <[NOM/ABS]>
                                  <[+speaker]>
                                  <[+addressee]>
```
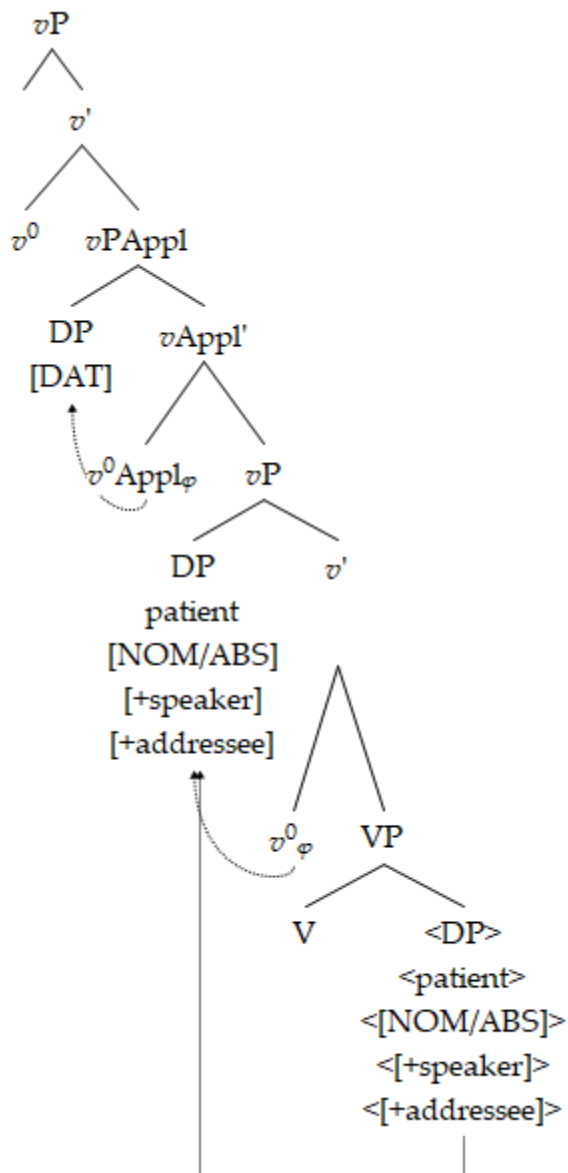
It has been argued in the literature that the experiencer verbs that show agreement with DOs are complex verbs, containing both the verb stem and a dummy auxiliary *v/x-ar*

'to be', that looks like the first-person present tense (see Béjar 2003; Lomashvili & Harley 2011 among others). However, at the synchronic level, there is no indication that there is a separate auxiliary verb, and *v/x-ar* 'to be' are just grammaticalized agreement markers. This has been explicitly argued by Wier (2011a: 151–152); here, I just reproduce his most important arguments, namely, that, if it were a true auxiliary, (a) we would not expect a doubling of the same markers, as in *v-u-q'var-v-ar* '(s)he loves me'; (b) we would expect auxiliary in 3rd person, contrary to *u-q'var-s* '(s)he loves him/her'; (c) one would be able to move the auxiliary under other contexts. For my purposes, this is important as it definitely indicates that the φ-probe for an Agree relationship cannot be T^0, *pace* to what has been claimed by Nash (1994). Thus, the dative cannot act as an intervener in establishing of an Agree relationship, because there is no need to establish a downward agreement with the lower argument via dative. Under this view, dative can be a structural case.

In their analysis of the experiencer datives Marantz (1989), McGinnis (1997), Béjar (2003), and Lomashvili & Harley (2011) assume that experiencer verbs are underlyingly like double-object verbs with a non-thematic subject position. In this view, both arguments are *v*P internal, and the experiencer is in the higher position than the theme. This means that the dative argument does not have to move to Spec,*v*P to fill the non-thematic position, contrary to what we have seen in perfect tenses, where Spec,*v*P must be filled due to its thematic position. I also follow this assumption, because, in my account both arguments agree *v*P-internally. See the structure for dative subject agreement in (87) reproduced from Béjar (2003: 136), for whom, however, the agreement is "inversive" and T^0 is a probe only for number features, while v^0 for person features.

   (87) "inverse agreement – [Spec, v*] is non-thematic

        T…v*…[DAT …*v* … [V… OBJ]

#-   π- "

The fact, that dative subject constructions have a non-thematic subject position has been explicitly discussed in the literature, so I simply refer the reader to the already existing accounts (Marantz 1989; McGinnis 1997; Béjar 2003; Lomashvili & Harley 2011 among others). Unlike, however, the previous assumptions, I do not assume that dative is inherent, because it undergoes an Agree relationship, and an Agree relationship is established in the UA fashion. Aside from this, there are several points in which my account differs from the previous ones; for instance, I do not agree that the structure of dative experiencers is the same as in the case with two-place passives of ditransitive verbs in Georgian. As has been already shown in Sub-section 6.3.1, the dative arguments in these constructions are not derived subjects *pace* Béjar (2003) and Lomashvili & Harley (2011). Moreover, in the same spirit, the fact that there is indeed an extra position in the dative constructions cannot be proved by the examples (98 and 89) provided in Béjar (2003), for whom the object anaphor cannot displace to the left of the embedded non-dative subject, but can displace to the left of the embedded dative subject.

        Georgian (Béjar 2003: 135)

(88) a. Nino-s   unda   [rom   Lali-m   naxos   tavisi tavi   t'elevisor-shi].

         N.-DAT   wants   that   L.-ERG   see(opt)   self-NOM   television-on

         'Nino wants Lali to see herself on TV.'

    b. *Nino-s   unda   [rom tavisi tavi   Lali-m   naxos   t'elevisor-shi]

       N.-DAT   wants   that   self- NOM   L.-ERG   see(opt) television-on

(89) a. Nino-s   unda   [rom   Lali-s   achuenos   tavisi tavi   televisor-shi].

N.-DAT   wants   that   L.-DAT   watch (opt)[46]   self- NOM   television-on

'Nino wants Lali to watch herself on television.'

b.   nino-s*i*   unda   [rom   tavisi tavi*i/j*   lali-s*j*   achuenos   t'elevizor-shi]

N.-DAT   wants   that   self- NOM   L.-DAT   watch (opt)   television-on

The dative argument in the embedded clause (89b) is not a subject, but an indirect object *pace* Béjar (2003: 135), and that is the reason why the overriding is possible. The object anaphor cannot displace to the left of the subject (regardless which case it should have). The only possible binding relation is that with the subject (co-referenced by the ergative *pro* in the embedded clause) and not with the object (90).

(90)   nino-s*i*   unda   [rom   *pro*   tavisi   tavi*i/*j*   lali-s*j*   achvenos   t'elevizor-shi].

Nino-DAT   wants   that   ERG   self- NOM   Lali-DAT   show   television-on

'Nino wants to show herself to Lali on TV'

The existence of the empty non-thematic position, however, can be proved from the independent observation that experiencer verbs never allow the use of the subjective version marker (reflexive marker), and the subjective version is available only with transitive predicates which have an agentive thematic position and introduce DO in the structure. Experiencers, on the other hand, allow only an objective version (91).

	transitive subjects with subjective version	*experiencer subjects with objective version*
(91)	v-i-shen-eb	m-i-q'var-s

---

[46] Transliteration, translation and glosses are not adapted from the original source. The translation of *achvenos* in Béjar (2003) is *watch,* though the right translation would be *show*.

1SG-PV(SBJ)-build-THM	1SG-PV(OBJ)-love-3SG
'I build for myself'	'I love (him/her)'
Ø-i-shen-eb	g-i-q'var-s
2SG-PV(SBJ)-build-THM	2SG-PV(OBJ)-love-3SG
'You build for yourself'	'You love (him/her)'
i-shen-eb-s	u(*i)-q'var-s
PV(SBJ)-build-THM-3SG	PV(OBJ)-love-3SG
'(S)he builds for herself/himself'	'(S)he loves (him/her)'

Although this diagnostic, at the surface level, is not overt in 1ˢᵗ and 2ⁿᵈ person, as phonologically the same marker *i-* is shared by the objective and subjective versions (see, for the extensive distribution of the *i-* marker in Georgian Gurevich 2006; Gogolashvili et al. 2011; Lobzhanidze 2022 among others), 3ʳᵈ person makes a clear distinction between the *i-* reflexive and *u-* applicative, thus, indicating that there is no transitive construction in the experiencer verbs and no external thematic subject position.

To sum up, dative subjects with experiencer verbs, just like datives in perfect/evidential tenses, show agreement with v^0 heads, not with T^0, resulting in *m*-set agreement markers at the surface level. As such, dative must be analyzed as a structural, dependent case accessible for Agree.

6.4.3 Interim summary on the analysis of dative as a DC

In my analysis, I have shown that the dative meets all the requirements of a dependent case. During derivation, it has a second DP with an unvalued case features (in case of the monoargumental dative predicates, this is an implicit argument), it is accessible for Agree and is not associated with one thematic position (as perfect agentive subjects and experiencer subjects show). The surface agreement markers show that dative arguments

are always tied to *m*-set markers due to the realization of the case in the *v*P internal position. The consequent conclusion is that DSM on verbs is due to the case of the argument, but not of the m-case, as the mapping between syntactic and morphological (i.e. a morpho-phonologically realized case form) cases may be different, but syntactically speaking of the dependent case which is realized in *v*P domain. As such, there is no mismatch of DSM on verb and case. The case realized upwards in *v*P domain is what we conventionally call "dative", and the main thing is that the assigning of the dative in *v*P domain does not block the assigning of the ergative in CP domain, as the internal argument of VP remains visible for the case assignment in the larger CP domain. Thus, two dependent cases are available in the structure, with the restriction that these cases must not be realized in the same spell-out domain.

7. Conclusions and theoretical implications for Case-theory

In this work, I have argued for the preference of DCT to the analysis of case assignment, on the example of Georgian subject cases. The main thesis is that all subject cases in Georgian, including the so-called 'non-canonically or differentially marked', i.e. ergative and dative, are structural and can be analyzed adopting DCT. The key argumentation for this claim concerns the existence of the second DP in the same case-assignment domain, and the accessibility of all subject cases to the Agree operation.

I begin with the illustration that the most of the widely applied cross-linguistic tests to check structural vs. inherent cases are either inapplicable or lead to equivocal results in Georgian, based on the parametric properties of the language. Then, I apply the remaining tests to determine the case 'status' and demonstrate, that both ergative and dative reflect mostly structural properties.

Afterwards, I discuss problematic-at-first-sight issues for the DC rule, such as ergative marking with unergative verbs, and present extensive evidence that verbs without a second DP do actually involve an implicit argument in the structure. I also propose some new language-specific diagnostics to test various properties associated with subject marking in Georgian, including the insertion of a D head as a residual of a DP used with null or cognate objects. Furthermore, I discuss differential agreement patterns associated with dative subjects and show that there is no mismatch between DSM on verb and case assignment on DP.

The discussed topic seems to be language-specific, but it has broader theoretical and cross-linguistic implications. In this concluding chapter, I will not go through all key findings and arguments as presented chapter-by-chapter, but will focus on the logical case-assignment model which I assume to be operative for Georgian.

As DCT comes about in different versions (starting from Marantz 2000 [1991]), the one I am mainly adopting for the analysis of ergative and dative subjects in Georgian is that

of Baker (2015), following him in such main postulates as (a) that functional heads do not play any role in checking-off case features; (b) that case assignment happens in syntax proper, not post-syntactically (contra to what was proposed by Marantz 2000 [1991]; and further developed in McFadden 2004; Bobaljik 2008; Sigurðsson 2009; but in line with Baker & Vinokurova 2010; Preminger 2014; Baker 2015; Levin 2015); and, (c) that dative case can be assigned configurationally in vP domain.

My account differs from that of Baker's (2015) in that I do not adopt a hybrid version of case assignment, i.e. assignment by a functional head and DC assignment within the same language (see Baker & Vinokurova 2010; Baker 2015; see also Nash 2017 for the hybrid approach, but in different terms to Georgian ergative), and do not regard vP to be a phase.

The structure I am assuming for the clausal spine is the standard C-T-v-V structure, but without postulating C^0 and v^0 to be phase heads. The key assumption is that v^0 *apriori* cannot be a phase head within my theory, as, in this case, the second DP with unvalued case features in vP would be inaccessible for the assignment of ergative in CP, thus violating the PIC.

In brief, I assume for Georgian, that only ergative subjects are base-generated in Spec,vP; nominative/absolutive subjects are base-generated either in Spec,vP or in Comp,V and then raised to the subject position; and dative subjects are base-generated in Spec,ApplP and then raised to the subject position or interpreted as subjects (with an unfilled non-thematic position).

In my understanding, arguments in derivation are introduced by functional heads, but are not assigned case by the same heads and heads do not play any role afterwards to check-off case features. This is in line with what has been postulated by Baker (2015) for structural cases in languages with DCs. In his view, DC assignment is not contingent on whether there is a particular functional head in the case-assignment domain. But,

"different functional heads can help determine which particular case is assigned in a given configuration" (Baker 2015: 51).

I go further, and suggest to set apart from the Chomsky's (1981 *et seq.*) case assignment by the head, both for structural and inherent cases. In this I am departing from Preminger (2021), who includes both inherent and lexical cases under the *head* case label. See Preminger's reformulation of Marantz's (2000 [1991]) Disjunctive Case Hierarchy (DCH) in (1).

(1) *Reformulated Marantz's DCH* (Preminger 2021: 8)

unmarked case << dependent case << head case

For Preminger (2021), inherent case assignment is a classical example of case assigned by the functional head: v^0 ergative and $Appl^0$ dative, while lexical case is assigned by lexical heads: V^0 or P^0. The status of functional vs. lexical heads is also questioned by Preminger (2021). I do not follow Preminger's (2021) reformulation because I assume this to be still head assignment though in different terms, thus leading us again to a hybrid and not a minimal approach. In what I follow Preminger (2021) is that structural case assignment can be fully covered by the dependent case rules. He explicitly argues that dependent case assignment makes the same predictions and is more minimal, i.e. requires less operations (see for a detailed argumentation Preminger 2021).

Taking into account the main postulates of the pure DCT, I follow the widely accepted assumption that it is the case-assignment domain that matters while assigning case to the argument, and not head as such. The head definitely selects DP, and this c-selection is what has been assumed in fact by some scholars to be an abstract case (Zeijlstra 2020), but head does not assign case and is not needed for checking case-features. Hence, I propose removing inherent cases from the case-assignment architecture for Georgian.

Based on the Marantz's formulation (2000 [1991]) and the subsequent works of Baker (2014b; 2014a; 2015) *a.o.*, the rules for dependent case assignment which I am adopting in my account for Georgian are presented as in (2). They mainly follow Baker's formulation (2015) of Marantz's proposal (2000 [1991]) with the difference that I do not assume *v*P to be a phase and subsequently I use the label *case-assignment* domain.

(2)   *DC rules* (based on Marantz 2000 [1991] and Baker 2015)
        a. if there are two distinct DPs in the *v*P case-assignment domain, such that DP$_1$ c-commands DP$_2$, then value the case feature of DP$_1$ as *dative.*
        b. if there are two distinct DPs in the CP case-assignment domain, such that DP$_1$ c-commands DP$_2$, then value the case feature of DP$_1$ as *ergative.*
        c. if there are two distinct DPs in the CP case-assignment domain such that DP$_1$ c-commands DP$_2$, then value the case feature of DP$_2$ as *accusative.*
        d. the second DP, after the realization of all dependent cases in both (*v*P and CP) case-assignment domains gets unmarked/default realization, i.e. *absolutive/nominative.*

As my account is about differential subject marking, I do not include DP as the case-assignment domain, where unmarked case is genitive. All assignments, of course, happen when the second argument in the structure has not been already marked for case. Moreover, (2d) highlights that all unmarked cases are assigned after all dependent cases in *both case-assignment domains* have been marked for case. This property is important for Georgian, as it underlines that there is no need for two unmarked/default cases in the structure with two dependent cases, seeing as all dependent cases are realized before unmarked. The thing that matters for the dependent case assignment is the existence of the second DP in the same case-assignment domain, with an unvalued case feature, and not with an unmarked/default case feature.

Schematically, operation of the structural case assignment by dependent case rules in Georgian happens in three steps: First, dative case is assigned in vP (3). Next, ergative or dative/accusative is assigned in CP (4), up and down respectively. Finally, unmarked case: nominative/absolutive is assigned (5) to the DP with unvalued case features.

(3) **1st step:** vP domain DP₁ is assigned dative
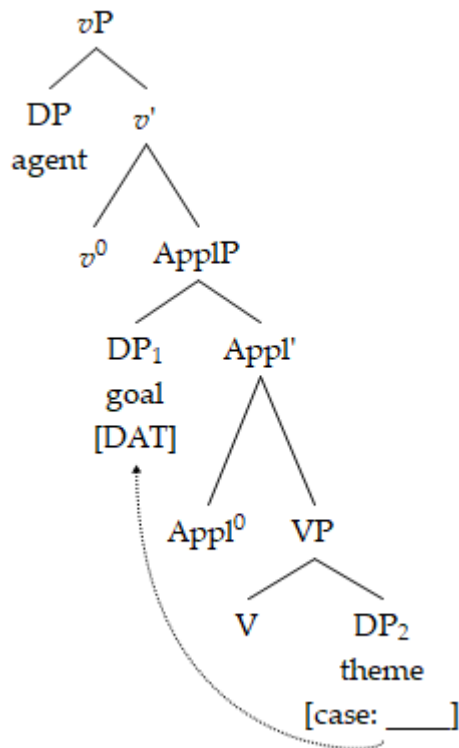
(4) **2nd step:** CP domain DP₁ is assigned ergative, or accusative
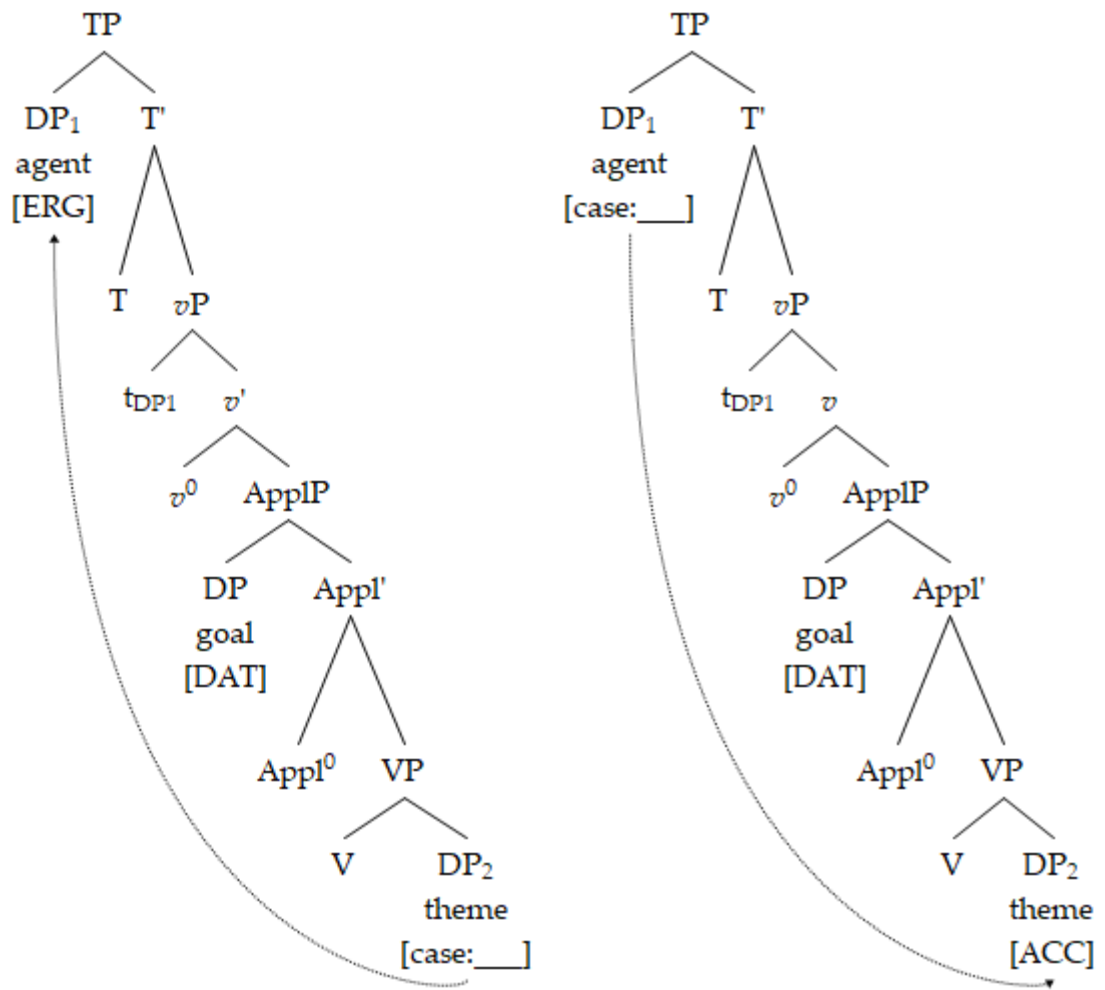
(5) **3rd step:** DP with an unvalued case feature is assigned unmarked case.

TP
- DP$_1$ agent [ERG]
- T'
  - T
  - vP
    - t$_{DP1}$
    - v'
      - v^0
      - ApplP
        - DP goal [DAT]
        - Appl'
          - Appl^0
          - VP
            - V
            - DP$_2$ theme **[NOM/ABS]**

TP
- DP$_1$ agent **[NOM/ABS]**
- T'
  - T
  - vP
    - t$_{DP1}$
    - v'
      - v^0
      - ApplP
        - DP goal [DAT]
        - Appl'
          - Appl^0
          - VP
            - V
            - DP$_2$ theme **[ACC]**
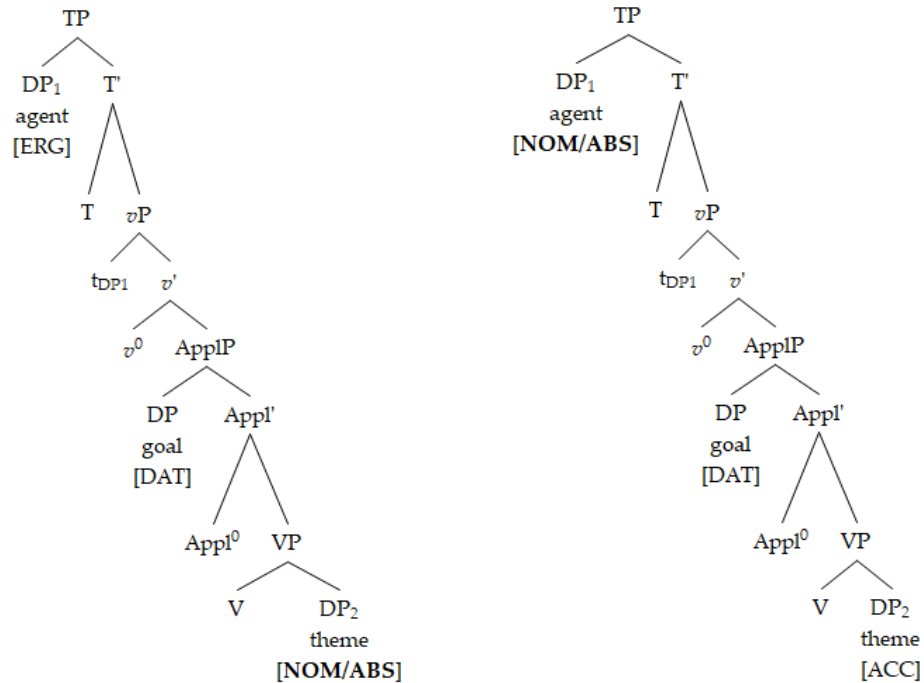
DC theory also presupposes that agreement happens on the basis of an already assigned case, i.e. post-syntactically. Bobaljik's idea (2008) about post-syntactic agreement has attracted a large amount of interest in related literature. It has been argued by many scholars, that agreement happens not post-syntactically, but in syntax proper (see Baker & Vinokurova 2010; Preminger 2014; Baker 2015; Levin 2015 for argumentation, see also Chapter 2). In brief, it is assumed that syntax cannot see morphological case, as it is a lookahead problem. But what syntax can see is DP's c-selection, the number of arguments and case type: dependent, unmarked and lexical.

So, agreement happens not on the basis of the morphological case as was postulated by Bobaljik (2008), an idea I personally like for Georgian, because it is m-case and not grammatical function that seems to be decisive for the agreement, but on the basis of case

type. For Preminger (2014), agreement is *case-discriminating* and is not contingent on m-case. Thus, syntax sees which case is eligible for agreement. Following Bobaljik (2008), there are only two possibilities: unmarked case vs. unmarked and dependent case. Georgian shows the following case realization system for subjects (Table 7.1).

Table 7.1: Differential subject C/cases in Georgian

m-case	s-case	domain	agreement	φ-probe
nominative/absolutive	unmarked/default	CP	eligible	T^0
ergative	dependent	CP	eligible	T^0
dative	dependent	vP	eligible	v^0/Appl^0

Finally, I would suggest different levels for what we call "case assignment":

a) **The abstract level**: c-selection of DPs by a particular head (following Zeijlstra 2020; Preminger 2021).

   On this level the differentiation of so-called lexical and structural cases happens: (1) DPs which are selected (s-selected) by certain lexical heads (certain Vs and Ps) are realized later on as lexical cases or enter derivation with valued case features; and, (2) DPs which are introduced (c-selected) by certain functional heads (as v^0, Appl^0 and T^0) are realized later on as structural cases;

b) **The narrow syntax level**: Assignment of case type: unmarked < dependent < lexical, originally proposed by Marantz (2000 [1991]) as morphological case type assigned at PF, i.e. at postsyntactic level (see also McFadden 2004; Bobaljik 2008; Sigurðsson 2009), afterwards tied to the narrow syntax (Baker & Vinokurova 2010; Polinsky & Preminger 2014; Baker 2015; Levin 2015).

   On this level, the type of cases is distinguished in different domains (say CP, vP or DP). These cases do not need any licensing/checking mechanism, but they show

which case type will be accessible for φ-agreement: unmarked or unmarked and dependent (see Bobaljik 2008). So, the agreement sees case type unmarked and dependent and not what we call "nominative", "ergative" or "dative";

c) **The syntax level**: Assignment of the case based on its syntactic position which was determined by the previous levels.

Cases from this level are what we conventionally label "nominative/absolutive", "ergative", "accusative", "dative", etc. This assignment is not directly related to GF, GR or thematic argument (as it follows the abstract case assignment algorithm), but can be interpreted as grammatically conditioned or semantically motivated, i.e. as case of subjects/objects or of agents/goals/themes. This level is already not abstract, but a real syntactic level;

d) **The morphological level:** Marking of the case by adding a morphological case marker, i.e. inflectional case marker, which typically marks an argument's relation to other parts of the clause on the surface, postsyntactic, PF level, i.e. morpho-phonologically realized case form.

The mapping between syntactic and morphological cases may be different, for instance, the syntactic case of "accusative" (labelled as a case for DO/theme argument) may be realized morphologically as "accusative", "dative", "genitive" or "nominative/absolutive".

In sum, what is of key importance for CT, is that DC is contingent on the existence of a second DP in the local/same domain. Dependent (i.e. uninterpretable) features are contingent on the existence of the DP's features, highlighting once more that the main syntactic property is dependency (both in case assignment and agreement). On the abstract level both DC and DF (i.e. [uφ]) see just DP, thus, the [D] feature is most important for case assignment.

Afterword

I hope that current contribution gives some interesting insights on how natural language actually works and there are many pointers through the whole thesis on which further investigation can be built. In several cases, the discussion is more extensive than expected, as it is oriented on two kinds of readers, both the Georgian and the international linguistic community. Consequently, the results presented in this work are also of interest from a twofold perspective: for the Georgian linguistic community from the theoretical point of view, as no thesis has been defended so far in the minimalist GG framework in Georgia, and for the international linguistic community from the empirical point of view, as it presents an alternative view on the Georgian language. Furthermore, I acknowledge that in several instances my analysis differs from what is expected through the perspective of the English-speaking linguistic community who work on the Georgian language, but as a native linguist, I take the responsibility of seeing things differently. It should be mentioned that although in the thesis I pointed out some counterarguments against the existing analyses, I was not always able to provide straight, minimalist solutions to all the questions raised. Hopefully, this can be done in the future, because there 'will always be somebody to pick up where you left off' (Walter Gropius), but this will already be another story.

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Appendix A. Test samples (GDSMC)

Appendix A illustrates a sample test checking structural vs. non-structural case based on A-movement, namely passivization. Different variants are possible for the passivized sentences, but the sample includes just one produced by the consultant, namely: GDSMC-KAT-Q04-P04.

Monotransitive clauses

Checking subject case (NOM/ABS, ERG and DAT) alternation under passivization depending on tense and aspect.

(1) a. nino k'itkhul-ob-s ts'ign-s.

Nino.NOM/ABS read-THM-3SG.SBJ book-DAT/ACC

'Nino reads a book.'

b. ts'ign-i i-k'itkh-eb-a

book-NOM/ABS PASS-read-THM-3SG.SBJ

'The book is being read.'

(2) a. Nino-m ts'a-i-k'itkh-a ts'ign-i.

Nino-ERG PR-PV-read-3SG.SBJ:PFV.PST book-NOM/ABS

'Nino read a book.'

b. ts'ign-i ts'ak'itkhul-i=a.

book-NOM/ABS read.PTCP-NOM/ABS=COP

'The book is read.'

(3) a. nino-s ts'a-u-k'itkh-av-s ts'ign-i.

Nino-DAT   PR-APPL-read-THM-3SG.SBJ:PRF   book-NOM/ABS

'Nino has read a book.'

b.   ts'ign-i   ts'ak'itkhul-i=a.

book-NOM/ABS   read.PTCP-NOM/ABS=COP

'The book is read.'

Ditransitive clauses

Checking case alternation of dative goal argument under passivization in DOCs.

(4)   a.   nino   u-k'itkh-av-s   ts'ign-s   mariam-s.

Nino.NOM/ABS APPL-read-THM-3SG.SBJ   book-DAT/ACC   Mariam- DAT

'Nino reads a book to Mariam.'

b.   ts'ign-i   ts'a-i-k'itkh-a   nino-s   mier   mariam-is-tvis.

book-NOM/ABS   PR-PASS-read-3SG.SBJ:PFV.PST   Nino-GEN   by   Mariam-GEN-for

'The book was read to Mariam by Nino.'

(5)   a.   nino-m   ts'a-u-k'itkh-a   ts'ign-i   mariam-s.

Nino-ERG   PR-APPL-read-3SG.SBJ:PFV.PST   book-NOM/ABS   Mariam-DAT

'Nino read a book to Mariam.'

b.   ts'ign-i   ts'a-i-k'itkh-a   nino-s   mier   mariam-is-tvis.

book-NOM/ABS   PR-PASS-read-3SG.SBJ:PFV.PST   Nino-GEN   by   Mariam-GEN-for

'The book was read by Nino to Mariam.'

(6)   a.   irak'li   u-mal-av-s   satamasho-s   lela-s.

Irakli.NOM/ABS APPL-hide-THM-3SG.SBJ toy-DAT/ACC Lela-DAT

'Irakli hides a toy from Lela.'

b. damaluli=a satamasho irak'li-s mier lela-s-gan.

hidden.PTCP=COP toy.NOM/ABS Irakli-GEN by Lela-GEN-from

'The toy is hidden from Lela by Irakli.'

(7) a. irak'li-m satamasho da-u-mal-a lela-s.

Irakli-ERG toy.NOM/ABS PR-APPL-hide-3SG.SBJ:PFV.PST Lela-DAT

'Irakli hid a toy from Lela.'

b. satamasho damaluli=a lela-s-tvis irak'li-s mier.

toy.NOM/ABS hide.PTCP=COP Lela-GEN-for Irakli-GEN by

'The toy is hidden from Lela by Irakli.'

(8) a. mosts'avle-eb-ma masts'avlebel-s ts'ign-i da-u-brun-es.

pupil-PL-ERG teacher-DAT book-NOM/ABS PR-APPL-return-3PL.SBJ:PFV.PST

'The pupils returned the book to the teacher.'

b. masts'avlebl-is-tvis ts'ign-i dabrunebuli=a mosts'avl-is mier.

teacher-GEN-for book-NOM/ABS return.PTCP=COP pupil-GEN by

'The book is returned by the pupil to the teacher.'

(9) a. giorgi-m mariam-s ts'eril-i ga-u-gzavn-a.

Giorgi-ERG Mariam-DAT book-NOM/ABS PR-APPL-send-3SG.SBJ:PFV.PST

'Giorgi sent a letter to Mariam.'

b. ts'eril-i gagzavnili=a giorg-is mier mariam-is-tvis.

book-NOM/ABS send.PTCP=COP Giorgi-GEN by Mariam-GEN-for

'The letter is/was sent by Giorgi to Mariam.'

Filler sentence (derived transitive clause)

Checking whether consultants produce passive or unaccusative.

(10)   a.   irak'li   a-tsin-eb-s   meri-s.

                 Irakli.NOM/ABS   PV-makes_laugh-THM-3SG.SBJ   Mary-DAT

                 'Irakli makes Mary laugh.'

       b.   meri   gatsinebuli=a   irak'li-s   mier.

              May.NOM/ABS   made_laugh.PTCP=COP   Irakli-GEN   by

              'Mary has been made to laugh by Irakli'.

Appendix B. Properties of dative subjects

Appendix B contains the two following tables: Table B.1 List of dative experiencer subjects and Table B.2 Examples of dative arguments in the subject position.

The list provided in Table B.1 is based on the verb index by Melikishvili (2001). The verbs are included in 1st person to show agreement marker types, and not in 3rd person following Georgian tradition (see Lobzhanidze 2019 for different standards of indicating Georgian verbs in dictionaries). It includes frequent verbs, the English translation, the number of arguments associated with verbs and cases of arguments. Translation is provided using the comprehensive Georgian-English Dictionary (Rayfield 2006). For other lexical meanings of the verbs consult the above-mentioned dictionary. For the examples based on indirect and stative verbs in Georgian, consult Hewitt (1995: 211–219; 2005 [1996]: 364–392). The list is not exhaustive, and merely indicates the most common patterns needed for discussion.

Table Error! No text of specified style in document.**.1:** List of dative experiencer subjects

Subject Experiencer verbs	Arguments
miq'vars 'to love'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mdzuls 'to hate'	biargumental: SBJ.DAT – OBJ.NOM/ABS
momts'ons 'to like'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mq'avs 'to have' (for animates)	biargumental: SBJ.DAT – OBJ.NOM/ABS
makvs 'to have' (for inanimates)	biargumental: SBJ.DAT – OBJ.NOM/ABS
minda 'to want'	biargumental: SBJ.DAT – OBJ.NOM/ABS
msurs 'to want/to desire'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mts'q'ins 'to upset'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mesmis 'to hear/to understand'	biargumental: SBJ.DAT – OBJ.NOM/ABS
makhsovs 'to remember'	biargumental: SBJ.DAT – OBJ.NOM/ABS

Subject Experiencer verbs	Arguments
mkvia 'to be called'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mkhiblavs 'to bewitch sb/sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mich'irs 'to suffer'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mik'virs 'to be surprised'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mshurs 'to be jealous'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mts'ams 'to believe in sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mirchevnia 'to prefer'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mak'lia 'to lack sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mikharia 'to be happy'	biargumental: SBJ.DAT – OBJ.NOM/ABS
meshinia 'to be afraid'	biargumental: SBJ.DAT – OBJ.GEN NOM/ABS
mgonia 'to seem to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
shemidzlia 'can'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mchvevia 'to be accustomed'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mik'avia 'to hold sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mshia 'to be hungry'	monoargumental: SBJ.DAT
mts'q'uria 'to be thirsty'	monoargumental: SBJ.DAT
matsvia 'to wear'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mtsalia 'to have time'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mrtskhvenia 'to feel ashamed'	biargumental: SBJ.DAT – OBJ.GEN NOM/ABS
mimachnia 'to appear/seem to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mq'opnis 'to be enough for sb/sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mdzinavs 'to sleep'	monoargumental: SBJ.DAT
mghvidzavs 'to be awake'	monoargumental: SBJ.DAT
makhsendeba 'to come to sb's mind'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mch'irdeba 'to be in need of sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
magviandeba 'to be late'	monoargumental: SBJ.DAT
mavits'q'deba 'to forget'	biargumental: SBJ.DAT – OBJ.NOM/ABS
midzneldeba 'to become difficult for sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS

Subject Experiencer verbs	Arguments
mirtuldeba 'to become complicated for sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
meadvileba 'to be easy for sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
metsineba 'can't help laughing'	monoargumental: SBJ.DAT
met'ireba 'to feel like weeping'	monoargumental: SBJ.DAT
mesizmreba 'to appear to sb in a dream'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mechveneba 'seems to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mekherkheba 'to have the knack of sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mezareba 'to be lazy about sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
metsodeba 'to feel sorry for sb/sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
meguleba 'to be supposed by sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
meameba 'to give pleasure to sb/to please sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
menat'reba 'to miss sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
memarteba 'happens to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
menaghvleba 'is annoying to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
medardeba 'gives sb grief'	biargumental: SBJ.DAT – OBJ.NOM/ABS
menaneba 'to regret sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mezizgheba 'is loathsome to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
meech'veba 'is doubted'	biargumental: SBJ.DAT – OBJ.NOM/ABS
meamaq'eba 'to be proud of sb/sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
merideba 'to be shy of sb/sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
memghereba 'to feel like singing'	monoargumental: SBJ.DAT
mekharjeba 'will be wasted on sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mechkareba 'to hurry'	monoargumental: SBJ.DAT
mech'meva 'sth is edible for sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mesmeva 'sb my drink sth'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mtsiva 'to be cold'	monoargumental: SBJ.DAT
mtskhela 'to feel the heat'	monoargumental: SBJ.DAT
mt'k'iva 'to have a pain'	biargumental: SBJ.DAT – OBJ.NOM/ABS

Subject Experiencer verbs	Arguments
mjera 'to believe'	biargumental: SBJ.DAT – OBJ.GEN NOM/ABS
maint'eresebs 'to be interested in'	biargumental: SBJ.DAT – OBJ.NOM/ABS
makhvelebs 'to have a cough'	monoargumental: SBJ.DAT
mamtknarebs 'to yawn'	monoargumental: SBJ.DAT
mak'ank'alebs 'to make tremble'	monoargumental: SBJ.DAT
matseminebs 'to sneeze'	monoargumental: SBJ.DAT
melamazeba 'to seem beautiful to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mepataraveba 'to seem too small to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
medzvireba 'to seem expensive to sb'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mipartovdeba 'sth broadens'	biargumental: SBJ.DAT – OBJ.NOM/ABS
mivits'rovdeba 'sth narrows' etc.	biargumental: SBJ.DAT – OBJ.NOM/ABS

The list provided in Table B.2 includes examples for all persons in singular and plural, highlighting that there is no person constraint, *pro* is possible for all persons and dative case is evident from the overt m-set agreement or applicative morphology.

Table Error! No text of specified style in document..**2:** Examples of experiencer and agent (PRF) dative subjects

	experiencers	**agents (PRF)**
*pro:*1SG.DAT	**m**iq'varkhar.	mdeloze bevri **m**iseirnia.
	'I love you.'	'I have walked a lot in the meadow.'
*pro:*2SG.DAT	amis mosmena **g**irchevnia?	ulamazesi surati da**g**ikhat'avs.
	'Do you prefer to hear this?'	'You have painted a most beautiful picture.'
*pro:*3SG.DAT	irak'li **h**kvia.	lanastvis ts'erili mi**u**ts'eria.
	'He is called Irakli.'	'(S)he has written a letter to Lana.'
*pro:*1PL.DAT	**gv**gonia rom es saint'eresoa.	ts'veulebis mere bevri khalkhi ga**gv**itsnia.
	'This seems interesting to us.'	

		'We got acquainted with many people after the event.'
*pro:*2PL.DAT	net'av es tanamdeboba **g**ek'avo**t**.	es gak'vetili unda cha**g**et'arebina**t**.
	'If only you could have this position.'	'You had to give that lesson.'
*pro:*3PL.DAT	**h**q'varebia**t** es shokoladi.	t'q'istvis she**u**parebia**t** tavi.
	'They loved that chocolate.'	'They hid in the forest.'

Appendix C. Test samples (GDSMQ)

Appendix C contains test samples from the online questionnaire study designed for linguists; namely, it includes some tests from Section 3, designed to test case alternation in a non-finite environment. The sample includes Task 3.1 and some sentences from Task 3.2 and Task 3.4, filled in by one linguist consultant, namely: GDSMQ-KAT-LingQ-P04.

Task 3.1. The task was to alternate the finite clause into a non-finite (if possible) using either a verbal noun or a participle.

1. nik'a ts'avida k'inoshi pilmis saq'ureblad da ik (man) mariami nakha.

   'Nika went to cinema to see a new movie and there he met Mariam.'

---

nik'a (NOM) ts'avida k'inoshi pilmis (GEN) saq'ureblad da ik mariamis (GEN) **sanakhavad**.

nik'as (DAT) k'inoshi pilmis (GEN) sanakhavad **ts'asvlisas** mariami (NOM) unakhavs.

k'inoshi pilmis (GEN) sanakhavad **ts'asul** nik'as (DAT) mariami (NOM) unakhavs.

---

2. nik'a didi khnis ganmavlobashi elap'arak'a mariams.

   'Nika talked to Mariam during a long time'

---

nik'am (ERG) didi khnis ganmavlobashi gaagrdzela mariamtan (DAT+P) **lap'arak'i** (NOM).

? nik'am (ERG) didi khani iq'o/didi khnis **nalap'arak'evi** iq'o mariamtan (DAT+P).

nik'as (**GEN**) mariamtan (DAT+P) **lap'arak'ma** (ERG) didi khani gast'ana.

nik'as (**GEN**) mariamtan (DAT+P) **lap'arak'isas** didi khani gavida.

---

3. gega shekhvda natias k'apeshi da am shekhvedrit k'maq'opili darcha.

   'Gega met Natia at the café and he was pleased with this meeting'

---

gegas (**GEN**) **shekhvedra** (NOM) natiastan(DAT+P) k'apeshi shedga da am shekhvedrit is (NOM) k'maq'opili darcha.

---

gega (NOM) k'maq'opili darcha natiastan(DAT+P) k'apeshi **shekhvedrit.**

natiastan(DAT+P) k'apeshi **shekhvedrisas** gega (NOM) k'maq'opili darcha.

4. arts'ivma sheashina ts'eroebi. ts'eroebi gaprindnen.

    'The eagle frightened cranes. The cranes flew away.'

arts'ivis (**GEN**) **sheshinebuli** ts'eroebi (NOM) gaprindnen.

arts'ivis (**GEN**) **shenashinebi** ts'eroebi (NOM) gaprindnen.

% arts'ivis (**GEN**) **sheshinebam** ts'eroebis (GEN) gaprena (NOM) gamoits'via.

5. man sheitvisa usakmoba da sheisiskhlkhortsa uzrunveloba, shemdgomshi k'i

    tskhovreba gaurtulda.

    'He mastered idleness and became fond of leisure, later, life got complicated for him.'

mas (DAT) **shetvisebuli** usakmobisa da **shesiskhlkhortsebuli** uzrunvelobis shemdeg

tskhovreba (NOM) gaurtulda.

man (ERG) **shetvisebuli** usakmobisa da **shesiskhlkhortsebuli** uzrunvelobis shemdeg miigho

gartulebuli tskhovreba (NOM).

6. pot'ograpma saint'ereso suratebi gadaigho.

    'The photographer took interesting shots'

pot'ograpma (ERG) moakherkha saint'ereso suratebis (GEN) gadagheba (NOM).

pot'ograpis mier **(GEN+P) gadaghebuli** suratebi (NOM) saint'ereso iq'o.

7. ert-ert st'udent's moets'ona es davaleba, amit'omats (man) sts'rapad sheavso

    t'est'i

    'One of the students liked this task, that is why he filled in the test quickly.'

ert-erti st'udent'is mier **(GEN+P)** davalebis (GEN) **mots'onebam** (ERG) ganap'iroba misi

(POSS.GEN) sts'rapad **shevseba** (NOM).

ert-erti st'udent'is mier **(GEN+P) mots'onebuli** davaleba (NOM), sts'rapad sheivso.

8. chems deidashvils saint'ereso sakme akvs: mezoblis bavshvebi sk'olashi

    mihq'avs.

    'My cousin has an interesting job: he drives the neighbor's children to school.'

chems deidashvils (DAT) saint'ereso sakme (NOM) akvs: (es aris) mezoblis bavshvebis (GEN) sk'olashi ts'aq'vana (NOM).

chems deidashvils (DAT) saint'ereso sakme (NOM) akvs: (mas – 3.DAT) mezoblis bavshvebi (NOM) sk'olashi q'avs ts'asaq'vani.

---

9. gegas nat'ia satsekvaod daup'at'izhebia da turme mosts'onebia.

'Gega invited Natia to dance and it turned out that he liked her.'

---

gegas mier **(GEN+P)** nat'ias (GEN) satsekvaod **dap'at'izhebam** (ERG) misi (POSS.GEN) mosts'oneba gamoits'via.

gegas mier **(GEN+P)** satsekvaod **dap'at'izhebuli / danap'at'izhebi** natia (NOM) mis mier **(3.GEN+P) mots'onebuli** aghmochnda.

gegam (ERG) gadats'q'vit'a natias (GEN) satsek'vaod **dap'at'izheba** (NOM) da mas turme mosts'onebia (is (3NOM)).

Task 3.2. The task was to change the finite clause into a non-finite using a verbal noun. The given examples are designed solely for dative and nominative arguments with m-dative in the subject and object position, and different word order SVO vs. OVS.

1. monadires mouk'lavs iremi tq'eshi. am pakt'ma q'vela (chven) gagvaotsa.

'The hunter killed a deer in the forest. This surprised us all.'

(m-dative: subject; word order: SVO)

---

monadiris mier **(GEN+P)** tq'eshi irmis (GEN) **mok'vlam** (ERG) q'velas (GEN) **gaotseba** (NOM) gamoits'via.

---

2. monadire mouk'lavs irems tq'eshi. am pakt'ma q'vela gagvaotsa.

'The hunter was killed by a deer in the forest. This surprised us all.'

(m-dative: subject; word order: OVS)

---

irmis mier **(GEN+P)** tq'eshi monadiris (GEN) **mok'vlam** (ERG) q'velas (GEN) **gaotseba** (NOM) gamoits'via.

---

3. monadire mok'lavs irems tq'eshi. es gasaotsari ikneba.

'The hunter will kill a deer in the forest. This will be surprising.'

(m-dative: object; word order: SVO)

---

monadiris mier **(GEN+P)** tq'eshi irmis (GEN) **mok'vla** (NOM) q'velas (GEN) **gaotsebas** (DAT) gamoits'vevs.

---

4. monadires mok'lavs iremi tq'eshi. es gasaotsari ikneba.

'The hunter will be killed by a deer in the forest. This will be surprising.'

(m-dative: object; word order: OVS)

---

irmis mier **(GEN+P)** monadiris (GEN) tq'eshi **mok'vla** (NOM) q'velas (GEN) **gaotsebas** (DAT) gamoits'vevs.

Task 3.4. Some sentences from the judgement task on acceptability of nominalizations with adverbs based on the 5-point Likert Scale. The first three sentences are with verbal nouns, the next three with the future participle, and the last three with the past participle.

1. am ts'ignis **saint'eresod ts'ak'itkhva** bevr rames migvanishnebs.

   'The interesting reading of this book points us towards a lot of things.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5

2. masalis **k'argad ts'ardgenam** tskhare disk'usia gamoits'via.

   'The good presentation of the data caused hot discussion.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5

3. gegas **didad daint'eresebam** natias mier momzadebuli masalit q'vela gaaotsa.

   'The great interest of Gega in Natia's prepared data astonished everyone.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5

4. gushin gadavkhede am **saint'eresod ts'asak'itkh** masalas.

   'I looked through this interesting data to be read yesterday.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5
				▨

5. **k'argad ts'arsadgeni** masala bevr shromas itkhovs.

   'The data, to be well-presented, needs a lot of work.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5
		▨		

6. natias **didad dasaint'eresebeli** masala hkonda.

   'Natia had very interesting data.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5
		▨		

7. **saint'eresod ts'ak'itkhulma** ts'ignma bevri mitkma-motkma gamoits'via.

   'The book read in interest, caused a lot of rumors.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5
	▨			

8. **k'argad ts'ardgenil** masalas q'oveltvis tskhare diskusia mohq'veba.

   'Well-presented data is always followed by a hot discussion.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5
				▨

9. ??**didad daint'eresebulma** natias shromisunarianobit gegam is samsakhurshi aiq'vana.

   'Greatly interested in Natia's ability to work, Gega hired her.'

completely unacceptable	unacceptable	not very natural	acceptable	completely acceptable
1	2	3	4	5
	▨			