The structural representation of ergativity in Northeast Caucasian

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Abstract: The paper discusses the syntactic mechanisms underlying morphological ergativity in Khwarshi (Tsezic / Northeast Caucasian) and argues for a structural representation of the functional opposition of case forms — absolutive vs. other grammatical cases (including the ergative) vs. semantic cases — found in Northeast Caucasian languages. Specifically, it shows that the Khwarshi ergative DP is best analyzed as structurally case-marked, thus providing support for Maria Polinsky's analysis of the ergative in Tsez, another language belonging to the same family. It also claims that among the non-absolutive subjects found in Tsez, ergative and dative subjects exhibit similar behavior and therefore pattern together structurally, while locative subjects and non-subject oblique arguments should be treated differently, as PPs. This claim is supported by a novel diagnostic of the syntactic category of case forms based on the selectional restrictions of the Khwarshi attributive morpheme. Finally, the paper argues against the widely accepted view that absolutives represent structurally case-marked DPs and provides evidence for their case-less DP status.

Keywords: attributives, case, ergativity, Khwarshi, Northeast Caucasian, subject, syntactic alignment, Tsezic

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Структурная репрезентация эргативности в дагестанских языках

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Аннотация: В статье рассматриваются структурные механизмы, лежащие в основе эргативной схемы морфосинтаксического кодирования ядерных аргументов в дагестанских языках. На материале хваршинского языка (цезская группа) разрабатывается структурный анализ функциональной оппозиции падежных форм (абсолютив — прочие грамматические падежи, включая эргатив — семантические падежи). В частности, приводятся аргументы в пользу трактовки хваршинского эргатива как структурного падежа именной группы. Другие

косвеннопадежные подлежащие — дативное и посессивное — проявляют разные свойства: дативное подлежащее демонстрирует общие свойства с эргативным подлежащим и получает аналогичную репрезентацию, в то время как посессивное подлежащее группируется с косвеннопадежными дополнениями, которые анализируются как послеложные группы с нулевым послелогом. Решающим аргументом в пользу такого анализа оказывается поведение ядерных аргументов в контексте номинализации, где именные аргументы могут получать генитивное кодирование, а PP-аргументы — подвергаться атрибутивизации. Наконец, предлагается единый анализ абсолютива, связывающий его морфосинтаксические свойства со статусом беспадежной именной группы.

Ключевые слова: атрибутивы, нахско-дагестанские языки, падеж, подлежащее, синтаксические стратегии, хваршинский язык, цезские языки, эргативность

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1. Introduction

This paper aims to contribute to the theory of ergativity [Dixon 1979; 1994; Kibrik 1997; 2003; Bittner, Hale 1996; Manning 1996; Legate 2008; Aldridge 2008; Deal 2010; Baker 2015; Polinsky 2016a; Coon et al. (eds.) 2017] by presenting a wide range of data from Khwarshi, a Tsezic language belonging to the Northeast Caucasian (a.k.a. Nakh-Daghestanian) language family.[1] The data allow me to tackle three challenges which are posed by all ergative languages in the family and are highly relevant to our understanding of ergativity in general.

The first challenge concerns the characterization of the ergative case itself, its distribution and derivation. In the literature, various approaches are presented with respect to the nature of the ergative case. The ergative has been analyzed as an inherent case assigned by transitive *v* (see e.g. [Woolford 2006; Legate 2008; Aldridge 2008]) or a structural dependent case comparable to the accusative and valued on configurational grounds (e.g. [Marantz 1991; Baker 2015; Baker, Bobaljik 2017]). Another dimension in characterizing the ergative involves the internal structure of the ergative phrase: does the case form correspond to the formal feature [*u*Case], or is it instantiated as a case head K [Bittner, Hale 1996], or as a PP, where the ergative morphology spells out the P head [Asbury 2008; Markman, Grashchenkov 2012] or is assigned to the DP by a null P [Polinsky 2016a; Testelets 2016]? Taking into account that ergative

[1] The variety discussed in this paper is Khonokh Khwarshi, or Khwarshi proper, a dialect of Khwarshi spoken in the villages of Khonokh and Khwarshi, in the Tsumada district of the Republic of Dagestan, Russia. All Khwarshi dialects are unwritten; Khwarshi speakers use Avar writing in daily life. To date, Khonokh Khwarshi lacks a grammatical description in English (existing references include [Sharafutdinova, Levina 1961], on Khwarshi proper, and [Bokarev 1959], providing information on various dialects of Khwarshi, both in Russian); the most closely related variety, Inkhokwari Khwarshi, is sketched in [Testelets 1999] and described extensively in [Khalilova 2009]. In what follows the label Khwarshi refers specifically to Khonokh Khwarshi.

languages do not constitute a uniform class but rather differ drastically in their syntactic behavior, many researchers agree that different analytical options may be suitable for different ergative languages. Thus, Polinsky [2016a] proposes that the major dichotomy in the syntactic makeup of the ergative phrase is the opposition of the DP-ergative (ergative case is a structural case feature associated with a DP) and PP-ergative (ergative marker is a spellout of P or inherent case assigned by a null P). PP-ergativity, Polinsky argues, is incompatible with the ergative argument entering A-bar dependencies (relativization, constituent question, focusing, quantifier raising), thus yielding syntactic ergativity — absolutive case restriction on the target of A-bar operations.

The second challenge concerns similarities and differences between the ergative and other oblique cases. Two points are of special interest here. On the one hand, the ergative can be assimilated to other non-canonical subjects, which are attested in both ergative-absolutive and nominative-accusative languages [Zaenen et al. 1985; Landau 2010]. In Northeast Caucasian languages, for instance, experiencer subjects are usually encoded with dedicated cases, specifically the dative and / or affective; other non-agentive subjects are occasionally represented by locatives. With this respect, the question is bound to arise whether ergative subjects are structurally and functionally special in comparison with these. On the other hand, we might be interested in comparing ergatives with other indirect or oblique case forms, such as recipient / goal datives or locatives in argument positions. This comparison is intended to establish which syntactic properties of ergatives are due to their structural position and which properties follow from their internal structure.

Finally, licensing and structural representation of the absolutive is a matter of the perpetual debate. Many theories recognize a special status for the absolutive among case forms: a DP with an unmarked / default case in configurational case theories [Marantz 1991; Bittner, Hale 1996; Baker 2015] or a DP which receives a structural case from a functional head, as opposed to inherently case-marked DPs [Woolford 2006; Coon et al. 2014; Polinsky 2016a]; however, the locus of absolutive case assignment or / and licensing differs significantly (standard transitive *v*, dedicated *v*, finite T, C) not only in various languages, but also in various clauses of the same language. Thus, Aldridge [2012] argues that the source of absolutive in Tagalog is *v* in transitive clauses but T in intransitive clauses. Furthermore, the way the absolutive is licensed has been argued to partition morphologically ergative languages into various groups with differing syntactic properties. Legate [2008] distinguishes between at least two groups of morphologically ergative languages (ABS=DEF and ABS=NOM languages), which differ as to the functional head(s) licensing the absolutive in transitive and intransitive clauses. Similarly, Coon et al. [2014] argue that Mayan languages fall into two groups depending on the locus of absolutive licensing: in low absolutive languages, all the cases are assigned within the verbal domain, whereas in high absolutive languages, the absolutive raises out of the *v*P to be case-licensed by T, and this is what determines syntactic ergativity in these languages.

To sum up, ergativity is one of the most discussed and controversial issues in case theory. The most promising approach many researchers seem to adopt is to adhere to the parametric perspective and to associate various properties of various ergative languages with specific combinations of uniformly defined parameters. In the same vein, I am going to discuss the syntactic mechanisms behind morphological ergativity in Khwarshi and derive the syntactic properties and distribution of its case forms from a number of structural contrasts. In particular, I will argue for a structural opposition of case forms (absolutive — other grammatical cases including the ergative — semantic cases). I will show that the ergative in Khwarshi is best analyzed as a structurally case-marked DP, thus providing additional support to the analysis of the ergative in Tsez advocated in [Polinsky 2016a]. I will also show that among the non-absolutive subjects found in Khwarshi, dative subjects exhibit similar behavior to ergative subjects and therefore pattern together with them structurally. Moreover, I will provide evidence suggesting that locative subjects (as well as non-subject oblique arguments) should

be treated differently, as PPs. As for absolutives, I will challenge Polinsky's [2015; 2016a; 2016b; and elsewhere] view that they represent structurally case-marked DPs and present arguments for their case-less DP status.

The paper is organized as follows. In Section 2, I give an overview of basic facts about the case system and clause structure of Khwarshi and argue for specific positions of verbal arguments in the syntactic structure. In Section 3, I present syntactic evidence for two oppositions in the Khwarshi case system: (i) the opposition between direct (absolutive) and oblique (non-absolutive) case forms; and (ii) the opposition between grammatical (used to encode core arguments) and semantic case forms. Most importantly, in this section I introduce novel evidence based on the selectional restrictions of the Khwarshi attributive morpheme, used to mark certain types of adnominal dependents; this evidence not only supports the contrast argued for, but also suggests its syntactic representation. The analysis presented in Section 4 provides a characterization of the two oppositions introduced in Section 3 in terms of the internal structure of the relevant case forms. I show that restrictions on major syntactic phenomena in Khwarshi follow from the structural representation of case on arguments coupled with the c-command relations among them. Section 5 concludes.

2. Ergativity in Khwarshi

In this section, I characterize the case system and argument encoding properties of Khwarshi. Specifically, the section provides an overview of nominal categories (§ 2.1), describes the distribution of case forms (§ 2.2) and discusses the structure of the verbal domain, on the basis of c-command relations between arguments (§ 2.3). It should be noted that similar data can be obtained for other Northeast Caucasian languages (see [Forker 2017] for an overview). Thus, Khwarshi can be seen as a representative of the generalized Northeast Caucasian model.

2.1. Nominal morphology

The case system of Khwarshi is rich and is traditionally described as comprising 42 case forms. In [Testelets, Khalilova, in prep.] these are divided into two groups: grammatical cases (including absolutive and relational cases: ergative, genitive 1, genitive 2, dative) and semantic cases, represented by spatial case forms; the latter are built from a combination of orientational and directional affixes (e.g. in-essive, super-directive, sub-ablative, etc.). Nominal categories also include number (singular, plural) and noun class. Khwarshi has six noun classes in the singular and two in the plural. Class membership is partly interpretable: class I nouns denote human males, and class II nouns human females; inanimate and non-human nouns are idiosyncratically distributed between classes III, IV, and V; class VI comprises the two nouns *hãq'u* 'family' and *q'ale* 'child'. The plural reduces this to a distinction between human (classes I–II and VI) and non-human (classes III–V). Class and number are reflected in both DP-internal concord and predicate agreement.

With a few exceptions, number and case morphemes in Khwarshi are attached agglutinatively to the stem. Absolutive singular is the unmarked form of the noun; absolutive plural is derived by attaching a plural marker to the singular stem. All other case affixes are attached to the (singular or plural) oblique stem. The order of affixes is Root — Number — Case. Due to the fusion of the ergative marker with the oblique stem, the ergative often coincides with that stem (see Table 1). In other languages of the family, however, the ergative marker is easier to separate from the oblique stem.

Table 1

Partial Khwarshi nominal paradigm, the noun *es* 'sibling'

	SG	PL
ABS	*es*	*es-naba*
oblique stem	*es-t'e-*	*es-na-za-*
ERG	*es-t'i*	*es-na-za*
GEN1	*es-t'e-s*	*es-na-za-s*
GEN2	*es-t'e-lo*	*es-na-za-lo*
DAT	*es-t'e-l*	*es-na-za-l*
POSS	*es-t'e-qo*	*es-na-za-qo*

2.2. Distribution of case forms

The distribution of case forms is largely determined by the grammatical vs. semantic distinction introduced above. Absolutive and relational cases are primarily used to mark arguments of verbs: thus, ergative is the case of the transitive agent, while dative marks the transitive experiencer, as well as the recipient of giving verbs. The two genitive forms are used to modify absolutive (genitive 1) and oblique (genitive 2) noun phrases. Spatial cases are used to encode location, source, and goal. Additionally, spatial cases can have non-local uses, encoding various argumental relations, and relational cases have some adverbial functions. After this brief characterization, I discuss the distribution of case forms in major syntactic contexts.

2.2.1. Verbal arguments and adjuncts

All case forms, except for the genitive (see below), are licensed in the verbal domain. Every clause contains an absolutive argument, which controls agreement for class and number on the predicate. In monovalent verbs, the single argument is absolutive irrespective of its thematic role (1a–b). With bivalent verbs, two types of construals are attested. In transitive clauses, the subject is generally encoded by the ergative (2a); specific encoding is used with experiential verbs (the experiencer appears in the dative) and non-volitional verbs (the non-volitional agent appears in the poss-essive), (2b–c). The non-volitional agent is found with transitive verbs denoting accidental, unwillingly produced actions; poss-essive encoding is obligatory with certain verbs lexically denoting accidental achievements (e.g. *-aqa* 'find'), as well as with derived verbs containing the modal affix *-ł*. With regular transitive verbs, poss-essive encoding varies freely with ergative encoding, provided that the context is compatible with a non-volitional agent interpretation. With bivalent intransitive verbs, the subject appears in the absolutive, and the object is encoded with some oblique case, often idiosyncratically chosen (3a–b). With ditransitive verbs the theme argument is absolutive, and the goal argument is dative with verbs of giving and poss-lative with verbs of saying.

(1) a. *obu* *išša.*
father(I) I.die.AOR
'Father died.'

b. *obu* *ajda.*
father(I) I.work.AOR
'Father worked.'

(2) a. *pat'imat-i* *dija* *telefon* *l-ajsa.*
Patimat-ERG I.GEN1 phone(IV) IV-take.AOR
'Patimat took my phone.'

b. *pat'imat-e-l* *dija* *telefon* *l-ajka.*
Patimat-O-DAT I.GEN1 phone(IV) IV-see.AOR
'Patimat saw my phone.'

c. *pat'imat-qo* *ʁĩ* *j-uč'ej-ɬ-a.*
Patimat-POSS milk(V) V-pour-POT-AOR
'Patimat spilled the milk (accidentally).'

(3) a. *rasul* *pat'imat-qo-l* *gic'c'a.*
Rasul Patimat-POSS-LAT look.AOR
'Rasul looked at Patimat.'

b. *rasul* *pat'imat-e-ɬ* *oχχa.*
Rasul(I) Patimat-O-INTER I.get_offended.AOR
'Rasul got mad at Patimat.'

Spatial case forms are used as locative arguments with motion and change-of-location verbs and as adjuncts with locative and periphrastic meanings (4).

(4) a. *peč-ma* *c'an* *l-ahek'-na* *iɬi…*
stove-IN fire(IV) IV-burn.CAUS-CNV.PF she(II).ERG
'She made a fire in the stove…' (Blacksmith's sons, 31)[2]

b. *łoχ-eč* *debe-ƛ* *iʁʷa-na…*
thrice-FOC you.O-SUB lose-CNV.PF
'(I) lost to you three times…' (The tale of the shepherd and the djinn, 42)

Finally, relational cases are also used adverbially: the dative has instrumental, benefactive and temporal uses, whereas the ergative is (rarely) employed in adjuncts of cause and duration.

To conclude, all types of cases are found in the verbal domain; encoding of arguments is determined by the properties of specific verbs, and adjuncts are self-contained in that they can modify any verb phrase as long as they are semantically compatible. Absolutives are default arguments.

Genitives 1 and 2 may seem to appear in argumental positions, but this is illusory, since they are not governed by the verb, but encode the possessors of true arguments, which may be omitted (5). The distribution of genitives 1 and 2 depends on the case of the possessed argument: absolutive arguments license genitive 1, while oblique arguments license genitive 2 [Testelets 2019a].

(5) *maduƛe* *kand-i-s* (*leƛ'a*) *ħajna.*
marten.ERG girl-O-GEN1 hand bite.AOR
'The marten bit the girl('s hand).'

2.2.2. Arguments of postpositions

With postpositions, two types of case forms are found. Denominal postpositions originate from spatial case forms of locative nouns ('front', 'back', 'center' etc.), and accordingly govern genitive 2. Other postpositions govern locative cases. No postpositions governing relational cases are attested in Khwarshi; however, this is sometimes observed in other Northeast Caucasian

[2] Examples marked with text titles are from Khwarshi texts published in [Karimova 2014] or collected by Yakov Testelets during his fieldwork in Khonokh. Other examples are drawn from my own fieldwork in Khonokh in July 2019.

languages: e.g., in Bagwalal (Andic) the affective marks the experiencer subject but is also governed by a number of postpositions.

2.2.3. Predicate in copular clauses

The absolutive is the case borne by nominal predicates in specificational, taxonomic and identificational clauses (6a). In locative clauses, the predicate is expressed by a spatial case form (6b), or by a spatial adverb or postpositional phrase. Possessive clauses contain a genitive (for permanent possession) or possessive (for temporary possession) noun phrase (6c). Other characteristics of the subject (e.g. purpose, material, source etc.) can be expressed by dedicated case forms. Importantly, in predicate position grammatical cases are only ever found in their non-grammatical uses: thus, dative noun phrases in this position can only encode a beneficiary or (intended) recipient, but never an experiencer.

(6) a. *bataχu* *gołe* *q'imata-r* *hiban.*
bread COP.PRS precious-IV thing(IV)
'Bread is a precious thing.' (Resettlement, 24)

b. *il-lo* *ɬ-i-ƛ'o* *azdahu* *gołe.*
we.O-GEN2 water-O-SUP dragon COP.PRS
'The dragon is (sitting) on our water.' (Bear's ear, 12)

c. *il-lo* *begawul-e-s* *mihi* *gołe!*
we.O-GEN2 elder-O-GEN1 tail COP.PRS
'Our elder has a tail!' (Walls have ears, 29)

2.2.4. Adnominal use

The only case form regularly found in adnominal position is the genitive, which covers a wide range of argumental and non-argumental meanings (7). Other case forms cannot be embedded under the noun phrase directly but must be attributivized, cf. (8) (attributivization is addressed in detail in § 3.2.4).

(7) a. *is-a* *χabar*
he.O-GEN1 story
'his story' / 'a story about him'

b. *kaʁat-e-s* *bečola*
paper-O-GEN1 serpent
'a paper kite'

(8) a. *uža-l-*(sa)* *žawab*
boy-DAT-A question
'the question to the boy'

b. *χuχ-ma-*(sa)* *ƛ'er*
face-IN-A color
'(good) complexion'

Crucially, relational case forms in their grammatical functions cannot be embedded through attributivization — the verb licensing the case is required. The same restrictions on the adnominal occurrence of grammatical case forms are attested for other Northeast Caucasian languages (see e.g. [Lyutikova 2017a] on Tsakhur (Lezgic)).

2.2.5. Arguments of adjectives

Adjectives can project their own subject, and agree with that subject:

(9) a. *k'ak'a-ba* *l-eχola*(*-t'a*) *kad*
leg-PL NPL-long-PL girl(II)
'a girl with long legs'

b. *mani* *b-uq'u* *kad*
nose(III) III-big girl(II)
'a girl with a long nose'

The important thing to note is that the argument of the adjectival phrase is absolutive. This is unexpected if the absolutive is only licensed in the verbal environment, by a dedicated verbal functional head *v*, as suggested in the literature. Crucially, (9) cannot be analysed as displaying copular relative clauses, where the covert verbal copula licenses the absolutive. In copular sentences, the copula can only be omitted in the finite present, but not in the past form or as a participle or converb, cf. (10).

(10) a. *kad* {*ĩdu* / *dija* *hamaʁe*} {(*goɬe*) / *(*j-ejča*)}.
girl(II) at.home I.GEN1 friend COP.PRS II-AUX.AOR
'The girl {is / was} {at home / my friend}.'

b. {*ĩdu* / *dija* *hamaʁe*} *(*go:jɬa*) *kad*
at.home I.GEN1 friend COP.PTCP girl(II)
'the girl who is at home / who is my friend'

If the construction in (9) involved standard relativized copular clauses, we would expect the participle to be obligatory, as in other copular clauses (10). Thus, no verbal structure is attested in the examples in (9); instead, they represent adjectival phrases where the absolutive is the subject of the adjectival predicate.

2.2.6. Contexts without governing elements

The absolutive is not only the citation form of a noun; absolutive noun phrases are generally attested in contexts where no case-assigning element can be found. Those contexts include titles, vocatives, oaths and exclamations.

To sum up, the distinction between grammatical and semantic cases is well-grounded in Khwarshi. Grammatical cases, such as the ergative or experiential dative, are only licit in the verbal environment. Genitives are found exclusively in nominal contexts; genitive arguments of postpositions, adjectives and verbs have arisen from adnominal possessive constructions. Spatial case forms appear as locative arguments or adjuncts, as arguments of postpositions, and as predicates in copular clauses. They can also function as adnominal modifiers, but in this case they require attributivization. Finally, absolutives are special in that they are not only default verbal arguments, but are also found in a wide range of contexts where relational cases are disallowed, such as adjectival phrases, copular predicates, and non-governed positions. In the next section, I focus on verbal arguments and discuss their positions in the clause structure.

2.3. Clause structure

Let us start by determining the c-command relations between core arguments. The number of phenomena sensitive to c-command is not as large in Northeast Caucasian languages

as in more familiar languages like English or Italian. For example, superiority effects only show up in languages with overt A-bar movement, and this is absent in Khwarshi (cf. [Polinsky 2016a] on Tsez). Semantic binding has been reported to apply more freely, disregarding c-command conditions [Testelets 2009; 2016]. Other diagnostics, like the choice of the addressee in imperatives and jussives, are semantic rather than syntactic in nature. Nevertheless, in most languages of the region there are still several phenomena attesting c-command orientation. One of these is anaphor binding. Whereas complex reflexives are often neutral (i.e. they allow for a non-c-commanding antecedent), simplex reflexives generally attest either subject or c-command orientation. Thus, in Khwarshi, the simplex reflexive *žuč* can only be bound by a local c-commanding subject.

(11) a. *o-w-si* *žik'^{w}a* *žuč* *iha-χ-χa.*
that-I-O man(I).ERG REFL(I) I.die-CAUS-AOR
'That man$_i$ killed himself$_i$.' [Testelets 2019c: 83]

b. **isič* *o‹w›žu* *žik'^{w}a* *iha-χ-χa.*
REFL.ERG that‹I› man(I) I.die-CAUS-AOR
int.: 'That man$_i$ killed himself$_i$.' [Ibid.: 83]

(12) *aminat-e-l* *q'uča-na* [*pat'imat-e-l* *žuč* *mut'u-ł-ejža* *j-ak^{w}-a*].
Aminat-O-DAT want-CNV.PF Patimat-O-DAT REFL(II) mirror-IN-TRNS II-see-INF
'Aminat$_i$ wants Patimat$_j$ to see herself$_{j/*i}$ in the mirror.' [Ibid.: 85]

This generalization allows us to establish c-command relations between core arguments of various clauses. As might be expected, ergative and dative subjects c-command their absolutive objects, and absolutive subjects c-command oblique objects (13).

(13) *o‹w›žu* *žik'^{w}a* *isuqoleč* *mut'u-ł-ejža* *gic'c'-a.*
that‹I› man(I) REFL.POSS.LAT mirror-IN-TRNS look-AOR
'That man looked at himself in the mirror.'

Poss-essive subjects can bind the absolutive (and into the absolutive) in possessive and non-volitional agent constructions:

(14) a. *rasul-qo* *žuč* *iha-χ-ejł-a.*
Rasul-POSS REFL(I) I.die-CAUS-POT-AOR
'Rasul killed himself (accidentally).'

b. *rasul-qo* *isač* *os* *ƛiχ^{w}a-na.*
Rasul-POSS REFL.GEN money remain-CNV.PF
'Rasul still has his own money on him.'

In ditransitive constructions, the ergative subject can bind both object arguments; unfortunately, this diagnostic cannot be applied to find out whether the absolutive c-commands the indirect object or vice versa because of the subject-orientedness of the reflexive. In related languages, however, where reflexives can be bound by non-subject c-commanding antecedents, there is evidence for the existence of two ditransitive constructions. Thus, in Avar, the dative recipient binds into the absolutive, but the absolutive binds into the locative goal [Testelets 2016]. I assume that the same distinction may be relevant for Khwarshi, too; however, I am aware of no phenomena which would reveal it.

Other c-command-sensitive phenomena are also subject oriented, and probably even more restricted through additional constraints (e.g. on subject type). Thus, the causee in the causative construction is the subject of the caused predication; the addressee of the imperative is the volitional subject. Another potential diagnostic, suggested by an anonymous reviewer — the structure of masdar relative clauses — is not applicable in Khwarshi for lack of the relevant construction. So I reach the conclusion that the following c-command relations between arguments can be tentatively established for Khwarshi:

(15) a. Intransitive clauses: ABS > OBL

b. Transitive clauses: ERG > ABS

c. Oblique subject clauses: DAT > ABS; POSS > ABS

d. Ditransitive clauses: ERG > DAT > ABS; ERG > ABS > OBL

The next thing to be checked is whether these c-command relations reflect thematic properties of arguments or result from A-movement. Indeed, case licensing by a higher functional head can disrupt initial c-command relations between arguments, if the lower argument is attracted to the higher position, as happens in high-absolutive languages [Coon et al. 2014]. The good news is that in Khwarshi, all arguments are case-licensed within the verbal domain and are not case-dependent on higher functional heads, e.g. finite T. The evidence for this comes from various types of non-finite constituents embedding the verbal domain, primarily nominalizations: whenever an argument is projected by the verb, it can be assigned a dedicated case. Therefore, the established c-command relations in (15) can be used without reservation.

On the basis of these relations we can reconstruct the preliminary shape of the verbal domain for Khwarshi. Khwarshi does not seem to be very different from more familiar nominative-accusative languages in this respect. I adopt a shell structure for the verbal domain where internal arguments are projected by the lexical verb, whereas external arguments are projected by a specific light verb. I distinguish between three light verbs: v_{TR}, projecting the transitive agent, v_{EXP}, projecting the experiencer dative subject, and $v_{NON\text{-}VOL}$, projecting the poss-essive subject. Additionally, an applicative projection can be sandwiched between VP and *v*P, introducing the recipient / beneficiary dative. The reason for this assumption is the fact that the beneficiary can be freely introduced into the argument structure of any transitive verb, and its syntactic behavior is indistinguishable from that of the recipient argument of ditransitives. The maximal transitive structure featuring all types of arguments is represented in Figure 1.

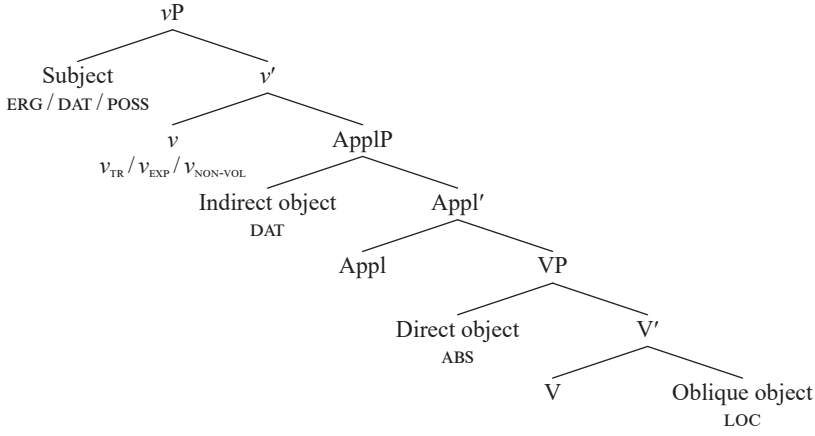

Figure 1. Syntactic structure of the verbal domain in Khwarshi

The most controversial issue for the characterization of Khwarshi clause structure is the existence and structural representation of split intransitivity. All intransitive clauses have an absolutive subject; no difference is attested in case marking or agreement with verbs denoting typically unaccusative and typically unergative situations. There exist no reliable diagnostics which would allow to meaningfully tell apart the two classes of intransitive verbs; the diagnostic involving iterative forms employed by Polinsky [2016a: 297] in Tsez cannot be used in Khwarshi, where no similar derivation exists. Some evidence can be provided by derivational morphology: inchoative verbs derived from adjectival stems (e.g. *ičla-ł* ‘grow old’ from *ičla* ‘old’) and nominal

stems (e.g. *best'al-ł* 'be orphaned' from *best'al* 'orphan') are supposedly unaccusatives. Additionally, a number of unaccusative verbs participate in the unmarked causative-inchoative alternation (e.g. *-ah* 'rise, raise').[3] For the majority of intransitive verbs, though, the unaccusative / unergative distinction seems to have no impact on the syntactic behavior of the sole argument.

The next source of uncertainty is the structural representation of unergatives: whether their argument is projected by a functional head identical to or in complementary distribution with v_{TR}, and how it comes to receive the same case as the argument of unaccusatives does. It should be noted that this question is especially challenging in languages like Khwarshi or Tsez, where all arguments are case-licensed within the verbal domain. Theoretical options available for the analysis of unergatives [Polinsky 2016a: 50 ff.] all require stipulations of one kind or another that cannot be independently motivated, at least for Khwarshi. Importantly, Polinsky herself notes that "…the status of unergatives with respect to extra projections is far from clear and may be less uniform than the status of transitives" [Ibid.: 45]. In view of this, I would tentatively suggest that unergatives in Khwarshi are not so different from unaccusatives. One can imagine that their argument is projected by the lexical verb and is licensed in the same way as the single argument of unaccusatives. This argument might further be attracted by the unergative *v*, thus providing a unification of the arguments of the process and initiation subevents, much as in Ramchand's [2008] *l*-syntactic system. Alternatively, the unaccusative-unergative distinction might be purely semantic in Khwarshi, lacking syntactic representation or confined to aspectual oppositions. In any case, the issue of case licensing in unergatives is orthogonal to the problems I aim to discuss, and I hope that future research on unergatives in Northeast Caucasian languages will clarify the matter and turn out to be compatible with the core of my proposal.

The structure in Figure 1 is further supported by the evidence from the synthetic causative construction. In Khwarshi, two types of causative constructions are attested: synthetic and analytic. The synthetic causative construction is built by the causative morpheme embedding the initial verb with its arguments and projecting the ergative causer:

(16) *idižidi* *q'očun-n* *b-at'ł'a-k'-na,* (*žu*) *q'oč-a-ƛ'o* *zoq'^{w}a-χ-na.*
they.ERG eagle(III)-ADD III-come-CAUS-CNV.PF he eagle-O-SUP sit_astride-CAUS-CNV.PF
'They brought an eagle and sat him astride on the eagle.' (Bear's ear, 24)

The synthetic causative construction provides important information about the position of arguments in the verbal domain. Under synthetic causativization, the causee can retain its original encoding or receive a dedicated case in the causative construction. It turns out that absolutive, ergative, and dative subjects all behave differently. The intransitive subject retains the original encoding and remains absolutive, cf. (16); no alternative model is available. The ergative subject, by contrast, cannot retain its case; it receives poss-essive encoding (17). The dative subject allows both options (18). For obvious reasons, with a poss-essive subject it cannot be determined which option takes place.

(17) *hobože* (*mi*) *di-qo* / **de* *zihĩ-s* *lok^{w}a*
now you.ERG I.O-POSS I.ERG cow-GEN1 manure(IV)
l-ac'-eχ-nu-ƛ'o-l-ek *l-at'iq'q'a* *idu* *hiban?*
IV-eat-CAUS-MSD-SUP-LAT-Q IV-go.AOR this thing(IV)
'It came to the fact that you were feeding me cow's manure, didn't it?' (Malla Nasreddin's raven, 42)

[3] An anonymous reviewer suggests that non-volitional agent constructions might represent derived unaccusatives. Although this issue definitely needs further study, I doubt that this is indeed the case. The range of verbal meanings compatible with the non-volitional agent construction is much wider than that of verbs usually participating in the causative-inchoative alternation. Thus, manner verbs like 'read' or 'eat' are not expected to give rise to derived unaccusatives, but they do feature in the non-volitional agent construction. Besides, it can be argued that the causativization of transitive verbs involves this

(18) *muč'i* *b-ak^{w}a-χ-o-ƛƛa,* *iƛa-na,* *iɬi-qo* / *iɬi-l.*
manure(III) III-see-CAUS-IMP-QUOT say-CNV.PF she(II).O-POSS she(II).O-DAT
'Show her the manure, he said.' (The girl and the djinns, 25)

I suppose that the causative morpheme induces the coercion of the transitive predicate into the non-volitional agent construction; thus the poss-essive encoding of the causee is not accidental but reflects a constraint ruling out the presence of two volitional agents in the same clause. This hypothesis is consistent with the results of recent work on morphological causatives [Kim 2011; Legate 2014; Nash 2020] suggesting that the transitive causee is not an argument of the verbal stem or transitive *v* but is introduced in a specialized functional projection (e.g. high applicative) selected by the causative morpheme. Similarly, in Khwarshi synthetic causatives, the structure projected by the verb undergoes adjustments in order to meet the well-formedness condition on the monoclausal structure. Specifically, the ban on multiple volitional agents is circumvented by replacing v_{TR} with $v_{NON\text{-}VOL}$, which is responsible for the poss-essive case marking of the transitive causee, as represented in Figure 2. With experiential transitive verbs, this operation is optional.

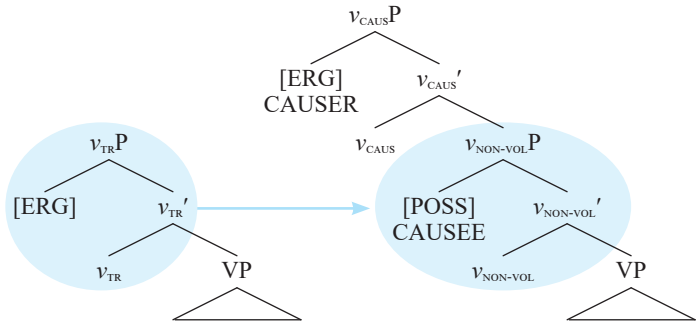

Figure 2. Coercion of the transitive *v*P under causativization

In this way, we obtain additional data supporting the claim that ergative and dative subjects are arguments of various *v* heads. Moreover, the synthetic causative construction provides evidence against positing a transitive *v*P layer in the structural representation of unergatives. Were the unergative subject situated in Spec, *v*P, or case-dependent on *v*, then we would expect that under causativization, non-volitional agent coercion would be obligatory (as in agentive transitive verbs) or at least available (as in experiential transitive verbs). However, the poss-essive encoding of the causee is illicit in causatives of unergatives, cf. (19).

(19) *isi* *sajro* / **sajro-qo* *durida-k'-na* *gołe.*
he(I).ERG horse / horse-POSS run-CAUS-CNV.PF COP.PRS
'He rode the horse.' (lit. 'He made the horse run.')

I conclude that various diagnostics point towards the same positioning of arguments in the verbal domain, and adopt the tree in Figure 1 as the structure in which verbal arguments are licensed.

2.4. Research questions

Now we are in a position to return to the research questions we started with and to refine them building upon what we have learned so far. The questions we are interested in are

construction (see below); if so, any transitive verb can be turned into an unaccusative under appropriate conditions, which is highly implausible.

as follows. What is the nature of the ergative and how is it licensed? Does it pattern with other types of oblique subjects and oblique objects in its syntactic behavior? How is the absolutive represented and licensed?

Now that we are equipped with the syntactic representation of Khwarshi argument structure, we can proceed as follows. We will elaborate on the hypothesis that the syntactic properties of a noun phrase in Khwarshi are not fully determined by its position, but rather represent a function of three parameters: (i) the specific case form involved; (ii) the structural position of the noun phrase in the clause; and (iii) c-command relations with other noun phrases in the same clause. These parameters are not independent: thus, for example, if the ergative DP is in an argumental position, it is also the highest DP in the clause, and the absolutive DP cannot be an adjunct. On the other hand, all three parameters are involved in accounting for the full range of properties of noun phrases. Thus, absolutive subjects and absolutive objects should differ with respect to phenomena sensitive to subjecthood; one and the same case form, e.g. dative, may have different properties as an argument vs. an adjunct or as a subject vs. an object; and finally, different oblique subjects, e.g. dative and poss-essive, may behave differently.

Accordingly, we will study the syntactic properties of nominals characterized by three attributes: argumenthood, case, and syntactic position. Specifically, we will consider the following types of nominals: absolutive subject, absolutive object, ergative subject, dative subject, poss-essive subject, dative indirect object, oblique object, (oblique) adjunct. We will examine phenomena involving various syntactic processes — agreement, raising, control — and determine whether a specific type of nominal can be selected as a target of this process. Comparing the behavior of various case forms in the same syntactic position and the behavior of the same case form in various syntactic positions will allow us to identify the characteristics of case forms independent of their localization in the syntactic tree. This will be done in the next section.

3. Phenomena and oppositions

In what follows I discuss the syntactic properties of the various types of nominals identified in the previous section and determine if their syntactic behavior depends on their case and / or their position in the structure. It turns out that two major oppositions govern the organization of syntactic phenomena (see Figure 3).

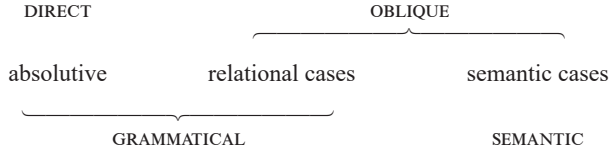

Figure 3. Oppositions within the case system

The first is the opposition between absolutive and non-absolutive nominals; this opposition is independent of the localization of the absolutive noun phrase in the syntactic structure, and of c-command relations between the absolutive and other arguments. The second opposition is that between grammatical and semantic cases: absolutive, ergative and dative pattern together[4] in contrast to semantic cases, as well as relational cases in semantic func-

[4] Genitives should be tentatively classified as grammatical cases and therefore be given the same structural representation. However, more evidence is required for a correct characterization of genitives. Since genitives are only found in adnominal uses, certain diagnostics are inapplicable or their

tions. Importantly, this opposition is affected by the structural position of the nominal: thus, any case marker on an adjunct will behave as a semantic case, and dative subjects contrast with dative objects.

With this in mind, we turn to a discussion of the relevant phenomena supporting these oppositions.

3.1. The direct–oblique opposition

The opposition between absolutive and non-absolutive nominals is the primary opposition in the nominal morphosyntactic system: not only is it manifested DP-internally, but it also has an impact on clause-level processes.

3.1.1. DP-internal concord

Khwarshi exhibits DP-internal marking of the direct–oblique opposition on several types of modifiers. Thus, genitives distinguish two forms, which are complementarily distributed: a DP in the genitive 1 case modifies absolutive DPs, whereas a DP in the genitive 2 modifies oblique DPs:

(20) a. ^{OK}*obu-t'e-s* / **obu-t'-lo* *sájro*
father-O-GEN1 father-O-GEN2 horse.ABS
'the father's horse'

b. **obu-t'e-s* / ^{OK}*obu-t'-lo* *sajró-l*
father-O-GEN1 father-O-GEN2 horse.O-DAT
'for the father's horse'

Besides the genitive, other adnominal modifiers which exhibit a direct–oblique opposition include demonstratives, numerals, adjectives, participles, and attributivized constituents. In genitives, demonstratives, numerals, and attributives, the distinction is obligatory; in adjectives and participles it is optional (the direct form is compatible with both direct and oblique DPs).

DP-internal alignment in obliqueness is found in other Northeast Caucasian languages as well; languages differ as to the range of categories exhibiting concord in obliqueness. In Tsakhur, a distinction between direct and oblique forms is made by all adnominal modifiers except borrowed adjectives, whereas in Rutul this distinction is restricted to numerals (see [Daniel 2021] for detail).

In [Lyutikova 2021a], DP-internal concord in obliqueness as attested in several Northeast Caucasian languages is identified with the use of the direct vs. oblique stem for building case forms of nouns, which is typical for Northeast Caucasian languages in general. The hypothesis put forward in this work is that concord in obliqueness is the agreement of the DP with the external governor for syntactic category, along the lines of [Pesetsky 2013]; this feature is then morphologically realized on those components of the DP which are able to convey it. If this hypothesis is on the right track, the direct–oblique opposition is relevant for the syntactic representation of absolutives in all Northeast Caucasian languages.

Another important property of concord in obliqueness is that it does not distinguish between various structural positions of absolutive or non-absolutive nominals. Absolutives look identical whatever structural position they appear in, as do non-absolutive DPs.

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outcome might be due to the additional structure associated with the dominating noun phrase. With this in mind, I refrain from providing a structural characterization for genitives, leaving this issue for further research.

3.1.2. Predicate agreement

Like the overwhelming majority of Northeast Caucasian languages, Khwarshi exhibits clause-level class-number agreement. The target of agreement is the verbal predicate, including lexical and auxiliary verbs, as well as certain adverbs possessing a class-number agreement slot. The controller of the agreement is the absolutive DP:

(21) a. *kad* *j-agu* *j-ado-ho* *j-ejča.*
girl(II) II-well II-work$_{verb}$-CNV.IPF II-AUX.AOR
'The girl was working well.'

b. *kand-i* *b-agu* *ħalt'i* *b-u-ho* *b-ejča.*
girl-ERG III-well work$_{noun}$(III) III-do-CNV.IPF III-AUX.AOR
'The girl was doing the job well.'

In a number of constructions, there is no overt absolutive. This can arise as the result of various processes, both syntactic and post-syntactic (ellipsis). The category of the syntactic gap may vary as well (e.g. A-trace, PRO, *pro*), but, irrespective of this, class-number agreement reveals the presence of the absolutive argument, whether overt or covert. Non-absolutive DPs may appear to control agreement, but only if they form a derivational or anaphoric chain with an absolutive. In (22), two examples illustrating agreement with absolutive gaps are shown: in (22a), the absolutive argument of the nominalized verb receives adnominal (genitive) encoding[5]; in (22b), the absolutive argument of the non-finite converbial clause is represented by *pro*.

(22) a. *χan-e-l* *q'uča-na*
khan-O-DAT want-CNV.PF
[*isu-lo* *kand-e-s*$_i$ [__$_i$ *j-ũq'a-nu*]] *čurid-a.*
he(I).O-GEN2 daughter(II)-O-GEN1 ABS(II) II-recover-MSD celebrate-INF
'The Khan wanted to celebrate his daughter's recovery.'

b. [__$_i$ *ĩdu-l* *j-at'ť'a-zal*], *j-ãʁe-na* *iɬi* *kand-i* *ʁamasu.*
ABS(II) home-LAT II-come-CNV.TMP V-open-CNV.PF this.O girl(II)-ERG trunk(V)
'This girl came home and opened the trunk.' (Stepdaughter, 18)

In specificational, taxonomic and identificational clauses, there are two absolutives — the subject and the predicate. The copula agrees with the predicate absolutive, (23), or with the absolutive subject. In other types of copular clauses where the predicate is non-absolutive, the copula agrees with the absolutive subject.

(23) *ʕoloqan* *ãše-m-ƛ'o-n* *hobondu-č* *jabu* *b-ejča* *da.*
young time-O-SUP-ADD such-FOC nag(III) III-AUX.AOR I(I)
'And in my youth, I was such a nag.' [Ah, younger days, 11]

Adjectives not only exhibit optional DP-internal concord in obliqueness (see § 3.1.1), but also attest class-number agreement. It shows up in two positions: the prefixal class-number agreement slot and, optionally, the suffixal plural number marker:

(24) a. *j-eχola* *kad*
II-long girl(II)
'a tall girl'

b. *b-eχola*(*-t'a*) *kand-eba*
HPL-long-PL girl-PL
'tall girls'

[5] See § 3.2.3 for a detailed discussion of argument encoding in nominalizations.

Typically, it is the head noun that appears to control this agreement, and, consequently, we might suggest that it should be characterized as DP-internal concord. However, I believe that adjectival class-number agreement in Khwarshi instantiates predicate agreement with the absolutive. The evidence for this claim comes from adjectival phrases projecting their own subject, cf. (25) repeated from (9).

(25) a. *k'ak'a-ba* *l-eχola*(*-t'a*) *kad*
leg-PL NPL-long-PL girl
'a girl with long legs'

b. *mani* *b-uq'u* *kad*
nose(III) III-big girl
'a girl with a long nose'

The argument of the adjectival phrase appears in the absolutive, and the adjective agrees with it, in the same way that the verb does. Importantly, non-absolutive internal arguments of adjectives never trigger class-number agreement.

It is easy to extend the analysis outlined above to other adjectival constituents without an overt absolutive argument. I suppose that they derive as reduced relatives where the subject coincides with the external head:

(26) [~~*kad*~~ *j-eχola*] *kad*
girl(II) II-long girl(II)
'a tall girl'

The exact mechanism deleting the internal nominal is an issue for further research; the structures in (26) can be derived by head-raising of the noun [Kayne 1994] or it may involve phonological processes like deletion under identity [Citko 2001; Sauerland 2003]. Either way, Khwarshi provides strong evidence that prefixal class-number agreement in all lexical categories, copula and auxiliaries is absolutive-oriented.[6]

3.2. The grammatical–semantic opposition

The opposition between grammatical and semantic cases plays an essential role in syntactic phenomena presupposing specific changes in the encoding of arguments. It is well known that (morphological) case preservation or change under syntactic processes like A-movement is an important diagnostic in telling apart structural and inherent case [Zaenen et al. 1985; Marantz 1991; Woolford 2006]. On the other hand, it is possible that there exist restrictions on specific case marking of certain empty categories; thus, Sigurðsson [2002; 2008] supposes that Russian PRO cannot be inherently case-marked. Accordingly, various constructions where we might expect differential marking of an argument are of special interest for case taxonomy.

[6] The suffixal class-number agreement slot in attributive constituents (adjectives, participles, demonstratives) available in Avar and Andic languages appears to instantiate DP-internal concord, indexing the features of the head noun, cf. example (i) from Bagwalal:

(i) *mič'a* *b-ečatu-j* *jaš*
hair(III) III-black-II girl(II)
'a girl with black hair'

3.2.1. Biabsolutive construction

Let us start with the biabsolutive construction.[7] In (27a), the standard transitive clause with an analytic predicate is shown. The subject is ergative, and both the lexical and auxiliary verbs agree with the absolutive. In (27b), the biabsolutive construction is exemplified. The subject is now absolutive, too, and the auxiliary agrees with it. The typical function of the biabsolutive construction is agent topicalization (and probably patient de-individuation, [Forker 2012]).

(27) a. *rasul-i* *ãq* *l-u-ho* *l-ejča* / **ejča.*
Rasul-ERG house(IV) IV-make-CNV.IPF IV-AUX.AOR I.AUX.AOR

b. *rasul* *ãq* *l-u-ho* *ejča* / **l-ejča.*
Rasul(I) house(IV) IV-make-CNV.IPF I.AUX.AOR IV-AUX.AOR
'Rasul was building a house.'

Various syntactic diagnostics (possible word order permutations, positions of the focus particle, coordination, ellipsis etc.) suggest that the structure in (27b) is biclausal: the auxiliary and the higher absolutive belong to the matrix clause, whereas the lexical verb and the lower absolutive are in the embedded clause, and each verb agrees with its own absolutive. However, it is not easy to determine whether the absolutive DP in the matrix clause is base-generated (28a) or derived via raising (28b) — the standard diagnostics are mostly inapplicable or controversial.[8] An obvious alternative analysis, based on attributing a reduced structure to the embedded clause (28c) — as advocated for in [Gagliardi et al. 2014] for Lak — cannot be maintained for Khwarshi, for many reasons. The strongest argument is the fact that ergative is still licensed in the embedded clause in the biabsolutive construction. To see this let us consider (29a), where ergative case shows up in the biabsolutive construction on the first component of the reflexive pronoun, which copies the case of the binder. Another way to observe the ergative in the biabsolutive construction is to look at the emphatic reflexive, which normally copies the case of its controller (29b).[9]

(28) a. *rasul*$_i$ [PRO$_i$ *ãq* *l-u-ho*] *ejča.*
Rasul(I) ERG house(IV) IV-make-CNV.IPF I.AUX.AOR

b. *rasul*$_i$ [t$_i$ *ãq* *l-u-ho*] *ejča.*
Rasul(I) ERG house(IV) IV-make-CNV.IPF I.AUX.AOR

c. *rasul* [$_{VP}$ *ãq* *l-u-ho*] *ejča.*
Rasul(I) house(IV) IV-make-CNV.IPF I.AUX.AOR
'Rasul was building a house.'

[7] Biabsolutive constructions in Northeast Caucasian languages have been discussed in a number of grammatical descriptions, as well as in comparative studies (see [Forker 2012] for an overview). A detailed analysis of biabsolutive constructions in Lak and Tsez is presented in [Gagliardi et al. 2014]. The biabsolutive construction in Khwarshi has more in common with the type seen in Tsez; however, there are several mismatches between them, see below.

[8] Similar complications for many other constructions in ergative languages have been reported in [Polinsky, Potsdam 2001; 2002; 2006; Potsdam, Polinsky 2012], which provided the basis for an empirical argument in favor of the movement analysis of control ([Hornstein 1999] and elsewhere). Note, however, that even if multiple case positions are in principle allowed under A-movement, and the resulting case form is chosen according to a case hierarchy (cf. [Baker 2015]), the biabsolutive construction is even more puzzling, because a less marked absolutive case is obligatorily chosen over the more marked ergative case.

[9] The diagnostic involving the first component of the complex reflexive is compromised in Khwarshi by the fact that complex reflexives can contain a "frozen" ergative component [Testelets 2019c]. The emphatic reflexive, however, cannot appear in the ergative unless its controller is also ergative. I conclude that (29a–b) reveal the presence of an ergative empty category in the biabsolutive construction. See also [Ganenkov 2016] for a similar argument for Lak.

(29) a. *rasul* [*isi* *isa* *ãq* *l-u-ho*] *ejča.*
Rasul(I) self.ERG self.GEN1 house(IV) IV-make-CNV.IPF I.AUX.AOR
'Rasul was building his own house.'

b. *rasul* [*isič* *ãq* *l-u-ho*] *ejča.*
Rasul(I) self.ERG house(IV) IV-make-CNV.IPF I.AUX.AOR
'Rasul was building a house all by himself.'

I conclude that the biabsolutive construction in Khwarshi involves either a control structure with a case-marked PRO (28a) or subject raising out of a case position (28b), and postpone further discussion until § 4.2.3. However, even if we do not fully understand the exact syntactic mechanisms producing the biabsolutive construction, it can still be used as a characteristic function of a set of arguments with similar properties. If ergative subjects can give rise to the biabsolutive construction, then ergative case is not preserved under raising or can be assigned to PRO, which is a hallmark of a structural rather than inherent case. If we further find out that dative experiencer subjects pattern with ergative subjects, we obtain evidence that the grammatical ergative and the grammatical dative may belong to the same class in a case taxonomy. This is essentially the kind of evidence this section is intended to provide.

The biabsolutive construction in Khwarshi is generally found with transitive verbs licensing the ergative subject, see (27a–b) above. However, unlike closely related Tsez [Gagliardi et al. 2014], Khwarshi also allows the biabsolutive construction to be based on dative subjects:

(30) a. *pat'imat-e-l* *uža* *akʷa-ha* *ejča.*
Patimat-O-DAT boy(I) I.see-CNV.IPF I.AUX.AOR

b. *pat'imat* *uža* *akʷa-ha* *j-ejča.*
Patimat(II) boy(I) I.see-CNV.IPF II-AUX.AOR
'Patimat was seeing her son.'

Importantly, only subjects can give rise to the biabsolutive construction. Accordingly, only dative subjects, and not other types of datives, pattern with ergative subject in this respect.

The behavior of poss-essive subjects merits a discussion. In non-volitional agent constructions with transitive verbs, the poss-essive seems to allow the biabsolutive construction:

(31) a. *rasul-qo* *ittan* *dija* *telefon* *l-ica-χ-χo* *l-ejča.*
Rasul-POSS always I.GEN1 phone(IV) IV-break-CAUS-CNV.IPF IV-AUX.AOR

b. *rasul* *ittan* *dija* *telefon* *l-ica-χ-χo* *ejča.*
Rasul(I) always I.GEN1 phone(IV) IV-break-CAUS-CNV.IPF I.AUX.AOR
'Rasul was always destroying my phone.'

However, it can be argued that (31b) is not a counterpart of (31a), but of a transitive clause with an ergative subject. First, (31b) lacks the meaning component 'accidentally' that is conveyed in (31a). Secondly, poss-essive encoding of the first component of the emphatic reflexive is not available. Finally, with verbs obligatorily selecting a non-volitional agent, e.g. *-uč'e-ł* 'spill', *-aqa* 'find', the biabsolutive construction is illicit. Likewise, poss-essive temporary possessors do not participate in the biabsolutive construction.

It is not clear whether verbs projecting an absolutive subject can appear in the biabsolutive construction. Indeed, if the absolutive subject were raised / replaced with PRO, the result would be indistinguishable from the regular construction. Importantly, the oblique object cannot be raised / replaced with PRO in the biabsolutive construction.

To sum up, the biabsolutive construction in Khwarshi is subject-oriented; among non-absolutive subjects, only ergative and dative subjects can alternate with absolutives in biabsolutive constructions.

3.2.2. Control structures

A number of matrix predicates in Khwarshi embed control infinitives. To discuss control structures I will use the example of the analytic causative construction.

The analytic causative construction involves a biclausal structure where the matrix causative verb *-ešt'a* 'let' embeds the control infinitive and projects an ergative causer and absolutive causee, the latter controlling the PRO subject of the infinitive:

(32) *žu* *b-eχola* *t'ero-ho* *birgadir-łana* *ad-a* *ešt'a-na.*
he(I) III-long bridge(III)-AD foreman-ADV I.work-INF I.let-CNV.PF
'They made him work on the long bridge as a foreman.' (Resettlement, 15)

Though Northeast Caucasian infinitives are generally compatible with non-control construals (cf. (12)), in several configurations, including analytic causatives, obligatory control (OC) obtains: the subject of the infinitival clause is represented by the empty category obligatorily controlled by the dedicated argument of the matrix predicate.

The analytic causative construction provides information about possible case marking of PRO in OC configurations. First of all, it should be noted that the infinitival clause preserves the case-marking of the finite clause, as evidenced again by the case properties of complex reflexives and emphatic reflexives:

(33) a. *obu-t'-i*$_i$ *rasul* [PRO$_j$ *isi*$_{i/j}$ *isa* *ãq* *l-uw-a*] *ešit'ł'a.*
father-O-ERG Rasul(I) self.ERG self.GEN1 house(IV) IV-make-INF I.let.AOR
'The father$_i$ forced Rasul$_j$ to build his$_{i/j}$ own house.'

b. *obu-t'-i* *rasul* [PRO$_j$ *isič*$_j$ *ãq* *l-uw-a*] *ešit'ł'a.*
father-O-ERG Rasul(I) self.ERG house(IV) IV-make-INF I.let.AOR
'The father forced Rasul$_j$ to build a house all by himself$_j$.'

Consequently, I assume that the OC PRO in the causative construction can be case-marked. OC PRO can appear in the position of the absolutive (32), ergative (33), and dative (34) subject.

(34) *obu-t'-i* *rasul* [PRO *pat'imat* *j-ak*^{w}*-a*] *ešt'a-j.*
father-O-ERG Rasul(I) DAT Patimat(II) II-see-INF I.let-NEG.AOR
'The father did not allow Rasul to see Patimat.'

Poss-essive arguments in a non-volitional agent construction or temporary possession construction cannot be replaced with OC PRO. This might be explained by saying that OC PRO is restricted to volitional subjects, which would rule out poss-essive arguments (as suggested by [Gagliardi et al. 2014] for Tsez). However, this explanation cannot be maintained for Khwarshi, since absolutive OC PRO is attested in clearly non-volitional contexts:

(35) *žu* *ila* *išu* *j-ih-a* *j-ešit'ł'a-ƛƛa…*
this we.GEN1 mother(II) II-die-INF II-let.AOR-QUOT
'…they let our mother die.' (Our mother, 26)

So I conclude that the poss-essive subject PRO is excluded for structural rather than semantic reasons.[10] Thus, the distribution of the OC PRO is similar to that of the empty category in biabsolutive constructions: it is restricted to absolutive, ergative or dative subjects.

[10] Similar restrictions on the OC PRO are attested in other OC configurations in Khwarshi, e.g. with implicative subject control verbs projecting their own nominal argument.

3.2.3. Nominalization

Nominalizations in Northeast Caucasian languages, traditionally called masdars, have much in common across the family, but also differ significantly with respect to several parameters. Apparently, most languages possess nominalizations projecting all the arguments of the verb and retaining their clause-like encoding. At the same time, nominalizations are nominal constituents, and as such possess nominal categories (class, number, case) and allow adnominal modifiers (demonstratives, possessors, adjectives). Our point of interest in this section is the possibility of possessive (genitive) marking of the arguments of the nominalization. In previous literature this process has been construed as raising, i.e. A-dependency, although all the cases are still licensed in the nominalization,[11] and possessive marking does not imply overt movement of the argument to the edge of the nominalized constituent. These peculiarities do not change the fact that as in conventional raising configurations, in Northeast Caucasian nominalizations the functional head responsible for the alternative case marking serves as a probe c-commanding all the arguments projected by the verb.

With respect to genitive marking of arguments, at least three parameters characterizing a given nominalization in a given language can be identified. Firstly, nominalizations differ as to the number of arguments which can receive adnominal encoding at any one time. Secondly, nominalizations differ as to the exact range of arguments allowing genitive case marking. Finally, nominalizations differ as to whether a lower argument (e.g. absolutive object) can receive genitive in the presence of the higher argument (e.g. ergative subject). In some Northeast Caucasian languages, superiority effects exclude adnominal marking of the object if the subject intervenes (see [Lyutikova 2021b] for examples).

Khwarshi nominalizations impose no restrictions on the number of arguments receiving an adnominal genitive.[12] Moreover, adnominal encoding is available for a structurally inferior argument in the presence of a c-commanding intervener. In (36), for instance, either of the core arguments of the nominalization may appear in the genitive. For most native speakers, genitive encoding does not involve any dislocation of the argument.

(36) a. *di-l* *goqqa* *rasul-i* *ãq* *l-u-nu.*
I.O-DAT like.AOR Rasul-ERG house(IV) IV-make-MSD
'I liked Rasul's building the house.' (a = b = c = d)[13]

b. *di-l* *goqqa* *rasul-e-s* *ãq* *l-u-nu.*
I.O-DAT like.AOR Rasul-O-GEN1 house(IV) IV-make-MSD

c. *di-l* *goqqa* *rasul-i* *ãq-e-s* *l-u-nu.*
I.O-DAT like.AOR Rasul-ERG house(IV)-O-GEN1 IV-make-MSD

d. *di-l* *goqqa* *rasul-e-s* *ãq-e-s* *l-u-nu.*
I.O-DAT like.AOR Rasul-O-GEN1 house(IV)-O-GEN1 IV-make-MSD

[11] Again, the diagnostics involving emphatic and complex reflexives provide evidence that alternative possessive encoding occurs in configurations where the original case is still licensed.

[12] Yakov Testelets (p.c.) reports that his consultants generally reject examples like (36d), where two or more arguments receive genitive encoding simultaneously. Presumably, the number of arguments bearing adnominal encoding in nominalizations is subject to variation. My tentative generalization is that those speakers who allow for two referential genitives with picture nouns (*Rasul's picture of Zaira*) are also liable to accept examples like (36d).

[13] Native speakers report slight interpretational differences between (36a) and (36b–d): whereas (36a) is felicitous if the speaker approves of the very fact of building, in (36b–d), the speaker likes the way the construction is implemented. Similar facts are noted for nominalizations in other languages of the family, e.g. Tsakhur [Kibrik, Testelets (eds.) 1999] and Bagwalal [Kibrik (ed.) 2001].

This peculiarity of Khwarshi nominalizations allows us to compare not only subjects with various case properties (absolutives, ergatives, datives, poss-essives), but also various arguments with the same case marking (absolutive subjects and objects, dative subjects, indirect and oblique objects, poss-essive subjects and objects).

Absolutive subjects allow for genitive encoding in nominalizations; the relevant example is (22a). Dative subjects can receive genitive encoding as well; thus, dative of a subject patterns with other grammatical cases (37). Importantly, dative objects and adjuncts cannot be put into the genitive.

(37) *l-iq'a-na* *begawul-e-l* *isa* / *isu-l* *bałgoli* *l-iq'e-nu.*
IV-know-CNV.PF elder-O-DAT he(I).GEN1 he(I).O-DAT secret(IV) IV-know-MSD
'The elder understood that he had learnt the secret.' [Walls have ears, 19]

Poss-essive arguments cannot receive genitive marking in the context of nominalization. It is easy to see that non-volitional agents disallow genitive encoding — the genitive DP can only be interpreted as a possessor of the absolutive (or, if the verb allows this reading, as a volitional (ergative) subject). In nominalized possessive clauses, genitive encoding of the possessor gives rise to the permanent possession interpretation, attested in finite clauses as well. Other oblique arguments and adjuncts also disallow genitive encoding. I conclude that absolutives, ergative subjects, and dative subjects pattern together with respect to this diagnostic, as opposed to poss-essive subjects and objects, dative objects, and all adjuncts.

Very similar restrictions on adnominal encoding of arguments are attested in Bagwalal. Bagwalal differs from Khwarshi in that only a single instance of genitive case marking can be assigned in any nominalization, and superiority applies, meaning that there is no choice as to which argument this genitive marking will appear on. In intransitive clauses, the absolutive argument can receive genitive case marking; ergative and dative subjects also allow genitive marking; at the same time, affective subjects not only disallow the genitive, but also create the intervention configuration for absolutive objects, to the effect that neither argument of an affective verb can receive genitive marking [Kibrik (ed.) 2001: 525]. The difference between dative and affective experiencer subjects in Bagwalal is very instructive: the affective originates from an Andic localization affix which is still found on several adverbs in Bagwalal; recall also that overt postpositions can assign affective case to their arguments.

Thus, nominalizations provide us with a crucial piece of information: they characterize properties of arguments free from the impact of superiority effects or subject-orientedness. Importantly, we have learned that absolutive subjects and objects pattern together, but dative subjects behave differently from dative objects.

So far, the evidence for grouping grammatical cases together and opposing them to semantic cases is positive with respect to grammatical cases: arguments bearing grammatical cases are eligible for participation in constructions involving alternative case marking, while other arguments and adjuncts are not. The information we still lack is whether these other arguments and adjuncts constitute a uniform group. Therefore, we now need some evidence in favor of grouping them together, e.g. some process in which only arguments and adjuncts in semantic cases participate.

Besides, the mere fact that grammatical cases differ from semantic cases does not provide us with cues about the syntactic representation of case forms. There are a number of oppositions we can think of as underlying the distinction: structural vs. inherent case in standard generative case theory, structural vs. inherent or inherent vs. lexical case in Woolford's [2006] extended taxonomy, dependent vs. lexical case in configurational case theory, and DP vs. PP (with further characterization of the case assigned by P) in Polinsky's [2016a] classification of ergatives.

Fortunately, Khwarshi possesses a grammatical device which is extremely useful in providing the evidence we lack — the attributive morpheme. Attributivizers are attested in many Northeast Caucasian languages (see [Boguslavskaya 1989]), but their distribution varies

significantly — from building adnominal modifiers on the basis of certain spatial case forms in Akhwakh up to marking any adnominal constituent in Tsakhur. The distribution of the Khwarshi attributivizer lies in the middle of this scale, and, importantly, can be accounted for in purely syntactic terms. In the next section, I present evidence from attributivization which not only provides us with positive grounds for unifying oblique objects and adjuncts, but also suggests a specific syntactic representation of the dichotomy between grammatical and semantic case forms.

3.2.4. Attributivization

The crucial property of Khwarshi is the co-existence of two techniques for introducing adnominal dependents: genitive construction and attributive construction.

These two constructions have a significant semantic overlap and can be used to express very similar relations, e.g. source, material, or goal:

(38) a. *baχ-za-s* *łaɬ*
grass-O.PL-GEN1 oil
'herbal oil', lit. 'oil of herbs'

b. *baχ-za-žu-sa* *łaɬ*
grass-O.PL-ABL-A oil
'herbal oil', lit. 'oil from herbs'

(39) a. *behana-s* *χabar*
pretence-GEN1 story
'fictional story', lit. 'story of pretence'

b. *behana-l-sa* *χabar*
pretence-DAT-A story
'fictional story', lit. 'story for pretence'

They differ significantly, however, as to the possible syntactic category of their complements. The genitive only attaches to the oblique stem form of nouns or substantivized constituents. The attributive morpheme, meanwhile, combines with non-nominal constituents: adverbial and postpositional phrases. Crucially, where semantic case forms are found adnominally they pattern with PPs in bearing attributive marking, providing evidence for the analysis of semantic case forms as PPs. Syntactic selection of the two morphemes is illustrated by (40) and summarized in Table 2.

(40) a. *iša-t'e-s* / **iša-t'e-sa* / **iša-sa* *kaʁat*
mother-O-GEN1 mother-O-A mother-A letter
'the mother's letter'

b. [$_{\text{ADVP}}$ *hũɬχo*]*-sa* / ***[$_{\text{ADVP}}$ *hũɬχo*]*-s* *χik'o-ba*
yesterday-A yesterday-GEN1 khinkali-PL
'yesterday's khinkali'

c. [$_{\text{PP}}$ *di-ƛ'o* *adʁol*]*-sa* / ***[$_{\text{PP}}$ *di-ƛ'o* *adʁol*]*-es* *uža*
I.O-SUP before-A I.O-SUP before-GEN1 boy
'the boy in front of me'

d. [$_{\text{PP}}$ *b-oƛa-ƛ'o*]*-sa* / ***[$_{\text{PP}}$ *b-oƛa-ƛ'o*]*-s* *muk'o*
III-middle.O-SUP-A III-middle.O-SUP-GEN1 place
'the place in the middle'

Table 2

Selectional restrictions of genitive and attributive

	DP	AdjP	AdvP	PP
attributive	−	(+)	+	+
genitive	+	−	−	−

Therefore, Khwarshi attributive morphology provides us with a powerful diagnostic of the PP status of a case form. In § 2.5.4, we have seen that all case forms licit in adnominal use, except for the genitive, combine with the attributive morpheme, and consequently should be characterized as PPs. Yet in this context, the structural status of relational cases, as well as the status of idiosyncratically governed objects, cannot be checked, since they are only licensed in the verbal environment.

The context where verbal arguments appear inside a noun phrase is provided by nominalization. In § 3.2.3, we have seen that only arguments bearing grammatical case — absolutive subject and object, ergative subject, and dative subject — allow genitive encoding within nominalization. Now we can check if attributivization of verbal arguments is allowed, and if so, which arguments can bear attributive morphology in nominalizations.

First of all, it is important to make sure that the selectional restrictions of the attributive morpheme persist in the nominalization context. It so happens that PP adjuncts can indeed be attributivized, and for adverbs, two strategies are available. For adverbs derived from adjectives, the derivational morphology is dropped; non-derived adverbs attach the attributive morpheme.

(41) a. *χeχiłana* / *χeχu-r* *bajdan-qo*(*-jžo*) *liƛ'ol*(*-ejžo*) *durid-nu-qo-žu*
quickly quick-IV meadow-POSS-AO upwards-AO run-MSD-POSS-ABL
'because of (his) fast running upwards through the meadow'

b. *idi*(*-sa*) *hadam* *gobč'i-nu*
here-A people NEG.COP-MSD
'(the fact that) there are no people here'

We now examine which options of adnominal encoding are available for various verbal arguments. Arguments in grammatical cases — absolutives, ergative subjects, and dative subjects — only allow genitive encoding; the original case affix is dropped. Attributivization of these case forms is illicit.

(42) a. *di-l* *goqqa* *obu* / *obu-t'e-s* / **obu-sa* / **obu-t'e-sa* *ƛes-nu.*
I.O-DAT like.AOR father.ABS father-O-GEN1 father-A father-O-A sleep-MSD
'I liked it that the father was asleep.'

b. *di-l* *goqqa* *obu-t'-i* / *obu-t'e-s* / **obu-t'-i-sa* / **obu*(*-t'e*)*-sa*
I.O-DAT like.AOR father-O-ERG father-O-GEN1 father-O-ERG-A father-O-A
ʁaj / *ʁaj-i-s* / **ʁaj-sa* / **ʁaj-i-sa* *b-u-nu.*
house(III).ABS house-O-GEN1 house-A house-O-A III-do-MSD
'I liked it that the father built a house.'

c. *di-l* *goqqa* *pat'imat-e-l* / *pat'imat-e-s* / **pat'imat-e-l-sa* /
I.O-DAT like.AOR Patimat-O-DAT Patimat-O-GEN1 Patimat-O-DAT-A
**pat'imat*(*-e*)*-sa* *iša* *j-ak^{w}a-nu.*
Patimat-O-A mother(II).ABS II-see-MSD
'I liked it that Patimat saw her mother.'

In contrast, PP-arguments — poss-essive subjects, dative indirect objects, and oblique objects bearing locative cases — cannot be converted into genitives (whether by dropping the original case morpheme or adding genitive marking to it), while they do allow attributivization.

(43) a. *di-l* *goqqa* *rasul-qo* / *rasul-qo-sa* / **rasul-e-s* / **rasul-qo-s*
I.O-DAT like.AOR Rasul-POSS Rasul-POSS-A Rasul-O-GEN1 Rasul-POSS-GEN1
ʁĩ *j-učʼe-ɬ-nu.*
milk(V) V-pour-POT-MSD
'I liked it that Rasul accidentally spilled the milk.'

b. *di-l* *goqqa* *iša-tʼ-i* *patʼimat-e-l* / *patʼimat-e-l-sa* /
I.O-DAT like.AOR mother-O-ERG Patimat-O-DAT Patimat-O-DAT-A
**patʼimat-e-s* / **patʼimat-e-l-es* *kunta* *tiƛ-nu.*
Patimat-O-GEN Patimat-O-DAT-A dress give-MSD
'I liked it that the mother gave Patimat a dress.'

c. *di-l* *goqqa* *rasul* *patimat-ƛʼo* /
I.O-DAT like.AOR Rasul Patimat-SUP
patimat-ƛʼo-sa / **patimat-e-s* / **patimat-ƛʼo-s* *urʁida-nu.*
Patimat-SUP-A Patimat-O-GEN1 Patimat-SUP-GEN1 think-MSD
'I liked it that Rasul thought of Patimat.'

These results are summarized in Table 3. We see that variation in argument marking within nominalizations provides strong evidence for the hypothesis that the distinction between grammatical and semantic cases is represented structurally: core arguments behave as DPs, oblique arguments behave like PPs.

Table 3

Encoding variation in Khwarshi nominalizations

Original encoding (verbal environment)	ABS	ERG subject, DAT subject	POSS subject	Indirect and obl. objects	PP adjunct	Adverb
Derived encoding (nominal environment)	GEN / *A	GEN / *A	*GEN / A	*GEN / A	*GEN / A	Adj / A

3.3. Other diagnostics

Other phenomena which might be relevant for determining properties of case forms are phenomena involving A-bar movement and splits. As argued convincingly by Polinsky [2016a], extraction and subextraction options are indicative of the internal structure of nominal case forms and therefore can provide a contrast between various types of arguments.

In the cross-linguistic perspective, the relevant phenomena include: relativization involving a overt or covert operator (relativization with a gap), *wh*-movement in root and embedded questions, focalization (comprising focus in yes / no questions) and topicalization with a split. In Khwarshi, however, no differences between types of case forms can be detected with respect to these processes [Testelets 2019b]; moreover, postpositional phrases behave exactly like case forms with respect to these diagnostics. Apparently, this outcome is due to the fact that the phenomena under discussion do not involve (covert) A-bar movement in Khwarshi.[14]

[14] Interestingly, not all Northeast Caucasian languages are like Khwarshi in this respect. Testelets [2016] reports a contrast between direct and oblique case forms in Avar with respect to transparency for focusing. The evident difference between Khwarshi and Avar focus constructions is that in Avar, focusing triggers a pseudo-cleft construction involving relativization. We might suggest that focusing in Avar, unlike in Khwarshi, is based on A-bar movement, and this is why Avar exhibits the contrast Khwarshi lacks.

3.4. Summary of findings

Let us take stock of what we have learned so far. Table 4 summarizes the properties of nominal arguments and adjuncts in Khwarshi.

Table 4

Morphological and syntactic properties of nominal arguments and adjuncts

	Absolutives		**Oblique subjects**			**Oblique objects**		
	ABS subject	**ABS object**	**ERG subject**	**DAT subject**	**POSS subject**	**DAT indirect object**	**LOC objects**	**Adjuncts**
I. Direct–oblique opposition								
1. Case morphology	zero; direct stem		case affix; oblique stem					
2. DP-internal concord	direct form		oblique form					
3. Predicate agreement	yes		no					
II. Grammatical–semantic opposition								
4. Case change	yes					no		
5. Case marking of PRO	yes	(no)	yes			no		
6. Attributivization	no					yes		

As Table 4 demonstrates, major morphosyntactic phenomena in Khwarshi are organized around two oppositions: (i) absolutive vs. non-absolutive arguments and (ii) arguments bearing grammatical cases vs. those bearing semantic cases. These oppositions are somewhat independent of the structural position of the nominal in the syntactic tree, as well as of c-command relations with other arguments. Absolutives behave uniformly whether they are subjects, objects, or licensed by other contexts (subject of adjective, ungoverned configurations); poss-essive subjects pattern with poss-essive (and other oblique) objects.

At the same time, we observe that arguments bearing similar cases but located in different structural positions can have different properties, and this difference is not reducible to superiority effects. Thus, dative indirect objects, unlike dative subjects, cannot receive genitive case under nominalization, and this fact cannot be explained by the intervention of the higher subject, because (absolutive) objects are able to appear as genitives in the presence of a subject.

Therefore, in order to account for the syntactic behavior of various arguments we need a theory which would involve, in addition to the syntactic representation of argument structure introduced in § 2.3, a syntactic representation of the case forms themselves as the explanatory mechanism. In § 4 I develop such a theory, building upon the generalization concerning the PP status of semantic cases obtained in § 3.2.3.

4. Analysis

In this section, I introduce my hypothesis concerning the internal syntactic structure of case forms in Khwarshi and show how their morphosyntactic properties are associated with their structural characteristics.

4.1. Proposal: the syntactic representation of case

I propose that the two functional oppositions governing the morphosyntactic properties of arguments and adjuncts translate into the following structural distinctions.

The direct–oblique opposition is represented as the presence vs. absence of the formal case feature on the nominal. The absolutive is the case-less (ungoverned) DP, which can be projected by any kind of predicate (verb, adjective, or Pred head) and assigned a very vague Theme theta-role. As for the absolutives in ungoverned positions discussed in § 2.2.6, I suppose that they are thematically licensed as vocatives, oaths, exclamations, or titles by specific functional heads in the syntactically represented pragmatic shell [Speas, Tenny 2003; Hill 2007; Slocum 2016]. Non-absolutive nominals bear a formal case feature.

The grammatical–semantic opposition is represented as the contrast between DP and PP. Arguments with marked grammatical cases (ergative and dative subject) are DPs bearing a formal case feature. The dedicated functional head (v_{TR}, v_{EXP}) in the extended verbal domain values this feature and assigns the corresponding theta-role (Agent, Experiencer) to its DP argument. Semantic cases are PPs headed by an empty P ($\varnothing_P$). The case morphology which shows up on the DP in the semantic case is the exponent of the inherent case assigned by this P. PPs allow further distinctions as to the semantic content of the empty P. If P has its own semantic content, it can assign a corresponding theta-role to the DP it projects; in this case, the PP can be licensed by itself and might function as an adjunct or a predicate in copular sentences. If, on the other hand, P is semantically bleached, then it cannot license its argument thematically. In this case, the PP can only function as an argument selected by a verbal head, which theta-licenses P's argument DP through theta-transmission. I suppose that non-core arguments, including poss-essive subjects, dative indirect objects, and idiosyncratic oblique objects, belong to this type. The structural representation of case forms in Khwarshi is summarized in (44).

(44) a. absolutive: DP; case-less; licensed and assigned a theta-role by a predicate

b. ergative agent subject: $DP_{[case:ERG]}$; case and theta-role assigned by v_{TR}

c. dative experiencer subject: $DP_{[case:DAT]}$; case and theta-role assigned by v_{EXP}

d. poss-essive non-volitional agent subject: $[_{PP}\ DP_{[case:POSS]}\ \varnothing_P\ ]$; case assigned by $\varnothing_P$, theta-role assigned by $v_{NON\text{-}VOL}$

e. oblique objects: $[_{PP}\ DP_{[case:VAL]}\ \varnothing_P\ ]$; case assigned by $\varnothing_P$, theta-role assigned by V/Appl

f. adjuncts: $[_{PP}\ DP_{[case:VAL]}\ \varnothing_P/P]$; case and theta-role assigned by $\varnothing_P$/P

In the next section, I show how the proposed structural representation of case forms allows us to explain the contrasts identified in § 3.

4.2. Explaining the contrasts

Below I group the phenomena revealing the relevant contrasts into three types: morphosyntactic, distributional and transformational.

4.2.1. Morphosyntactic properties

The first group of phenomena is sensitive to the opposition of case-marked vs. case-less DPs. They involve not only the internal morphological shape of the noun phrase, but also its eligibility as a goal in the predicate agreement process.

The hypothesis that absolutives are case-less DPs provides a straightforward explanation for the phenomena supporting the direct–oblique opposition. The category of obliqueness translates into the presence of the case feature on the DP, which is further realized morphologically on its subconstituents, along the lines of [Lyutikova 2021a]. Class-number agreement is case-discriminating in the terms of [Bobaljik 2008]: only case-less DPs are eligible as a goal for agreement probes. It should be emphasized that unlike in Bobaljik's proposal, case discrimination in agreement processes does not presuppose the post-syntactic application of case / agreement: in theories where case assignment takes place in the syntax, the formal case feature (or lack of it) on a DP can condition the application of the agreement rule (see especially [Baker 2015: Ch. 2, 7]). Moreover, there is evidence that the absence of the case feature on the DP at the current stage of derivation can be a prerequisite for agreement [Levin, Preminger 2014; Kornfilt, Preminger 2015]. I assume that class-number agreement in Northeast Caucasian languages observes the earliness principle [Pesetsky 1989] and takes place as soon as the required configuration is built; consequently, predicates agree with their absolutives as soon as they project them.

4.2.2. Distributive properties

Distributive properties of case forms reflect the ways the DP is theta-licensed. Absolutives are theta-licensed by the predicates (V, Adj, Pred) which project them or by functional heads involved in the syntactic representation of specific speech acts; consequently, they are found in verbal and adjectival environments (but not in nominal or postpositional ones) and as isolated utterances. Lexical or light verbs are involved in the theta-licensing of relational cases, as well as poss-essive subjects and idiosyncratically governed objects. This is why the corresponding case forms are only licit in the verbal domain and cannot be used adnominally or as non-verbal predicates. Finally, case forms corresponding to PPs where P theta-licenses its argument DP are semantically self-sufficient and can be found in any syntactic context that is interpretationally compatible with them.

4.2.3. Transformational properties

Transformational properties of nominals involve case preservation and change in various types of derived constructions — biabsolutive constructions, control infinitives, and nominalizations. The analysis attributes these properties to the opposition of DPs and PPs. From the theoretical point of view, it is possible to rationalize the difference between DP and PP arguments in both raising-based and control-based scenarios. If a raising analysis is more appropriate for a given phenomenon, then DPs can raise and express morphologically the case associated with the derived position; PPs, on the contrary, do not allow extraction of their DP arguments. Alternatively, if the control analysis is preferable for some reason, then the difference between DP and PP arguments can be attributed to a ban on inherently case-marked PRO.

As was noted above, distinguishing between raising and control is not an easy matter in Northeast Caucasian languages; neither raising nor control analyses in their "classical" form, based on the absence of case on the relevant empty category, suit the data. However, we can rely on other properties of constructions in modeling their underlying structure.

Let us start with nominalizations. Assuming that in nominalizations, verbal projections are embedded under nominal functional layers (see [Alexiadou 2010] for a comprehensive overview), we should expect that variable marking of arguments is associated with the presence of multiple case-assigning heads, the lower one in the verbal domain and the higher one in the nominal domain. In §§ 3.2.3–3.2.4 we have seen that in nominalizations, both heads are available simultaneously — that is, the nominalization where verbal encoding persists and the nominalization where adnominal encoding obtains do not differ as to their functional structure. This fact opens

up a new perspective on the analysis of differential argument marking in Khwarshi nominalizations as involving variable spell-out of multiply assigned case.

In the last two decades, significant headway has been made in exploring multiple case assignment. First of all, studies of languages with overt case stacking, such as Kayardild [Evans 1995] or Lardil [Richards 2007; 2013] provide important evidence for the claim that case morphology may be assigned to a DP arbitrarily many times, according to the number of c-commanding case-assigning heads in a certain local domain. Importantly, in certain combinations, some case affixes cannot appear and should be dropped; consequently, even within case-stacking languages, special rules exist that regulate the spellout of case chains. In Lardil, for instance, a structural case affix is overridden by subsequent case morphology, whereas an inherent case affix is preserved.

At the same time, the multiple case assignment analysis has been successfully applied to languages which do not exhibit overt case stacking. Thus, Pesetsky [2013] develops an analysis of Russian case morphology as involving multiple case affixes attached to the noun phrase embedded under multiple syntactic categories; the reason why we do not observe overt stacking is the "One Suffix rule", which deletes all but the outermost case affix at spellout.

In principle, the format of such rules may differ: we might think of a rule that allows a choice as to which affix in the chain should be retained. Levine [2017] explores multiple case assignment in Korean, where the indirect object can bear two case affixes, the first assigned within VP and the second assigned within TP. Interestingly, overt case stacking is only attested if the noun phrase is focused; otherwise, only one case affix is allowed, but either of the two affixes can be deleted at spellout. Baker [2015: 284] suggests that a similar account may apply to the variation of case morphology in Adyghe raising configurations discussed in [Potsdam, Polinsky 2012], where either the case assigned in the embedded clause or the case assigned in the matrix clause shows up on the relevant noun phrase. Importantly, such variation is only attested in Adyghe if structural case morphology is involved; lexically governed cases cannot be dropped. Similar restrictions seem to apply in Korean: though structural case morphology can attach to inherently case-marked DPs and PPs (e.g. locatives) [Schütze 2001], it cannot replace their exponents.

Turning back to Khwarshi nominalization and pursuing this line of reasoning, I suggest that the data can be accounted for in the following way. Arguments of nominalizations lie within two case domains simultaneously: the verbal domain and the nominal domain. Accordingly, they can in principle be assigned multiple cases: e.g. the transitive agent is assigned both ergative and genitive. At spellout, either of these cases can be chosen. Multiple case assignment, however, is only licit for DP-arguments. PPs, on the other hand, cannot be assigned genitive in the higher nominal domain, and this is why non-core arguments never show up as genitives. At the same time, PPs are compatible with the other kind of adnominal morphology — the attributive affix, which attaches over the PP, and hence cannot give rise to deletion of the inner case affix. Arguably, the generalization drawn by Richards [2013: 42] that semantic (un)interpretability determines whether the case affix can be dropped translates into a condition on case chain formation: inherent cases are covert PPs, and therefore the outer case morphology, even if allowed to land on PP, is separated from the inner case marker by a PP boundary and cannot influence its spellout.

Control structures, as examined in § 3.2.2, are different. Firstly, they do not attest case variation on the relevant argument: the higher case must be realized. Secondly, the structural position of the overt argument is outside the infinitival clause. Thirdly, the overt argument is thematically licensed by the higher predicate. Fourthly, the higher case form can be absolutive.

These properties, I assume, characterize Khwarshi control structures as opposed to multiple case assignment structures as represented by nominalizations. Accordingly, the empty category in the embedded clause is PRO, and the DP / PP opposition is relevant for licensing PRO. I believe that embedding of PRO under the PP shell cannot cause ungrammaticality by itself, in view of the fact that PRO appears freely in case positions. What makes PRO incompatible with PP-arguments is the ban on inherent case-marking, a constraint suggested by Sigurðsson

[2002]. Accordingly, for the contrast of DP / PP arguments to be operative in determining the distribution of PRO, we should assume that DP-arguments bear a structural case (or are case-less).

Turning now to biabsolutive constructions, discussed in § 3.2.1, we observe that they pattern with control structures, not multiple case assignment structures. No variation in case assignment is attested: if the biabsolutive construction emerges (which is signaled by auxiliary agreement), the external argument cannot retain its ergative or dative case marking. Structurally, the overt argument stands outside the constituent projected by the lexical converb. Finally, the overt argument is absolutive. I conclude that the Khwarshi biabsolutive construction is a control configuration, as proposed by [Gagliardi et al. 2014] for Tsez.

Thus, phenomena identifying transformational properties select for the same pool of arguments, but for slightly different reasons. Multiple case assignment configurations are sensitive to the DP / PP status of arguments **and** to the type of case assigned to the DP argument; control configurations are restricted by the type of case assigned to PRO exclusively.

4.3. Controversial issues

4.3.1. On the structural vs. inherent status of grammatical cases

The status of grammatical cases is worth a comment. As the reader may have noticed, the characterization of the ergative (and the dative) as structural rather than inherent contradicts the definition of the structural / inherent distinction in e.g. Woolford's [2006] typology: ergative and dative subjects in Khwarshi are supposed to be case-marked by the functional head projecting them and licensing them thematically, which is a hallmark of inherent, not structural, case.

However, more recent work has shown that ergatives, at least in some languages, attest properties of structural cases: their association with the agent theta-role is far from universal, and they are not preserved under nominalization or raising to the matrix clause. Accordingly, many recent analyses adopt the idea of the ergative as a structural case. Thus, Polinsky [2015; 2016a; 2016b] considers DP-ergatives as bearing structural case (as opposed to PP-ergatives, which bear inherent case); her analysis is couched in the framework of case assignment by heads. Within the configurational framework, the ergative is usually considered as a higher dependent case of the TP domain [Baker 2015; Baker, Bobaljik 2017; Lyutikova 2017b]; dependent case is structural by definition [Baker 2015: 15].

Therefore, I believe that the characterization of a given case as structural or inherent should be based primarily on its properties in a given language. The fact that these properties often correlate with the "modality" of case assignment should not be considered a reason for disregarding the behavior of case forms and relying solely on the mechanism of case assignment. I assume that in principle, a functional head can assign a structural or an inherent case to its argument, and this is a parameter of cross-linguistic variation. In Khwarshi, the transitive and experiential light verbs assign structural cases.

4.3.2. On the status of absolutives

Another issue I would like to discuss is the case-less status of absolutives. Indeed, the uniform account of absolutives as ungoverned case-less DPs may seem undermotivated; an alternative would be to take morphologically unmarked forms as corresponding to different entities — case-less nominals (for citation forms, titles etc.) on the one hand and structurally case-marked DPs (for verbal arguments) on the other. Absolutives in adjectival phrases would then be case-licensed by some invisible verbal head.

Though I cannot refute such proposals directly, I believe that this approach involves several stipulations and makes the analysis more complicated. Firstly, the alleged morphological syncretism of the case-less ungoverned and case-marked argumental absolutives is not a coincidence but is attested in all the languages of the family. Secondly, no verbal head can be identified in adjectival phrases licensing an absolutive subject — not only in languages like Khwarshi, where the copula can be dropped in its finite present form, but also in languages like Bagwalal, where the copula is never dropped. Thirdly, the uniform analysis of absolutives provides a straightforward generalization about the controller of predicate agreement; if argumental absolutives are structurally case-marked DPs, we have to explain why other structurally case-marked DPs, namely ergative and dative subjects, cannot be agreed with by higher probes, e.g. auxiliaries. Finally, if the analysis of DP-internal concord in obliqueness as a syntactic phenomenon [Lyutikova 2021a] is correct, the opposition of **all** absolutive DPs to other noun phrases is not only morphological, but should be represented in syntax as well. To sum up, I conclude that distinguishing between case-less and structurally case-marked absolutives results in significant complications.

Let us now determine if there is any positive evidence for analyzing argumental absolutives as structurally case-marked DPs. The most highly elaborated analysis for a Northeast Caucasian language involving such a thesis is Polinsky's [2015; 2016a] account of Tsez absolutives. The reason why Polinsky opts for case-licensing of absolutives is the fact that in Tsez, argument case-licensing can be distinguished from argument projection. The evidence comes from nominalizations. Polinsky shows that the minimal structure of Tsez event nominalizations is too small to incorporate the projections licensing the core arguments of the clause; consequently, arguments of such nominalizations can only appear as genitives. Therefore, absolutives in Tsez are licensed not only by virtue of being the argument of lexical V; they also need a case-licensing head. In Khwarshi, however, there is no configuration revealing a difference between projecting and licensing an absolutive; so I conclude that no need for introducing separate case-licensing arises.

To sum up, I believe that other things being equal, the simpler analysis should be preferred; for Khwarshi, the simpler variant is the uniform analysis of absolutives as case-less DPs.

5. Conclusions

In this paper, I studied the properties of various case forms in Khwarshi, a morphologically ergative language of the Northeast Caucasian family, paying special attention to three research questions: (i) How should the ergative case be assigned and structurally represented? (ii) Does it differ from other oblique subjects and objects in this respect? (iii) How should the absolutive be characterized? Addressing these questions I examined the morphological and syntactic characteristics of these case forms in various syntactic positions — subject, object, adjunct — and identified two major oppositions organizing the case taxonomy. The first opposition contrasts the absolutive as direct and the other case forms as oblique. The second opposition involves the division of case forms into grammatical cases, used to encode core arguments of the clause, and semantic cases, primarily used as adjuncts. Moreover, I determined that certain case forms exhibit differing properties in different syntactic positions: thus, dative subjects behave differently from dative indirect objects or instrumental adjuncts.

Drawing upon the observed characteristics of the case forms, I proposed a structural representation of the case taxonomy. My hypothesis is that the functional opposition of case forms translates into a structural distinction between case-less DPs, case-marked DPs, and PPs headed by an empty P ($\varnothing_P$). Absolutives are invariably case-less DPs, whatever syntactic position they are found in; ergative and dative subjects are structurally case-marked DPs. All the other case forms found in subject, object, or adjunct positions are PPs. PPs allow a further distinction as to the semantic content of the empty P, and, correspondingly, its ability to theta-license its DP argument. PPs headed by semantically bleached Ps can only function as arguments selected

by verbal heads, which can theta-license P's argument DP — poss-essive subjects, dative indirect objects, and idiosyncratic oblique objects belong to this type. Meanwhile, PPs headed by contentful Ps are unrestricted in distribution.

In arguing for this hypothesis I presented a novel diagnostic for the structural status of verbal arguments. This diagnostic is based on selective restrictions on the use of the Khwarshi attributive morpheme, which attaches to adverbial and postpositional but not nominal constituents. The context where verbal arguments can undergo attributivization is provided by nominalizations. I showed that DP-arguments and PP-arguments employ different techniques of adnominal marking: DP-arguments receive genitive case and cannot be attributivized, whereas PP-arguments cannot be marked with the genitive but do allow attributivization.

The present study contributes to our understanding of ergativity in the following ways. First, it provides empirical support for the theoretical model of Northeast Caucasian-style ergativity advocated for in [Polinsky 2016a], which involves *v*P-bound argument licensing and characterizes the ergative as a structural case feature on DP arguments. Secondly, it proposes an alternative characterization of absolutives as case-less DPs on the basis of their distribution in non-verbal contexts and their special status with respect to predicate agreement and DP-internal concord. Finally, it addresses the challenging issue of the comparison of ergative subjects with other oblique subjects. The Khwarshi data seem to be very instructive in this respect, since Khwarshi attests two non-ergative oblique subjects, which differ in their properties and structural characteristics. Dative subjects pattern with ergative subjects and call for a similar analysis. Poss-essive subjects, on the other hand, appear to occupy the same structural position but differ as to their internal structure, exhibiting properties of PP-arguments.

This variation in the DP / PP status of oblique subjects, coupled with the fact that corresponding case forms are still found in other syntactic positions where they clearly exhibit PP-properties, points to a specific path of diachronic development of oblique subjects, including ergative subjects. The process starts with a PP headed by a contentful P which case-licenses and theta-licenses its DP-argument. If P undergoes semantic bleaching and loses the ability to theta-mark its argument, this PP can only appear as an argument of a verbal head which theta-licenses it. Such PP-arguments of light verbs become PP-subjects. In Khwarshi, poss-essive subjects belong to this type. The transition from oblique PP-subjects to oblique DP-subjects involves syntactic restructuring erasing the PP layer and the reanalysis of the inherent case assigned by P as structural case assigned by *v*. This is the stage attained by ergative and dative subjects in Khwarshi. Subsequent development might result in further assimilation of oblique subjects to absolutive subjects, making them equally eligible for external ϕ-probes — the process we observe in several Northeast Caucasian languages developing person agreement [Ganenkov 2017; Forker 2020]. In general, the patterns found in Khwarshi provide strong support for the diachronic transition from inherently case-marked arguments embedded under a covert PP layer to structurally case-marked DPs, proposed for oblique subjects [Polinsky 2016a] as well as for other core arguments [Anagnostopoulou, Sevdali 2020]. In this way, the paper not only contributes to our understanding of the synchronic state of Northeast Caucasian ergativity, but also sheds light on its diachronic development.

ABBREVIATIONS

I–VI — nominal class
A — attributive
ABL — ablative
ABS — absolutive
AD — adessive
ADD — additive
AO — oblique form of the attributive
AOR — aorist
AUX — auxiliary
CAUS — causative
CNV.IPF — imperfective converb
CNV.PF — perfective converb
COP — copula
DAT — dative
ERG — ergative
FOC — focus particle

GEN1 — genitive 1
GEN2 — genitive 2
HPL — human plural
IMP — imperative
INF — infinitive
LAT — lative
MSD — masdar (nominalization)
NEG — negation
NPL — non-human plural
O — oblique
PL — plural
POSS — possessive
POT — potential
PTCP — participle
Q — question particle
QUOT — quotative
REFL — reflexive
SUP — superessive
TMP.CNV — temporal converb
TRNS — translative

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