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Differential nominal marking in Circassian

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In this paper we describe a peculiar pattern of case alternation from the poly-synthetic Circassian (West Caucasian) languages, where specificity-driven differential marking of noun phrases is attested in all syntactic positions and with the absolute and the oblique cases alike. We call this phenomenon differential nominal marking (DNM). We show that the presence resp. absence of overt case marking in Circassian fits in the two-level (DP vs. NP) structural model for nominal constructions and is in some ways similar to the phenomenon of pseudo-incorporation described for various languages with differential object marking. For instance, unmarked nominals in Circassian show number-neutrality and scope inertness with respect to negation and quantifiers. However, DNM in Circassian crucially differs from all known instances of pseudo-incorporation or case alternation in that it is not restricted to any particular syntactic position. We argue that this feature of the Circassian DNM calls all the existing approaches (both functionalist and generative) to the phenomenon of differential case marking in question.

Keywords: differential case marking, Circassian languages, pseudo-incorporation

1.   Introduction

In this paper we describe and analyse a peculiar pattern of case-marking alternation attested in two closely related ergative polysynthetic languages of the Caucasus, Adyghe and Kabardian, forming the Circassian (=Adyghean) branch of the Northwest Caucasian family. This pattern, which we term **differential nominal marking** (DNM), is exemplified in (1) for Standard Kabardian:

Standard Kabardian (Kumaxov 1971: 37):

a. *ŝale-r   txəλə-m   j-ew-že.*
    boy-**ABS** book-**OBL** DAT-DYN-read
    'The boy is reading the book.'

b. *ŝale txəλ   j-ew-že.*
    boy book DAT-DYN-read
    'A boy reads a book//books.'

DNM in Circassian languages is similar to the phenomenon of differential object marking (DOM) well known to typologists and attested in many language families around the world (references cf. below), and to the differential subject marking (DSM), a less conspicuous phenomenon (de Hoop & de Swart 2009), in that, like specificity-driven DOM, it involves an alternation between the presence of an overt case marking when the nominal is definite or specific and the lack of case marker indicating that the nominal is indefinite or, more often, nonspecific. However, the peculiarity of the case alternation in Circassian languages, as opposed to the more familiar instances of specificity-driven DOM, is in that, first, it applies to both grammatical cases available in these languages, viz. the Absolutive and the Oblique, and, second, that it is not restricted to any particular syntactic position. In (1), we see an alternation that involves both the Absolutive subject (S) and the Oblique indirect object (IO) of a bivalent intransitive verb. Below we will demonstrate that DNM in Circassian can affect virtually any other syntactic position as well, showing a remarkably constant semantic effect, i.e. (in)definiteness or (non-)specificity, which can be revealed by such tests as scope with respect to quantifiers, negation and other operators.

These briefly introduced properties of DNM in Circassian are typologically outstanding, not having been, to our knowledge, registered in any other language, although we will show that partly similar phenomena are attested elsewhere. The Circassian DNM poses problems for both formal and functional explanations offered for differential case marking, because all explanations suggested so far crucially hinge on the correlation between interpretive and formal effects of case alternations, and their particular syntactic positions or semantic roles.

For example, the alternation shown in (1) cannot be reasonably explained with recourse to the need to formally distinguish between subjects and objects (see Comrie 1979 and much subsequent work). Indeed, in (1a), where both arguments of the verb have overt – and distinct – case marking, the distinguishability requirement could have been satisfied even if one of them did not have an overt case marker at all (as is often the case with the absolutive in languages with ergative alignment). By contrast, in (1b) both arguments lack overt case marking and can only be distinguished from non-linguistic knowledge that it is boys who read

books, and not vice versa, yet the Circassian languages perfectly tolerate such constructions under proper semantic and discourse conditions.

This paper is mainly based on our fieldwork on several varieties of Circassian languages, i.e. Temirgoy and Bzhedugh dialects of Adyghe (Temirgoy dialect is very close to Standard Adyghe) and Besleney and Kuban dialects of Kabardian, all spoken in the Republic of Adygheya (Russian Federation). The four varieties are similar in the basics of the investigated phenomenon, but differ in certain details, which will be discussed where appropriate. Most examples in this paper come from targeted elicitation, although examples from narrative texts are also included where available.

The rest of the paper is structured as follows. In Section 2 we briefly present the structural characteristics of the Circassian languages relevant for our study. In Section 3 we systematically present data showing that the Circassian DNM affects all syntactic positions. In Section 4 we address the properties of DNM from the perspective of the so-called pseudo-incorporation. In Section 5 we discuss somewhat similar alternations from the related languages, Abaza and Abkhaz, and in Section 6 we will offer a general discussion of the phenomenon from the typological and theoretical perspectives.

2.   Circassian languages

The features of the Circassian languages that will be of interest below are polysynthesis, ergativity, case system, valency, and the structure of nominal constructions.

As was said above, Circassian is a branch of the (North)West Caucasian family comprising two closely related languages, Adyghe (West Circassian) and Kabardian (East Circassian). Another branch of the West Caucasian languages called Abkhaz-Abaza, consists of two languages, Abkhaz and Abaza, and we briefly consider some relevant data from these languages in Section 5. Currently, Circassians live in compact areas in the western part of the Russian North Caucasus covering several patches of their original homeland interspersed by settlements of speakers of other languages, mostly Russian, as well as in the diaspora in the Middle East, mostly in Turkey. During the Soviet period, written standards have been devised for both Circassian languages, which now enjoy a *de jure* official status in the Russian republics of Adygheya, Kabardino-Balkaria and Karachaevo-Cherkessia. *De facto*, however, the major and often the only language used in official situations is Russian, with the Circassian languages and especially the extant local dialects limited to colloquial use in rural settings and to events specifically related to traditional culture. All adult speakers of Circassian languages in Russia are bilingual in Russian.

The most notable and pervasive property of the grammar of Circassian, and, more broadly, West Caucasian languages, is polysynthesis, which we understand as the tendency to express most syntactic and semantic information within productively formed morphologically complex words, primarily verbs (see Lander & Testelets 2017; Arkadiev & Lander forthcoming). Examples (2) from Temirgoy Adyghe and (3) from Besleney Kabardian show that the verb form includes the expression of as much as four participants by means of pronominal prefixes, as well as affixes marking valency-change, spatial meanings, negation, modality, tense-aspect and subordination (see Smeets 1992; Korotkova & Lander 2010; Lander & Letuchiy 2010; Arkadiev & Letuchiy 2011).

Temirgoy Adyghe (textual example)

(2) *zə-qə-Ø-r-a-r-jə-ʁe-xə-ʁ-ep*

RFL.ABS-DIR-3SG.IO-LOC-3PL.IO-DAT-3SG.ERG-CAUS-carry-PST-NEG

'He did not ask them to carry him (*lit*. himself) from there.'

Besleney Kabardian (elicited)

(3) *sə-q̇ə-zer-a-xʷə-č̣'erə-mə-t̮etə-č̣'ə-ž'-a-r*

1SG.ABS-DIR-REL.FCT-3PL.IO-BEN-LOC-NEG-tie-ELAT-RE-PST-ABS

'that they could not untie me'

Table 1 presents the schematic template of the Circassian verbal complex, glossing over some minor points of cross-dialectal variation.

Table 1.

Prefixes										Root	Suffixes			
Argument structure zone						Pre-stem elements			Stem				Endings	
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4
absolutive	directional	subordinators	applicatives	dative	ergative	jussive	dynamicity	negation	causative	root	directionals, transitivity	propositional operators	absolutive plural	subordinators, force

Like in other polysynthetic languages, extensive Pro-drop is employed: all participants, including locative adjuncts, are indicated in the predicate by means of pronominal prefixes, and the corresponding noun phrases can be omitted if their referents are activated in the discourse. In independent clauses with overt noun phrases, word order is generally flexible with a preference for SOV.

The Circassian languages exhibit ergativity in both head- and dependent marking (see Smeets 1992; Kumakhov & Vamling 2009; Letuchiy 2012). In head marking, ergativity is manifested in the difference between the absolutive and ergative series of verbal pronominal prefixes; notably, the ergative series contains the only overt marker of 3rd person singular, viz. *(j)ə-*.

In dependent marking, Circassian languages possess "poor" case systems comprising just two core ("grammatical") cases, Absolutive and Oblique, and two "peripheral" cases, Instrumental and Adverbial. Glossing over interdialectal variation in the form of case markers, the most commonly found ones are *-r* for the Absolutive, *-m* for Oblique, *-č'e* for Instrumental and *-ew* for Adverbial (the latter does not involve the alternation and henceforth will be disregarded). Absolutive marks the S(ole core argument) of intransitive verbs (4) and the P(atient) of transitive verbs (5):

Temirgoy Adyghe (elicited)

(4) *č'ale-**r**   me-čəje.*
     boy-**ABS** DYN-sleep
     'The boy is sleeping.'

(5) *č'ale-**r**   Ø-s-λeʁʷə-ʁe.*
     boy-**ABS** 3.ABS-1SG.ERG-see-PST
     'I saw the boy.'[1]

The range of the Oblique case is, by contrast, very broad and includes the A(gent) of transitive verbs (6) as well as the indirect object with ditransitive verbs like 'give' (6) and bivalent intransitive verbs like 'read' in (1) above, both introduced by the semantically general "dative" applicative; the Oblique also marks indirect objects introduced by various specialized applicatives, such as benefactive in (7a) and locative in (7b), adnominal possessors (8), objects of postpositions, and certain adjuncts not indexed in the verb (9).

Temirgoy Adyghe

(6) *č'ale-**m** pŝaŝe-**m** txəλə-r   r-j-e-tə.*
     boy-**OBL** girl-**OBL** book-ABS DAT-3SG.ERG-DYN-give
     'The boy is giving the book to the girl.' (elicited)

(7) a. *se č'ale-xe-**m** txəλ-xe-r   a-**fe**-s-š'efə-ʁe-x.*
         1SG boy-PL-**OBL** book-PL-ABS 3PL.IO-**BEN**-1SG.ERG-buy-PST-PL.ABS
         'I bought books for the boys.'   (Letučij 2009: 331)

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1. Below, we do not indicate and gloss zero morphemes.

b. *swəretə-r   depqə-m pə-λa-ʁ.*
picture-**ABS** wall-**OBL** LOC-hang-**RES**
'The picture is hanging on the wall.'   (Mazurova 2009: 445)

(8) *çəfə-m   jə-wəne*
man-**OBL** POSS-house
'the man's house' (elicited)

(9) *mezə-m   sə-ḳʷa-ʁ.*
forest-**OBL** 1SG.ABS-go-PST
'I went to the forest.' (elicited)

Apart from the phenomenon of DNM discussed in this paper, overt markers of Absolutive and Oblique are normally not used with 1st and 2nd person pronouns, most proper names and (in Adyghe, but not in Kabardian) with singular possessed common nouns.

The Instrumental case covers a wide array of peripheral functions (see Serdobolskaya 2011 for more details), including instrument (10) and path (11). Instrumental is relevant for the discussion of DNM because its marker can attach both to the bare nominal stem (10) and to Oblique (11), and at least in some of its uses, as we will show below, manifests basically the same semantic effects as other instances of DNM.

Temirgoy Adyghe

(10) *haləʁʷə-r   ŝeẑəje-ç'e ə-bzə-ʁ.*
bread-**ABS** knife-**INS** 3SG.ERG-cut-PST
'He cut the bread with a knife.'   (Serdobolskaya 2011: 516)

(11) *a-r   ŝʷefə-m-ç'e,   mezə-m-ç'e,   gʷəbʁʷe-m-ç'e   qe-ḳʷa-ʁ.*
DEM-**ABS** field-**OBL-INS** forest-**OBL-INS** meadow-**OBL-INS** DIR-go-PST
'He walked across the fields, the forests, and the meadows.'
                    (Serdobolskaya 2011: 524)

A few words are in order regarding valency classes in Circassian (see Smeets 1992 for a comprehensive discussion). Transitivity is a formal morphosyntactic feature of verbs in the Circassian languages reflected in the kind of cross-referencing prefixes they take and is independent of numerical valency: while monovalent verbs are all intransitive, polyvalent verbs can be both transitive and intransitive. Transitive verbs have an A and a P argument. The A is cross-referenced with a special class of prefixes occupying the slot close to the verbal stem; no other pronominal prefixes can occur to the right of the A. The P is encoded as Absolutive and is cross-referenced in the leftmost position of the verb form, cf. (12).

Besleney Kabardian (elicited)

(12) a. ***wə-s-λeʁʷ-a***
         2SG.ABS-1SG.ERG-see-PST
         'I saw you.'

     b. ***w-jə-λeʁʷ-a***
         2SG.ABS-3SG.ERG-see-PST
         'S/he saw you.'

Polyvalent intransitive verbs have an Absolutive S and at least one indirect object (IO). The IO is introduced either by one of the numerous specific applicative prefixes, cf. (7) above, or by the semantically underspecified "dative" applicative prefix *(j)e*, cf. (6) and (1) above. All applicative prefixes together with the pronominal prefixes immediately preceding them occur in slots intermediate between those of the absolutive and the ergative arguments, cf. (13).

Temirgoy Adyghe (elicited)

(13) ***sə-qə-w-e-ža-ʁ***
      1SG.ABS-DIR-2SG.IO-DAT-wait-PST
      'I waited for you.'

Circassian languages possess a large and heterogeneous class of bivalent intransitive verbs. These can denote both physical activity such as 'hit' or 'drink' and mental activity, speech, or perception (e.g. 'read/learn', 'look at', 'scold'). Many of these predicates are translated by transitive verbs into European languages. With most bivalent intransitive verbs, the absolutive S argument is more agentive than the oblique IO.

Nominal constituents in the Circassian languages come in two varieties. First, there is what is known as the nominal complex (NC; see Lander 2017) formed by the head noun together with its non-referential modifiers such as adjectives or numerals. This is a tight morphosyntactic unit compositionally formed in syntax but sharing phonological and morphological properties with compounds. In particular, the nominal complex normally has only one nuclear stress, serves as a single domain for certain productive morphophonological alternations, its constituents usually cannot be modified or focused. The nominal complex is inflected as a whole, with possessive prefixes attaching to the left of all premodifiers, and the suffixes of number and case attaching to the right of all postmodifiers (including qualifying adjectives and numerals), cf. (14).

Temirgoy Adyghe (elicited)

(14) *jə-[šolk-ǯ'ene-daxe]-xe-r*

POSS-NC[silk-dress-beautiful]-PL-ABS

'her beautiful silk dresses'

Second, the nominal complex itself can serve as a head of an extended nominal constituent modified by possessive phrases or relative clauses, cf. (15), where the nominal complex consists of the single root *wəne* 'house':

Temirgoy Adyghe (elicited)

(15) [[*s-jə-č'ale-xe-m*]   *ja*-NC[*wəne*]-*xe-r*]

1SG.PR-POSS-boy-PL-OBL 3PL.PR+POSS-house-PL-ABS

'my sons' houses'

As we will show below, some correlations are found between the type of the nominal constituent and its ability to participate in case alternations in Circassian.

3.   Differential nominal marking in Circassian: The basics

As already said, differential case marking in Circassian involves a definiteness/specificity-based alternation between the overt vs. the zero case marker and affects both Absolutive and Oblique noun phrases in all syntactic contexts. Below we will exemplify this alternation for each case and each syntactic position. Examples in the format of (near) minimal pairs from different varieties will be provided, but without an attempt to show all available possibilities for each idiom. As we have mentioned above, the basic pattern is the same for all varieties of Circassian we have investigated.

3.1   The Absolutive contexts

Example (16) shows the alternation for the S of a monovalent verb, and Example (17) for the S of a bivalent intransitive verb.

Bzhedugh Adyghe (elicited)

(16) a.   *jə-š'əč'aʁ   č'ele-ḳʷače-r*   *qe-ḳʷe-n-ew.*

POSS-need guy-strong-ABS DIR-go-POT-ADV

'It is necessary that the strong guy comes.' (there is a strong guy and we know him)

    b.   *jə-š'əč'aʁ*   *č'ele-ḳʷače qe-ḳʷe-n-ew.*
          POSS-need guy-strong DIR-go-POT-ADV
          'It is necessary that a strong guy comes.' (we don't know if there is one)

Besleney Kabardian (elicited)

(17) *λə-ŝəpǵe(-r)*   *jeʁaŝ-jə pŝaŝe-m je-we-ne-ǵəm.*
     man-true(-ABS) life-ADD girl-OBL DAT-hit-FUT-NEG
     'A real man will never hit a girl.'

Example (18) shows the alternation for the P of a transitive verb.

Besleney Kabardian

(18) a. *ž'emə-r* *qe-s-š'eχʷ-a.*
         COW-ABS DIR-1SG.ERG-buy-PST
         'I bought the cow.' (elicited)

    b. *ž'em qe-s-š'exʷə-ne-w*   *s-ew-ḳʷe*   *ž'.jə.ʔ-a.*
         cow DIR-1SG.ERG-buy-FUT-ADV 1SG.ABS-DYN-go 3SG.ERG:say-PST
         'He said: I'm going in order to buy a cow.'   (textual example)

The context of the Absolutive transitive P, together with the Oblique indirect object of a bivalent intransitive verb shown below, is very similar to the cross-linguistically widespread pattern of definiteness- or specificity-driven differential object marking (DOM). Indeed, this is the context where the alternation and its semantic effects are most easily observed in elicitation and, although we have not conducted any proper text counts, it appears that this context is also the one where the unmarked common nominals most frequently occur in speech. However, as the other examples given above and below show, the alternation is by no means limited to the object position or the patient semantic role.

3.2 The Oblique contexts

The case marking alternation is observed in virtually all contexts where the Oblique case can be used in Circassian. Examples (1) above and (19) below show it for the indirect object of bivalent intransitive verbs, while (20) exemplifies it for the indirect object of a ditransitive verb.

Kuban Kabardian (elicited)

(19) a. *he-m*   *s-je-we-ne-ǵəm.*
         dog-OBL 1SG.ABS-DAT-hit-FUT-NEG
         'I won't hit the dog.' (the speaker has some particular dog in mind)

b. *ze-jə*   **he**   *s-je-we-ne-q̇əm.*
once-ADD dog 1SG.ABS-DAT-hit-FUT-NEG
'I will never hit a dog.' (a generic sentence applicable to any dog)

Besleney Kabardian (elicited)

(20) a. ***pŝeŝe-ʁesa-m***   *q̇eʁaʁe jə-r-jə-tə-n-əw*   *xʷje.*
girl-well.mannered-**OBL** flower 3SG.IO-DAT-3SG.ERG-give-POT-ADV want
'He wants to present flowers to the well-mannered girl.'

b. ***pŝeŝe-ʁesa***   *q̇eʁaʁe jə-r-jə-tə-n-əw*   *xʷje.*
girl-well.mannered flower 3SG.IO-DAT-3SG.ERG-give-POT-ADV want
'He wants to present flowers to some well-mannered girl.'

Non-core indirect objects introduced by specialized applicative prefixes such as the comitative *de-* in (21) or the locative *jə-* in (22) are also affected by the alternation:

Besleney Kabardian (elicited)

(21) a. *s-jə-pŝaŝe*   ***č'ele-daxe-m***   *de-k̇ʷe-n-əw*   *xʷje.*
1SG.PR-POSS-girl boy-beautiful-**OBL** COM-go-POT-ADV want
'My daughter wants to marry (lit. "go with") a (particular) handsome guy.'

b. *s-jə-pŝaŝe*   ***č'ele-daxe***   *de-k̇ʷe-n-əw*   *xʷje.*
1SG.PR-POSS-girl boy-beautiful COM-go-POT-ADV want
'My daughter wants to marry a handsome guy (not an ugly one).'

Bzhedugh Adyghe (elicited)

(22) a. *se*   ***nah-wəne-nefəne-m***   *s-jə-s-me*   *sə-feja-ʁ.*
1SG more-room-well.lit-**OBL** 1SG.ABS-LOC-sit-COND 1SG.ABS-want-PST
'I would like to live in the better-lit room.' (making a choice)

b. *se*   ***nah-wəne-nefəne***   *s-jə-s-me*   *sə-feja-ʁ.*
1SG more-room-well.lit 1SG.ABS-LOC-sit-COND 1SG.ABS-want-PST
'I would like to live in a better-lit room.' (expressing a wish)

Oblique-marked temporal and locative adjuncts are likewise involved, cf. Examples (23) and (24):

Bzhedugh Adyghe (elicited)

(23) a. ***nepʰeməč'-wəne-m*** *tə-ʁa-k̇ʷ.*
other-house-**OBL**   1PL.ABS-CAUS-go(IMP)
'Let's go to the other house.' (there are only two houses)

b. ***nepʰeməč'-wəne*** *tə-ʁa-k̇ʷ.*
other-house-   1PL.ABS-CAUS-go(IMP)
'Let's go to another house.'

Besleney Kabardian (elicited)

(24) a. ***nah-mexʷe-xʷabe-m*** *psə-m   də-ḳʷe-ne.*
      more-day-warm-**OBL** river-**OBL** 1PL.ABS-go-FUT
      'We will go to the river on a warmer day.' (we know the forecast)

    b. ***nah-mexʷe-xʷabe*** *psə-m   də-ḳʷe-ne.*
      more-day-warm   river-**OBL** 1PL.ABS-go-FUT
      'We will go to the river on a warmer day.' (if there is one)

The alternation can be observed with NP-internal possessors (25) and objects of postpositions (26). Note that in (26b) the bare NP allows plural interpretation, a fact which we will discuss in more detail in the next section.

Bzhedugh Adyghe (elicited)

(25) a. *dawətʰe* ***ҫəf-bajə-m***   *ə-pχʷ   q-ə-šʰe-n-ew*
      Daut   man-rich-**OBL** 3SG.PR-daughter DIR-3SG.ERG-lead-POT-ADV
      feja-ʁ.
      want-PST
      'Daut would like to marry the daughter of a (particular) rich man.'

    b. *dawətʰe* ***ҫəf-baj***   *ə-pχʷ   q-ə-šʰe-n-ew   feja-ʁ.*
      Daut   man-rich 3SG.PR-daughter DIR-3SG.ERG-lead-POT-ADV want-PST
      'Daut would like to marry a rich man's daughter.' (he doesn't have any particular girl or man in mind yet)

Kuban Kabardian (elicited)

(26) a. *ž'egʷə-m   zeҫ'e-r-jə   śə-ʔ-a   ƛə-ẑə-m   neʁʷəne.*
      wedding-**OBL** all-ABS-ADD LOC-be-PST man-old-**OBL** till
      'Everyone including the old man were present at the wedding.'

    b. *ž'egʷə-m   zeҫ'e-r-jə   śə-ʔ-a   ƛə-ẑ   neʁʷəne.*
      wedding-**OBL** all-ABS-ADD LOC-be-PST man-old till
      'Everyone including old men were present at the wedding.'

Now we turn to the context which is the least available for the unmarked ("caseless") nominals in Circassian, viz. the ergative A of transitive verbs. It is not surprising that in episodic contexts, e.g. in sentences denoting a single completed event in the past, the A can only appear with the overt Oblique marking, cf. (27).

Kuban Kabardian (elicited)

(27) *ƛə*(-m)   xade-r   jə-ṭ-a*
     man*(-**OBL**) kitchen.garden-ABS 3SG.ERG-dig-PST
     'The man dug up the kitchen-garden.'

However, in contexts involving irrealis, such as (in)ability in (28), or genericity, as in (29), non-specific unmarked As become available:

Temirgoy Adyghe (elicited)

(28)   a.   *ʔaze-deʁʷə-m*   *w-jə-ʁe-χʷəž̌’ə-š’t.*

doctor-good-OBL 2SG.ABS-3SG.ERG-CAUS-recover-FUT

'The good doctor will cure you.'

b.   *ʔaze-deʁʷə*   *w-jə-ʁe-χʷəž̌’ə-š’t.*

doctor-good 2SG.ABS-3SG.ERG-CAUS-recover-FUT

'A good doctor will (be able to) cure you.'

Besleney Kabardian (elicited)

(29)   a.   *č̣’ele-ʁesa-m*   *apxʷede-pisme jə-txə-ne-ǵəm.*

boy-well.behaved-OBL such-letter   3SG.ERG-write-FUT-NEG

'The well-behaved boy won't write such a letter.' (infelicitous out of context)

b.   *č̣’ele-ʁesa*   *apxʷede-pisme jə-txə-ne-ǵəm.*

boy-well.behaved such-letter   3SG.ERG-write-FUT-NEG

'No well-behaved boy will write such a letter.'

Thus we see that in a context where a particular participant can naturally be construed as non-specific, it can be expressed by an unmarked nominal construction in Circassian.

Finally, we turn to the contexts of the Instrumental, which is a "secondary", or stacking, case in Circassian, being able to attach to the Oblique. The distribution of the Oblique case in the highly varied contexts of the Instrumental is intricate; according to Serdobolskaya (2011), some of its uses tend to require the presence of the Oblique while some others occur without it. We did not attempt to check the availability of the specificity-driven case alternation with all the uses of the Instrumental. Suffice it to say that there is a number of contexts, such as instrument, as in (30), means of transport in (31), and the evaluating person in (32), where the alternation and its semantic effects are observed.

Temirgoy Adyghe (Serdobolskaya 2011: 531):

(30)   a.   *t-jate*   *pχe-xe-r*   **wetəč̣’ə-č̣’e** *j-e-qʷəte-x.*

1PL.PR-father wood-PL-ABS axe-**INS**   3SG.ERG-DYN-chop-PL.ABS

'Father is chopping the wood with an axe.'

b.   *t-jate*   *pχe-xe-r*   **wetəč̣’ə-m-č̣’e** *j-e-qʷəte-x.*

1PL.PR-father wood-PL-ABS axe-**OBL-INS** 3SG.ERG-DYN-chop-PL.ABS

'Father is chopping the wood with the axe.'

Kuban Kabardian (elicited)

(31) a. *ŝale-m*   ***vjelasipjedə-m-ç'e*** *q̇-j-e-ž'əh.*
 boy-OBL bicycle-**OBL-INS**   DIR-DAT-DYN-drive
 'The boy is riding a bicycle.'   (Kjuseva & Pavlova 2015, example (87))

  b. *a-bə-m*   *š'ə-ç'e*   *wə-k̇ʷe-fə-ne,*   ***mašine-ç'e***
 DEM-OBL-OBL horse-**INS** 2SG.ABS-go-HBL-FUT car-**INS**

 wə-k̇ʷe-fə-ne-q̇əm.
 2SG.ABS-go-HBL-FUT-NEG
 'One can get there on horseback, but not by car.'

(32) a. ***nenawə-m-ç'e*** *č'ajə-r* *pŝtərə-ŝe.*
 child-**OBL-INS** tea-ABS hot-too
 'The tea is too hot for the child.'

  b. ***nenawə-ç'e*** *č'ajə-r* *pŝtərə-ŝe.*
 child-**INS**   tea-ABS hot-too
 'The tea is too hot for a child.'

3.3   Summary

In the preceding sections we have shown that the alternation between case-marked and bare nominals in Circassian languages applies across the board to both the Absolutive and the Oblique and to all their major uses, not being limited to any particular semantic role or syntactic function. Specific and definite common nominals always bear overt case marking required by the particular construction, whereas indefinite and especially non-specific nominals systematically lack case markers. The only context where even non-specific nominals nevertheless appear to be obligatorily case-marked in all dialects we have surveyed is clauses with an individual level nominal predicate ascribing a property to a generic subject, cf. (33).

Kuban Kabardian (elicited)

(33) ***məŝe*(-r)*** *psewəŝhe-bzaž'e.*
 bear*(-ABS) animal-fearsome
 'The bear is a fearsome animal.'

This unrestricted character of the Circassian case alternation renders the accepted terms like "differential object marking" or "differential subject/agent marking" unsuitable for its description, hence our proposed label "differential nominal marking" (DNM). Circassian DNM is remarkable and typologically outstanding precisely due to its broad applicability, which makes it similar to the use vs. non-use of articles in languages such as English rather than to any familiar kind of case variation including DOM (see e.g. Malchukov & De Swart 2009 and

Witzlack-Makarevich & Seržant 2018, for overviews of case alternation phenomena). Indeed, the best known and widely attested regular alternation between overt and zero case marking of nominals triggered by their referential properties (including specificity) is attested in only a very restricted set of syntactic contexts, i.e. patients of transitive verbs (direct objects), hence the label "differential object marking" (see e.g. Comrie 1979; Bossong 1985, 1998; Enç 1991; Aissen 2003; Leonetti 2004; Öztürk 2005; de Hoop & Malchukov 2007; de Swart 2007; Dalrymple & Nikolaeva 2011; Iemmolo 2010, 2011, among many others). Similar kinds of alternation with subjects or agents (Differential Subject Marking, DSM) are attested much more rarely and do not show "mirror-image" behavior with respect to objects/patients suggested by some explanations (e. g. Aissen 2003), see de Hoop & Malchukov (2008) and Fauconnier & Verstraete (2014), while case alternations of this kind for other semantic roles or syntactic functions, to our knowledge, have not been reported in the literature at all. We will offer a more general discussion of the theoretical and typological implications of the Circassian DNM below, and in the next section we turn to further aspects of its analysis.

4.   Circassian DNM as Pseudo-Incorporation?

4.1   Pseudo-incorporation

In the study of specificity-driven differential object marking, the notion of pseudo-incorporation (PI) has been proposed in order to account for a recurrent cluster of properties shared by the non-case-marked member of the DOM alternation (and, less frequently, DSM alternation) in a number of unrelated languages (see e.g. Massam 2001, 2009; Öztürk 2005; Kamali 2008; Dayal 2011; Baker 2011; Borik & Gehrke 2015; Lyutikova 2017).[2] Below we list these properties, of which only (34i) distinguishes PI from noun incorporation proper:

(34)   Features of pseudo-incorporation:
   i.   involves a phrasal category (NP), not a word;
   ii.   lack of case marking;
   iii. number neutrality;
   iv.   semantic effects of "canonical" noun incorporation like habituality;

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2.   The typological research of the phenomenon started probably with (Miner 1986) whose "stripping, or loose incorporation" seems the same as PI; the "weak referentiality" addressed in Aguilar-Guevara, Le Bruyn & Zwarts (eds.) (2014) stands close to it but is a semantic, and not a grammatical term; we thank one of the anonymous reviewers for pointing out these works.

v.   linear contact of the nominal with the verb;

vi.   scope inertness of quantifiers;

vii.   non-specificity;

viii.   inability to antecede pronouns;

ix.   valency reduction (de-transitivization) of the verb;

x.   impossible with pronouns;

xi.   no articles and other kinds of determiners.

A model example of pseudo-incorporation comes from Niuean and some other Polynesian languages, where transitive verbs can appear in a VSO structure with their P direct object overtly marked as Absolutive and their A subject as Ergative, as in (35a), as well as in the formally intransitive VOS structure with the bare object adjacent to the verb and the subject in the Absolutive, as in (35b), exhibiting the properties of pseudo-incorporation.

Niuean (Austronesian > Oceanic; Massam 2001: 157)

(35) a.   *Takafaga tūmau nī   e   ia e   tau ika.*
          hunt   always EMPH ERG he ABS PL   fish

     b.   *Takafaga **ika** tūmau nī   a   ia.*
          hunt   fish always EMPH ABS he
          (a=b) 'He is always fishing.'

Interestingly, PI in Niuean is applicable not only to the absolutive P arguments of canonical transitive verbs, but to the so-called "middle" objects similar to the indirect objects of bivalent intransitive verbs in Circassian (Massam 2001: 171), cf. Example (36):

Niuean (Austronesian > Oceanic; Massam 2001: 171)

(36) a.   *Ko e fanogonogo a   lautolu **ke he tau lologo**.*
          PRED listen   ABS they   **DAT   PL   song**

     b.   *Ko e fanogonogo **lologo** a   lautolu.*
          PRED listen   song ABS they
          '(a=b) They were listening to songs.'

However, in contrast to Circassian, Massam (2001: 171–172) shows that neither subjects nor any other indirect objects or obliques can undergo pseudo-incorporation in Niuean.

Other languages where differential object marking has been analysed as involving PI are various Turkic (Turkish, Sakha, Tatar), Dravidian (Tamil and Kannada), Indo-Iranian (Hindi and Persian), Finno-Ugric (Mari) and some others. One of the approaches to PI suggested in the literature accounts for its various

properties by the two-layered theory of nominal constituents, i.e. to the distinction between NPs and DPs (cf. the vast literature since Abney 1987, and more specifically on PI: Massam 2001; Lyutikova 2017): PI involves a deficient nominal category (a "small nominal", Pereltsvaig 2006), i.e. an NP lacking case and number features, and not a full nominal construction (DP), which is (and has to be) characterized by such features. Under the common generative assumptions DPs undergo movement from their base position in order to get case. Thus, both the lack of overt case markers and semantic and scopal properties of pseudo-incorporated nominals are explained by their structural deficiency: being small nominals, they lack features driving movement and remain inside the verb phrase, thus not getting case nor being able to scope over higher placed operators such as negation or quantifiers.

In the following we will address the question whether the Circassian DNM is amenable to a pseudo-incorporation analysis. We will present empirical evidence showing that while DNM displays some properties of PI, it crucially lacks others and therefore poses challenges for the PI-style analysis.

4.2   Evidence for PI in Circassian

Certain properties of unmarked nominals in the Circassian languages fall under the features of PI. First, the unmarked nominal is a phrase formed in syntax, and not a word – to the extent that the nominal complex, briefly introduced in Section 2, shows phrasal properties (see Lander 2017). In the examples in Section 3 we have seen that not just bare nominal roots or stems can participate in the case alternation, but also complex nominal constructions containing adjectival modifiers such as 'beautiful' or 'well-lit', determiner-like elements such as 'other' or 'such' and degree markers such as 'more'. Below we will see that the unmarked nominal construction can contain quantifiers such as numerals or 'many'.

Second, the unmarked nominal shows number neutrality, manifested in its inability to inflect for number (37) and in the availability of an indefinite plural interpretation attested in various syntactic positions, cf. the Absolutive S in (38), the Absolutive P in (39) and the Oblique indirect object in (40).[3]

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3. The relevance of this test is weakened by the fact that some, although not all, speakers of Adyghe in oral speech allow the number neutrality with case-marked nominals in the singular form (Yury Lander, p.c.; Bagirokova, Lander, Phelan submitted); on similar phenomena in other varieties of Circassian, cf. (Kumaxov 1971: 5–14).

Temirgoy Adyghe (elicited)

(37) *č'ale-xe-r, č'ale-xe-m* vs. **č'ale-xe*
      boy-PL-ABS boy-PL-OBL   boy-PL

(38) a. *stolə-m   txəλə-r   tje-λ.*
          table-OBL book-**ABS** LOC-lie
          'There is a (one) book on the table.'

      b. *stolə-m   txəλ   tje-λ.*
          table-OBL book LOC-lie
          'There is a book on the table / there are books on the table.'

Kuban Kabardian (elicited)

(39) a. **neŝebegʷə-r**   *q̇e-s-ŝexʷə-n-əw*   *sə-xʷje.*
          cucumber-**ABS** DIR-1SG.ERG-buy-POT-ADV 1SG.ABS-want
          'I want to buy a cucumber (just one).'

      b. **neŝebegʷ**   *q̇e-s-ŝexʷə-n-əw*   *sə-xʷje.*
          cucumber DIR-1SG.ERG-buy-POT-ADV 1SG.ABS-want
          'I want to buy cucumbers.'

Bzhedugh Adyghe (elicited)

(40) a. *žene-šχʷanṭe sə-faj.*
          dress-blue   1SG.ABS-want
          'I want a blue dress / blue dresses.'

      b. *žene-šχʷanṭe-m sə-faj.*
          dress-blue-**OBL** 1SG.ABS-want
          'I want the blue dress (that particular one).'

Both inanimate and animate nominals show number neutrality, cf. (41) with an animate indirect object and (42) with a transitive agent.

Besleney Kabardian (elicited)

(41) a. *qə-č'erəxʷ-zepət* **çəxʷə-m** *s-je-že-n-əw*
          DIR-be.late-FREQ man-OBL 1SG.ABS-DAT-wait-POT-ADV
          s-jə-č'ase-qəm.
          1SG.PR-POSS-like-NEG
          'I don't like to wait for the person who is always late.' (only singular)

      b. *qə-č'erəxʷ-zepət* **çəxʷ-xe-m** *s-ja-že-n-əw*
          DIR-be.late-FREQ man-PL-OBL 1SG.ABS-3PL.IO+DAT-wait-POT-ADV
          s-jə-č'ase-qəm.
          1SG.PR-POSS-like-NEG
          'I don't like to wait for the people who are always late.' (only plural)

    c.   *qə-č'erəxʷ-zepət* **çəxʷ** *s-je-že-n-əw*   *s-jə-č'ase-qəm.*
           DIR-be.late-FREQ **man** 1SG.ABS-DAT-wait-POT-ADV 1SG.PR-POSS-like-NEG
           'I don't like to wait for people who are always late.' (number unspecified)

(42) *wəlape š'ə-š'*   **pŝaŝe** *apxʷed-əw jə-ŝe-ne-te-qəm.*
      Ulape LOC-from girl   such-ADV 3SG.ERG-do-FUT-IPF-NEG
      'A girl / girls from Ulape[4] would not do such things.'

Number neutrality of the unmarked nominal is subject to a certain amount of dialectal variation in Circassian. Thus, in Bzhedugh Adyghe, the unmarked form in the Absolutive (but not in the Oblique) positions is specified for singular number, cf. (43) with the Absolutive vs. (40) above with an Oblique.

Bzhedugh Adyghe (elicited)

(43) **laʁe** *stolə-m*   *tje-tʰ*
      plate table-OBL LOC-stand
      'There is a plate on the table'; *'There are plates on the table.'

Moreover, in contrast to the other dialects, Bzhedugh allows overt plural nominals to be unmarked for case when they are indefinite, but only in the Absolutive case position, again, cf. (44) with an Absolutive context and (45) with an Oblique context in which the plural oblique marker *-me* is required:

Bzhedugh Adyghe (elicited)

(44) *ĉhe*   **gʷəpšʰəse-xe** *q-j-e-he-x*
      1SG.PR+head thought-PL DIR-LOC-DYN-come-PL.ABS
      'Into my head, thoughts come.'

(45) *mə* **bakʰlažan-xe*(-me)** *sə-faj*
      this eggplant-PL*(-OBL) 1SG.ABS-want
      'I want these eggplants.'

Third, case-marked and unmarked nominals show different behaviour with respect to scope taking operators. This is clearly shown by the interpretation of numerals and other quantifiers, which can take wide scope when embedded into case-marked NPs but must take narrow scope when non-case-marked. This scope inertness, again, is observed irrespective of whether the case is Absolutive vs. Oblique or of the syntactic position of the NP, cf. the Absolutive S in (46), the Absolutive P in (47), the Oblique indirect object in (48) and the Instrumental in (49).

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4. In Russian Ulyap, the village where the Besleney variety presented here is spoken.

Temirgoy Adyghe (elicited)

(46)　a.　*tjetrad-pepč*　**wəs-jə-ṭʷ**　*de-tə-ʁ.*

notebook-every poem-LNK-two LOC-stand-PST

'In every notebook, there were two poems.' (different in every notebook, ∀>2)

　　b.　*tjetrad-pepč*　**wəs-jə-ṭʷə-r**　*de-tə-ʁ.*

notebook-every poem-LNK-two-**ABS** LOC-stand-PST

'In every notebook, there were the same two poems.' (2>∀)

(47)　a.　*student-pepč*　**wəs-jə-ṭʷ**　*ə-txə-ʁ.*

student-every poem-LNK-two 3SG.ERG-write-PST

'Every student wrote down two poems.' (different for each student, ∀>2)

　　b.　*student-pepč*　**wəs-jə-ṭʷə-r**　*ə-txə-ʁ.*

student-every poem-LNK-two-**ABS** 3SG.ERG-write-PST

'Every student wrote down the same two poems.' (2>∀)

Besleney Kabardian (elicited)

(48)　a.　**txəλ-kʷedə-m**　*s-ja-ž̌'-a-q̇əm.*

book-many-**OBL** 1SG.ABS-3PL.IO+DAT-read-PST-NEG

'There are many books that I haven't read.' / 'I've read few books.' (many > Neg, Neg > many)

　　b.　**txəλ-kʷed**　*s-ja-ž̌'-a-q̇əm.*

book-many 1SG.ABS-3PL.IO+DAT-read-PST-NEG

'I've read few books.' / *'There are many books that I haven't read.' (Neg > many, *many > Neg)

Bzhedugh Adyghe (elicited)

(49)　a.　*zeč'e-č'ale-me selat* **cʰecʰ-jə-ṭʷə-ž̌'e**　*q-a-šte-təʁ.*

all-boy-OBL.PL salad fork-LNK-two-**INS** DIR-3PL.ERG-take-IPF

'All the boys were taking the salad with two forks.' (each boy had his own pair of forks, ∀>2)

　　b.　*zeč'e-č'ale-me selat* **cʰecʰ-jə-ṭʷə-m-ž̌'e**　*q-a-šte-təʁ.*

all-boy-OBL.PL salad fork-LNK-two-**OBL-INS** DIR-3PL.ERG-take-IPF

'All the boys were taking the salad with the two forks.' (the same two forks for all boys, 2>∀)

Again, in appropriate contexts this difference in scope is observed even with animate As of transitive verbs, cf. (50).

Kuban Kabardian (elicited)

(50) a. *nenew-jə-ţə-m*   *a*   *sumke-r q̇-a-ʔetə-fə-ne-q̇əm.*

child-LNK-two-**OBL** DEM bag-ABS DIR-3PL.ERG-lift-HBL-FUT-NEG

'The two children won't be able to lift this bag.' (2 > Neg)

b. *nenew-jə-ţ*   *a*   *sumke-r q̇-a-ʔetə-fə-ne-q̇əm,*   *awe ŝə-m*

child-LNK-two DEM bag-ABS DIR-3PL.ERG-lift-HBL-FUT-NEG but three-OBL

q̇-a-ʔetə-ne.

DIR-3PL.ERG-lift-FUT

'Two children won't be able to lift this bag, but three will lift it.' (Neg > 2)

Fourth, the demonstratives used as third person pronouns do not admit the unmarked form (51) (recall that first and second person pronouns, by contrast, almost never take case markers), and the latter cannot be modified by determiners (52).

Temirgoy Adyghe (elicited)

(51) *a*(-r)*   *ma-ḳʷe.*

DEM*(-**ABS**) DYN-go

'S/he is going.'

(52) *žane(-r)*   vs. *mə žane*(-r)*

dress(-ABS)   this dress*(-**ABS**)

'a dress/the dress'   'this dress'

The properties surveyed above suggest that the unmarked nominal construction in the Circassian DNM is a "small nominal" in the sense of Pereltsvaig (2006), i.e. an NP, while the case and number features characterize only the full nominal construction (the DP) in Circassian, cf. (53).

(53) a. NP[*žane*]

dress

'dress(es)'

b. DP[*mə* NP[*žane*]-*r*]

this   dress-ABS

'this dress'; *'these dresses'

c. *NP[*mə žane*]

this   dress

Being morphologically deficient, NPs are semantically inert (within the generative framework, it is usually explained by the assumption that they cannot undergo movement), which means that they have narrow scope with respect to quantifiers and negation.

With overt number marking, overt case marking becomes obligatory as well (54). This can be accounted for if we assume that both number and case features occur only at the DP level.

(54) a. DP[*mə* NP[*ǯane*]*-xe-r*]
          this   dress-PL-ABS
          'these dresses'

     b. *DP[*mə* NP[*ǯane*]*-xe*]
          this   dress-PL-ABS

The special case of Bzhedugh Adyghe, where, as shown above in (43)–(44), the Absolutive position differs from the Oblique one in allowing the bare plural and disallowing the plural interpretation of the unmarked nominal, can be accounted for if we assume that in Bzhedugh the number feature is bundled with the Oblique case on D but is realized in the Absolutive; in generative terms, it can be associated with a separate functional head (Num) in the Absolutive, as shown in (55).

Bzhedugh Adyghe (elicited)

(55) a. *ǯə-dede-m*   NP[*pisme*] *je-ǯ'e*
          now-INTF-OBL letter(**OBL**) DAT+DYN-read
          'She/he is now reading a letter/letters.'

     b. *ǯə-dede-m*   NumP[NP[*pisme*]] *j-e-tʰxə*
          now-INTF-OBL letter(**ABS**)   3SG.ERG-DYN-write
          'She/he is now writing a letter.' (one letter only)

     c. *ǯə-dede-m*   NumP[NP[*pisme*]*-xe*] *j-e-tʰxə*
          now-INTF-OBL letter-**PL**(**ABS**)   3SG.ERG-DYN-write
          'She/he is now writing letters.' (more than one letter)

In (55a), the verb is intransitive, and the indirect object in the Oblique lacks the number feature (NP may denote any number of objects), whereas in (55bc), the verb is transitive, and its direct object is in the Absolutive, which requires a larger phrasal category NumP, which contains the number characteristic, singular in (55b) and plural in (55c).

Although the unmarked nominals in Circassian show a number of the properties associated with pseudo-incorporation cross-linguistically, they crucially lack another set of these properties, as we show in the next section.

4.3   Evidence against PI in Circassian

First of all, in sharp contrast to pseudo-incorporation in Niuean, the Circassian case alternation is not accompanied by valency reduction or, in fact, any change in verb morphology. As the examples above testify, transitive verbs with Oblique As remain transitive regardless of whether their P is overtly marked as Absolutive or not, and the indirect objects remain indexed in the verb by the appropriate applicative prefixes even when they bear no overt Oblique case marker.

Second, in contrast to the Niuean pseudo-incorporated unmarked nominals and many other cases reported for other languages, such as Sakha or Tamil (Baker 2011), the unmarked nominal in Circassian need not be directly adjacent to the verb, as shown by Examples (56) for the Absolutive S, (57) for the Absolutive P, (58) for the Oblique indirect object and (59) for the Oblique Agent.

Kuban Kabardian (elicited)

(56) *λə-ʔʷəŝ   fəzə-m   je-we-ne-q̇əm.*
       man-clever woman-OBL DAT-hit-FUT-NEG
       'A clever man won't hit a woman.'

Besleney Kabardian (elicited)

(57) *txəλ mə təwč'anə-m š'-j-e-š'exʷ-zepət.*
       book this shop-OBL   LOC-3SG.ERG-DYN-buy-FREQ
       'He often buys books in this shop.'

Kuban Kabardian (elicited)

(58) *ŝele-mə-ʁase   mə pŝaŝe-r q̇ə-de-fe-ne-q̇əm.*
       guy-NEG-well.behaved this girl-ABS DIR-COM-dance-FUT-NEG
       'This girl won't dance with an unmannerly guy.'

(59) *neʁʷeŝ-ŝale wənaŝhe-r a.xʷed-əw deʁʷ-əw   xʷe-ŝəž'ə-ne-q̇əm.*
       other-guy   roof-ABS   such-ADV good-ADV BEN-repair-FUT-NEG
       'Another guy won't repair the roof so well.'

Moreover, as shown already in Example (1) above, there may be several unmarked nominals in a clause; in those cases where this may lead to ambiguity, word order freezing effects are observed, as in (60a,b), where only the subject-indirect object order is allowed when both animate arguments are not marked for case. The inverted word order is perfectly acceptable when the indirect object is overtly marked for case, as in (60c).

Kuban Kabardian (elicited)

(60) a. *ƛ̣ə-ʔʷəŝ   fəz   je-we-ne-q̇əm.*
          man-clever woman DAT-hit-FUT-NEG
          'A clever man won't hit a woman.'

     b. *#fəz   ƛ̣ə-ʔʷəŝ   je-we-ne-q̇əm.*
          woman man-clever DAT-hit-FUT-NEG
          'A woman won't hit a clever man;' *'a clever man won't hit a woman.'

     c. *fəzə-m   ƛ̣ə-ʔʷəŝ   je-we-ne-q̇əm.*
          woman-OBL man-clever DAT-hit-FUT-NEG
          'c=a'

However, in those cases when lexical semantics suffices to determine the roles of unmarked arguments, word order remains free, as in (61).

Kuban Kabardian (elicited)

(61) a. *se   s-jə-ʁaŝe-m   cvjetok pŝaŝe je-s-t-a-q̇əm.*
          1SG 1SG-POSS-life-OBL flower   girl   DAT-1SG.ERG-give-PST-NEG

     b. *se   s-jə-ʁaŝe-m   pŝaŝe cvjetok je-s-t-a-q̇əm.*
          1SG 1SG-POSS-life-OBL girl   flower DAT-1SG.ERG-give-PST-NEG
          (a=b) 'I have never given a flower to a girl in my life.'

Further, word order permutations do not allow the unmarked nominal to take wide scope over quantifiers or other operators, as shown by Examples (62) for the Absolutive S, (63) for the Oblique IO, and (64) for the Instrumental: in spite of that the numeral-containing NP is topicalized, the numeral does not take the wider scope:

Kuban Kabardian (elicited)

(62) a. *ʔene-pebž'   leʁ-jə-pƛ   tje-tə-n   xʷje.*
          table-every plate-LNK-four LOC-stand-POT must

     b. *leʁ-jə-pƛ   ʔene-pebž'   tje-tə-n   xʷje.*
          plate-LNK-four table-every LOC-stand-POT must
          (a=b) 'On each table there must be four plates.' (∀ > 4; *4 > ∀)

(63) a. *uč'jenik-pebž' wəse   q̇-je-ž'-a.*
          pupil-every   poem DIR-DAT-read-PST

     b. *wəse uč'jenjək-pebž' q̇-je-ž'-a.*
          poem pupil-every   DIR-DAT-read-PST
          'Every pupil read a poem.' (∀ > ∃; *∃ > ∀)

(64) ***gʷeχʷ-jə-ṭ-ç̌'e***   ṣ̂al-əw   χʷa-m-jə   selatə-r   q̇-a-ŝt-a.
fork-LNK-two-INS guy-ADV all-OBL-ADD salad-ABS DIR-3PL.ERG-take-PST
'All the guys took salad with two forks.' (∀ > 2; *2 > ∀)

Finally, unmarked nominals in Circassian can introduce discourse referents and antecede pronouns, as in (65):

Besleney Kabardian (elicited)

(65) *dəʁʷase   təwč'anə-m sə-ḳʷe-rjə,*   ***txəλᵢ*** q̇e-s-š'exʷ-a.   *ž̌ə*
yesterday shop-OBL   1SG.ABS-go-CNV book DIR-1SG.ERG-buy-PST now

a-bəᵢ   *s-ew-ž̌'e.*
DEM-OBL 1SG.ABS-DYN-read
'Yesterday I went to the shop and bought a book. Now I am reading it.'

4.4   Summary

Above we have shown that the Circassian DNM, on the one hand, can be amenable to a pseudo-incorporation-style analysis and, on the other, does not wholly fit into the prototype of PI, see Table 2.

Table 2. Pseudo-incorporation properties and the Circassian DNM

Pseudo-incorporation, cf. (34)	DNM in Circassian
phrasal category, not a word	yes
lack of case marking	yes
number neutrality	yes
scope inertness	yes
no pronouns	yes
no determiners	yes
non-specificity	mostly
semantic effects of "canonical" noun incorporation like habituality	sometimes
linear contact with the verb	no
inability to antecede pronouns	no
valency reduction of the verb	no

The distribution of properties given in Table 2 suggests that our hypothesis regarding the structural deficiency of the unmarked nominal constructions in Circassian is on the right track. However, the lack of the last three properties related to valency and word order suggest that the unmarked nominals in Circass-

ian still retain their status as verbal arguments (if the nominal in question is a verbal argument – recall that DNM applies to adjuncts as well) and can participate in discourse-related syntactic processes such as scrambling.

5.   Abaza: Pseudo-Incorporation without case

The two languages that form another branch of the West Caucasian family, Abkhaz and Abaza, lack the category of case, but, since their nominal constructions can be marked for definiteness and number, we observe basically the same alternation of an NP characterized by grammatical deficiency, and a full nominal construction, viz. DP, in a very similar array of functions.

The [+definite] value is marked in both languages with the prefix *a-* which belongs to the same slot as possessive person/number prefixes; the [−definite] value is marked with the suffix *-ḳ*; traditionally they are called "morphological", or affixal, articles, definite and indefinite, respectively:

Abaza (elicited)

(66)   a.   *a-č'ḳʷən*
DEF-boy
'the boy'

b.   *č'ḳʷən-ḳ*
boy-INDEF
'a boy', 'some boy'

c.   *č'ḳʷən*
boy
'a boy', 'boys' (unmarked form)

In Abkhaz, the unmarked form, same as (66c) in Abaza, is rarely employed and has a very restricted use (Xalbad 1975), e.g. it may denote indefiniteness in the scope of the sentential negation:

Abkhaz (Hewitt 1979:154)

(67)   *žʷə   sə-m-ba-jṭ.*
cow 1SG.ERG-NEG-see-DCL
'I didn't see a cow // (any) cows.'

In most indefinite or non-specific uses Abkhaz seems to employ the formally definite form with the *a-* prefix; therefore, from a synchronic point of view, this prefix is rather a marker of a phrase headed by a common noun than a determiner with a particular (in)definiteness value. To the contrary, in Abaza the unmarked form

is widely used, and its contexts of use are very similar to those of the unmarked form in Circassian.

The [+plural] value of the category of number in Abkhaz and Abaza is marked in most cases with the suffix -*kʷa*, and the [+singular] is unmarked. In Abaza, the plural suffix requires an overt (in)definiteness marker; forms with the plural marker only like *taʒ-kʷa 'houses' or *kət-kʷa 'villages' are ungrammatical. To express plurality, a speaker is bound to choose between the indefinite forms *taʒ-kʷa-ḳ* 'houses', *kət-kʷa-ḳ* 'villages' and the definite ones: *a-taʒ-kʷa* 'the houses', *a-kət-kʷa* 'the villages'.

The unmarked form displays the same neutrality with respect to number that is one of the main PI characteristics of the unmarked form in Circassian discussed above, cf. (66c) and (67). Cf. the following two paradigms in (68)–(69) in which the difference in specificity reveals itself in an intensional context, i.e. when the existence of the object is not presupposed.

Abaza (elicited)

(68) a. ***a-čə***   *s-χʷʕa-rnəs*   *s-taqə-ṗ.*
         DEF-horse 1SG.ERG-buy-PURP 1SG.IO-want-NPST.DCL
         'I want to buy the horse.'

      b. *čə-ḳ*   *s-χʷʕa-rnəs*   *s-taqə-ṗ.*
         horse-INDEF 1SG.ERG-buy-PURP 1SG.IO-want-NPST.DCL
         'I want to buy a horse.'

      c. *čə*   *s-χʷʕa-rnəs*   *s-taqə-ṗ.*
         horse 1SG.ERG-buy-PURP 1SG.IO-want-NPST.DCL
         'I want to buy a horse//horses.'

(69) a. ***a-č-kʷa***   *s-χʷʕa-rnəs*   *s-taqə-ṗ.*
         DEF-horse-PL 1SG.ERG-buy-PURP 1SG.IO-want-NPST.DCL
         'I want to buy the horses.'

      b. *č-kʷa-ḳ*   *s-χʷʕa-rnəs*   *s-taqə-ṗ.*
         horse-PL-INDEF 1SG.ERG-buy-PURP 1SG.IO-want-NPST.DCL
         'I want to buy horses.'

      c. *č-kʷa   *s-χʷʕa-rnəs*   *s-taqə-ṗ.*
         horse-PL 1SG.ERG-buy-PURP 1SG.IO-want-NPST.DCL

Like in Circassian, the unmarked form in Abaza can occur in almost all syntactic contexts. In spite of its lack of number characteristics, it agrees with the verb as if it were a singular DP, cf. (70). In (70b), the intransitive verb agrees with its indirect object expressed by an unmarked form via the 3rd singular feminine human marker *l-*; the use of the 3rd plural marker *r-* employed in (70a) with the marked plural form of the object, is ungrammatical with the unmarked nominal, cf. (70c).

Abaza (elicited)

(70) a. *sara **a-phʷəs-kʷa**   s-gʼə-r-pš-wa-m.*
          I   DEF-woman-PL 1SG.ABS-NEG-**3PL.IO**-look-IPF-NEG
          'I don't look at the women.'

      b. *sara **phʷəs**   s-gʼə-**l**-pš-wa-m.*
          I   woman 1SG.ABS-NEG-**3SG.F.IO**-look-IPF-NEG
          'I don't look at women (lit. at woman).'

      c. **sara **phʷəs**   s-gʼə-**r**-pš-wa-m.*
          I   woman 1SG.ABS-NEG-**3PL.IO**-look-IPF-NEG

In Abaza, an NP may contain some, but not all categories of modifiers, e.g. it includes adjectives and excludes demonstrative pronouns (71) and relative clauses (72). These can be attached no lower than at the DP level. This can be seen from that bare NPs, i.e. those not provided with (in)definiteness or number markers, are not normally compatible with the "higher" categories of modifiers.

Abaza (elicited)

(71) *arəj *(a-)čʼkʷən.*
      this *(DEF-)boy
      'this boy'

(72) *a-sumka j-t-əw   *(a-)telefon   ʕa-tə-χ!*
      DEF-bag REL.ABS-lie-PRS.NFIN *(DEF-)phone DIR-LOC.ELAT-take(IMP)
      'Take the phone that is in the bag!'

As in Circassian, the unmarked form is not obligatorily adjacent to the verb, although some speakers view the examples with bare Absolutive NPs not in the linear contact with the verb as infelicitous. In the absence of morphological case, "Absolutive" in Abaza means the subject of an intransitive verb or a direct object of transitive verb; only these two control the absolutive pattern of verbal cross-reference (see O'Herin 2002):

Abaza (elicited)

(73) a. *anaʔa **čə**   j-ḳa-ha-ṭ*
          there horse 3SG.N.ABS-LOC-fall-DCL
          'A horse fell there.'

      b. *ˀ**čə**   anaʔa j-ḳa-ha-ṭ*
          horse there 3SG.N.ABS-LOC-fall-DCL

Contrary to what is expected from PI, but in accordance with the Circassian data (see (65) above), the unmarked form in Abaza can antecede pronouns:

Abaza (elicited)

(74) *jacə*   **(a-)žurnal(//-ḳ)**   *j-χʷˤʷa-n,*   *waχʼčʷa **awjə***
      yesterday (DEF-)magazine(//-INDEF) 3SG.M.ERG-buy-PST today   **it**
      d-a-pχʼ-əj-ṭ
      3SG.H.ABS-3SG.N.IO-read-PRS-DCL
      'Yesterday he bought a magazine, and today he's reading it.'

To sum up, the two-level model suggested above for Circassian works as well for the genetically related Abaza, in spite of its lack of case marking. As in Circassian, in Abaza number and definiteness are features of full nominal constructions, i.e. DPs, but not of small nominals, i.e. NPs:

(75) DP[*a*-NP[*č*]-*kʷa*]
      DEF-horse-PL
      'horses'

6.   Discussion and conclusions

The data and analysis presented above confirm the hypothesis that at least some instances of pseudo-incorporation can be satisfactorily accounted for within the two-level structural model of nominal constructions that includes at least two phrasal categories, a grammatically deficient "small" NP embedded in a "large", or fully specified, nominal construction (DP). Unlike our predecessors, we cannot explain the alternation between NP and DP in pseudo-incorporation by recourse to the structural position where the alternation takes place, because in Circassian and other West Caucasian languages, the alternation extends to all or almost all syntactic contexts. Rather we have to assume that the strong factors that restrict the alternation to one or two syntactic contexts in the languages with DOM or DSM do not work in Circassian, resulting in the nearly identical distribution of the marked and unmarked forms.

As it were, the closest parallel to the situation in Circassian would constitute a "pseudo-Icelandic" where only the suffixed definite article would inflect for case. Although it is untrue for the Icelandic nominal inflection taken as a whole, the phenomenon can be observed in a small subset of actual nouns, cf. Table 2. We know of no other language that shows a similar alternation. Possible candidates displaying somewhat similar patterns include Haro (Omotic, Ethiopia; König 2008: 172–174), Creek (Muskogean, USA; Hardy 1988: Chapter 7; 2005: 232–233) and Diegueño (Yuman, USA; Gorbet 1976: 27–32; Miller 2001: 160–162). In all these languages overt case marking of both objects and subjects (and, at least in

Table 3. Inflection of singular "weak neuters" in Icelandic (Sweet 1985: 14, 17, 27, 28)

| | "Weak neuters": 'eye' | | "Strong neuters": 'ship' | |
	Indefinite	Definite	Indefinite	Definite
Nom	*auga*	*auga-t*	*skip*	*skip-it*
Acc	*auga*	*auga-t*	*skip*	*skip-it*
Gen	*auga*	*auga-ns*	*skip-s*	*skip-s-ins*
Dat	*auga*	*auga-nu*	*skip-i*	*skip-i-nu*

Diegueño, other participants as well) is linked in some way to definiteness and/or topicality. However, neither of the studies referred to report a degree of consistency in the choice of overt vs. zero marking similar to that found in Circassian.

Another possible parallel comes from the Pamir languages (Iranian). In most languages of the Pamir group[5] – Šughnī, Rošanī, Bartangī, Rošorvī, Yazghulāmī and Iškāšmī – the typical Iranian distinction between direct and oblique cases in nouns (cf. Arkadiev 2006; Stilo 2009) is not found. Only deictic elements – pronouns and determiners – inflect for case (Payne 1980; Fajzov 1966 a.o.). As in Circassian, case-marked DPs headed by overt determiners and caseless NPs show very similar or identical distribution.

Šughnī (elicited)[6]

(76) a. *xitum-i   xōrpuxt   wīnt*
        hare-3SG.PST hedgehog see.PST
        'A hare saw a hedgehog.'

      b. *yā   xitum-i   yam   xōrpuxt   wīnt*
        ART.F.ABS hare-3SG.PST ART.F.OBL hedgehog see.PST
        'The hare saw the hedgehog.'

However, not all definite nominals are provided with determiners; they appear bare when "the determinacy is seen from the context" (Fajzov 1966: 34); "the use of articles is not obligatory" (Edel'man 1966: 28).

Šughnī (Luqo Inǰīl 2001):

(77) ***kūdak*** *qād-i   čūd*
        child   grow.up.PST-3SG AUX
        'The child grew up' (Lk 2:40)

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5. Whether the specific characteristics of the Pamir languages are due to their being a separate genetic branch within East Iranian or to later contacts and interference, is a matter of dispute, cf. Dodyxudoeva (2000) and references therein.

6. For the contrasting examples (76ab), we are indebted to Leila Dodyxudoeva, p.c.

The data like (76)–(77) suggest that the Pamir languages, much like Circassian or Abkhaz, are inconsistent as regards the correspondence between specificity, (in)definiteness and the NP vs. DP contrast: the choice of the phrasal category does not fully depend on its referential characteristics.

To sum up, we hypothesize that differential nominal marking in Circassian can be accounted for in the framework of the two-layer structure of nominals, i.e. the NP vs. DP distinction:

– the unmarked form represents a bare NP which is grammatically deficient and lacks the features of number and case, which is in some respects similar, though not identical, to pseudo-incorporation;
– both case-marked forms in the Circassian languages (the Absolutive and the Oblique) represent full nominal constructions (i. e. DPs).

Assuming that the two-layered NP vs. DP model is adequate for many more languages, the main typological peculiarity of Circassian is that the syntactic distributions of NP and DP are close to identical. The data from Abkhaz and Abaza (Section 5) that lack cases suggest that the distribution of bare and marked forms has nothing to do with the subject-object asymmetry; rather, the bare forms represent a structurally deficient nominal construction which however may occur in almost every syntactic context.

This fact is a challenge to all theoretical approaches to differential case marking proposed so far, within the formal or the functional perspective alike. All of them have been focused on the grammatical asymmetry of subjects and objects: DOM is a phenomenon that involves objects only. Pseudo-incorporation can have a wider take and involve subjects, too (cf. Kamali 2008 on Turkish, Grossman 2014 on Coptic), but we are aware of no other language where it is as pervasive and systematic as it is in Circassian.

In the generative approaches to DOM it is often assumed that the NP object that lacks case characteristics remains in the VP whereas the case-marked DP object raises to get its case feature checked (Massam 2001 and others). However, it is hard to postulate as many VP-internal positions for the unmarked NPs as there are VP-external positions for their case-marked DP counterparts. Within the generative framework, the subject vs. object structural asymmetry is a VP(vP)-internal characteristic based on the verb's subcategorization properties, and as such it cannot be merely replicated at higher structural levels. Moreover, this approach cannot be extended to DNM with adjuncts and in non-clausal domains such as adnominal possessors and postpositional complements, which in Circassian show the same behavior as verbal arguments.

Likewise, most accounts of DOM in the functionalist perspective have been based on the subject vs. object asymmetry: to solve the DOM puzzle is to account for the fact of why it occurs with some arguments and not with others. To abide

by the functional principles, viz. to provide the effectiveness and the economy of communication, languages tend to mark an element whenever it is necessary. The functional strategy responsible for DOM has been characterized as marking a participant that is less "natural", or less expected to occur in a given role, e.g. animate or definite nominals as objects (Silverstein 1976; Comrie 1979; Dixon 1979 a.o.), or shows a less frequent pattern, i.e. an unexpected association between grammatical role and information-structure properties (Haspelmath 2008: 13–14; Iemmolo 2010; see Haspelmath 2018, 2019 on "frequency-induced predictability"), given that direct objects tend to be new, or focal, or of low accessibility (Du Bois 2003). Cf. also attempts to incorporate functional-typological concepts like iconicity, economy etc. within the formal framework via Optimality Theory in Aissen (2003) and de Hoop & Malchukov (2008).

However, the Circassian-style DNM does not seem to synchronically fulfill any obvious functional role:

- if the transitive A is already marked, distinguishability comes "for free" regardless of the presence vs. absence of overt case marking on the P;
- if agentive participants of multivalent predicates tend to be topical and definite, then functional or frequency considerations predict that they would get extra marking when focal or indefinite/non-specific – just the opposite to what we find in Circassian;
- certain higher-animacy nominals such as proper names and inalienably possessed kinship terms do not get any overt case marking as well (78), but there is no indication that such contexts impede processing or are dispreferred (probably due to word order freezing effects, which, however, require further investigation).

Standard Adyghe (textual example)

(78) ***zarjəne** jateẑ*   *ə-λeʁʷə-ʁ.*
      Zarina POSS+grandfather 3SG.ERG-see-PST
      'Zarina saw her grandfather.'

- In general, in Circassian discourse unmarked non-specific NPs occur less frequently than case-marked nominals, especially in positions other than the transitive P – probably like bare common nouns in English. Paradoxically, it is rather the absence of case-marking that serves to unequivocally signal indefiniteness/non-specificity, while presence of case-marking is often compatible with both interpretations (cf. Lander 2012: 79; Caponigro & Polinsky 2011: 75).

The typologically rare situation in Circassian can be the result of an unusual combination of cross-linguistically recurrent features:

- overt definiteness/specificity (DP) marking vs. zero coding of the lack thereof (NP) (Dryer 2013);
- affixation of definite determiners (ibid.);
- reduced case distinctions with indefinite/non-specific nominal – or, conversely, presence of overt case marking only with determiners (cf. Pamir languages).

Whether Absolutive and Oblique case markers in Circassian could be considered suffixed articles distinguishing case (as is proposed e.g. by Kumaxov 1971: Chapter 2), remains an open question. If they are articles, they obviously do not form a single category with the phrase-initial deictic demonstratives (which go back to Common Circassian just like the case markers), cf., however, Alexiadou (2014) on multiple determiners.

In further research in the typology of pseudo-incorporation and related phenomena we expect that a hierarchy of syntactic positions available for "small nominals" may be discovered, probably starting with the direct object and ending with transitive subject and nominal adjuncts that are the least likely to be filled with NPs as opposed to DPs. An explanation of this implicational hierarchy may become a more promising way of solving the DOM mystery than many of the approaches aimed to account for the phenomenon of DOM in the narrow sense.

Acknowledgements

Abbreviations

1	1st person		IMP	imperative
2	2nd person		INDEF	indefiniteness
3	3rd person		INS	instrumental
ABS	absolutive		INTF	intensifier
ADD	additive		IO	indirect object
ADV	adverbial		IPF	imperfective
ART	article		LNK	linking element
AUX	auxiliary verb		LOC	locative preverb
BEN	benefactive		M	masculine
CAUS	causative		N	non-human
CNV	converb		NC	nominal complex
COM	comitative		NEG	negation
COND	conditional		NFIN	non-finite
DAT	dative		NPST	nonpast
DCL	declarative		OBL	oblique
DEF	definite		PL	plural
DEM	demonstrative		POSS	possessive
DIR	directional preverb		POT	potential
DYN	dynamic		PR	possessor
ELAT	elative		PRED	predicative marker
EMPH	emphatic		PRS	present
ERG	ergative		PST	past
F	feminine		PURP	purposive
FCT	factive		RE	refactive
FREQ	frequentative		REL	relativizer
FUT	future		RES	resultative
H	human		RFL	reflexive
HBL	habilitive		SG	singular

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