Zazaki "Double Ezafe" as Double Case-marking

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Like a number of Indo-Iranian languages, Zazaki exhibits the Ezafe construction, in which a [+N] head "links" to a [+N] modifier or complement via an Ezafe particle. Zazaki Ezafe morphology is complex. As discussed by Todd (1985), from whom all of our Zazaki data are drawn, the form of the Ezafe in (1a-f) encodes gender (masculine vs. femine), number (singular vs. plural), and whether the relation between N and its complement is descriptive/adjectival vs. genitival:

(1) a. pir'tok-**o** find
book-**EZ** good 'good book'
b. suk-**a** gird-i
city-EZ large-fem 'large city'
c. ban-**e** mɨn
house-EZ me(obl) 'my house'
d. ling-**a** min
foot-EZ me (obl) 'my foot'
e. sa-**y** wes-i
apple-**EZ** good-pl 'good apples'
f. ling-**e** min
feet-**EZ** me(obl) 'my feet'

A unique feature of Zazaki is so-called "doubled" or "strengthened" Ezafe. When a phrase containing Ezafe is embedded in a larger Ezafe construction, the embedded Ezafe morpheme becomes *de* or *da*, depending on gender and/or number. The situation is schematized in (2) and illustrated with examples in (3):

(2) a. [HEAD-**EZ** [HEAD –**de** MOD]] (masculine or plural))
b. [HEAD-**EZ** [HEAD –**da** MOD]] (feminine)

(3) a. kutɨk-**e** [əmɨryan-**de** ma]
dog-EZ neighbor(obl)-**DEZ** us 'our neighbor's dog'
b. ma-**y** [mar-**da** ay]
mom-EZ mom(obl)-**DEZ** her 'her mother's mother'
c. a'qil-**e** [mar'dim-**de** pil-l]
wisdom-EZ people-**DEZ** older-pl 'the wisdom of older people'

The same thing occurs when a phrase containing Ezafe is the object of an oblique postposition, as illustrated in (4):

(4) a. [HEAD-**de/da** MOD] P
b. [embaz-**de** xwi] -**re**
friend-**DEZ** own -to 'to his friend'
c. [mar-**da** to] **fa**
mom(obl)-**DEZ** you(obl) from 'from your mother'

We argue that this small, apparently idiosyncratic fact about Zazaki is evidence for the claim made in Larson and Yamakido (2005) that DP contains its own independent case system, and that Ezafe is a reflex of this system. Specifically we suggest that Zazaki "doubled" Ezafe represents *Suffixaufnahme* or "double-case marking," first noted by Bopp (1848) and discussed more recently in Plank (1995). We briefly review the theoretical proposals in Larson and Yamakido (2005), and then return to the double Ezafe phenomenon.

1.0 Projecting DP

Contrary to most modern thinking on "functional categories", generalized quantifier (GQ) theory (Barwise and Cooper 1981; and Keenan and Stavi 1984) analyzes the category D to be

semantically contentful, typically expressing a binary or transitive relation between sets. For example, (5a) receives the semantic analysis in (5b). Here the determiner *all* contributes the crucial subset relation between the sets given by the nominal (*fish*) and the predicate term (*swim*), as shown in (5c). Other familiar determiner relations are given in (6):

(5) a. All fish swim
b. $\{x: fish(x)\} \subseteq (x: swim(x)\}$
c. $ALL(X,Y)$ iff $Y \subseteq X$

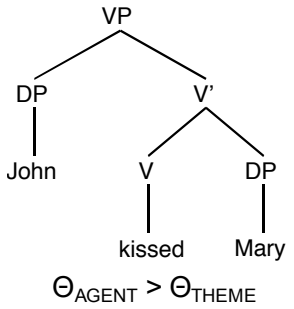
(6) a. $SOME(X,Y)$ iff $Y \cap X \neq \varnothing$
b. $NO(X,Y)$ iff $Y \cap X = \varnothing$
c. $MOST(X,Y)$ iff $|Y \cap X| > [Y - X|$
d. $THE(X,Y)$ iff $|Y| = 1$ & $Y \subseteq X$

As discussed in Larson (1991), the semantic analysis of D as a relational element suggests an interesting extension of concepts normally reserved for relational, thematic categories like V. We can think of determiners, like verbs, as assigning thematic roles that are projected in DP analogously to the projection of roles in VP. Specifically, quantificational Ds can be understood as assigning a role of $\Theta_{RESTRICT}$ to the internal nominal argument functioning as its **restriction**, and a role of Θ_{SCOPE} to the predicate functioning as its **scope**. These two roles can be ordered in a hierarchy like that existing in the VP, as shown in (7):

(7) a. D: $\Theta_{SCOPE} > \Theta_{RESTRICT} > \Theta_{NOBLIQUE}$ ("Nominal Oblique")
b. V: $\Theta_{AGENT} > \Theta_{THEME} > \Theta_{GOAL} > \Theta_{OBLIQUE}$

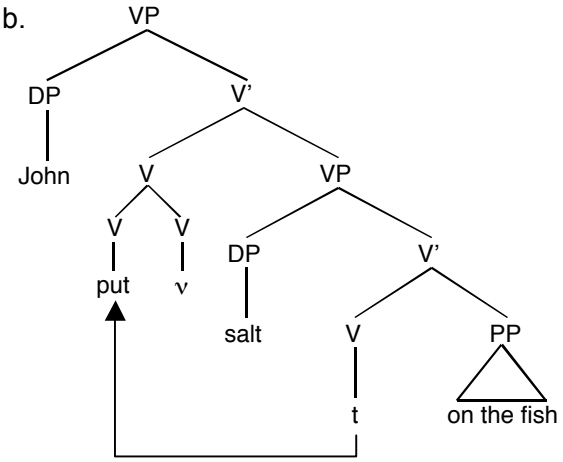
The projection of D and V roles can also be handled in parallel. In the shell theory of Larson (1988, forthcoming), transitive VPs receive a simple binary branching structure (8a), whereas ditransitive Vs receive a structure containing a phonetically null "light verb" that triggers V-raising (8b).

(8) a.



$\Theta_{AGENT} > \Theta_{THEME}$

b.

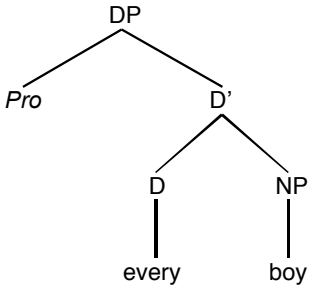


$\Theta_{AGENT} > \Theta_{THEME} > \Theta_{LOC}$

In both cases, arguments appearing higher in structure (as expressed by c-command) receive Θ-roles that are correspondingly higher on the thematic hierarchy.

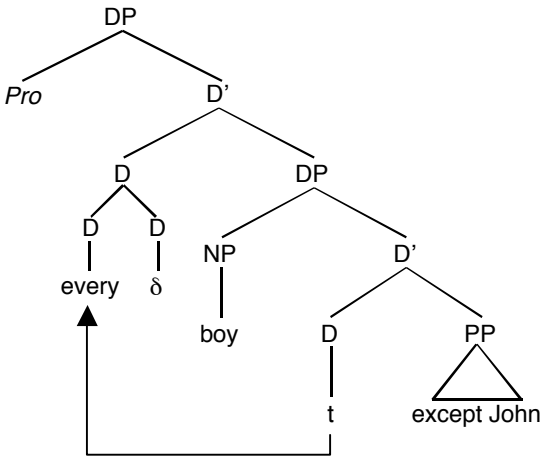
In a similar way, DPs can be assigned a structure that reflects the thematic hierarchy for D. Simple quantificational DPs correspond to transitive structures and receive binary branching structures like (9a). "Ditransitive" (that is, triadic) determiners like *every...except* or *more ...than* receive a structure containing a phonetically null "light determiner" that triggers D-raising (9b).

(9) a.



$\Theta_{SCOPE} > \Theta_{RESTRICT}$

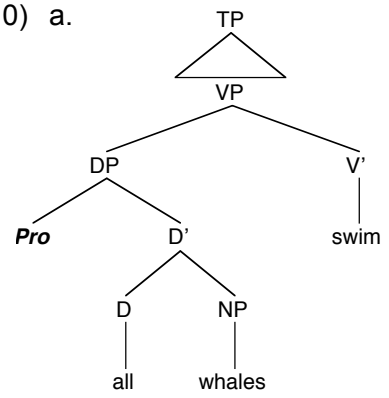
b.



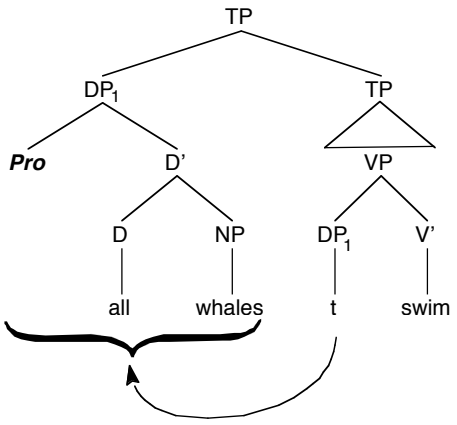
$\Theta_{SCOPE} > \Theta_{RESTRICT} > \Theta_{NOBLIQUE}$

Here *Pro* is a pro-predicate argument corresponding to the scope, whose content is given by the phrase that DP is sister to at LF (10a-d).

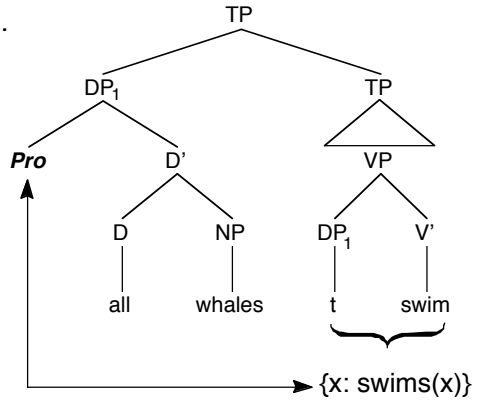
(10) a.



b.



c.



d. $[_{DP}\ Pro\ [_{D'}\ D\ \ NP]]\ [_{XP}\ \ldots\ t_i\ \ldots\ ]$

GETS VALUE FROM

The same analysis applies straightforwardly to examples with a quantified DP object. Again note that in (9a,b) (set) arguments appearing higher in structure (as expressed by c-command) receive Θ-roles correspondingly higher on the thematic hierarchy.

2.0 DP-Case and Ezafe

The view sketched above draws together DP and VP, both thematically and structurally. Larson and Yamakido (2005) propose a further parallel between the two categories, namely, that DP is governed by its own case system, applying to arguments of D. The main proposals are given in (11):

(11) a. [+N] complements of D need case, that is, they bear a case feature that must be checked.
b. D/δ checks one case on its internal argument, just as V/v checks one Accusative case on an internal argument of V.

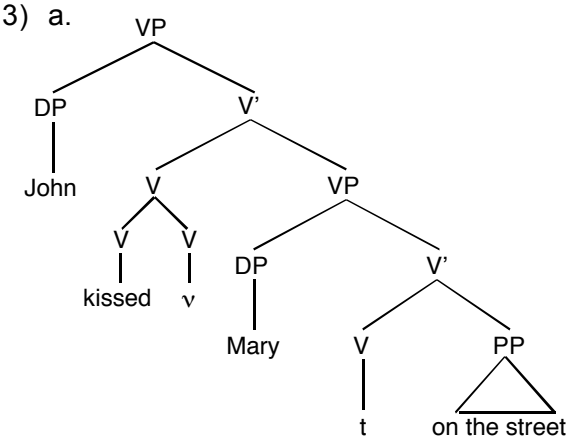
Thus in a VP like (12a), small v checks an Accusative case feature on its internal argument *salt* - the direct object. Correspondingly in a DP like (12b), small δ checks case on its internal argument *boy* - the nominal restriction:

(12) a. $[_{VP}$ John $[_{V'}$ put-v $[_{VP}$ salt $[_{V'}$ t $[_{PP}$ on the fish]]]]]
↑__CASE__↑

b. $[_{DP}$ Pro $[_{D'}$ every-δ $[_{DP}$ boy $[_{D'}$ t $[[_{PP}$ except John]]]]]
↑__CASE__↑

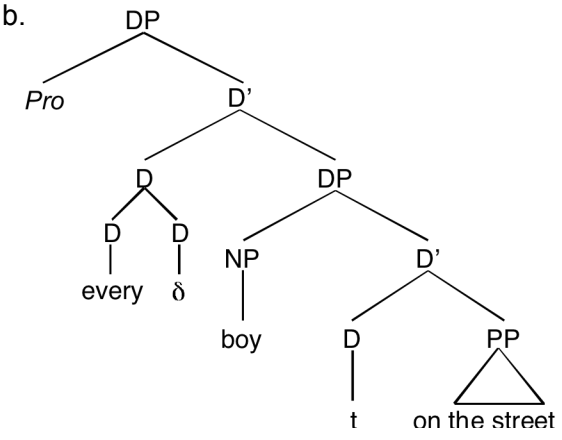
The hypothesis of a case system in DP has particularly interesting consequences for restrictive DP modifiers, which are analyzed as oblique arguments of D, bearing the role $\Theta_{NOBLIQUE}$, and projected in a low position, just as verbal modifiers are projected low in the VP:

(13) a.



$\Theta_{AGENT} > \Theta_{THEME} > \Theta_{LOC}$

b.



$\Theta_{SCOPE} > \Theta_{RESTRICT} > \Theta_{NOBLIQUE}$

For modifiers belonging to non-case-bearing categories, such as restrictive PPs and finite relative clauses (CP), nothing further need be said; these simply remain in base-position. But [+N] modifiers such as restrictive APs will have a case requirement. Since D/δ checks its one case on its nominal restriction, it will be unavailable to check the case of an *in situ* modifier. It follows then that APs, although originating post-nominally, will typically be required to move to a site where they can check Case (e.g., by Concord)

(14) [DP Pro [D' every [DP woman [D' t [PP with blue-eyes]]]]]
↑___CASE___↑ [CP who has blue-eyes]
[AP blue-eyed]

It is in this context, we believe, that the significance of Ezafe should be understood. Suppose that a language had in its D-system, the equivalent of a "generalized genitive preposition", which could be inserted to check case on [+N] determiner complements. A single, additional Case would then become available for each such case-checker, allowing APs and other [+N] modifiers to remain *in situ*. Relative clauses and other [-N] categories would not require such an element, hence none would appear.

Developing a proposal by Samiian (1994), Larson and Yamakido (2005) suggest that this is exactly what's happening in the Ezafe construction. Modifying NPs, APs, etc. are selected by D and generated post-nominally as usual. As [+N] elements they bear case features, and are case-licensed by Ezafe in their base-position. The Ezafe element is considered to form a phrase (EzP***)*** with its complement, but to cliticize onto the preceding [+N] element for phonological reasons. So the picture, for a simple Persian NP like (15a), is as in (15b). The definite determiner *in* 'the' checks its one case feature on its restriction *ketâb* 'book'. Ezafe is inserted and licenses the remaining modifers in their base positions:

(15) **Persian (Ghozati 2000)**

a. in ketâb - é sabz - é jâleb
DEF book-EZ green-EZ interesting 'the interesting green book.'

b. [DP Pro [D' în [DP ketâb [D' t [DP [EzP é sabz] [D' t [EzP é jâleb]]]]]]
↑_CASE_↑ ↑CASE↑ ↑CASE↑

Again, since relative clauses (CPs) and non-[+N] modifiers do not require case, they can appear in their base site (like English RCs and PPs) without a licensing Ezafe. Under this proposal, Ezafe languages are special in so far as they reveal the deep position of all nominal modifiers through their special case-marking device.

This view accommodates not only the invariant form of Ezafe found in Persian, but also the forms found in Kurdish and Zazaki, where Ezafe agrees with the noun in number and gender (16):

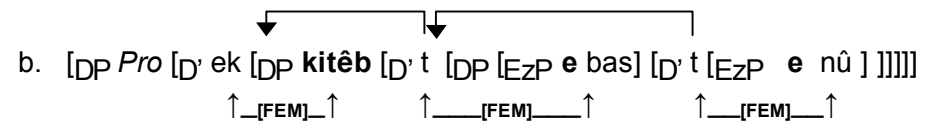
(16) **Kurmanji (Pikkert 1991)**

a. kitêb-ek- **e** bas- **e** nû
book-INDEF(sg)-**EZ(f)** good-**EZ(f)** new 'a good new book'

b. xani-yek- **î** bas- **î** nû
house-INDEF(pl)-EZ(m) good-2EZ(m) new 'a good, new house'

We assume these features are interpreted not only on NP, but on D as well. Hence as D raises recursively through DP, it can check agreement features (without erasure) on all of its local c-commanded complements (Chomsky 2005), including those headed by Ezafe. So in (17), the indefinite determiner *–ek* 'some, bearing [FEM], begins in the low trace position where it agrees with its EzP complement *e nû* 'new'; it then raises to an intermediate position where it agrees with the EzP specifier *e bas* 'good'; finally it raises to the highest position where it agrees with nominal restriction *kitêb* 'book':

(17) a. kitêb-ek- **e** bas- **e** nû 'a good new book'
book-INDEF(sg)-**EZ(f)** good-**EZ(f)** new

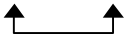


b. [$_{DP}$ *Pro* [$_{D'}$ ek [$_{DP}$ **kitêb** [$_{D'}$ t [$_{DP}$ [$_{EzP}$ **e** bas] [$_{D'}$ t [$_{EzP}$ **e** nû]]]]]]
↑_[FEM]_↑ ↑___[FEM]___↑ ↑__[FEM]__↑

3.0 Double Case

The proposals reviewed above imply that D is involved, simultaneously, in two distinct case systems. On the one hand, DPs function as arguments of verbs and prepositions, and bear case-features relevant to that system, such as Nominative, Accusative and various oblique cases (Dative, Ablative, etc.). Call this **DP-external case**. At the same time, the [+N] arguments of D - its nominal restriction and any restrictive APs or NPs, also bear case-features. Call this **DP-internal case**. Evidently, D must bear case features relevant to both (18):

(18) a. T/V/P DP **DP-external Case**



b. [$_{DP}$ … D … NP … AP …] **DP-internal Case**

The intersection of two case systems in DP presents an interesting challenge for the morphological system in terms of the expression of case features, and in general languages seem to deal with it in one of three ways: one is to suppress expression of one of the systems, another is to mix expression of the systems, and the last is to express both.

3.1 Suppression of DP-Internal Case

Suppression of DP-Internal Case represents the most common situation in our view, and we will have little to say about it. Languages that express case in DP typically inflect DP-internal elements according to DP-external case relations. German is a typical example. Modifying adjectives inflect according to whether their containing DP is in a position of nominative, accusative, dative or genitive case checking, as illustrated in (19):

(19)	a.	gut**er**	Wein	b.	gut**en**	Wein	
		good.**NOM**	wine		good.**ACC**	wine	'good wine'
	c.	gut**em**	Wein	d.	gut**en**	Weines	
		good.**DAT**	wine		good.**GEN**	wine	(Kester 1996: 160)

3.2 Mixed Case Expression

A more interesting situation is what we might call "mixed case expression", and is exemplified by Russian, as described by Babby (1987,1988). As Babby observes, Russian quantified nominals exhibit an alternation in internal case marking, depending on external environment. When the nominal is in a position of oblique case checking, the D, its modifiers, and head of NP all inflect homogenously for the external case, as shown in (20a). However when the nominal is in a position of structural case-checking, only the D head is inflected for the external case, The modifiers and the head of NP inflect with genitive case, which Babby identifies as an internal case assigned by D. This situation is illustrated in (20b):

(20) a. a [pjat'ju bol'šimi butylkami vina] INST
with five.**INST** big.**INST**.PL bottle.**INST**.PL wine.GEN
'with five big bottles of wine'
b. vypil [pjat' bol'šix butylok vina] ACC
drank five.**ACC** big.**GEN**.PL bottle.**GEN**.PL wine.GEN
'drank five big bottles of wine' (Babby 1988, 289)

The examples in (21) show that alternative case patterns are not possible. It is not possible to inflect only D for external case in a position of oblique case checking (21a). And it is not possible to inflect the internal elements of DP for structural case in a position of structural case-checking; DP-internal genitive case must appear, as seen in (21b):

(21) a. *a [pjat'ju bol'šix butylok vina] INST
with five.**INST** big.**GEN**.PL bottle.**GEN**.PL wine.GEN
'with five big bottles of wine'

b. *vypil [pjat' bol'šie butylki vina] ACC
drank five.**ACC** big.**ACC**.PL bottle.**ACC**.PL wine.GEN
'drank five big bottles of wine' (Babby 1988, 289)

Within our approach, this situation can be described in virtually the same terms used by Babby. D itself is uniformly inflected for DP-external case. When D carries an external, oblique case feature, modifiers and the NP head must check this case. When D carries an external, structural case feature, D's own inherent case (genitive) wins out.[1]

3.3 Suffixaufnahme (Plank 1995)

The most striking situation is the one observed by Bopp (1848), in which a language appears to simultaneously express both the DP-external and DP-internal case systems.[2] Bopp noted Georgian examples like (22a), in which the noun *mṭer-ta-sa*, 'of the enemies,' shows both the internal case marking (OblPl) relevant to its relation to the head (*çqoba* 'attack'), and the external case marking of the head itself (DAT). Other examples from Bopp are given in (22b,c); (22d) is an interesting example from Old Georgian due to Bork (1905);

(22) a. çqoba-sa mṭer-ta-sa
attack-**DAT** enemy-**OblPl**-**DAT** 'at the attack of the enemies'
b. gwam-isa krist-es-isa
body-**GEN** Christ-**GEN**-**GEN** 'of the body of Christ'
c. qeli-ta mocikul-ta-tahand-**OblPl**
apostle-**OblPl**-**OblPl** 'through the hands of the apostles'
d. pir-**isa-gan** uymrto-**ta-sa** (Bork 1905)
face-**GEN-from** infidel-**OblPl**-**DAT** 'from the face of the infidels'

This phenomenon, later termed *Suffixaufnahme* by Finck, occurs primarily in the situation where the Russian homogeneous agreement pattern appears, according to Plank (1995). That is, it is primarily in situations of an oblique external case – dative, locative, instrumental, genitive - that we get the DP-internal case showing up as well.

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[1] See Bejar and Massam (1999) for a general discussion of multiple case-checking.

[2] The Suffixaufnahme data and references cited here, including (22a-d), are drawn from Plank (1995), which provides a lucid, comprehensive and insightful introduction to the double case phenomenon.

We want to suggest now that Zazaki "doubled" or "strengthened" Ezafe is in fact a case of the Suffixaufnahme or the "double case" phenomenon.[3] Recall that doubled Ezafe occurs in two circumstances. The first was when one Ezafe construction is embedded inside another, as in (23):

(23) a. [HEAD-**EZ** [HEAD–**de/-da** MOD]]
b. kutɨk-**e** [əmɨryan-**de** ma]
dog-EZ neighbor(obl)-**SEZ** us 'our neighbor's dog'
c. ma-**y** [mar-**da** ay]
mom-EZ mom(obl)-**SEZ** her 'her mother's mother'
d. a'qil-**e** [mar'dim-**de** pil-l]
wisdom-EZ people-**SEZ** older-pl 'the wisdom of older people'

The second is when an Ezafe construction is governed by an oblique preposition, as in (24) (which repeats (4)):

(24) a. [HEAD-**de/da** MOD] P
b. [embaz-**de** xwi] –**re**
friend-**SEZ** own -to 'to his friend'
c. [mar-**da** to] **fa**
mom(obl)-**SEZ** you(obl) from 'from your mother'

We have already argued that Ezafe itself has the status of an oblique case-marker. Thus in both cases we are seeing an Ezafe under an oblique case-marker – in brief, oblique under oblique. This is the situation where Suffixaufnahme is observed: the internal case of the DP together with the external case of the DP. We suggest that Zazaki double Ezafe forms *-de* and *-da* are in fact portmanteaus of Ezafe and a general oblique case, as shown in (25):

(25) a. $[_{ExP}$ -**e** $[_{DP}$ Pro D $[_{D'}$ $[_{NP}$ əmɨryan] $[_{D'}$ t $[_{ExP}$ -**de** ma]]]]]
↑___**[OBL]**___↑ ↑_**[OBL]**_↑

b. $[_{PP}$ $[_{DP}$ Pro D $[_{D'}$ $[_{NP}$ mar] $[_{D'}$ t $[_{ExP}$ -**da** to]]]] **fa**]
↑___**[OBL]**_____… ↑_**[OBL]**_↑…_____↑

4.0 Summary

We began by noting a peculiar form of the Ezafe phenomenon from Zazaki, in which Ezafe takes a special form when embedded under another Ezafe or an oblique postposition. We related this to a broader theory of DP in which the latter is VP-like and employs its own case-system, and in which Ezafe can be analyzed (following Samiian 1994) as a case-marking element that licenses DP modifiers and other complements in situ. This view entails that DP is the locus of two intersecting systems of case – DP-external and DP-internal. Sometimes these two systems appear to be given alternating expression, as in the instance of Russian quantified DPs, and sometimes they are given simultaneous expression, as with Suffixaufnahme, or "double case". We suggested that Zazki double Ezafe is in fact a "double case" phenomenon. If this proposal is correct, it lends further support to Samiian's diagnosis of Ezafe as a case-marker, as well as to the general view that DP deploys its own case system, parallel to VP.

[3]This conclusion is independently reached by Plank (p.c.) in unpublished research notes.

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