

## Possessor case in Udmurt: A local reanalysis as fusional case stacking

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**Claim:** We claim that an alleged non-local case dependency in the Uralic language Udmurt can be reanalyzed as a local dependency. According to the literature, Udmurt exhibits a case split: the actual case value of a possessor (Poss) in a DP depends on the grammatical function (GF) of that DP, an information that is not locally available at the point of case assignment in the DP. However, the traditional formulation of the generalization is ambiguous because GFs are not defined precisely. We disambiguate the term by testing predictions of potential interpretations of the generalization and present new data that show that the correct generalization is not about GFs but rather about the case value of the DP that contains Poss. These findings facilitate a local reanalysis in terms of case stacking: arguments in Udmurt possess two case slots to which case values are assigned locally in the syntactic component. Due to a morphological constraint, these two case values must be fused into one in the postsyntactic morphological component. This resulting value is realized by an exponent that is different from the exponents that would have realized each of the two original case values, thus creating the illusion of a case split.

**An alleged non-local case dependency:** In Udmurt, Poss can bear either genitive (GEN) or ablative (ABL). The case values are in complementary distribution: According to the literature, GEN is the default possessor case; ABL occurs if the DP that contains Poss functions as a direct object (DO), cf. (1) (Csúcs 1988, Kel'makov 1993, Vilkuna 1997, Winkler 2001, Nikolaeva 2002, Koptjevskaja-Tamm 2003, Suihkonen 2005, Edygarova 2009).

- (1)a. so-len/\*-leš eš-ez siče ug dišaški      b. so-leš/\*-len eš-s-e ažžiško  
he-GEN/ABL friend-3SG such dress NEG.PRES.3SG      he-ABL/GEN friend-3SG-ACC see.PRES.1SG  
'His friend does not dress such a way.'      'I see his friend.' (Edygarova 2009)

Under a strictly derivational model of grammar in which the structure unfolds step by step in a bottom-up fashion (cf. Chomsky 1995 et seq.), case assignment to Poss in Udmurt seems to be non-local: Poss is assigned case within the DP that contains Poss and the possessum. But the choice of the concrete case value of Poss seems to depend on the GF of the DP. In minimalism, the GF of a DP is determined by the position of the DP in the structure. A DP is a direct object if it is the sister of V. But this information is not available at the point of case assignment within DP because the DP is not yet merged with an external head when Poss is assigned case. Hence, there is a *look-ahead* problem. Assigning case to Poss after Merge with the external head does not help either: In this case, case assignment would be *counter-cyclic*, affecting only elements in the DP cycle. Two questions arise: (a) Where does ABL come from? (b) How can case assignment be modeled in a strictly derivational grammar without look-ahead?

**Distribution of the ablative:** The answers depend on the conditions in which ABL is used: the literature says that ABL occurs when the DP is a 'direct object', but the term is never precisely defined, although it is ambiguous: (a) Thematic role: Poss gets ABL if the DP containing Poss has the macro-role patient; (b) Position in the tree: Poss gets ABL if the DP containing Poss is selected by the head V; (c) Case: Poss gets ABL if the DP containing Poss is assigned accusative case. These hypotheses make different predictions that we tested with a native speaker (data in (2) to (5) from Svetlana Edygarova). Hypothesis (a) predicts that ABL should be preserved on Poss under passivization (passive changes the GF but not the thematic role of the object DP in (2a)). As (2b) shows, ABL changes to GEN under passivization; this falsifies hypothesis (a). Hypothesis (b) predicts that if the sole argument DP of the passivized verb in (2b) remains within its VP-internal base position, Poss should get ABL case. However, this prediction is not borne

out, as shown in (3) (that the DP is still in the VP can be seen because it stands to the right of the adverb *tolon* ‘yesterday’ which marks the VP boundary). Thus, only hypothesis (c) remains. It is compatible with the data in (2) and (3). Furthermore, it predicts that (i) if a transitive verb assigns a case different from accusative to its internal argument, Poss will get GEN; and (ii) in an ECM construction, the Poss of the embedded accusative marked subject gets ABL. (i) and (ii) are borne out (cf. (4) and (5)). Note that the data in (4) are also an argument against hypotheses (a) and (b) (the DP is within VP and gets the patient role, but Poss bears GEN).

(2) *Possessor case in active-passive alternation:*

- a. Petyr Masha-leš puny-z-e zhug-i-z  
Peter Masha-ABL dog-3SG-ACC beat-1PST-3SG  
‘Peter beat Masha’s dog.’
- b. Masha-len/\*-leš puny-jez zhug-em-yn val  
Masha-GEN/-ABL dog-3SG beat-PST-PART AUX.1PST  
‘Masha’s dog was beaten.’

(3) Tolon Masha-len puny-jez zhug-em-yn val.  
yesterday Masha-GEN dog-3SG beat-PST-PART AUX.1PST  
‘Yesterday Masha’s dog was beaten.’

*adverb placement*

We are now able to formulate the new generalization: The possessor in Udmurt bears ABL, if the DP in which the possessor is contained is assigned accusative. It bears GEN elsewhere.

(4) Petyr [Masha-len suzer-ez-ly] akylt-e  
Peter Masha-GEN sister-3SG-DAT bother-PRES.3SG  
‘Peter is bothering Mary’s sister.’

*dative assigning verb*

(5) Petyr Masha-leš puny-z-e tyloburdo-os-ty kutyl-e malpa.  
Peter Masha-ABL dog-3SG-ACC bird-PL-ACC.PL catch-PRES.3SG think.PRES.SG  
‘Peter believes Mary’s dog to catch birds.’

*ECM construction*

**A local analysis:** Under the new generalization, the case split can be reanalyzed locally. Proposal: Poss is always assigned GEN from D inside the DP via Agree, a local operation. In Udmurt, every DP has exactly two case slots and hence Poss can in principle get two case values, i.e., Udmurt exhibits an instance of case stacking (similarly to languages like Huallaga Quechua with overt case stacking, cf. (6)). Case is assigned by a head to its sister node and then spreads to all elements in the c-command of the head (cf. Matushansky 2008, Pesetsky 2010). However, only two structural cases can stack. This is derived as follows: The structural cases NOM, ACC and GEN are simplex and check one case slot of a DP, whereas the semantic cases (ablative, elative, etc.) are complex in that they consist of an oblique case + a structural case (cf. Béjar & Massam 1999, Richards 2008). As a consequence, a semantic case values both case slots of a DP and the DP can thus not be assigned another case (no stacking). If a DP is assigned a non-semantic case first, it only values a single case slot. The second slot can then be valued by another non-semantic case (a semantic case would need two case slots). Hence, the following combinations can arise on Poss: NOM+GEN, GEN+ACC, GEN+GEN, NOM+ACC. These values are realized postsyntactically (cf. Halle & Marantz 1993). But since there is only a single morphological case slot in Udmurt, a repair strategy applies: The feature structures of the cases fuse into a single feature structure; in case of feature conflict, the positive value of a feature remains in the resulting structure. Case decomposition: NOM = [–obl, –obj], ACC = [–obl, +obj], GEN = [+obl, –obj], ABL = [+obl, +obj] (the various oblique cases are further distinguished by semantic-based features). Fusing NOM+GEN results in the feature structure of GEN, i.e., only the GEN marker is realized. Fusion of GEN+ACC results in an oblique case. Since ABL is the default oblique case in Udmurt (it is used in a variety of different contexts), the ABL marker will realize the resulting feature structure (cf. (7); GEN+GEN=GEN, NOM+ACC=ACC). To conclude, ABL is not assigned to Poss in the DP; rather, Poss is always assigned GEN in the syntax, but due to the one-slot condition + fusion in the morphological component, it is realized as ABL if Poss has been assigned ACC as well, creating the illusion of a non-local dependency. By discussing two alternatives that build on a presyntactic morphology, we show that a local analysis of the case split in Udmurt must necessarily adopt a postsyntactic morphology.

(6) *Case stacking in H. Quechua (Plank 1995):*

Hipash-nin-ta            kuya-: Hwan-pa-ta  
daughter-3POSS-ACC love-1 Juan-GEN-ACC  
'I love Juan's daughter.'

- (7)a. gen+nom = [+obl, -obj] + [-obl, -obj]  $\xrightarrow{\text{fusion}}$  [+obl, -obj] = morph. genitive  
b. gen+acc = [+obl, -obj] + [-obl, +obj]  $\xrightarrow{\text{fusion}}$  [+obl, +obj] = morph. ablative

**Selected references:** Csúcs, S. (1988): Udmurt. In: D. Abondolo, *The Uralic Languages*, 276-304. • Edygarova, S. (2009): 'Attributive Possession in Udmurt Language', *Linguistica Uralica XLV*, 101-118. • Kel'makov, V.K. (1993): Udmurtskij jazyk. In: B. Comrie, *Jazyki mira: ural'skie jazyki*, 239-255. • Plank, F. (1995): (Re-)Introducing Suffixaufnahme. In: F. Plank, *Double Case: Agreement by Suffixaufnahme*, 3-110. • Winkler, E. (2001): Udmurt. *Languages of the world: Materials* 212.