

Nominal ellipsis reveals concord in Moksha Mordvin

Mariia Privizentseva (Leipzig University, mprivizentseva@uni-leipzig.de)

On the basis of new data from Moksha Mordvin (Finno-Ugric) I argue that some languages have concord even though modifiers of the noun generally do not show inflection. Evidence comes from ellipsis, under which inflection is overt and restricted in the same way as regular nominal concord.

Data: In Moksha, nominal modifiers show inflection only if the noun is elided (1)-(2). It appears on the linearly last of multiple modifiers (3) and on the head of the branching modifier (4).

- (1) akšə-(*n'd'i) katə-n'd'i (2) maks-ən' akšə-n'd'i (3) jomla akšə-n'd'i
white-(*DAT) cat-DAT give-PST.1SG white-DAT small white-DAT
'to a white cat' 'I gave to a white one' 'to the small white one'
- (4) mon rama-jn'ə ti-f s'ovan'-stə gukšən'ε-t' / ti-f-t' s'ovan'-stə
I buy-PST.3.O.1SG.S make-PTCP clay-EL jug-GEN make-PTCP-GEN clay-EL
'Which jug did you buy?} I bought the jug / the one that is made of clay.'

A deleted noun shows connectivity effects to the rest of the noun phrase. It assigns a Θ -role to its arguments and preserves their idiosyncratic case markings (5).

- (5) son pel'-i t'ε **zadat**fa-t' esə kuvaka-də / kuvaka azənkfn'ə-ma-də
she fear-NPST.3[SG] this task-GEN in.IN long-ABL long say-NZR-ABL
'Explanations are fine, but} she is afraid about the long (explanation) of this task.'

Inflection is possible for adjectives, numerals, demonstratives and modifiers with an attributivizer. Modifiers that have their own case and ϕ -features can license ellipsis, but do not show inflection:

- (6) son fkola-t'i ken'kf-t' / fkola-t'i / *fkola-t'i-t' art-əz'ə
she school-DAT door-GEN school-DAT school-DAT-GEN paint-PST.3SG.O.3SG.S
'Which door did she paint black?} She painted the door / the one to the school.'

Being in the predicative position, modifiers that are inflected under ellipsis agree with the subject (7). Modifiers that cannot show inflection in elliptical contexts also cannot agree in the predicative position (8). Agreement on non-verbal predicates cannot be reduced to ellipsis (see Babby (2009), Baylin (2012)), because the exponents are not as expected in an elliptical context, cf. (7) and (9).

- (7) s'in' c'ebər'-t' (8) ki-t vir'-t'i-(*t) (9) s'in' c'ebər' doktor'-n'ə / *c'ebər'-n'ə
they nice-PL road-PL forest-DAT-(*PL) they nice doctor-DEF.PL nice-DEF.PL
'They are nice.' 'Roads are to the forest.' 'They are the nice (doctors).'

Existing approaches: The basic pattern in (1)-(3) is attested in other languages. There are three approaches that explain why a modifier shows inflection only if the noun is absent. Kester (1996) argues that a *pro* in an ellipsis site triggers agreement (see also (Lobeck 1995)). Bošković & Şener (2013) present a nominalization analysis (NMN). A modifier is nominalized and therefore shows nominal affixes, no ellipsis is involved. Saab & Lipták (2016) (see also Dékány (2011), Ruda (2016), Murphy (2018), Saab (2019)) propose that some nominal features are not elided together with a noun, and inflection results from Local Dislocation (LD), which moves stranded affixes to the closest host. By going through the predictions made for the properties

	<i>pro</i>	NMN	LD
Basic pattern (1)-(3)	✓	✓	✓
Branching modifiers (4)	✓	✓	✗
Connectivity (5)	✗	✗	✓
Without inflection (6)	✗	✓(?)	✗
Correlation to the predicative agreement (7)-(8)	✓	✗	✗

Table 1: Existing approaches

listed in Table 1, I show that none of these analyses covers the full range of Moksha data.

Proposal: As noted by Baker (2008), modifiers that do not agree with the noun in languages with concord usually also do not agree with the subject in the predicative position. These modifiers have their own ϕ -features that intervene and block agreement with another noun. In Moksha, the same restriction applies to inflection in elliptical contexts. Inflection appears only on modifiers without

case and ϕ -features, and the same set of modifiers agrees in the predicative position. I would like to propose that inflection in Moksha is best analyzed as nominal concord. Modifiers regularly agree with the noun, but this agreement does not feed morphological realization. Ellipsis makes a general but otherwise indiscernible property of Moksha nominal syntax apparent. The distribution of features follows from conditions on Spell-Out and types of features that can be realized.

Spell-Out: I pursue a local approach to Spell-Out (cf. Epstein & Seely (2002), Wojdak (2008), Starke (2009)), according to which a node that has no *unsatisfied* features is spelled out. A feature is unsatisfied if it can induce operations. This holds for features that trigger Agree [$*F: _*$], Merge [$\bullet F \bullet$] (following the notation in Heck & Müller 2007) and ellipsis [E] (see Merchant (2001)). These features also differ from others in that they are not overtly realized. I assume that syntactic structure is accessible after Spell-Out, see Dobler et al. (2011), Piggott & Travis (2017), Martinović (2019).

Probe Conversion: I suggest that a life cycle of a Probe includes two operations: Valuation and Conversion. Probes are valued by Agree; after Valuation they are still identified as probes (which is indicated by the presence of asterisks) and are subsequently subject to Probe Conversion (PC). Probe Conversion makes valued probes indistinguishable from originally valued features.

Concord: Case is standardly assumed to be assigned to the noun by a higher head, but by then DP is a proper sub-part of the structure, so that any operation that delivers case concord violates the Strict Cycle Condition (Chomsky 1995, 2019). One possible solution is to abandon cyclicity, as suggested in Norris (2014) and Bayirli (2017). Another option is to redefine Agree as Feature Sharing (Frampton & Gutmann 2000, 2006), see Kramer (2009), Danon (2011). Here I pursue a different solution. I take nominal concord to be derived by Agree (see Carstens (2001, 2018), Baker (2008), Toosarvandani & van Urk (2014), Landau (2016), Puškar (2018)) and suggest that case, like other nominal features, originates within the noun phrase and is checked by a higher head (T, *v* or P). I assume that case and ϕ -features on the nominal modifier probe simultaneously.

Analysis: There are two types of languages with nominal concord. Languages of the first type, e.g. Spanish, always have overt concord. Languages of the second type, such as Moksha, show concord morphology only if the noun is elided. The difference between them follows from the order of Spell-Out and Probe Conversion.

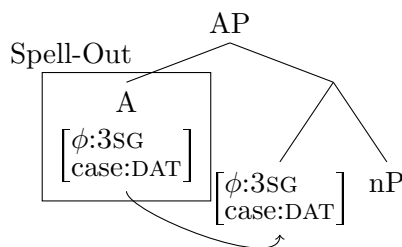
Spell-Out applies after Probe Conversion in Spanish-type languages, so that concord is always spelled out, see (10). Spell-Out is ordered before Conversion in Moksha-type languages. Concord is therefore exempt from realization, see (11). Both types have overt concord under ellipsis. In this case the modifier bears an additional feature [E] that applies after concord and induces ellipsis. Since there is still an unsatisfied feature present, Spell-Out is postponed and Probe Conversion applies first, see (12). This makes nominal concord visible. The patterns are summarized in Table 2.

	no ellipsis	ellipsis
I. PC < SO <i>Spanish-type</i>	+	+
II. SO < PC <i>Moksha-type</i>	-	+

Table 2: Concord morphology

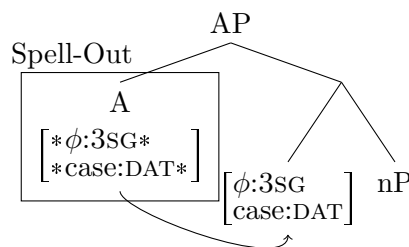
(10) *Spanish-type:*

Conversion < Spell-Out



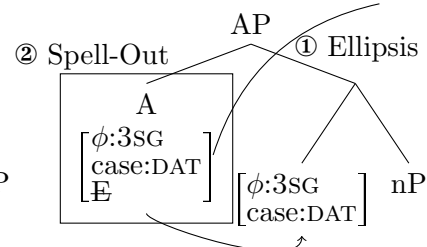
(11) *Moksha-type:*

Spell-Out < Conversion



(12) *Under ellipsis:*

Ellipsis & Conversion < Spell-Out



Conclusion: If the present analysis is on the right track, this is a further argument that language-specific fixing of an initially indeterminate order of elementary operations may underlie parametrization (cf. Georgi (2017), Murphy & Puškar (2018)).