Case and caselessness in Moro

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Introduction: This paper provides novel support for accusative as a dependent case rather than a structural case valued by v (Marantz 1991, Baker 2015). The arguments are found in the distribution of objects and object case morphology in Moro, a Kordofanian language spoken in Sudan. We also show that the distribution of overt accusative case is crucially dependent on the morphological component (Bobaljik 2008, Legate 2008).

Accusative case in Moro is dependent: Marantz (1991) and Baker (2015) lay out a theory of dependent accusative case in which accusative case is assigned to any DP c-commanded by another DP within a particular domain by an interpretive rule at transfer to PF. Such accounts differ from more standard accounts of accusative which depend on Agree between v_{active} and the highest accessible argument. We present three arguments that accusative case is dependent in Moro.

First, (1) shows that in Moro double object constructions, both objects surface with accusative case morphology.

(1) *éga-natʃ-ó   ŋállo-ŋ   kódʒa-ŋ*
     1SG-CLg-RTC-give-PFV Ngallo-ACC Kodja-ACC
     'I gave Ngallo to Kodja.' / 'I gave Kodja to Ngallo.'

If accusative case were assigned to the argument closest to v, we would expect only a single argument in the relevant structural position to receive accusative case. Multiple accusative case in double object constructions is predicted by the dependent case account, as all three arguments are c-commanded by the subject DP.

Second, if accusative case were assigned structurally by v_{active}, we would not expect accusative case to be assigned in passive contexts. Yet in (2) we see that one internal argument of a double object construction can surface as the subject in a passive context, and the lower argument still receives accusative case.

(2) ŋallo gʌ-natʃ-**ən**-ú kódʒa-**ŋ**
     Ngallo CLg-give-PASS-PFV Kodja-ACC
     'Ngallo was given to Kodja' / 'Ngallo was given Kodja'

Third, evidence that accusative case in Moro is dependent comes from the fact that we see the same morphological case marker on inalienably possessed nouns as on objects. As there is no v to assign ACC in (3), an Agree-based analysis of accusative case is untenable.

(3) *Ləŋge Kuku-ŋ   aaŋ! ŋen   ŋ-awande iŋ-i   ŋ-iɗ-ən-ṯ-ə-ndr!*
     Mom   Kuku-ACC oh   matter CLŋ-what SCLŋ-this CLŋ-do.rt-PASS-APPL-PFV-1IN.OM
     'Mom of Kuku! What can this mean, that which has happened to us?'

We take 'Kuku' to be a complement of 'mother', hence a candidate for dependent Acc assignment. We take the domain for dependent case assignment to be either the CP/TP or DP phase.

A syntactic asymmetry among objects: Ackerman, Malouf, and Moore (2015) observe that Moro objects are symmetrical, as they can be freely ordered and passivized. Yet two asymmetries persist which offer important insights about the mechanics of case assignment.

First, human objects must precede non-human ones, regardless of their grammatical role.

(4) a. *éga-natʃ-ó kódʒa-ŋ diə*
         1SG-give-PFV Kodja-ACC cow
         'I gave the cow to Kodja.' / 'I gave Kodja to the cow.'
     b. **éga-natʃ-ó diə kódʒa-ŋ*

We take precedence to be indicative of c-command; (5) shows that earlier objects can bind later ones (but not vice versa), a point that support this claim.

(5) *ígʌ-sʌdʒ-ʌtʃ-ú   lʌ́mmiə lənəlnəŋ é-nega   dəŋgen*
     1SG-see-LOC.APPL-PFV boys   each   LOC-houses 3PL.POSS
     'I saw each boy at his house.'

We propose that the requirement that human objects precede nonhuman ones arises due to object shift of human nouns. Suppose these nouns form a natural class in sharing the feature [Person], which is

targeted by an multiply-agreeing [uPerson] probe on v, resulting in the movement of human objects to [Spec,vP].

(6)   a. $[_{vP}$ DP$_{[Person]j}$ $v_{[^*uPerson]}$ $[_{VP}$ DP$_{[\emptyset]}$ ... t_j ...]]
       b. $[_{TP}$ DP$_{subject}$ [V-v]$_i$-T ... $[_{vP}$ DP$_{[Person]j}$ t_i ...]]

The fact that verbs never intervene between objects is a consequence of V> v >T movement (6-b), confirmed by the observation that *S-Adv-V-O order is impossible, but S-V-Adv-O order is common (not shown). Evidence for the relevance of [Person] to object shift comes from multiple object pronouns in Moro, all of which shift to a position adjacent to the verb where they are ordered 1/2>3, again, regardless of grammatical role. This restriction follows if v possesses an articulated [Person] probe: v probes first for [Participant] and then [Person] (Béjar & Rezac 2009).

Object shift of human objects is relevant for dependent case assignment because it places them at the edge of the vP domain, where they are accessible to dependent [Acc] case assignment. This derives the fact that nonhuman objects never receive accusative case.

A morphological asymmetry: However, only a subset of human objects actually surface with overt case morphology in Moro: namely names and kinship terms. In the double object construction in (7-a) we see that only the object which is a name is marked accusative.

(7)   a.   *éga-natʃ-ó kódʒa-ŋ ŋera(*-ŋ)*
           1SG-give-PFV Kodja-ACC girl(-*ACC)
       b.   *éga-natʃ-ó ŋera(*-ŋ) kódʒa-ŋ*
           (both a & b): 'I gave a girl to Kodja/ 'I gave Kodja to a girl.'

We propose that the subset of nouns marked with overt case has the feature [+proper] (cf. Matushansky 2006), a feature that other morphological operations must make reference to as well. For example, while common nouns mark with their class prefix, [+proper] nouns take an associative plural suffix (8-a,b).

(8)   a.   *orn **lorlda-ñ-anda**   n-ldə-ñ-ëbərəjëc-i   lar-lda   i-ləbu*
           but brothers-1SG.POSS-ASSOC.PL COMP2-CLL.INF-1SG.OM-loose-CONS.PFV rope-with LOC-well
           'But my brothers let the rope go down into the well.'
       b.   *... **Kojaŋ-ənda** l-a-f-o   eg-al   y-i-b-ërn-ia   Alufra*
           Koja-ASSOC.PL CLL-RTC-be.loc-PFV LOC-place CLY-DPC-PROG-be.called-IPFV Alhufra
           'And he told them that Koja's family was in Alhufra area.'

In addition, third person object clitics are only overt when they refer to [+proper] antecedents.

(9)   a.   *kuku g-war-ó   ŋalló na nóŋ-**ŋú**-bug-i*
           kuku CLG-insult-PFV Nalo and 3SG.CONS-3SG.OM-punch-CONS.PFV
           'Kuku yelled at Ngallo$_i$ and then punched him$_i$.'
       b.   *kuku g-war-ó   ŋera na nóŋó-búg-í*
           kuku CLG-insult-PFV child and 3SG.CONS-punch-CONS.PFV
           'Kuku yelled at the child$_i$ and then punched him$_i$.'

We model the distribution of overt accusative case marking as an instance of contextual allomorphy: /-ŋ/ is inserted for [Acc] in the context of [+proper], elsewhere /-∅/. The restriction of overt object clitics to [+proper] nouns follows if these clitics are determiners for null [+proper] NPs.

The distribution of [Acc] in Moro resembles object marking in person split ergative languages like Diyari, where only high-animacy objects, including names, receive accusative case while low animacy objects are unmarked/absolutive, despite being syntactically indistinguishable (Baker 2015:22-23). With Legate (2008), Baker concludes that animacy-based splits occur in the morphology (*pace* Merchant 2008). Moro demonstrates that this is only sometimes true: one split based on [Person] is syntactic, but another split based on [+proper] is morphological. Hence we predict a Moro′ in which a animacy-based split arose due to different syntactic positions of objects. Hence, both syntactic and morphological animacy-based case splits are predicted to be found in different languages.

SELECTED REFERENCES: **Ackerman F., R. Malouf, and R. Moore**. 2015. Symmetrical objects in Moro: Challenges and solutions. *Journal of Linguistics*. **Baker, M**. 2015. *Case*. **Béjar, S. and M. Rezac**. 2009. Cyclic Agree. *Linguistic Inquiry* 40. **Bobaljik, J**. 2008. Where's Phi? Agreement as a Post-Syntactic Operation. In *Phi-Theory: Phi features across interfaces and modules*. **Legate, J.A**. 2008. Morphological and abstract case. *Linguistic Inquiry* 39. **Marantz, A**. 1991. Case and Licensing. In *ESCOL 91*. **Matushansky, O**. 2006. Why Rose is the Rose. In *Empirical Issues in Formal Syntax and Semantics 6*.