How to Adjoin Adverbial Clauses, and Make Verb Clusters: Lessons from Mongolian Converbs

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Temporal adverbial clauses may merge at various heights with respect to their matrix hosts. A compositional syntax should produce different aspectual and temporal interpretations through differing syntactic structures. This study investigates the semantic consequences of a three-way split in the way Mongolian converbs syntactically combine with their matrix hosts. First, evidence from case places one group of specialised converbs (which contribute specific, e.g. temporal, semantic content) outside of the matrix vP, while another group, "contextual" converbs (Ujiyediin, 1998; LeGrand, 1997) – with context-dependant interpretations resulting in either serial or simultaneous readings – must be merged within the vP. Secondly, within the contextual converbs, constructions that yield simultaneous (but not serial) readings show *compactness* properties reminiscent of other verb-cluster constructions (e.g. German long passives, Keine and Bhatt, 2016), indicating that they must merge low enough to be adjacent to their matrix host V, in order to form complex-predicate-like verb clusters.

The embedded subjects of some subordinate clauses in Mongolian may appear with accusative case (Guntsetseg, 2016), and we can use this to our advantage to differentiate these clauses structurally. In (1) below, we see that the specialised converb *-maγca* is compatible with an embedded accusative subject, while the contextual converbs *-ju* and *-γad* are not. The latter are, however, otherwise compatible with nominative embedded subjects.

(1) *Tuyaγa [Sudu-yi oro* $\left\{\begin{array}{l} \textit{-maγca} \\ \textit{*-ju} \\ \textit{*-γad} \end{array}\right\}$ *] congxo negege-gsen*

Tuyaa [Sudu-ACC enter $\left\{\begin{array}{l} \text{-CVB} \\ \text{*-CVB.IPFV} \\ \text{*-CVB.PFV} \end{array}\right\}$] window open-VRN.PST

'As (soon as) Sudu entered, Tuyaa opened a window.'

Dependant case is a good candidate to explain the Mongolian accusative, as its distribution nearly matches that of Sakha, famously studied by Baker and Vinokurova (2010) to formulate a version of the theory. Part of such a configurational view of case is a division of the clause into two phases, roughly around the upper edge of the vP. Only those nominals which appear above this boundary and are c-commanded by a matrix subject may be marked. The fact that the subjects of contextual converbial clauses may not appear in the accusative case suggests that the entire adjunct must be in the lower phase of the clause, construed roughly as the vP. Otherwise they would be in the same phase as the matrix subject, and be accusative-marked, as with the specialised converb in (1).

Contextual converbs in Mongolian seem to contribute some aspectual content, but otherwise have variable interpretations. Having placed contextual converbs inside the vP, we still must account for the differences between serial and simultaneous readings. We find two indications of *compactness* associated with simultaneous (and not serial) interpretations, suggesting a verb-cluster account. First, independent temporal adverbial modification of the converb clause is only possible with serial readings; in simultaneous readings, these adverbs scope over the whole clause, suggesting that the converbs form a sort of complex predicate with their matrix hosts. Secondly, scrambling of matrix objects across the converbial clause is only possible with simultaneous readings:

(2) *tegün-i$_i$ Batu malaγai-ban abu-cu t$_i$ uγta-ba*
him-ACC$_i$ Batu hat-REF take.off-CVB t_i greet-PST

'Batu took off his hat to greet him.' (Simultaneous only) (Ujiyediin, 1998, p. 88)

We argue that Mongolian converbs may be merged either outside the vP (perhaps adjoined to Asp or TP), or inside the vP. In the latter case – the case with contextual converbs – the adjoined clause may either merge a full vP structure of their own (resulting in serial interpretations), or merge low and form a verb cluster with the matrix predicate, resulting in a compact complex predicate. This species of analysis corroborates work by e.g. Bary and Haug (2011), who show that adjuncts of this type have differing interpretations available whether they are merged above or below viewpoint aspect. This analysis also has tantalizing extensions for the event semantics of these and related adjuncts, especially in terms of the ability of converb-matrix verb clusters to form Macro-events (Bohnemeyer et al., 2007).

References

Baker, M., & Vinokurova, N. (2010). Two modalities of case assignment: Case in Sakha. *Natural Language and Lingusitic Theory*, *28*, 593–642.

Bary, C., & Haug, D. (2011). Temporal anaphora across and inside sentences: The function of participles. *Semantics and Pragmatics*, *4*, 1–56. http://dx.doi.org/10.3765/sp.4.

Bohnemeyer, J., Enfield, N. J., Essegbey, J., Ibarretxe-Antuñano, I., Kita, S., & Lüpke, F. (2007). Principles of event segmentation in language: The case of motion events. *Language*, *83*(3), 496–532.

Guntsetseg, D. (2016). *Differential case marking in Mongolian*. Harrassowitz Verlag.

Keine, S., & Bhatt, R. (2016). Interpreting verb clusters. *Natural Language and Linguistic Theory*, *34*(4), 1445–1492.

LeGrand, J. (1997). *Parlons mongol*. Paris: L'Harmattan.

Ujiyediin, C. (1998). *Studies on Mongolian verb morphology* (Doctoral dissertation). University of Toronto.