Case assignment in TSL syntax: a case study

Mai Ha Vu, Nazila Shafiei, Thomas Graf

University of Delaware, Stony Brook University, Stony Brook University maiha@udel.edu,nazila.shafiei@stonybrook.edu,mail@thomasgraf.net

Summary

Goal: subregular analysis of case licensing

Subregular hypothesis: linguistic patterns are properly contained in the class of regular (string/tree) languages

- Syntactic representations: derivation trees of Minimalist Grammars (Stabler 1997, 2011)
- MGs combine lexical items via Merge (●) and Move (○).
- Known fact: Merge and Move are Tier-based Strictly Local (TSL) over derivation trees. (Graf 2018)
- Our analysis of case assignment in English illustrates how the TSL view extends to other syntactic dependencies.

Core Insight

- Case assignment follows a uniform pattern that generalizes Dependent Case Theory (Marantz 1991; Baker and Vinokurova 2010).
- Both structural and lexical case are mediated by sister-daughter relations.

TSL over trees

Intuition

- ignore irrelevant material by projecting specific nodes onto tree tier
- highly local constraints determine permissible tier shapes

Application to case-licensing

Tier projection rules

Project ... if ... C + mother + selecting • always T_{fin} + mother always

T_{inf} + mother selected by ECM-verb or *for*

PRO + selecting • always Nom + selecting • always

Acc + selecting • not subject under projecting T_{inf}

DAT+ selecting • treated as dependent case

Table 1: Tier-projection function

Local constraints

licensing sibling of • must be... If daughter of • is...

Nom T_{fin}

Acc •, T_{inf}, PRO, Nom

DAT Acc

Table 2: Case licensing as daughter-sibling constraints

Datives

Merge node (•) with DAT daughter must have ACC sister:

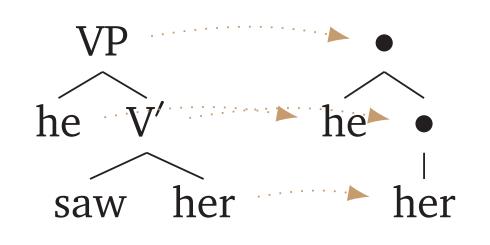
?? I showed her him. (7)

I showed him to her.

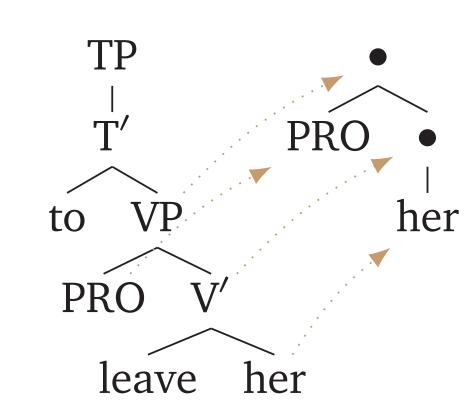
Accusatives

The sister of a Merge node (•) with ACC daughter must be one of the following:

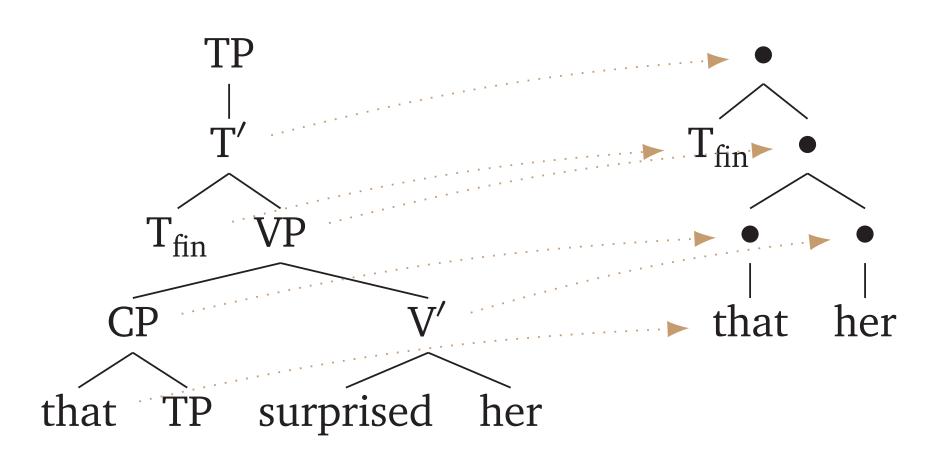
- Nom (Transitive verbs)
- (1) He saw her.



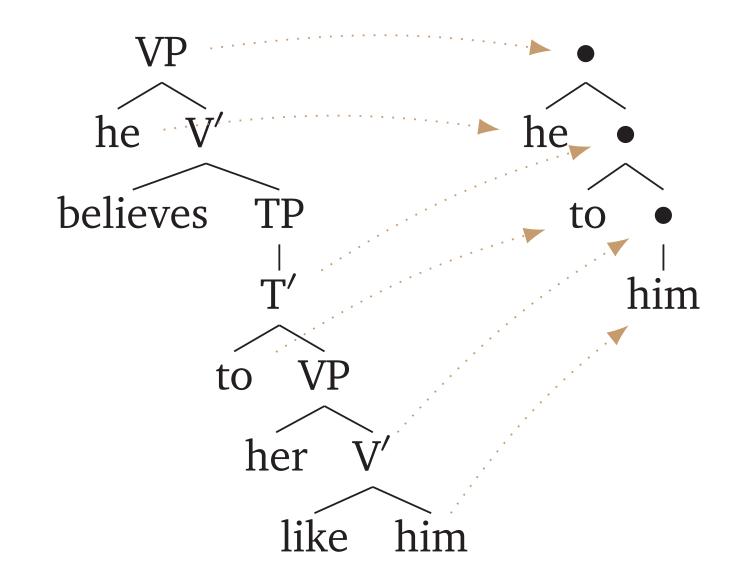
- PRO (Control)
 - He persuaded her [CP PRO to leave her].



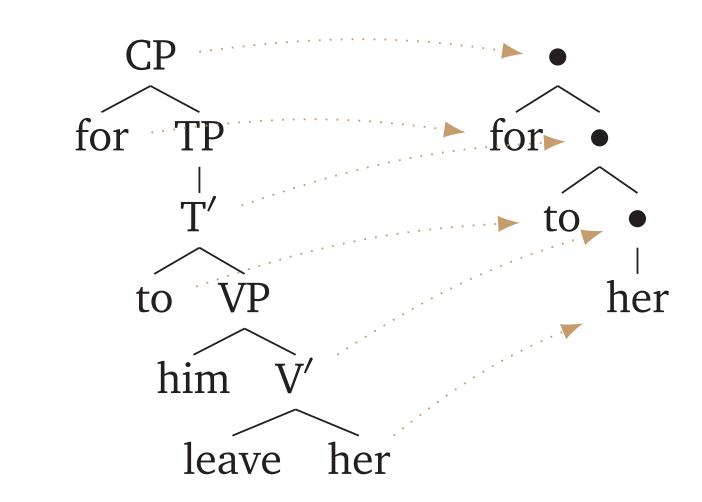
- Merge node (Clausal subjects)
 - That John left early surprised her.



- T_{inf} (ECM/for-clauses)
- T_{inf} is projected on the tier if it is selected by an ECM verb or *for*
- Acc-marked subjects under projecting T_{inf} do not project
- Any Acc object in ECM and for-clauses are licensed by T_{inf}
- He believes $[_{TP}$ her to like him].

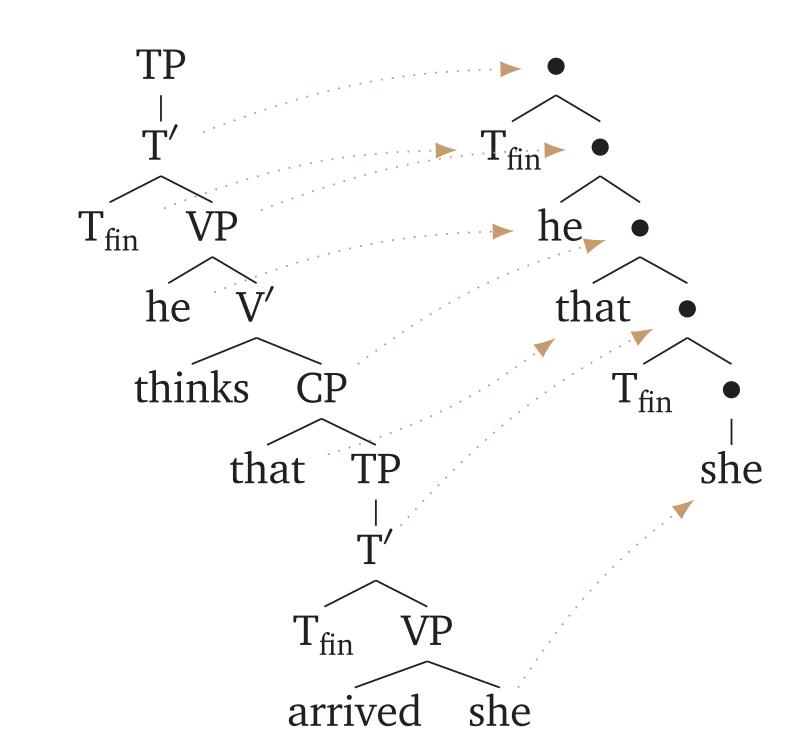


For him to leave her is surprising.



Nominatives

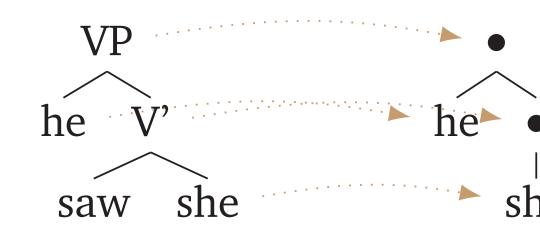
Merge node (•) with Nom daughter must have T_{fin} sister: He thinks that she has arrived.



Illicit configurations

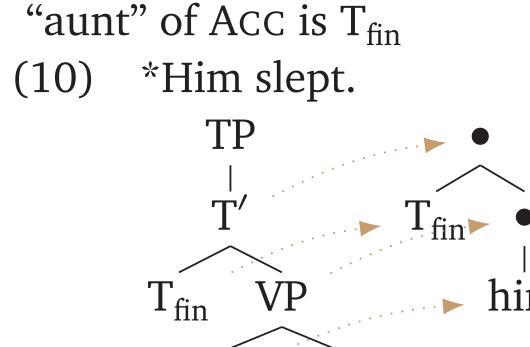
"aunt" of Nom is Nom

(8) *He saw she.



"aunt" of Nom is T_{inf}

*He to leave is surprising.



References

Baker, M. C. and Vinokurova, N. (2010). Two modalities of case assignment: Case in Sakha. Natural Language and Linguistic Theory, 28(3):593–642. Graf, T. (2018). Why movement comes for free once you have adjunction. To appear in Proceedings of CLS 53.

Marantz, A. (1991). Case and Licensing. In ESCOL '91: Proceedings of the Eighth Eastern states conference on linguistics, pages 234–253. Stabler, E. P. (1997). Derivational Minimalism. In Retoré, C., editor, Logical Aspects of Computational Linguistics, volume 1328 of Lecture Notes in Computer Science, pages 68–95. Springer, Berlin.

Stabler, E. P. (2011). Computational perspectives on Minimalism. In Boeckx, C., editor, Oxford Handbook of Linguistic Minimalism, pages 617-643. Oxford University Press, Oxford.