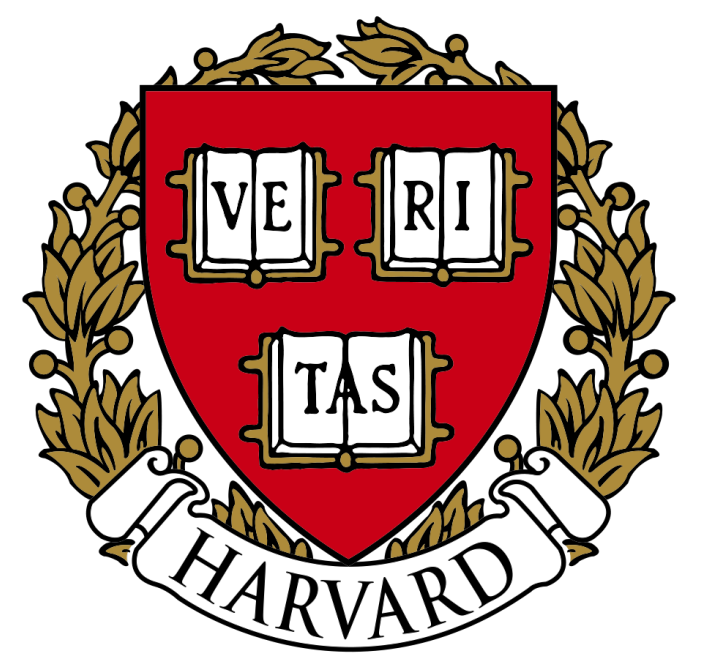


The syntax of plural marking in German and English pseudo-partitives



Laura Grestenberger
Harvard University
Lgresten@fas.harvard.edu

1. Background

- English pseudo-partitives: plural marking on N_1 obligatory with numerals higher than ‘one’:

(1) Two glasses of water

Two readings: **quantity/unit** (N_1 = non-referential measure) and **container** (N_1 = referential)

- Viennese German: non-standard units (*glass, cup, etc.*) can distinguish between the two readings morphologically (plural marking):

- (2) a. Zwei Glas Wasser
two glass.SG water
‘Two glasses of water’ (quantity, **Q**)
b. Zwei Gläs-er Wasser
two glass-PL water
‘Two glasses of water’ (container, **C**)

2. The data

These readings have different syntactic/semantic/prosodic properties (Viennese German):

- Predicate selection:

(3) ?*Zwei Glas Wasser sind runtergefallen und zerbrochen (**Q**)
two glass.SG water are fallen.down and broken

(4) Zwei Gläser Wasser sind runtergefallen und zerbrochen (**C**)
two glasses.PL water are fallen.down and broken
‘Two glasses of water fell off and smashed.’

- Fronting of N_2 :

(5) Karotten_i hab ich zwei Sack t_i kauft (**Q**)
carrot.PL have I two sack.SG bought

(6) ??Karotten_i hab ich zwei Säck(e) t_i kauft (**C**)
carrot.PL have I two sack.PL bought
‘As for carrots, I bought two sacks.’

- Fronting of $N_1 + N_2$

(7) ??[Sack Karotten]_i hab ich zwei t_i kauft (**Q**)
sack carrot.PL have I two bought

(8) ?*[Säck(e) Karotten]_i hab ich zwei t_i kauft
sack.PL carrot.PL have I two bought
‘As for sacks of carrots, I bought two’ (**C**)

3. The data, cont’d

- Ellipsis

(9) #Zwei Sack Karotten und zwei [e]
two sack.SG carrots.PL and two
Erdäpfel (**Q**)
potatoes.PL
Only possible reading: ‘Two sacks of carrots and two potatoes.’

(10) #Zwei Säck(e) Karotten und zwei [e]
two sacks.PL carrots.PL and two
Erdäpfel (**C**)
potatoes.PL
Only possible reading: ‘Two sacks of carrots and two potatoes.’

- Word stress (Hankamer and Mikkelsen 2008):

(11) zwei 'Glas 'Wasser (**Q**)
two glass.SG water

(12) zwei 'Gläs-er 'Wasser (**C**)
two glass-PL water

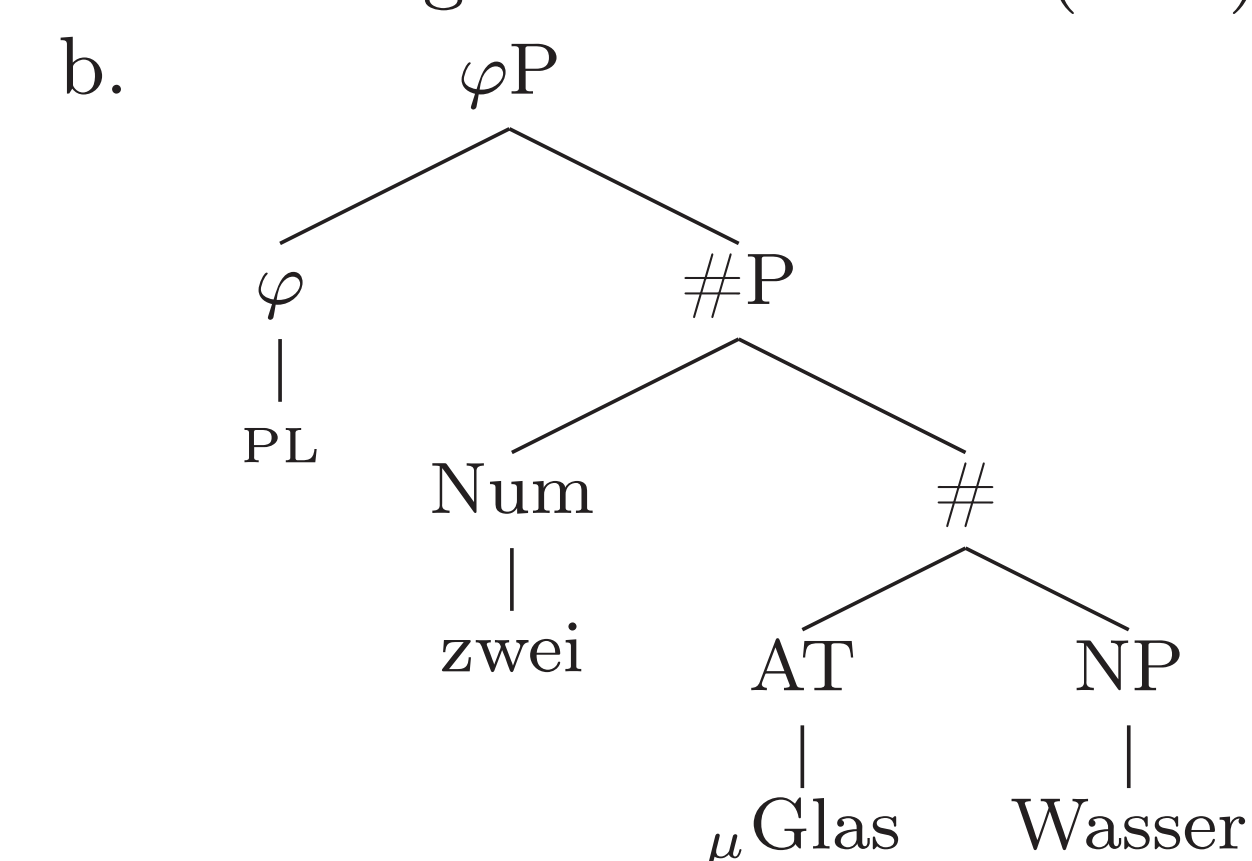
These diagnostics imply a structural difference between the two readings in German.

4. Proposal I: German, quantity

- Quantity reading: N_1 = head of a functional category, N_1 and N_2 = non-referential

Sauerland (2003): interpretable number features of a noun are determined by φ P → agrees with a measure noun μ in #, cp. Scontras (2012):

(13) a. Zwei Glas Wasser
two glass.SG water
‘two glasses of water’ (unit)



μ fixes a partition of its kind-denoting complement (cp. Chierchia 2010), numeral = argument of μ :

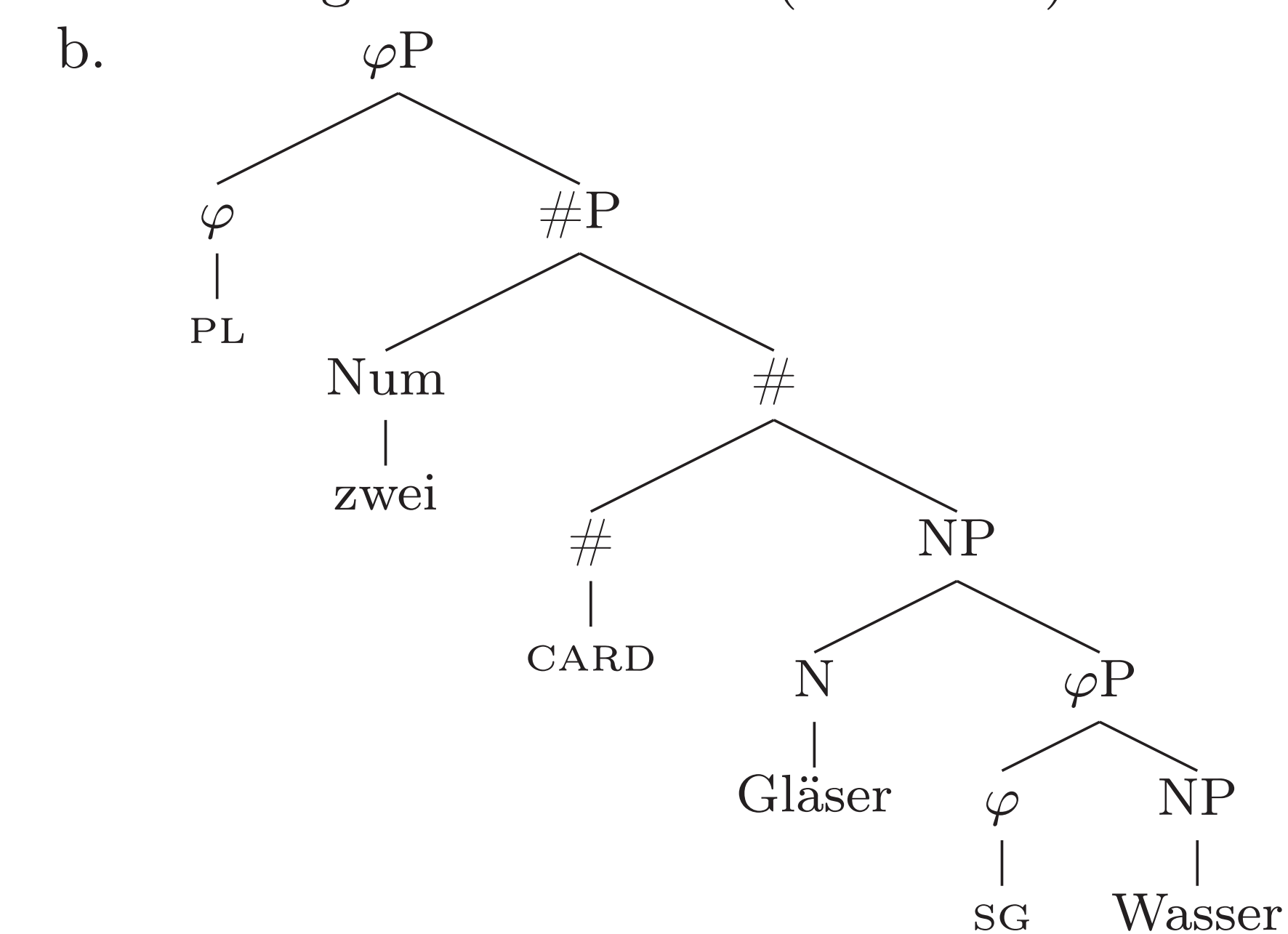
(14) [[Zwei Glas Wasser]] (quantity):
 $\lambda k \lambda n \lambda x.[^U k(x) \wedge \mu_{Glas}(x) = n](2)(Wasser)$
 $\rightarrow \lambda x.^U Wasser(x) \wedge \mu_{Glas}(x) = 2$

5. German, container

- Container reading: N_1 = head of NP, only N_2 = non-referential

Relation R holds between container (N_1) and thing/substance being contained (N_2). Merging the numeral = counting the instances of containers for which this relation holds:

(15) a. Zwei Gläser Wasser
two glass.PL water
‘two glasses of water’ (container)



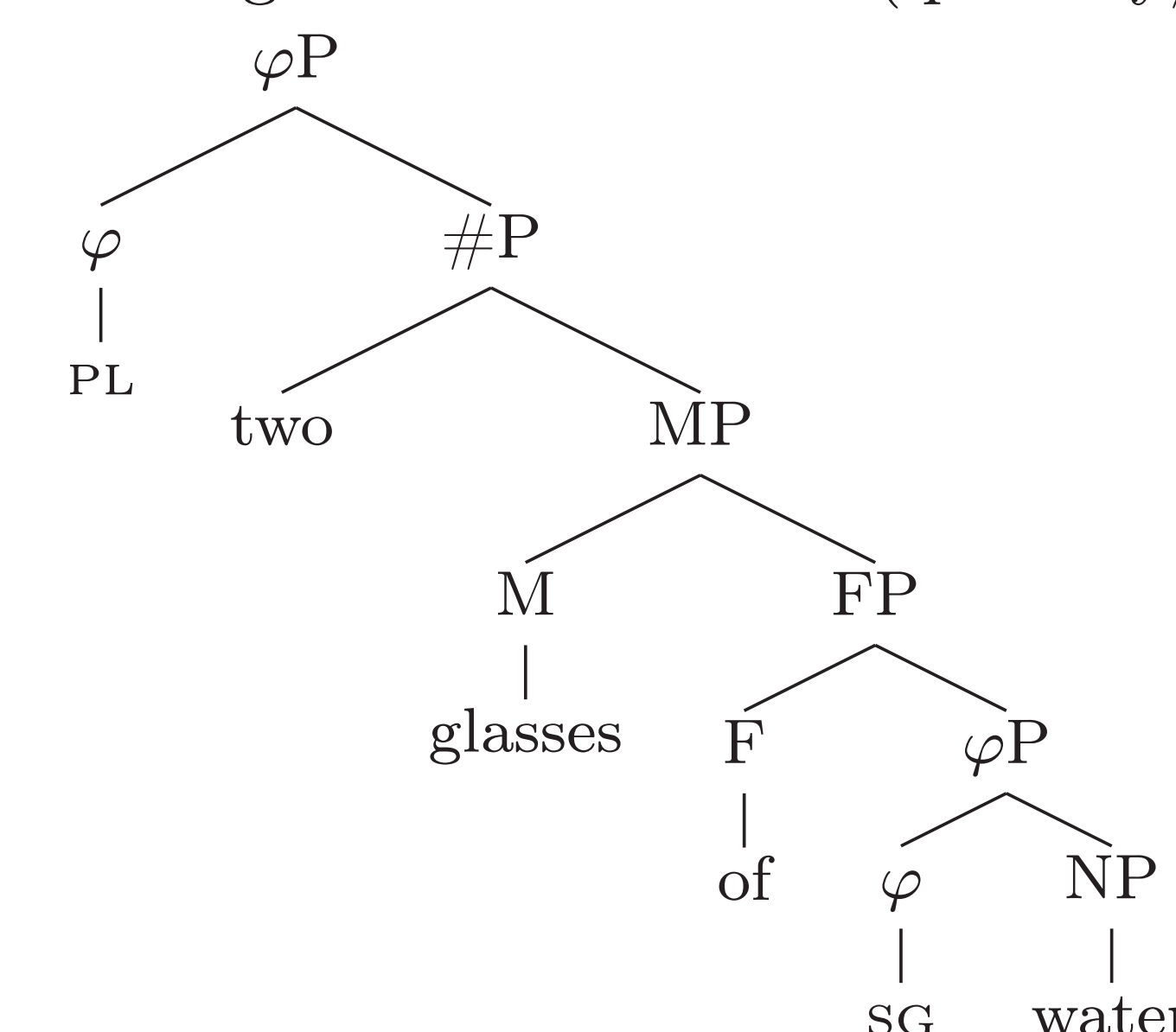
(16) [[Zwei Gläser Wasser]] (container):
 $\lambda n \lambda k \lambda x.[Glas(x) \wedge R(x, ^U k) \wedge n(x)](Wasser)(2)$
 $\rightarrow \lambda x.[Glas(x) \wedge R(x, ^U Wasser) \wedge 2(x)]$

6. Proposal II: English

- One structure for both readings

Stickney (2009): measure noun heads ‘semi-functional’ category MP

(17) two glasses of water (quantity/container)

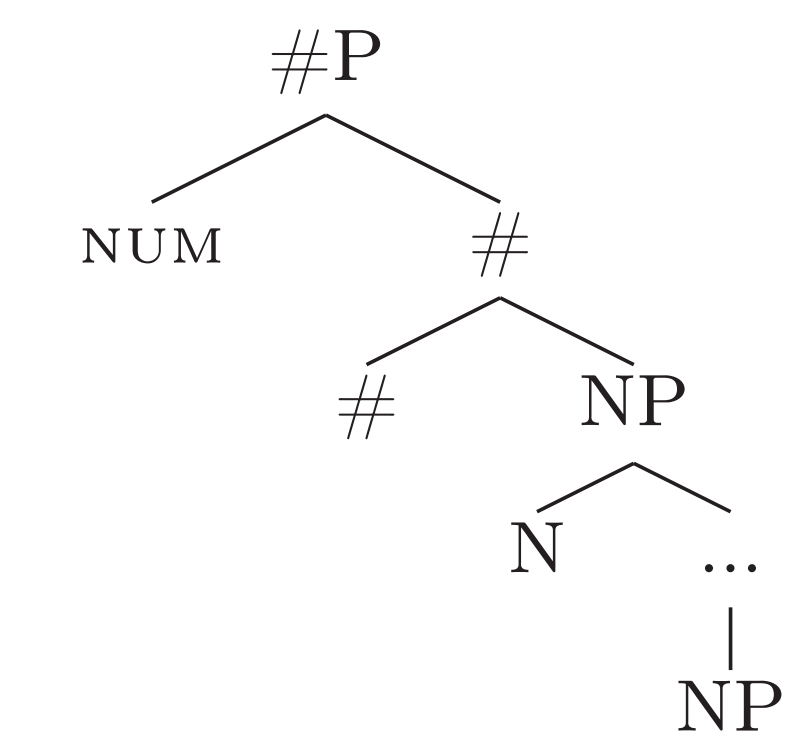


- Both readings can be assigned to this structure because the container reading entails the quantity reading.

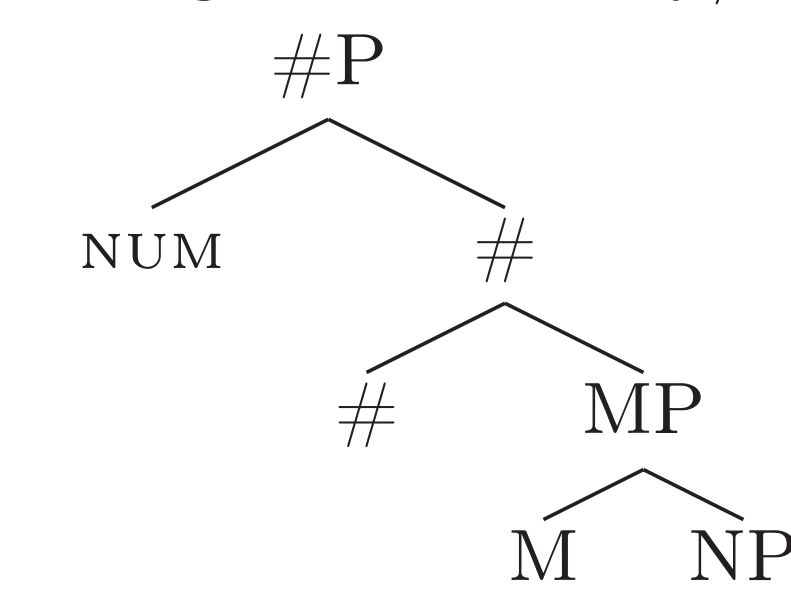
7. Diachrony

Grammaticalization process: phrasal categories → heads (Van Gelderen 2011):

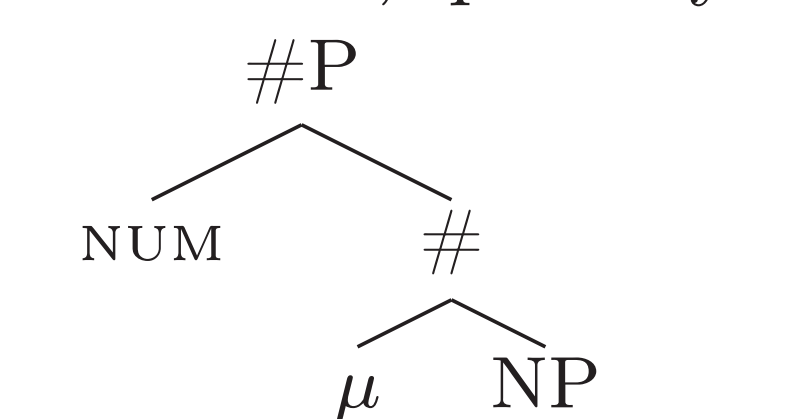
(18) a. German, container:



b. English, quantity/container:



c. German, quantity:



Conclusion

- Plural marking on N_1 in German pseudo-partitives only in the container reading
- Morphological difference = structural difference: quantity reading : 1 NP, container reading: 2 NPs
- English has one structure for both readings
- Different levels of grammaticalization of partitive structures in German vs. English

References

- Chierchia, Gennaro. 2010. Mass nouns, vagueness and semantic variation. *Synthese* 174:99–149.
- Hankamer, Jorge, and Line Mikkelsen. 2008. Definiteness marking and the structure of Danish pseudo-partitives. *Journal of Linguistics* 44:317–46.
- Sauerland, Uli. 2003. A new semantics for number. In *Proceedings of SALT 123*, ed. R. Young and Y. Zhou. Ithaca, NY: CLC Publications, Cornell University.
- Scontras, Greg. 2012. A unified semantics for number marking, numerals, and nominal structure. Ms., Harvard University.
- Stickney, Helen. 2009. The emergence of DP in the partitive structure. Doctoral Dissertation, University of Massachusetts Amherst.
- Van Gelderen, Elly. 2011. *The linguistic cycle. Language change and the language faculty*. Oxford University Press.