

# Morphology meets nano-syntax: the puzzle of the Polish Genitive of Quantification

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**Preliminaries:** Genitive of Quantification (hence GoQ) is a test for every new framework (Babby 1987; Franks 1994, 1995; Przepiórkowski 2004; Baylin 2004; Bošković 2006; Pesetsky 2014; Willim 2014, etc). It has the following paradigm, where only structural case contexts force the NP-complement to the higher quantifier (five up, Q<sub>H</sub>) to appear in genitive while other case forms are case-homogeneous:

- (1) **NOM** *te/tych sześć czerwonych skarpetek*  
**ACC** *te/tych sześć czerwonych skarpetek*  
**GEN** *tych sześciu czerwonych skarpetek*  
**DAT** *tym sześciu czerwonym skarpetkom, etc.*

We provide an account based on nano-syntax and follow two assumptions present in every account of GoQ thus far:

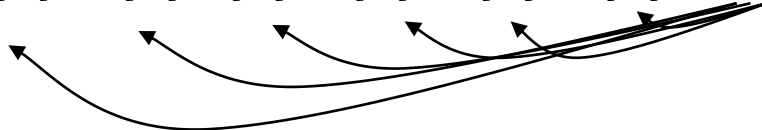
(2) If  $\alpha$  is an inherent case-marker, then  $\alpha$  case-marks NP iff it  $\theta$ -marks the chain headed by NP (Chomsky 1986:194).

This postulate implies that the scope of inherent case marking and  $\theta$ -assignment are expected to overlap.

(3) Q<sub>H</sub> (*sześć* ‘six’ here) is able to absorb case and thus satisfy some property of the structural case licenser. Q<sub>H</sub> bears a full set of  $\phi$ -features (like a nominal).

**Analysis:** we argue for an articulated Kase Projection (KP) placed above NP, which acquires case (a proper case feature/suffix) via movement to a position c-commanding a given case head. The case sequence in the syntactic representation is uniform across languages (*Universal Case Contiguity* (Blake 1994; Caha 2009):

- (4) [ 6 [Com F [ 5 [Ins E [ 4 [Dat D [ 3 [Gen C [ 2 [Acc B [ 1 [Nom A DP...



External heads activate a particular case projection in the sequence, which subsequently attracts the NP, here a verb (preposition) imposes Dative:

- (5) a. *sześciu paniom*  
 [six ladies]-DAT

- b. v-V [DatP [QP sześciu FQ [NP paniom]]] [Dat' Dat [GenP Gen [AccP Acc [NomP Nom [QP]]]]]]



Cyclic movement via case projections is also possible. In (Vlakh) Romani morphology oblique cases are built on top of structural cases, so genitive is constructed via pied-piping of the accusative to genitive (Caha 2010):

(6) *čhav-és* (boy-acc) → *čhav-és-koro* (boy-acc-gen)

We capitalize on two elements of this example, i.e. (i) the accusative marker does not intervene between the c-commanding genitive marker and the NP. Within a single KP all cases are distinct from one another and transparent to probing/attraction from higher case heads, without causing intervention effects. (ii) successive cyclic movement within KP is an option, specifically, the Accusative Phrase (accusative marker) can be pied-piped with the NP.

In the context of nano-syntax we propose the following derivation, where multiple movements within a single KP are crucial.

(7) a. *Zobaczyłem sześć pań.*  
 saw-1SG six-ACC ladies-GEN  
 ‘I saw six ladies.’  
 b. v-V [<sub>GenP</sub> [<sub>QP</sub> sześć [<sub>Q'</sub> F<sub>Q</sub> [<sub>NP</sub> pań]]] [<sub>Gen'</sub> Gen [<sub>AccP</sub> [<sub>QP</sub> sześć [<sub>Q'</sub> F<sub>Q</sub> [<sub>NP</sub> pań]]] [<sub>Acc'</sub> Acc [<sub>Nomp</sub> Nom[~~QP~~]]]]]]

In (7b) v accesses QP, gets involved in the relation Agree/feature sharing with it and activates AccP in its KP. QP moves to [spec,Acc] (*step 1*). The accusative case is appropriated by Q(P) and the NP complement requires another case, so the (adnominal) GenP is activated, which accesses the NP across the case-marked QP (like 6).

The nano-syntax inspired account of GoQ produces a straightforward account of the troublesome agreement patterns (10):

(8) T...Participle... [<sub>GenP</sub> [<sub>AccP</sub> te pięć dziewczyn] Gen]  
 (9) *Closeness*: Y is closer to K than X if K c-commands Y and Y c-commands X.  
 (10) *Te pięć dziewczyn było [PrTP wybran-e/-ych do rady wydziału].*  
 these-ACC five-ACC girls-GEN WAS-3SG.NEUT selected-3PL.ACC/-3PL.GEN to faculty council  
 ‘These five girls were selected for the faculty council.’

T in Polish automatically defaults to 3<sub>SG.NEUT</sub> upon probing for a NP which is already case marked (accusative, cf. Franks 1994, 1995; Przepiórkowski 2004). The relative configuration of GenP and AccP in (8) is such that the probe Part is equidistant from both GenP and AccP, on the assumption (9) from Pesetsky and Torrego (2001). Unlike T, Part has an incomplete  $\phi$ -probe and functions as a passive recipient of the features provided by its nominal goal. Both GenP and AccP are close(r) to Part, cf. (9), providing it with a free option for agreement.

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