

A unified theory of Case form and Case meaning

1. Background and proposal. In the long history of traditional and generative theories of Case, several heterogeneous dichotomies have been proposed. Case has been distinguished into: (i) formally unmarked vs. marked (often prepositionally); (ii) semantically concrete vs. abstract; (iii) structural vs. inherent; (iv) adnominal vs. clausal. We show that all these distinctions can be unified and understood *via* the combination and strict interpretation of three minimalist (Chomsky 1995) assumptions:

- (1)a. There are two (and only two) relevant core structural relations: Spec-Head and Head-Complement.
- b. The Full Interpretation Principle applies at the two interface levels and forces checking and deletion of uninterpretable features.
- c. Checking may take place *via* free riding on agreement.

We argue that Gen (GEN) is the key to understanding the structure and function of Case more generally. GEN is particularly revealing, since, unlike most Cases in the clausal domain, it displays two types of realizations, which often may even co-exist in the same language. We term these GEN realizations ‘functional’ and ‘free’ (as in Longobardi & Silvestri 2013). Once this distinction is made, the two types can be shown to be each associated with a different set of nontrivial properties:

(2)**Functional** GEN

- a. is never realized prepositionally and often has a phonologically reduced or Ø form;
- b. only appears in two dedicated, non-iterable Spec positions in the extended projection of N; such positions are one immediately *lower*, the other immediately *higher* than the base-generated position of adjectives (respectively, Spec,GenO and Spec,GenS in Longobardi 2001); languages may vary as to which position is activated, Spec,GenO, Spec,GenS, none or both;
- c. under certain general conditions, transmits its definiteness to the whole DP.

(3)**Free** GEN

- a. is always formally marked (through prepositions or inflection, even in languages where other GENs have lesser or Ø marking);
- b. is freely iterable, whenever a thematically interpretable position is available;
- c. can never satisfy requirements on definiteness marking of the whole DP;
- d. is subject to a Uniqueness (anti-synonymy, Keenan 2009) condition: every language has at most one form to express free GEN;
- e. obeys Generalized Consistency on adpositional realizations: if Gen precedes N, marking is postpositional; if N precedes GEN, it is prepositional (Hawkins 1984).

Our empirical base is a dataset of a few dozen languages from European and Asian families yielding a superficially widely diverse typology of Case forms/interpretations.

2. Functional genitives as prototypical checked Cases. In our dataset, the formal devices expressing functional GEN appear to be: (a) phrase-final affixes (English and Mainland Scandinavian *s*-GEN); (b) word-final affixes (pre-N German GEN); (c) inflection (Greek, Slavic, Old English, Old Norse, post-nominal German GEN); (d) head-marking, with (Turkish/Hungarian/Cushitic) or without (Semitic construct state) ϕ -concord with the GEN; (e) ϕ -concord of the GEN argument with the head noun (Romance-type possessives, Slavic genitive adjectives); (f) Ø-marking elsewhere.

We observe that, unless the GEN is licensed by ϕ -concord with the head noun, the two need to be in a special configuration, with N c-commanding the GEN: this position is immediately visible in most languages where the functional GEN is realized in GenO, since N overtly raises above it (e.g. Greek, Slavic, German, Icelandic, Celtic, occasionally in Romance, see Silvestri 2013). For Germanic *s*-GENs, which apparently surface pre-nominally (presumably in

Spec,GenS), the syntactic and semantic patterns similar to those of Semitic suggest covert N-to-D movement (Longobardi 1996) restoring the N-GEN linearization in LF. Thus, in all three cases, the GEN ends up in the c-domain of N at LF. These facts are provisionally captured by the following licensing principle:

- (4) GEN can be checked in GenS/GenO iff
- (i) N agrees with the GEN argument
 - or (ii) N c-commands GenS/GenO at LF.

Given (4), the cross-linguistic variation observable with functional GENs is captured by a parametrization concerning (i) the availability of the relevant functional heads (GenS⁰/GenO⁰) and (ii) that of marking/agreement on the relevant licensing N. The position of the latter is predicted by Case-independent parameters about overt/covert N-movement.

3. Free Genitive as unchecked Case. Free GEN is not subject to these distributional constraints within the nominal extended projection, and is licensed as long as it can be associated with some semantic interpretation, which can cover all possible thematic relations with the head N. This Case feature, being interpreted, does not need to be checked and deleted, hence its occurrence will not be governed by (4), but just by the Full Interpretation Principle. We crucially take it as significant that this property of not being checked/deleted is systematically mirrored by its always being robustly marked (by adpositions or inflection).

4. Unification of Case types across categories. Notice now that a rough correlation between form and meaning of Case has been observed more generally: abstract grammatical notions like Nominative (NOM) and Accusative (ACC) tend to exhibit PF-reduced or even Ø marking (and anyway no prepositional realizations ever), defined by certain designated Spec positions, like functional GEN; instead, semantically concrete notions like Locative, Instrumental etc. are always formally marked, often prepositionally, are inherent in Chomsky's (1986) sense, like free GEN. This suggests that GEN is ambivalent: it can be used as a semantically abstract Case, akin to NOM and ACC (Benveniste 1966) and in need of checking (i.e. our functional GEN), or can be licensed as expressing the semantic content (Planudes, Kuryłowicz 1964, Higginbotham 1985) of relatedness to the head noun (i.e. our free GEN, thus immune to (4)). We show that the same ambivalence characterizes Dative (DAT).

Thus, functional GENs (and DATs) parallel and summarize the configurations in which structural Cases are checked in the clausal domain. For instance, in NOM-ACC systems: (a) NOM is checked by T if DP_{NOM} agrees with T or (b) NOM is checked by non-agreeing T if T overtly/covertly c-commands Spec-T (Aux-to-Comp contexts, Rizzi 1982), and (c) ACC is checked by a V that c-commands DP_{ACC} after raising, presumably at least to *v* or Voice. Therefore, (4) can be generalized as follows:

- (5) Checking of Case feature α by licensing head β requires the conjunction of two conditions:
- a. α is in a designated Spec of (the extended projection of) β at PF
 - b. α is in the complement of β at LF (or ϕ -agrees with β , like NOM subjects: Case as a free rider).

5. Conclusions. In sum, we propose that three types of Cases exist across languages, and that their formal and semantic properties are interconnected in a principled way: (i) Cases which are normally uninterpretable and tend to typologically display reduced or Ø forms (NOM and ACC, always checked under (5)); (ii) Cases which are interpreted and always need to encode their meaning through formal marking, often adpositionally (Locative, Ablative, Instrumental, etc., always unchecked); (iii) ambiguous Cases which may correspondingly exhibit two different formal realizations (GEN and DAT). We show that the solidarity of their formal and interpretive properties is largely deduced from the general condition in (5), based on principled tenets of the minimalist program (1), and their surface variation is shaped by a coherent and constrained system of parametric interdependencies.