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 variously defined and poorly connected dichotomies have been proposed: Case has been distinguished into formally unmarked vs. marked (often prepositionally); semantically concrete vs. abstract; structural vs. inherent; adnominal vs. clausal. We try to unify all these distinctions into a theory reconciling insights originating at least from Maximos Planudes and others through Hjelmslev, Kuryłowicz, Benveniste, Vergnaud and Chomsky *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. Full Interpretation Principle applies on the two interface levels and forces checking and deletion of uninterpretable features

c. Checking may take place *via* free riding on agreement

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: applying a 'Modularized Global Parametrization' strategy, we propose a Case-checking principle coupled with a small number of hierarchically implied parameters to derive the observed variation. We argue that a proper analysis of the proteiform manifestations of Cases such as Genitive and Dative is the right point of departure to shed light on the structure and function of Case more generally. Genitive is particularly revealing to understand Case theory, 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 genitive 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 set of generalizations, which otherwise could not be drawn:

(2) *Functional* Genitive

(i) is never realized prepositionally and often has a phonologically reduced or Ø form;

(ii) only appears in dedicated, non iterable Spec positions in the extended projection of N, one immediately *after* the base-generated position of adjectives (Spec,GenO), the other immediately *before* it (Spec,GenS) (Longobardi 2001);

(iii) given definable universal conditions, must transmit its *definiteness* to the whole DP.

(3) *Free* Genitive

(i) is subject to a *Uniqueness* (antisynonymy, Keenan 2009) condition: every language has at most one form to express free Genitive; the latter is always *formally marked* (through adpositions or inflection, even in languages where other Genitives have lesser or Ø marking);

(ii) is freely *iterable*, whenever a thematically interpretable position is available;

(iii) can never satisfy requirements on *definiteness* marking of the whole DP;

(iv) obeys *Generalized Consistency* on adpositional realizations: if Gen precedes N, marking is postpositional; if N precedes Gen, it is prepositional (Hawkins 1984).

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

With the exception of φ-feature agreement, in all the other cases, the Genitive and the head noun need to be in a special configuration, with N c-commanding the Genitive: this is apparent in most languages with GenO (e.g. Greek, Slavic, German, Icelandic, Celtic, occasionally in Romance, Silvestri 2013), where N overtly raises before the Genitive. In Semitic, N overtly rolls up above the Genitive (ultimately toward D) replacing the article. For Germanic *s*-genitives, which instead surface prenominally (presumably in Spec,GenS), the definiteness-

inheritance pattern similar to that of Semitic and the D always remaining empty suggest covert N-to-D movement (Longobardi 1996). Thus, in all three cases, the Genitive ends up in the c-domain of N at LF. These facts are provisionally captured by the following licensing principle:

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

Given (4), the only parameters needed to account for the cross-linguistic variation observable with Genitives (and with arguably similar patterns of Datives) are those concerning the availability of functional heads ($GenS^0$/$GenO^0$, or Dat^0) and that of marking/agreement on the relevant head category (e.g. N or V). The position of V or N is predicted by Case-independent parameters about overt/covert V- or N-movement (Pollock 1989, Longobardi 1994, a.o.).

3. Free Genitive as unchecked Case. Free Genitive is indeed free from 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 noun. This Case feature, being interpreted, does not need to be checked and deleted, hence its occurrence would not be governed by (4), but just by the Full Interpretation Principle. We 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. *Modulo* some independent nominal/clausal distinctions, it is possible to extend the association between the need for checking and deletion/reduction of PF substance and that for checking and deletion of LF-uninterpretable Case features: abstract grammatical notions like Nominative/Accusative are in need of checking (with the consequent constraints on the distribution of nominals, Chomsky & Lasnik 1977, Vergnaud 1978/2008) and correspondingly exhibit reduced or Ø marking, and anyway never strong formal marking such as adpositional realizations; instead, traditionally concrete notions like Locative, Instrumental etc. are always formally marked, often adpositionally, and are inherent in Chomsky's (1986) sense. Genitive would be systematically ambiguous in this sense: it could be used as a semantically abstract Case, akin to Nom and Acc (Benveniste 1966) and in need of checking (i.e. our functional Genitive); or else it can be licensed as expressing a semantic notion (Planudes, Kuryłowicz 1964, Higginbotham 1985) which may cover various thematic roles (i.e. our free Genitive, immune to the need for checking and its distributional constraints). Analogous arguments can be made for Dative.

Thus, functional Genitives (and Datives) parallel the configurations in which structural Cases are checked in the clausal domain. For instance, in Nominative-Accusative systems: (a) Nominative is checked by T if DP_{NOM} φ-Agrees with T or (b) nominative is checked by non-agreeing T if T overtly/covertly c-commands Spec-T (Aux-to-Comp contexts, Rizzi 1982), and (c) accusative 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 (unless it φ-agrees with β: 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: Cases which are normally uninterpretable and tend to typologically display reduced or Ø forms (Nom and Acc, always checked under (5)); Cases which are interpreted and always need to encode their meaning through formal marking, often adpositionally (Loc, Abl, Instr ..., always unchecked); ambiguous Cases which may correspondingly exhibit two different formal realizations (Gen and Dat). 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 hierarchies.