

## SIZE MATTERS: ON DIACHRONIC STABILITY AND PARAMETER SIZE

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The focus of diachronic syntax has been on documenting and analyzing recorded instances of change. In a parametric model, this means trying to observe, describe and explain cases of parametric change. However, if change is viewed as abductive reanalysis of the PLD in language acquisition (Lightfoot 1979, 1991, 1999), we expect acquisition mostly to be convergent and, thus, that little will change. This is Keenan's (1994/2002) Inertia Principle, which we can phrase in parametric terms as:

(1) Most of the time, most parameter values don't change.

In order to seriously understand both change and the nature of parameters, we need to qualify both occurrences of *most*. In other words, which parameters change and when? Are certain parameters more amenable to change than others? If so, what can we learn about parameters more generally from these changes? These are the questions this paper investigates. As we shall see, cases where a parameter does **not** change can be as revealing as those where it does.

In this connection, consider the following cases of long-term historical conservation of known parametrically variant properties:

- (2) a. (Multiple) Incorporation in the Algonquian languages (Branigan 2012)
- b. Harmonic head-final order in Dravidian (Seever 1998:31) and Japanese/Korean
- c. "Radical pro-drop" in Chinese and Japanese

Goddard (1994) observes that Proto-Algonquian was spoken 2000-3000 years ago, with numerous structural, lexical and phonological features having changed since then, but incorporation having remained a "signature" property. Assuming for concreteness that a new generation of native speakers emerges every 25 years, in 3000 years we have 120 iterations of the learning cycle. Proto-Dravidian is dated by Seever (1998) to 4000BC, i.e. 6000 years ago, so this parameter has remained constant over roughly 240 iterations of the learning cycle. Similarly, the oldest texts in Japanese date from around 700-800AD, and so are over 1000 years old, again showing conservation of head-finality and radical pro-drop over 40 iterations. We observe, then, three cases, each independently thought to be macroparameters, which are conserved for millennia. Macroparameters affect all relevant categories in a uniform way.

On the other hand, it is easy to observe examples of relatively short-lived parameter settings. Assuming that the class of English modals emerged through grammaticalisation in roughly the 16<sup>th</sup> century, we can see in contemporary English, less than 500 years later, that many of the modals are moribund: this is true in most varieties for *need* and *dare*, and in US English for *must* and *may*. Moreover, individual modals differ in the naturalness of inversion: in contemporary UK English for all uses of *may* and deontic *might* and in US English for all uses of *might*. Here, then, the relevant parameters concerning attraction of T by interrogative C have become relativised to individual lexical items (the restrictions on "conditional inversion" in contemporary English show that irrealis C interacts with a different set of lexical items). This is a clear case of microparametric change, a change affecting individual lexical items, possibly just one, in relation to a specific feature property of a functional head. The class of modals seems to have started to change in this way in the 18<sup>th</sup> century, 200 years, a mere 8 iterations of the learning cycle, after its creation through grammaticalisation. Another example of the same kind in a different domain concerns the subject-clitic systems of North-Western Romance (including "advanced" varieties of French – Zribi-Hertz 1994): here we see synchronically a range of systems featuring extreme microparametric variation concerning which clitics have reanalysed from their earlier pronominal status as functional heads in T- and C-systems (on Northern Italian dialects, see Poletto 2000, Manzini&Savoia 2005). Again, these systems appear to have emerged quite recently: Poletto (1995) observes that 16<sup>th</sup>-century Veneto did not have subject clitics, and conservative varieties of contemporary French also do not. "Jespersen's Cycle" represents a further instance of the same phenomenon. To summarise, we observe values of macroparameters

affecting large classes of categories being conserved over millennia, in contrast to values of microparameters, affecting very small classes of or maybe even individual lexical items, undergoing rather frequent change. Note that the same formal operations are involved in each case: head-movement (incorporation, T-to-C) and licensing null arguments (radical pro-drop, subject clitics).

Finally, there are “intermediate” cases which we dub mesoparametric change. Mesoparameters concern entire syntactic categories and, as such, are “smaller” than macroparameters (which concern all categories relevant to the feature in question), but “larger” than microparameters (which affect (subclasses of) lexical items). An example is the null-subject parameter in Latin and Romance. This parameter involves T licensing null subjects, and has been stable from Latin through most of the recorded histories of Italian, Spanish and European Portuguese. It has, however, changed in French and Northern Italo-Romance, presumably under contact influence from Germanic, and also, strikingly, in the heavily contact-influenced “Romania Nova” varieties. Another likely case is (root) V2 in Germanic: although its diachrony is obscure, it has remained remarkably stable across nearly all North and West Germanic varieties. English is, of course, an exception, and, again, contact may explain why this language diverges (Kroch&Taylor 1997). In the domain of word order, the West Germanic pattern whereby all categories in the extended projection of V (except C) are head-final is an example. This pattern is stable across West Germanic, and has been for at least a millennium; again, it changed in English, arguably under contact with VO North Germanic (Trips 2000) and also Norman French. It has also changed in Yiddish at the T-level, although VP remains variable (Wallenberg 2009; see Biberauer, Holmberg & Roberts 2007,2012 on the constraint dictating this “downward propagation” of word-order change).

We conclude that three classes of parameter are identifiable: macro, meso and micro. Macroparameters concern large, featurally simple classes of heads, and are diachronically very stable. Mesoparameters concern individual syntactic categories (T, V, etc) and are diachronically stable, but subject to change through contact. Finally, microparameters concern small numbers of lexical items and are quite prone to change (unless the lexical elements are high-frequency elements). Grammaticalisation, as it affects individual lexical items, is microparametric in nature. To the extent that grammaticalisation can be endogenous, microparametric change can be.

In line with the abductive reanalysis view of parametric change, macroparameters must be “easily” set; hence they resist reanalysis and are therefore strongly conserved. Meso- and microparameters are correspondingly less salient in the PLD. This view is consistent with the view of parametric hierarchies put forward in Roberts (2011): macroparameters represent the higher parts of a hierarchy, microparameters the lowest and mesoparameters an intermediate position. Importantly, this view does not imply that UG prespecifies the parameter types: the hierarchies emerge thanks to third-factor motivated acquisition strategies, possibly acting on minimal UG-specified content, possibly along the lines of the schema-based model suggested by Gianollo, Guardiano & Longobardi (2008). Macroparameters may be set at an acquisitional stage at which categorial distinctions are yet to be acquired, and thus their nature may be due to the learner’s “ignorance” (Branigan 2012). As categorial distinctions emerge, mesoparameters become available, refining the early minimal category-based system. As the idiosyncratic properties of individual members of syntactic classes emerge, microparameters become possible. This view then explains how “superset” parameters can be set early without a “superset trap” arising; hence it is consistent with the Subset Principle (Berwick 1985). Finally, it is important to note that we are not proposing that macroparameters cannot change (this view would be incompatible with the principle of connectivity). Presumably, sufficiently intensive contact can lead to change in these parameters too: the evidence of head-initial to head-final change in the Southern Semitic languages under intensive contact with Cushitic may be an example (cf. Leslau 1945).