



Department of  
Linguistics and Modern Languages  
語言學及現代語言系

# Cartographic Structures and the Growth of Trees in Language Development

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Collège de France

**Date:** April 13, 2021 (Tuesday)  
**Time:** 4:30pm - 6:15pm (Hong Kong Time, UTC +8)  
**\*Seminar will be conducted via ZOOM**

**Registration Deadline:**  
**12:00nn of 11 April 2021 (Sunday) – Hong Kong Time**  
**The Zoom Meeting details will be provided on 12 April 2021**



**Prior registration  
is required**

## Abstract

Cartographic research over the last quarter of a century highlighted the complexity of syntactic representations. The empirical discoveries of cartographic research raise the issue of acquisition: how are the fine details of syntactic structures acquired by the child? Do the highly articulated structural maps arrived at in this line of research offer any guidance to the study of language development?

In work conducted jointly with Adriana Belletti (University of Siena) and Naama Friedmann (Tel Aviv University) we have started addressing this broad question. As an initial case study, we have looked at the developmental course of the acquisition of the left periphery of the clause in Hebrew, by capitalizing on 1. A map of the left periphery in this language, also based on the existing literature (Shlonsky 2013), and 2. A cross-sectional corpus study conducted by Friedmann & Reznik (2017), on individual recording of 56 children ranging from age 1.6 to age 6.1, which we have extended in various ways. The systematic use of Guttman scales (Guttman 1944) makes it possible to capture implicational patterns in development abstracting away from major individual differences in developmental speed.

The key hypothesis we made to connect cartography and development is very simple: children acquire complex structures bottom up, first acquiring lower zones of the tree, and then progressively adding more external zones. The structural succession of layers in the map reflects the temporal trajectory of development, in that no internal zone is skipped in the growth of the mental tree. This idea connects to old approaches to structural growth from simpler to more complex structures (e.g., Radford 1990, Clahsen 1990/1, Rizzi 1993/4), but innovates in taking full advantage of the details of cartographic maps.

This line of analysis leads to the identification of three stages in the acquisition of the left periphery in Hebrew:

1. A stage in which no manifestation of the LP is observed;
2. A stage with argument and adjunct *wh*-questions (but not with *why*) and adverb preposing is found, but with no other manifestations of LP constructions;
3. A stage in which the other major LP constructions are found: relatives, *why* questions, topicalization, and clausal embedding. These temporal stages match the structural zones that constitute the LP tree. These findings confirm the bottom-up acquisition mode, and raise important theoretical and empirical issues which will be addressed in the talk.

## Speaker

Luigi Rizzi holds the chair of General Linguistics at Collège de France, Paris. Previously, he was professor at the University of Siena and at the University of Geneva. He also was on the faculty of MIT, UMass Amherst, UCLA, Ecole Normale Supérieure (Rue d'Ulm, Paris). At the University of Geneva, he was Principal Investigator of the ERC project "SynCart: Syntactic Cartography and Locality in Adult Grammar and Language Acquisition".

His research interests include syntactic theory and comparative syntax. He contributed to the development of the parametric approach to syntactic comparison, to the theory of locality (Relativized Minimality), to the cartography of syntactic structures.

He also works on language acquisition, with particular reference to the development of morphosyntax, and the role of locality and other theory-inspired notions in language acquisition.

**All are Welcome**

Enquiries

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