From Language Faculty to Computational System: Variation, Breakdown, and Preservation

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This talk aims at considering theoretical and methodological issues that shed light on the human faculty of language with respect to language development and pathology. The main proposal derives from joint work with Evelina Leivada and Maria Kambanaros (Leivada et al., under review) on the *Locus Preservation Hypothesis*, which has implications for typical language acquisition, second language learning, and language variation in general.

Universal Grammar (UG) denotes the species-specific faculty of language, presumed to be invariant across individuals. Over the years, it has shrunk from a full-blown set of *principles and parameters* to a much smaller set of properties, possibly as small as just containing the linguistic structure-building operation *Merge*, which in turn has been argued to derive the uniquely human language property of *recursion* (Hauser et al., 2002). UG qua human faculty of language is further assumed to constitute the "optimal solution to minimal design specifications" (Chomsky, 2001: 1), a perfect system for language. Unfortunately, the human system or physiology does not always run perfectly smooth in an optimal fashion. There are malfunctions, misformations, and other aberrations throughout. The language system is no exception. The first part of this talk will build on joint work with Ianthi Tsimpli and Maria Kambanaros (Tsimpli et al. 2017) and present language pathology from the perspective of the underlying system: What can non-intact language tell us about UG? Particular emphasis will be put on evidence from Greek, and how the investigation of impaired (cognitive-)linguistic abilities from one language can inform the study at large—and how it can (not) shed light on the study of a(n impaired) language faculty.

The second part picks up the long-standing observation that grammatical markers are not uniformly impaired across speakers of different languages, even when speakers share a diagnosis and the marker in question is grammaticalized in a similar way in these languages. This work aims to demarcate, from a cross-linguistic perspective, the linguistic phenotype of three genetically heterogeneous developmental disorders: Specific Language Impairment, Autism Spectrum Disorder, and Down Syndrome. After a systematic review of studies targeting mainly English-, Greek-, Catalan-, and Spanish-speaking populations with developmental disorders (n=880), shared loci of impairment are identified and certain domains of grammar are shown to be more vulnerable than others. Following up from Leivada (2015), the distribution of domains of impairment is argued to be captured by the Locus Preservation Hypothesis, which suggests that specific parts of the language faculty are immune to impairment across developmental disorders. Through the Locus Preservation Hypothesis, a classical chicken and egg question can be addressed: Do poor conceptual resources and memory limitations result in an atypical grammar or does a grammatical breakdown lead to conceptual and memory limitations? Although certain morphological markers reveal themselves as highly susceptible to impairment, their overall distribution seems to support the first scenario.