

## **The Discontinuity Model: Geminatio and superposition between statistical and grammatical learning in adult SLA**

Mainstream linguistics oppose the frequency-independent properties of a language – the grammar – to its distributional properties, statistics. ‘Grammar is grammar and usage is usage’ (Newmeyer); ‘Frequency is irrelevant for core computations’ (Bley-Vroman); ‘The soul of language does not use statistics’ (Mehler). War cries from the opposite side are: ‘There is no such thing as a Faculty of Language’ (Christiansen & Chater); ‘Grammar is just the emerging properties of the input’ (Bybee, Goldberg, Ellis). People traveling on roads less-traveled propose instead that – although statistics innervate every aspect of human cognition, language comprised – a Faculty of Language (FL) exists and retains its specificity. Without postulating a biological endowment for language – a grammar – we could not explain why languages are the way they are (how meanings are linked to sounds). On the other hand, without resorting to the variously modeled frequency factor – alongside with memory, attention and perception – we could not account for how languages are used, how they change, how they are learned. After the Minimalist Program reshaped the balance of power between UG and cognition and made the latter much smaller, *descriptive adequacy* and *explanatory adequacy* fell apart and left a theoretical void in the middle. To fill the void, new theories should account for how innate representations and different computational, processing and learning principles interfere and cooperate in language acquisition, representation and usage. The Discontinuity Model (DM) too tries to colonize this theoretical void. It proposes that adults can learn part of L2 morphosyntax twice, in two different ways. The same item can be learned as the product of generation by a rule or as a modification of a template already stored in memory. These learning modalities cooperate and superpose in adult SLA. Learners resort to grammatical rules and statistical templates under different circumstances during language processing. In the talk, I will sketch how this might occur. Learners’ sensitivity to skewed transition probabilities (TP) among adjacent tokens represent the factors that drive adult learners to re-discover the grammatical features that are hidden in asymmetric chunks. Statistics can gradually induce the extraction of the L2 grammar when the procedural (combinatorial) memory system aligns instances of previously stored asymmetric chunks containing fixed and movable parts. There are parts of the L2 grammar that cannot be learned statistically though. Statistics cannot induce a grammar when mentally aligned instances contain ‘points-zero’, that is, invisible features of the language that cannot be counted and must instead be computed (e.g., null subjects). Adult L2 learners could find these statistically unlearnable items more difficult to learn.