Differentiating core and peripheral syntactic data using analytic methods (FWAV)

Gertjan Postma (Meertens Institute Amsterdam)
gertjan.postma@meertens.knaw.nl

Theoretical frameworks that describe natural language make a difference between phenomena that are central to the grammar and phenomena that are peripheral, for instance the "exceptions" in traditional grammar. Chomsky (1981) uses the "core grammar" versus "peripheral rules" opposition to validate linguistic data. In articulated derivational models, e.g. Distributed Morphology (DM, Halle & Marantz 1991), a post-syntactic sequence of ordered modules is assumed, which helps us situating the "exceptions" or the "periphery" within the theory itself: the later in the derivation, the more peripheral in the Chomskyan sense (Arregi & Nevins 2012:342).

In some cases, rules from core syntax and rules from peripheral syntax give rise to similar E-language phenomena, e.g. head movement (core syntax) versus local dislocation (periphery). Various scholars assume that this distinction provides a mechanism that drives language change. A peripheral rule, introduced by adults or L2 acquirers, gets built into the core system by a subsequent generation (Halle 1962, Weerman 1993, Lightfoot 1999, Yang 2002). In Postma (2011), an algebraic model is proposed that simulates the relation between a peripheral phenomenon and a subsequent change in the core grammar, within the analytic framework of Kroch's logistic function model (Kroch 1989). Analytically, the S-curve, which represents the successful core-grammar change, was shown to be the first integrated function of a bell-shaped curve that fuels it. (1) represents the rise of s-reflexives in 15th century Dutch and the occurrence of the peer group sick-forms that initiated and fueled the change, although these sick forms themselves died out, illustrating the two curves. Both curves are two-parameter functions and the parameters of both curves are equal.

In this talk, we develop a geographic counterpart of this model. It gives us a tool to disentangle peripheral and core-syntax data in data sets with geographic language variation. Under the assumption that changes diffuse in space, we develop a model where a fuzzy isogloss of non-zero dimension is represented as a spatial S-curve. The model predicts a spurious peak under this S-shaped isogloss. The peak represents a peripheral phenomenon that can be considered as the driving force of the isogloss drift.

As an example, we study a local dislocation phenomenon in Dutch dialects, illustrated in (2), where the standard V-Tense-AGR ordering is realized as V-AGR-Tense: AGR-metathesis. Using syntactic argumentation, we show that core-syntax head-movement is tied to this peripheral metathesis which drives the structural change. First, there is the observation that though AGR metathesis is scattered in space, it precisely occurs under the isogloss that divides dialects with double paradigms (direct versus inversion contexts, or AGR1 and AGRc) from dialects with uniform AGRc. The situation is schematized in Figure 3. Now, double paradigms are caused by absence of T-to-C (Zwart 1993). It will be shown that AGR metathesis can also be produced by syntactic head movement, under T stranding when the verb goes to C. This prepares a subsequent core-syntax change where T-to-C is not obligatory. This is the successful change. The two types of spatial curves represent core and peripheral syntactic data.

(2) a du klöp-z-de an (AGR metathesis, dialect of Venlo)
you knock.2sg.past PRT

b du klöp-de-s an (common pattern, general Limburgian)
you knock-past-2sg PRT
‘you knocked on the door’

(3) Two dialect areas and spurious metathesis under their isogloss

+ double paradigms

V-to-T

± T-to-C

– double paradigms

V-to-T-to-C

dialects with V-AGR-T

(4) AGR.2sg intrusion in the V - T complex as an peripheral effect on the du - jij isogloss

+ / - double paradigms

AGR infixation

(5) \[
\text{CP}_{\text{du} \text{ V-AGR}} \text{[} \text{TP}_{\text{de}} \text{ [T-de]} \text{ [VP }} \varphi] \text{][} \text{du klöp-z-de (‘you knocked’) }
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