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The locality of dependent case

Background: According to Dependent Case Theory (DCT), structural case is defined relationally between two DPs, rather than between a DP and a designated functional head (e.g. Marantz 1991; McFadden 2004; Bobaljik 2008; Preminger 2014; Baker 2015). The core tenet of DCT is that accusative and ergative are manifestations of *dependent case* (DC). Setting aside lexical case, the case calculus proceeds as follows: (i) If DP_1 c-commands DP_2 within the same clause, assign DC either to DP_1 (= "ergative") or to DP_2 (= "accusative"); this directionality is parameterised per language. (ii) If a DP has not yet been assigned case by Spellout, assign it nominative.
Problem: Clausematehood is insufficient to account for the observed locality of DC assignment, in particular with respect to movement. While some movement may feed DC assignment, e.g. raising-to-object in Sakha (1), other movement crucially must not, e.g. *wh*-movement (2). Solid lines represent movement, and dashed lines represent DC assignment.

(1) Min **ehigi(-ni)** [bügün ~~ehigi~~ kyaj-yax-xyt dien] erem-mit-im (Sakha)
I.NOM you -ACC today win-FUT-2PL.SUBJ that hope-PRT-1SG.SUBJ
'I hoped that you would win today' [Baker & Vinokurova 2010]

(2) Who(*m) did John say [$_{\text{CP}}$ ~~who~~ Mary believed [$_{\text{CP}}$ ~~who~~ saw Sue]]?

In (1), raising of the embedded subject into the matrix clause feeds DC assignment to the raised subject (Baker & Vinokurova 2010). The same pattern can be observed for ergative in languages where object shift feeds ergative case assignment (Woolford 2015). In (2), *who* successive-cyclically *wh*-moves, but does not alter case or have its own case altered from its intermediate and final landing sites. (Successive-cyclic movement through [Spec, *v*P] is set aside here due to space.) The standard solution to the dichotomy in (1) and (2) is to stipulate that $\overline{\text{A}}$-movement cannot feed DC assignment. This paper seeks to derive such a locality constraint.
Claim: Based on evidence from Finnish, this paper proposes that the set of positions to which a DP can assign DC is a function of its syntactic position: DP_1 which is sister to X^0 cannot license DC on DP_2 across a projection of Y^0, where Y^0 is higher than X^0 in the functional sequence. This locality constraint is an extension of the Williams Cycle (Williams 1974, 2003).
Case in Finnish: (3a) shows that a matrix subject can assign DC to an embedded object across a nonfinite clause boundary (i.e. TP). In the absence of a matrix subject, e.g. in imperatives and passives, nothing assigns DC to the embedded object and it surfaces with nominative (3b).

(3) a. **Hän** läht-i [$_{\text{TP}}$ avaa-ma-an **ove-n**] NOM–ACC
s/he.NOM leave-PAST.3SG open-INF-ILL door-ACC
'S/he left to open the door'

b. Lähde [$_{\text{TP}}$ avaa-ma-an **ovi**]! NOM
leave.IMP open-INF-ILL door.NOM
'S/he left to open the door'

The interesting pattern emerges when the matrix clause has its own object. As expected, the matrix subject is able to assign DC to both the matrix and embedded objects (4a). However, in the absence of a matrix subject, *both objects* surface with nominative (4b).

(4) a. **Hän** pakott-i **lapse-n** [$_{\text{TP}}$ avaa-ma-an **ove-n**] NOM–ACC–ACC
s/he.NOM force-PAST.3SG child-ACC open-INF-ILL door-ACC
'S/he force the child to open the door'

b. Pakota **lapsi** [$_{TP}$ avaa-ma-an **ovi**]! NOM–NOM
force.IMP child.NOM open-INF-ILL door.NOM
'Force the child to open the door!' [Nelson 1998:238]

(4) shows that while the matrix subject can assign DC across an embedded TP, a matrix object crucially cannot. We will argue that the restriction explaining (4) extends to (1) and (2).

Proposal: For concreteness, we will adopt the syntactic implementation of DCT from Preminger (2014): DPs enter the derivation with an unvalued [*u*-CASE] feature. This can be valued as either DC or a lexical case. DC is assigned whenever two DPs with unvalued [*u*-CASE] stand in a c-command relationship; the realisation as accusative or ergative is handled in the morphology. Lexical cases are assigned locally by lexical heads, e.g. P^0 and V^0, to their sister. If [*u*-CASE] remains unvalued at Spellout, it is realised as nominative case in the morphology.

(5) $[\mathrm{DP}_{[u\text{-CASE}]} \ldots [\ldots \mathrm{DP}_{[u\text{-CASE}]}]] \rightsquigarrow [\mathrm{DP}_{[u\text{-CASE}]} \ldots [\ldots \mathrm{DP}_{[\text{DEP-CASE}]}]] \rightsquigarrow_{\text{PF}} \mathrm{DP}_{\text{NOM}} \ldots \mathrm{DP}_{\text{ACC}}$

We propose that DC assignment is subject to the locality constraint in (6), which is a direct extension of the Williams Cycle as formulated in Williams (2003).

(6) Given a Pollock/Cinque-style clausal structure $fseq = \langle X_1 > X_2 > \cdots > X_n \rangle$, where X_i takes X_{i+1}P as its complement, DC assignment spanning a matrix and an embedded clause cannot target a DP_1 in a projection of X_j in the embedded clause and a DP_2 in a projection of X_i in the matrix clause, where $X_j > X_i$ in *fseq*.

(6) states barrierhood for DC assignment relative to the syntactic position of the higher DP in the pair, defined in terms of the functional sequence (*fseq*). For example, a DP in [Spec, TP] can assign DC past T^0, v^0, and V^0, all of which are lower or equal to T^0 in *fseq*, but not past C^0 because $C^0 > T^0$. In (4a), the matrix subject can penetrate the embedded TP because T^0 is not higher than itself in *fseq*. Thus, it assigns DC to both the matrix and embedded objects. However, in (4b), the matrix object from its *v*P-internal position cannot penetrate the embedded TP because $T^0 > v^0$, which prevents it from assigning DC to the embedded object. Therefore, the [*u*-CASE] features on both DPs remain unvalued at Spellout and are realised as nominative. These patterns are schematised in (7). With respect to movement, (6) crucially prohibits a DP in [Spec, *v*P] or [Spec, TP] from assigning DC to a DP in [Spec, CP] (8). This accounts for why a *wh*-element's case is not overwritten at its intermediate landing sites (2). Movement is allowed to feed DC assignment in (1) because the matrix object position to which the embedded subject raises is lower than T^0 in *fseq*, the subject thus assigning DC case from [Spec, TP].

(7) $[_{TP}\, \mathrm{DP}_1\ T^0\ [_{vP}\ \mathrm{DP}_2\, v^0\ [_{VP}\ V^0\ \boxed{[_{TP}}\ \mathrm{DP}_3 \ldots$ (8) $[_{TP}\ \mathrm{DP}_1 \ldots [_{vP}\ \mathrm{DP}_2 \ldots \boxed{[_{CP}}\ wh\text{-}\mathrm{DP}_3 \ldots$

DC assignment is still subject to the PIC. The strong PIC (Chomsky 2000) prevents a *wh*-element from assigning of DC from its intermediate and final landing sites because the phase complement will have already undergone Spellout before the DC assignment can probe the structure.

Implications: (6) is a direct extension of the Williams Cycle (WC), which regulates possible movement derivations in terms of *fseq* (Williams 1974, 2003). Its original purpose was to account for *improper movement*: the ungrammaticality of movement from an $\overline{\mathrm{A}}$-position to an A-position, e.g. **John*$_1$ *seemed* t_1 *that* t_1 *is happy*. According to the WC, moving from [Spec, CP] to [Spec, TP] is barred because $C^0 > T^0$. Müller (2014) observes that the WC generalises to other movement types, such as topicalisation, relativisation, and scrambling (also Abels 2007). Keine (2015) further observes that the WC generalises to the locality of long-distance agreement (LDA), where the embedded clause's size dictates whether LDA obtains. Therefore, this paper shows that the WC, observed for both movement and agreement, extends to case as well.