Interaction, satisfaction, and the PCC

The person-case constraint (PCC) is a family of restrictions on the relative person of the two objects of a ditransitive. PCC effects offer a testing ground for theories of the Agree operation and of syntactic features (Anagnostopoulou 2003 [A-03], Béjar & Rezac 2003 [BR-03], Nevins 2007, Pancheva & Zubizarreta 2018 [PZ-18], i.a.). In this talk, I offer a new theory of PCC effects in an interaction/satisfaction theory of Agree (Deal 2015) and show the advantages of this framework in capturing PCC typology. On this model, probes are specified for interaction features [INT: :], determining which features will be copied to them, and satisfaction features [SAT: :], determining which features will cause probing to stop. Applied to PCC, this theory (i) captures all four types of PCC effect recognized by Nevins (2007) under a unified notion of Agree (pace BR-03, Anagnostopoulou 2005); (ii) captures PCC obviation in certain clauses without object clitics/agreement, e.g. in Basque (pace BR-03, PZ-18); (iii) naturally extends to PCC effects in languages without DO clitics/agr, as well as absence of PCC effects in some languages with both IO and DO clitics/agr (pace Bonet 1991, Coon & Keine 2018 [CK-18]).

Strong PCC. I assume the object \( \phi \) probe in ditransitives is located on Appl (Adger & Harbour 2007, PZ-18, i.a.). In strong PCC languages (e.g. French, Basque), Appl bears \([\text{INT}: \phi, \text{SAT}: \text{PART}]\): it will copy all accessible \( \phi \) features until it encounters \([\text{PART}]\). Given Cyclic Agree, Appl first probes DO, then IO. If DO lacks \([\text{PART}]\), Appl copies its features, but is not satisfied & continues on to probe IO. This results in two clitics, e.g. \( \text{la leur} \) in (1). But if DO bears \([\text{PART}]\), this satisfies the probe & probing stops. Only one clitic is generated: \( \text{te leur} \) (1) cannot be generated. This derives strong PCC: DO cannot be 1st/2nd person if both IO and DO cliticize.

(1) Lucille \( \text{*te leur} \) / \( \checkmark \) \( \text{la leur} \) présentera. \[French\]

Lucille \( 2SG.ACC \ 3PL.DAT \) / \( 3SF.ACC \ 3PL.DAT \) will.introduce

Lucille will introduce you to them / her to them.

Ditransitives can be “repaired” by: (a) using a structure for IO that does not involve Agree with Appl, e.g. non-clitic \( \text{à eux} \) ‘to them’ (French); (b) encasing DO in a structure which shields it from Agree and thus prevents any DO clitic, e.g. as in Greek (A-03); (c) using a version of Appl that does not Agree at all, e.g. as in nonfinite clauses in Basque (Laka 1993). While these “repairs” all involve structures without two clitics, PCC is not, conversely, limited to cases of weak realization of both DO & IO. Tseltal [Mayan] has strong PCC despite only ever showing morphological agreement with IO (Shklovsky 2012). I assume Agree with DO is null for PF reasons. DO Agrees with Appl, and when DO bears \([\text{PART}]\), this bleeds Agree with IO. With a [1st] DO, (2) cannot be generated; note the visible agreement with the 2nd person IO.

(2) lah \( y\text{-a?-bat } \) \( \text{pro} \) { \( \text{me} \) \( \text{mut-e?} \) / \( * \) \( \text{jo?on-e?} / \* \text{pro} \) } \[Tseltal\]

PFV ERG3-give-APPL.ABS2 \( 2SG \) { DET chicken-CL / \( \* \) \( 1SG-CL \) / \( \* \) \( 1SG \) }

She gave a chicken/*me to you. \[Shklovsky 2012\]

Variation in satisfaction conditions. Three other language types arise from variation in Appl’s satisfaction feature. If Appl bears \([\text{INT}: \phi, \text{SAT}: \phi]\), it only ever Agrees with DO, yielding no person restriction and no IO agreement morphology (an “indirective” alignment). If Appl bears \([\text{INT}: \phi, \text{SAT}: \text{SPKR}]\), a person restriction is incurred only if DO is 1st person. This yields the Bulgarian “me first” PCC pattern: DO cannot be 1st person if both IO and DO cliticize. A 1st person DO bears \([\text{SPKR}]\), which satisfies the probe, bleeding Agree with IO.

(3) Preporâčaha \( \text{mu} \) { \( \checkmark \) \( \text{te} \) / \( \* \) \( \text{me} \) } entusiaziarano. \[Bulgarian\]

recommended.3pl \( 3SG.m.dat \) { \( 2SG.acc / \ 1SG.acc \) } enthusiastically

They recommended \{you/*me\} to him enthusiastically. \[PZ-2018\]

Finally, Appl may lack a satisfaction condition entirely. If it bears \([\text{INT}: \phi, \text{SAT}: -]\), it is an insatiable probe, which probes both objects regardless of their features. This allows an account of languages in which both DO and IO Agree without any person restriction, e.g. Moro (Jenks
and Rose 2015) or Adyghe (P. Arkadiev, p.c.), (4). With Tseltal (2), these data show that PCC is dissociated from “double weakness” of both IO & DO (pace Bonet 1991): it arises in (2) despite the absence of DO morphology, but not in (4) despite weak realization of both IO & DO. This speaks against tying PCC tightly to properties of weak elements (e.g. Bonet 1991, Stego-vec 2019, CK-18). Rather, PCC arises from constraints on what a probe can Agree with.

(4) a. s-je-p-tš’t
   1SG.ABS-3SG.IO-2SG.ERG-give-FUT
   You will give me to him. [Adyghe]

b. ga-natʃ-ʃ-ʃ-no
   3SBJ-give-PFV-1SG.OM-3SG.OM
   She gave me to him / him to me [Moro]

Dynamic interaction. A second locus of variation concerns interaction. I propose that interaction features are not fixed once and for all (pace Deal 2015); they may be changed in the course of cycles of Agree. In particular, features may be copied to the interaction condition of the probe, affecting Agree with subsequent targets. I mark such dynamic interaction features as ↑. In a weak PCC pattern (e.g. Italian, Monachesi 1998), Appl bears [INT:φ,SAT:-] and participant features bear ↑. Like in Moro/Adyghe, the probe is insatiable. However, when the probe interacts with (i.e. copies) a [PART↑] feature from DO, [PART] is copied to its interaction condition. The result is that only [PART]-bearing IOs can subsequently have their features copied to the probe. Accordingly, (5a), with a 3rd person IO clitic, cannot be generated. However (5b) is generated: DO interacts with Appl, Appl’s interaction condition becomes [PART], and Appl then interacts with the [PART]-bearing IO. (Idiolects ruling out (5b) are strong PCC grammars.) This derives weak PCC: 3> [PART] is ruled out, but [PART]>[PART] is ruled in.

(5) a.* Martina gli mi/ti presenta
   Martina 3SG.DAT 1SG/2SG introduces
   Martina introduces me/you to him

b. % pro mi ti raccomanda
   3SG 1SG 2SG recommended.3SG
   He recommends you to me/me to you.

A final type of PCC pattern is the strictly descending or “ultrastrong” pattern, wherein IO must outrank DO on the hierarchy 1>2>3. This pattern (in some varieties of Spanish, Catalan, Arabic) is predicted as a combination of the Bulgarian and Italian patterns: Appl has [SAT:SPKR] (like Bulgarian) and [PART] has ↑ (like Italian). If DO is 1st person, the probe is satisfied and no IO clitic is possible. If DO is 2nd person, dynamic interaction of [PART] kicks in: IO clitics must be [PART] as well, so only a 1st person IO clitic is possible. Finally, if DO is 3rd person, any person of IO clitic is possible. (Two other ways to derive this pattern are shown in (6).)

(6) Typology of PCC effects by satisfaction condition and dynamic interaction feature

<table>
<thead>
<tr>
<th>Dynamic interaction feature(s)</th>
<th>Satisfaction condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>[PART]</td>
<td>[SPKR]</td>
</tr>
<tr>
<td>Strong</td>
<td>me-first</td>
<td>no PCC</td>
</tr>
<tr>
<td>[PART]^</td>
<td>strong</td>
<td>strictly descending</td>
</tr>
<tr>
<td>[SPKR]^</td>
<td>weak</td>
<td>weak</td>
</tr>
<tr>
<td>[PART]^, [SPKR]^</td>
<td>strong</td>
<td>me-first</td>
</tr>
<tr>
<td>Strong</td>
<td>strictly descending</td>
<td>strictly descending</td>
</tr>
</tbody>
</table>

Conclusions. The interaction/satisfaction theory is designed to account for cases where a probe Agrees with more than one goal, with its ability to Agree with a second goal dependent on properties of the first. PCC is typically modeled as exactly such a case. An interaction/satisfaction lens on PCC draws our understanding of this pattern in line with similar syntactic hierarchy effects in agreement of other types, e.g. Nez Perce C agreement (Deal 2015) or Tupí-Guarani hierarchical subject/object verb agreement (Deal 2019). The overall picture supports a treatment of probes that does away with uF features (Preminger 2009, 2014), and a treatment of person features that does away with special requirements of licensing (pace BR-03, PZ-18).