A new model of nominal licensing
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1 Introduction

A rich tradition in generative syntax holds that nominals have two fundamental licensing needs (Vergnaud 1977/2008, Chomsky 1980 et seq):

(1) Licensing requirements for nominals
   a. Theta role (semantic)
   b. Abstract Case (syntactic)

But, not all nominals behave alike: languages show us again and again that nominals are differentiated from each other based on their (phi-)features.

• An illustration from perfective aspect in Jewish Zakho (Neo-Aramaic):
  - A 3rd person object triggers agreement (boxed) if it is specific:
    (2) ‘ānu zwīn-li 保ms.  
      I  buy.PFV-Obj.3ms-Sbj.1ms flatbread.f  
      ‘I bought the flatbread.’
  - A 3rd person object does not trigger agreement if it is nonspecific:
    (3) ‘ānu zwīn-ni 保ms.  
      I  buy.PFV-Sbj.1ms flatbread.f  
      ‘I bought some flatbread.’
  - A 1st/2nd person object is disallowed:
    (4) *‘ānu zwīn-ti.  
      I  buy.PFV-Obj.2ms-Sbj.1ms  
      Intended: ‘I bought you.’

  The contrast between (2) and (3) is Differential Object Marking (DOM).
  The effect in (4) is (arguably) the Person Case Constraint (PCC).

Why do nominals behave differently depending on their (phi-)features?

⇒ Previous answers to this question hold that there are licensing conditions above and beyond those in (1a–b), along the lines of (5) and (6).

• A typical answer for 1st/2nd person (Anagnostopoulou 2003, Béjar and Rezac 2003, Adger and Harbour 2007, Preminger 2011, i.a.):

(5) Person Licensing Condition (Béjar and Rezac 2003)
    Interpretable 1st/2nd-person features must be licensed by entering into an Agree relation with an appropriate functional category.

• A typical answer for (e.g.) specific nominals (Diesing 1992, Bhatt and Anagnostopoulou 1996, Woolford 1999, Baker and Vinokurova 2010, i.a.):

(6) Specific nominals must leave VP

Goals of this talk

A) Empirical: In what ways do nominals behave differently depending on the features they bear?

• The Person Case Constraint (PCC)
• Differential Object Marking (DOM)

⇒ I will show that the PCC and DOM are abstractly very similar, and that the PCC can be seen as a subtype of DOM.

○ We need a three-way distinction in nominal features:

1. Nominal features that participate in the PCC
   △ [participant]
   △ Strictest licensing requirements; allowed in fewest environments

2. Nominal features that participate in DOM
   △ [definite], [animate], etc.
   △ Less strict licensing requirements; allowed in more environments

3. Nominal features that do not factor into the PCC or DOM
   △ [plural], [feminine], etc.
   △ No licensing requirements; allowed in all environments

• These distinctions among features can be modeled in an implicational hierarchy based on the syntactic environments that license certain features:

(7) \{ [plural] \\ [feminine] \} < \{ [definite] [animate] \} < [participant]
B) Theoretical: Why do nominals behave differently depending on the features they bear?

- It is (certain) nominal features—not nominals themselves—that need “Case” licensing (licensing beyond a theta role).
- The PCC and DOM both arise in the configuration in (8):

\begin{equation}
\text{(8)}
\end{equation}

- Couch in a new model of nominal licensing:
  - Ingredients of licensing (Chomsky 2000 et seq): Needy functional heads (\( \varphi \)), needy nominals (Case); additional conditions like (5)/(6)
  - Revised ingredients of licensing (current proposal): Pushy \( \varphi \)-features

Layout of the talk

- §2 Unifying the PCC and DOM as empirical phenomena
- §3 A new model of nominal licensing
  - Valued \( \varphi \)-features as derivational time bombs
  - Obligatory and secondary licensing loci
- §4 Outlook

2 Two licensing phenomena: the PCC and DOM

2.1 Setting the stage—Chomsky 2000, 2001—and a preview

\begin{equation}
\text{(9)}
\end{equation}

\begin{equation}
\text{(13)}
\end{equation}

- Theoretical analysis of the Strong PCC (abstracting across accounts):\(^1\)
  - \textbf{Step 1:} \( \pi \)-probe probes, agrees with indirect object
  - \textbf{Step 2:} \#-probe probes, agrees with direct object

\begin{equation}
\text{(14)}
\end{equation}

\textbf{Person Licensing Condition (PLC; Béjar and Rezac 2003)}

Interpretable 1st/2nd-person features must be licensed by entering into an Agree relation with an appropriate functional category.

\(^1\)Nevins’ (2007) account is put aside here, as it is quite different from the other accounts.
Taken together, (13) and (14) derive the Strong PCC.

(15) a. *
\[
\pi, \# \quad \text{IO} \quad \ldots \quad 1/2.DO
\]

b. ✓
\[
\pi, \# \quad \text{IO} \quad \ldots \quad 3.DO
\]

The indirect object person problem

Most PCC accounts relativize the PLC, (14), to \([\pi]\), which 1st/2nd person has and 3rd person (at least optionally) lacks (e.g., Anagnostopoulou 2003, 2005, Béjar and Rezac 2003, Adger and Harbour 2007, Rezac 2011, cf. Walkow 2013).

(16) 1st/2nd vs. 3rd
\[
[\pi, \#] \quad [\#]
\]

(17) Person Licensing Condition (restated)
Interpretable person features, \([\pi]\), must be licensed by entering into an Agree relation with an appropriate functional category (a \(\pi\)-probe).

Problem: In PCC configurations, the higher DP always blocks person-licensing of the lower DP.

- If 3rd person nominals lack a \([\pi]\) feature, we (incorrectly) expect (18), where the \(\pi\)-probe gets to ignore IO when IO is 3rd person, thereby licensing DO.

(18) ✓
\[
[\pi, \#] \quad 3.IO \quad [\#] \quad \ldots \quad 1/2.DO
\]

- Crucially, no type of PCC effect mimics (18).

- To rule out (18), most accounts of the PCC hold that:

(19) a. IO must always have a \([\pi]\) feature, even if it is 3rd person.
b. DO must have a \([\pi]\) feature if it is 3rd person.

(20) a. *
\[
[\pi, \#] \quad 3.IO \quad [\pi, \#] \quad \ldots \quad 1/2.DO
\]

b. ✓
\[
[\pi, \#] \quad 3.IO \quad [\pi, \#] \quad \ldots \quad 3.DO
\]

Interim summary

- The PCC picks out 1st and 2nd person DPs, and indicates that they have stricter licensing conditions than 3rd person DPs.
- Accounts of the PCC propose a licensing condition (the PLC) that holds over interpretable, valued 1st/2nd person features.
- Most accounts of the PCC need to appeal to IOs and DOs having a different featural make-up; this is the the indirect object person problem.
- Note also that the Person Licensing Condition is at odds with Chomskyan licensing, since a valued/interpretable feature is “legible” at the interfaces.

2.3 Differential Object Marking


1. Overtly-marked objects (case, adposition, agreement, clitic-doubling)
2. Unmarked objects²

(21) Senaya (Neo-Aramaic): DOM-agreement; specificity-based
a. Axnii ksuuta kaw-ox.
   we book.write.IMPF-SBJ.1PL
   ‘We (will) write a/some book(fem.).’

b. Axnii ksuuta kaw-ox-laah.
   we book.write.IMPF-SBJ.1PL-OBJ.3FS
   ‘We (will) write a (specific) book(fem.).’

(22) Palatinate German: DOM-case; animacy-based (Philipp Weisser p.c.)
a. Du haj den aem gseje.
   (non-human obj; NOM)
   you have.2SG DEM.NOM bucket see.PRT
   ‘You saw that bucket.’

b. Du haj den man gseje.
   (human obj; ACC)
   you have.2SG DEM.ACC man see.PRT
   ‘You saw that man.’

Along what dimensions are objects differentiated?
(Silverstein 1976, Moravcsik 1978, Comrie 1979, Croft 1988, i.a.)

(23) Animacy / person
1/2 > 3 Pronoun > Name > Human > Animate > Inanimate

²Here and throughout the talk I will be using the term “marked” to mean “overtly morphologically marked”, not to mean “marked” in the “markedness” sense.
Specificity / definiteness
Pronoun > Name > Definite > Specific Indefinite > Nonspecific

- It always objects on the left side of the scale (the “more prominent” or “less canonical” objects) that are overtly marked.
- Other factors influencing DOM: affectedness (Næss 2004), information structure (Woolford 1999, Dalrymple and Nikolaeva 2011)

Abstracting across accounts, marked objects seem to...

A. Have more internal structure/features than unmarked objects do, (25)
(Danon 2006, Lidz 2006, Rodríguez-Mondoñedo 2007, Richards 2008, López 2012, Lyutikova and Pereltsvaig 2015, i.a.), and/or

B. Raise out of VP, while unmarked objects do not, (26)

(25) a. DP
    |     |     
    D   NP 
    [ϕ:VAL]  
    [Case:]  

(26) TP
    Subject
    T...
    ...
    FP

Object.DP
    (marked object; derived position)
    F...
    ...
    VP

Object.NP
    (unmarked object; first merge position)

Taken together, this derives DOM:
- DP’s, (25a): structurally high, have Case/ϕ ⇒ Marked
  - High in definiteness/animacy
  - Visible to Case/agreement
  - Need licensing via Case (overtly)
- NPs, (25b): structurally low, no Case/ϕ ⇒ Unmarked
  - Low in definiteness/animacy
  - Invisible to (overt) Case/agreement
  - Various accounts of the licensing requirements of NPs:
    (i) None (Massam 2001, Danon 2006, Ormazabal and Romero 2013)
    (ii) Verb-adjacency (Baker 1988, Baker and Vinokurova 2010)
    (iii) Covert Case (Laka 1993, Bhatt 2007, Rodríguez-Mondoñedo 2007)

The subject DP problem

DOM is defined relative to a subject; hence, DOM affects objects.
- Unlike an object, the features of a subject typically do not determine whether or not it (the subject) agrees or gets Case/case.

Problem: Precisely the same nominals that fail to be marked as objects, (27a)/(28a), are marked as subjects, (27b)/(28b).

(27) Senaya (Neo-Aramaic)
   a. Axnni
      xa ksunta
      kasw-ox.
      we one book.F write.IMPF-SBJ.1PL
      ‘We (will) write a/some book.’
      (Object is nonspecific, obligatorily does not agree)

   b. Xa
      ksunta
      mpel-aa.
      one book.F fall.PFV-SBJ.3FS
      ‘A/some book fell.’
      (Subject is nonspecific, obligatorily agrees)

(28) Palatinate German (Philipp Weisser, p.c.)
   a. Du huf
      dem enm un den treka
      gseje.
      you have.2SG DEM.NOM bucket and DEM.NOM tractor see.PRT
      ‘You saw the bucket and the tractor.’
      (Object is non-human, does not get ACC case)

   b. De
      dem enm un den treka
      sin
      gseje wana.
      DEM.NOM bucket and DEM.NOM tractor be.3PL see.PRT AUX.PASS
      ‘The bucket and the tractor were seen.’
      (Subject is non-human, obligatorily agrees)
If certain nominals are “unmarked” because they are invisible to Case/agreement (lack Case, ϕ), then they should always be invisible, even as subjects; (27)–(28) show this is not borne out.

To account for (27)–(28), most (Minimalist) accounts of DOM would need to stipulate (29) (cf. (19)):

(29) a. S must always be a DP (ϕ/Case), even if it lacks the DOM feature.
    b. DO must be a DP (ϕ/Case) iff it bears the DOM feature.

One might attempt to regulate this via first-merge positions and θ-roles.

- This fails: subjects of unaccusatives, (27b), and passives, (28b), pattern like subjects (uniform, not differential).
- Can’t be about θ-roles or base positions.

Additional issues with current accounts (see Appendix A for details):

- It is not plausible for one head to determine presence/absence of ϕ-features (ϕ-features are distributed) or a Case feature (NPs can get Case).
- Not all DOM languages have object shift of DOMed objects (e.g., Shlonsky 1997, Lidz 2006, Kalin 2014).

Interim summary

- DOM picks out nominals that are high in definiteness and/or animacy, and indicates that they have stricter licensing conditions than nominals low in definiteness/animacy.
- Most syntactic accounts of DOM make one or both of the following claims:
  - Marked objects occupy a higher position than unmarked objects.
    - But, not all DOMed objects are high (see Appendix A).
  - Marked objects have Case/ϕ-features while unmarked objects do not.
    - Subjects must therefore be structurally/featurally different from objects; this is the subject DP problem.

2.4 Commonalities between the PCC and DOM

As we’ve seen, the PCC and DOM are typically taken to be independent phenomena, and are given very different sorts of analyses. However...

1. Both the PCC and DOM crucially involve two arguments.
   - PCC: indirect object > direct object
   - DOM: subject > direct object

2. Both the PCC and DOM affect the lower argument, the direct object.
   - PCC: DO must be 3rd person.
   - DOM: DO must be marked if it is high in definiteness/animacy.

3. The higher argument is immune in both the PCC and DOM:
   - PCC: IOs can freely be 1st/2nd/3rd person.
   - DOM: Subjects behave uniformly w.r.t. marking.

4. If the higher argument is removed, both PCC effects and DOM disappear.
   - PCC: If the IO is removed, DO can freely be 1st/2nd person, (30).

(30) French (non-)PCC environments

a. *Je te lui ai présenté.
   1.sg.nom 2.sg.acc 3.sg.dat have introduce-PART
   Intended: ‘I introduced you (DO) to him (IO).’

b. Je t’ai présenté.
   1.sg.nom 2.sg.acc-have introduce-PART
   ‘I introduced you (DO).’

- DOM: If an external argument is demoted (passives) or absent (unacc), the differentiation of an internal argument disappears (§2.3).

5. Most accounts of the PCC and DOM have to appeal to the higher argument having a different featural make-up than the lower argument.
   - PCC: IO always has a [π] feature, i.e., is visible to a π-probe.
   - DOM: S always has a Case feature and ϕ-features, i.e., is visible for Case and agreement.

6. In both PCC configurations (IO > DO) and DOM configurations (S > DO), the featural make-up of a nominal can cause a “crash”.
   - PCC’s problematic configuration: 1st/2nd person DO, (30a).
   - DOM’s problematic configuration: DO high in definiteness/animacy, without marking, (31a).

(31) Senaya crash-by-feature

a. *Axnii oo ksuuta kasw-ox.
   we that book.F write.IMPF-SBJ.1PL
   Intended: ‘We (will) write that book.’

b. Axnii xa ksuuta kasw-ox.
   we that book.F write.IMPF-SBJ.1PL
   ‘We (will) write a book.’
7. There is crosslinguistic variation as to which features trigger the effects. 

- Varieties of the PCC:
  - Super strong (*1/2/3.IO > 1/2.DO; *3.IO > 3.DO) — Kambera (Doliana 2013)
  - Strong (*1/2/3.IO > 1/2.DO) — Greek (Anagnostopoulou 2003)
  - Weak PCC (*3.IO > 1/2.DO) — Sambaa (Riedel 2009)
  - Me-first PCC (*2/3.IO > 1.DO) — Romanian (Nevins 2007)

- Varieties of DOM:
  - Only [+definite] objects require marking — Hebrew (Danon 2006)
  - Only [+human] objects require marking — Palatinate German (Philipp Weisser, pc)
  - Only [+human, +specific] objects require marking — Spanish (Rodríguez-Mondoñedo 2007)

8. PCC and DOM effects are found outside of their “canonical” environments.

- PCC (canonically IO > DO)
  - S > O (e.g., Jewish Zakho; Kalin and van Urk 2015)
  - Double unaccusatives (e.g., Chinook; Rezac 2011:Ch. 5)
  - DO > IO (e.g., Slovenian; Stegovec 2015)

- DOM (canonically S > O)
  - Subjects of nominalized clauses (e.g., Turkish; Kornfilt 2008)
  - Arguments of adjectives (e.g., Hebrew; Danon 2006)

9. Problematic configurations for both the PCC and DOM are fixed via “repair”, through the addition of a licenser (boxed).

10. “Repairs” take largely the same forms — case, adposition, agreement — and can target the higher or lower nominal in the PCC or DOM configuration.

To summarize:

- The PCC and DOM involve the lower of two arguments being restricted featurally, with overlapping strategies of “repair” to lift the restriction.
  - The PCC and DOM are about licensing.
- The higher argument is typically immune from the effect, and if it is removed, the effect goes away.
  - The PCC and DOM arise due to intervention.
- Different languages care about different features/feature combinations on nominals, leading to different varieties of the effect.
  - The PCC and DOM are triggered by valued features.
Neither effect is restricted to just one particular argument configuration. The PCC and DOM are general, configurational effects.

* The PCC and DOM have too much in common to be completely unrelated; they are surface manifestations of the same underlying phenomenon.

3 The proposal

Roadmap

§3.1 Ingredients of a new account
§3.2 Implementing the proposal for DOM
§3.3 Implementing the proposal for the PCC
§3.4 A prediction borne out: Definiteness/animacy restrictions

3.1 Ingredients of a new model of $\varphi$-agreement and licensing

1. Nominal features, $[\varphi]$:

Two major categories of $\varphi$-features

- $[\pi]$: Person features, i.e., $[\text{participant}]$, $[\text{author}]$
- $[\psi]$: Other nominal features, e.g., $[\text{plural}]$, $[\text{feminine}]$, $[\text{definite}]$

$\varphi$-feature geometry (expanded/altered from Harley and Ritter 2002)

All nominals have (at least) $[\varphi]$, $[\pi]$, $[\psi]$, e.g., introduced by $n$, (40).

Other nominal features are introduced by different pieces of nominal structure (Bernstein 1991, Picallo 1991, Ritter 1991, i. a.), e.g., (41)–(42).

Nominal features percolate to the highest projection, e.g., by feature unification, union merge, or feature-sharing (see, e.g., Danon 2011).

See Appendix B for evidence that the features $[\text{specific}]$, $[\text{definite}]$, $[\text{animate}]$, and $[\text{human}]$ are visible in the (morpho)syntax.
   • “ϕ-probe” = Placeholder for a snippet of the feature geometry
   • “Valuation” = Copying a snippet of the feature geometry; all features that entail the probe’s feature (i.e., are dependent on that feature) are copied

   (43) TP
   T
   [ϕ] [v]
   Subject
   vP
   v’...
   [participant] [feminine] [plural]
   [author]

3. Types of features:
   • So far we have probes (placeholders) and goals (snippets).
   • In addition, certain ϕ-features on nominals are derivational time bombs, (in the Preminger 2011, 2014 sense).

   (44) Feature types (extended)
   a. [F:] = unvalued/placeholder (= probe)
   b. [F] = valued/snippet (= potential goal)
   c. [F/] = valued/snippet (= goal, derivational time bomb)

4. Licensing
   • [F/] is defused when F is copied to a probe, i.e., when F enters into Agree.
   • Basic “defusing” (licensing) schema shown in (45).

   (45) TP
   T
   [F:] AspP
   Asp vP
   Sbj v’...
   AGREE
   [F/]

   (46) TP
   T
   obligatory...
   vP
   v VP
   (|F/|) secondary
   V

   • n.b. There are no “uninterpretable” features in this system.
   • Chomsky 2000, 2001: Unvalued features are uninterpretable; such features need to get values or they cause a crash
     ◦ Probes: unvalued/uninterpretable ϕ; need to get ϕ-feature values to be licensed
     ◦ Nominals: unvalued/uninterpretable Case; need to get a Case value to be licensed
   • Current proposal: Valued features may be derivational time bombs; such features need to give their values or they cause a crash
     ◦ Probes: unvalued ϕ-features; obligatorily probe, but don’t cause a crash if there is no successful agreement (Preminger 2011, 2014)
     ◦ Nominals: valued ϕ-features; need to give their values (agree; be copied) if they are derivational time bombs

5. Distributing licensers
   • Clauses typically have one obligatory licenser (ϕ-probe), in the middlefield.
   • Obligatory licenser = a complete ϕ-probe merged in every clause
   • Secondary licensors are merged only when needed for convergence

   • Languages differ as to the location of obligatory and secondary licensors.
     • A “typical” NOM/ACC language:

   (47) Licensing Economy Principle: A secondary licensor is activated iff the derivation will otherwise not converge.
Interim summary

- All nominals minimally have $[\varphi]$, $[\pi]$, and $[\nu]$, with other features distributed throughout the nominal but collecting in the highest projection.
- Certain (valued) nominal features are derivational time bombs, $\downarrow$.
- Nominals are licensed (i.e., $\downarrow$s are defused) by entering into Agree.
- Clauses typically have exactly one obligatory licenser, with secondary licencers merging only when needed for convergence, as per (47).

What this will get us

- The feature [participant] is crosslinguistically a $\downarrow$. $\rightarrow$ PCC (§3.2)
- Languages vary as to which other nominal features are $\downarrow$s. $\rightarrow$ DOM (§3.3)
- Whenever a $\downarrow$ is in a position where it will fail to be defused (due to intervention), a secondary licenser is activated.

3.2 Accounting for DOM

The core proposal: $\nu$-features (on nominals) can be $\downarrow$s.
- Languages differ as to which $\nu$-features introduce $\downarrow$.
- Only if a nominal has a $\downarrow$ feature does the nominal need licensing; more accurately, it is the feature that needs licensing.

Putting it all together, a toy illustration:

- Take a language with the following properties:
  (48) a. $T$ is an obligatory licenser
  b. $v$ is a secondary licenser
  c. [animate$\downarrow$]
- Whenever there is only one nominal, (49), the obligatory licenser will agree with it, even if the nominal doesn’t “need” it, (49b).
  (49) a. $TP$  
  b. $TP$

- Whenever there is more than one nominal, (50), the obligatory licenser will agree with the higher nominal, even if the nominal doesn’t “need” it.
  - The higher nominal is thus an intervener.
  - The lower nominal escapes agreement if it lacks a $\downarrow$, (50).
  $\Rightarrow$ Unmarked object (regulated by Licensing Economy Principle)

(50) $TP$

- The lower nominal needs to agree if it has a $\downarrow$, (51), so the only derivation that succeeds is one with the secondary licenser.
  $\Rightarrow$ Marked object

(51) $TP$

- In this hypothetical language, this derives animacy-based DOM.
  - A lone nominal will always agree with $T$. (= Subjects are uniform.)
  - The lower of two nominals will agree when it contains $\downarrow$. (= Only some objects are marked.)

Some possible languages:

- Specificity-based DOM: [specific$\downarrow$]
  - Senaya, (21) (Kalin 2014)
- Human-based DOM: [human$\downarrow$]
  - Palatinate German, (22) (Philipp Weisser p.c.)
Specificity and animacy-based DOM: [specific], [animate]

- Kannada, (52)–(53) (Lidz 2006)

(52) Inanimate objects marked iff specific

a. Naanu pustaka huDuk-utt-idd-eene.
   I.NOM book look.for-NPST-be-1S
   'I am looking for a (nonspecific) book.'

b. Naanu pustaka-vannu huDuk-utt-idd-eene.
   I.NOM book-ACC look.for-NPST-be-1S
   'I am looking for a (specific) book.'

(53) Animate objects obligatorily marked

   I.NOM secretary look.for-NPST-be-1S
   Intended: 'I am looking for a (specific or nonspecific) secretary.'

b. Naanu sekretari-yannu huDuk-utt-idd-eene.
   I.NOM secretary-ACC look.for-NPST-be-1S
   'I am looking for a (specific or nonspecific) secretary.'

- No DOM (uniform object marking): [v], [π], or [ϕ]

The payoff

- The proposed licensing system accounts for DOM...
  - ...without nominals that are “visible” (DP) and “invisible” (NP),
  - ...without needing the subject to have special properties,
  - ...without the need for object shift, and
  - ...without fundamentally differentiating languages with DOM from languages without DOM (all comes down to location).

- The only thing that differs between the subject and the object is their relative height/proximity to an obligatory licenser.

- Abstract DOM configuration:

(54)

- Implicational hierarchies among ϕ-features reproduce much of the DOM animacy and definiteness hierarchies.

- Two crosslinguistic predictions:
  - No language should require only nonspecific or inanimate nominals to be marked.
  - No syntactic configuration should permit only specific/animate nominals while banning nonspecific/inanimate nominals.

- This account doesn’t preclude the role of other grammatical processes in determining the DOM profile of a particular language.
  - E.g., the secondary licenser might trigger movement of the nominal it licenses, or a nominal might need to raise to be within the domain of a secondary licenser.
  - Hindi (Bhatt and Anagnostopoulou 1996)
  - Sakha (Baker and Vinokurova 2010)

  - E.g., unlicensed nominals might (pseudo)incorporate, or certain nominals might (pseudo)incorporate obligatorily and bleed licensing.
  - Niuean (Massam 2001)

3.3 Accounting for the PCC

The core proposal:

- [participan] is universally (≈ PLC)
  - A nominal containing [participan] needs to agree with a π-probe or ϕ-probe.

- PCC effects arise when there is a defective intervener between a licenser and a nominal with [participan].

Extending the illustration

- Hold constant (48), repeated in (55), with the addition of (55d).

(55) a. T is an obligatory licenser

b. v is a secondary licenser

c. [animate]

d. [participan]

- I adapt components of Anagnostopoulou (2003), Béjar and Rezac (2003):
  - ϕ-probes decompose into π and υ; π probes first by stipulation.
  - IOs are licensed inherently, by (something like) Appl.
  - ϕ can only be copied once but are always visible (Béjar 2003).
  - IO is thus a defective intervener for v.
– When the π-probe encounters IO, π “aborts” (Preminger 2011, 2014).
– The χ-probe probes next, and can skip the IO.

• In a ditransitive, if the direct object does not contain \( \text{animate} \), no secondary licenser at all is activated, (56).

\[
\begin{array}{c}
\text{T} \\
\downarrow \varphi \\
\text{vP} \\
\downarrow \\
\text{ApplP} \\
\downarrow \\
\text{VP} \\
\downarrow \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[feminine]} \\
\text{[pluralfeminine]} \\
\end{array}
\]

\[
\begin{array}{c}
\text{v} \\
\text{Appl} \\
\text{V} \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[animate]} \\
\end{array}
\]

(56)

• If there is a direct object with \( [\text{participant}] \), (57):
  – A secondary licenser is activated (\( v \)).
  – But, there is a defective intervener, so only the χ-probe reaches DO.
  – A χ-probe is not sufficient to license \( [\text{participant}] \) on DO, so activating \( v \) is not sufficient for licensing a 1/2 DO.

\[
\begin{array}{c}
\text{T} \\
\downarrow \varphi \\
\text{vP} \\
\downarrow \\
\text{ApplP} \\
\downarrow \\
\text{VP} \\
\downarrow \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[feminine]} \\
\text{[pluralfeminine]} \\
\end{array}
\]

\[
\begin{array}{c}
\text{v} \\
\text{Appl} \\
\text{V} \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[animate]} \\
\end{array}
\]

(57)

• When activation of a secondary licenser still fails to license a nominal due to defective intervention, this is what we label as a PCC environment.

  – How, then, are these nominals with \( [\text{participant}] \) in such positions licensed? Various strategies (Bonet 1991, 1994, Rezac 2011, Walkow 2013):
    (i) the addition/activation of another licenser (adposition, case)
      • French, Spanish, Western Basque
    (ii) “camouflage” of the offending nominal (strong pronoun or reflexive), such that it no longer has a visible \( [\text{participant}] \)
      • Georgian, Greek, Arabic

A prediction: If a language has any χ features that are \( \text{animate} \), these should be able to be licensed as the DO in a PCC configuration.

• An object with \( [\text{animate}] \) triggers activation of a secondary licenser (\( v \)).
• There is still a defective intervener, but a χ-probe should be sufficient to license \( [\text{animate}] \), (58).

\[
\begin{array}{c}
\text{T} \\
\downarrow \varphi \\
\text{vP} \\
\downarrow \\
\text{ApplP} \\
\downarrow \\
\text{VP} \\
\downarrow \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[feminine]} \\
\text{[pluralfeminine]} \\
\end{array}
\]

\[
\begin{array}{c}
\text{v} \\
\text{Appl} \\
\text{V} \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[animate]} \\
\end{array}
\]

(58)

Prediction borne out:

• In PCC-inducing ditransitives in Senaya (\( [\text{participant}] \), \( [\text{specific}] \))...
  – DO can be a specific 3rd person nominal, (59).
  → Secondary licenser activated; successfully licenses DO. \( \approx \) (58)

\[
\begin{array}{c}
\text{T} \\
\downarrow \varphi \\
\text{vP} \\
\downarrow \\
\text{ApplP} \\
\downarrow \\
\text{VP} \\
\downarrow \\
\text{NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{[animate]} \\
\end{array}
\]

(59) Aana maxw-\text{an-ox}=ii\text{-lna}
  I show.IMPF-Sbj.IO.2MS=AUX.DO.3PS
  ‘I (will) show her to you.’ (\( \varphi \) DO \( \neq \) 3.DO)
DO cannot be a 1st/2nd person nominal, (60).
→ Secondary licenser activated; cannot license DO. \(\approx (57)\)

(60) *Aana maxw-an-aa=y et
I show.impf-SBJ.1FS-IO.3FS=AUX.IO.2MS
Intended: ‘I (will) show you to her.’ (*IO > 2.DO)

If DO is non-specific, it does not trigger agreement, (61).
→ No secondary licenser. \(\approx (56)\)

(61) Aana maxw-an-ox
I one book show.impf-SBJ.1FS-IO.2MS
‘I (will) show a/some book(fem.) to you.’ (unmarked DO)

- It is impossible to reduce DOM to the PCC by extending the coverage of the \(\pi\) feature (contra Ormazabal and Romero 2007, Richards 2008).

The payoff

We can hold the following constant while accounting for the PCC and DOM:

- All nominals have \([\pi]\) and \([\gamma]\)—all nominals are visible to all probes.
- \(\varphi\)-probes always decompose into a \(\pi\)-probe and a \(\gamma\)-probe.
  - When there is no defective intervention, \(\pi\) and \(\gamma\) successfully Agree with the same nominal.
  - When there is defective intervention, \(\pi\) fails (when it encounters the already-licensed nominal), allowing \(\gamma\) to Agree with another nominal.

We can predict where DOM vs. PCC effects will appear:

- DOM: A (non-defective) intervener separates a \(\gamma\) feature from a licenser.
  - Only nominals with no \(\gamma\) features are tolerated in this position.
  - If there is a \(\gamma\) feature, a secondary licenser must merge.
- PCC: A defective intervener separates a \(\gamma\) feature from a licenser.
  - Only \(\gamma\) features with \(\gamma\) can be defused in this position.
  - [PARTICIPANT] compels the addition of yet another secondary licenser.

The PCC profile of a particular language may be further influenced by other language-particular factors, e.g.:

- Local scrambling of DO over IO (e.g., Slovenian; Stegovec 2015)
- Person-specified Infl; P-Constraint (e.g., Paraguayan Guarani; Pancheva and Zubizarreta 2015)

3.4 A final prediction borne out

We have seen an environment where [PARTICIPANT] cannot be licensed. The proposed system predicts that we should also find environments where \([\gamma]\) cannot be licensed, namely, in environments where there is no sec. licenser.

- What this would look like is a position where only nominals lacking certain \([\gamma]\) features can go.

This prediction is again borne out in Senaya, in perfective aspect:

- Recall that Senaya has [SPECIFIC], [PARTICIPANT].
- Kalin and van Urk (2015) on Senaya:
  - \(T\) is an obligatory licenser in Senaya.
  - There are no secondary licensers in canonical perfective aspect.
- In the perfective, objects are necessarily nonspecific, (62).

   we sleep.pfv-SBJ.1PL
   ‘We slept.’ (✓ no object)
 b. Axnii ksuuta ksuu-lan.
   we book write.pfv-SBJ.1PL
   ‘We wrote a/some book(fem.)’ (✓ nonspecific object)
 c. *Axnii oo ksuuta ksuu-lan.
   we that book write.pfv-SBJ.1PL
   Intended: ‘We wrote that book.’ (*specific object)
 d. *Axnii oo ksuuta ksuu(-laa/-a)-lan(-laa/-a).
   we that book write.pfv(-3FS)-SBJ.1PL(-3FS)
   Intended: ‘We wrote that book(fem.)’ (*object agreement)

- If Senaya has [SPECIFIC] and no secondary licenser in the perfective, it follows that the object must be nonspecific, which is exactly what we find.
- (See Richards (2008), Titov (2012) for other potential cases of this effect.)

Notice that data like those in (62) are extremely problematic for attempts to reduce all nominal licensing to \(\theta\)-role assignment.

- If nominal features cannot introduce \(\gamma\), and if in general syntax lacks \(\gamma\) entirely, the data in (62) are extremely puzzling.
  \(\Rightarrow\) We need a mechanism of nominal licensing beyond \(\theta\)-assignment (contra, e.g., Marantz 1991).
- This data also supports the hypothesis that unmarked objects in DOM systems are, in fact, unlicensed (Danon 2006, Ormazabal and Romero 2013), as has been advanced here.
4 Outlook

The account of agreement and nominal licensing proposed here brings together diverse research showing:

- a. Unvalued ≠ uninterpretable (Pesetsky and Torrego 2007, i.a.).
- c. Valued 1st/2nd person features need licensing (Anagnostopoulou 2003, Béjar and Rezac 2003, i.a.).
- d. Case is independent from agreement (Bobaljik 2008, i.a.).
- e. Abstract Case is not actually “case” (Marantz 1991, Schütze 1997, i.a.).
- g. Ergative case for the subject may be contingent upon the object having certain features (Woolford 2015).
- h. There is a distinction between obligatory and secondary licensors (Levin and Massam 1985, Bobaljik 1993, i.a.).
- i. Convergence may require interpretable/valued features to be shared (given to an uninterpretable/unvalued feature) (Wurmbrand 2014).
- j. vP can be permeable for case/agreement relations (Baker 2015).

The further steps taken here:

- ϕ-features apart from [PARTICIPANT] can need licensing, i.e., be šs.
- ϕ-features fall into three basic types w.r.t. licensing:

(63)

\[
\begin{cases}
\text{[PLURAL] etc.} \\
\text{[DEFINITE] [ANIMATE] etc.} \\
\text{[PARTICIPANT]}
\end{cases}
\]

- Abstract licensing takes place when ϕ-features are copied to probes.
  - For š features, this “copying” is obligatory, and so there must be a licensor to induce the copying via Agree.
- The PCC and DOM arise from the same underlying cause: intervention.

Why should certain nominal features be šs (need licensing)?

- Nominal features that are šs are those that need to be anchored to the speech act to be interpreted (in the spirit of Ritter and Wiltschko 2014).
  - The feature [PARTICIPANT] is inherently discourse-linked, and so can obtain a referent only when linked to a specific speech act.
  - [DEFINITE] and [SPECIFIC] also rely on discourse to obtain a referent.
- Copying of a feature to a functional head in the clausal spine serves to “anchor” nominals to the speech act.

- At the CP level of every clause, there are null arguments designating the speaker and addressee (Baker 2008).
- Agreement links arguments to the spine, and therefore to the speech act participants.

• It is not so clear, however, why features like [ANIMATE] and [HUMAN] need anchoring; perhaps related to likelihood of being a speech act participant.

Advantages of the account:

- The account makes a number of testable predictions, e.g.:
  - In languages with DOM, 1st/2nd person should always require DOM.
  - No language should require only nonspecific or inanimate nominals to be marked.
  - No syntactic configuration should permit only specific/animate nominals while banning nonspecific/inanimate nominals.
  - Non-1st/2nd person objects that require DOM should be licensed in PCC configurations.
  - DOM strategies should largely be the same as PCC repairs.
  - DOM repairs should also be able to target the subject.
  - There should be syntactic configurations that cannot license nominals that require DOM.

- The account captures the many similarities between the PCC and DOM while predicting where DOM effects will emerge vs. PCC effects.

- All nominals are treated alike, alleviating the “indirect object person problem” and the “subject DP problem” of previous accounts.

• ϕ-features needing licensing is not an outlier, requiring additional licensing conditions (beyond (1b)) but rather, this is the driving force of the system.

References


Appendix A: Additional problems with accounts of DOM

A. The overtness problem
   • Some accounts hold that all objects get Case, just in different locations (e.g., Bhatt 2007, Rodriguez-Mondoñedo 2007).
   • Problem: It is accidental that the overt case/agreement is always paired with the syntactically higher locus of object Case.

B. The feature distribution problem
   • ϕ-features are distributed throughout nominal structure, rather than all generated on D (Bernstein 1991, Picallo 1991, Ritter 1991, i.a.).
   • Problem: The presence/absence of a single head cannot determine whether a nominal has ϕ-features/is visible for agreement.

C. The low case problem
   • There is evidence that NPs can bear case, e.g., Matushansky (2000):
(64) a. Saša byl muzykant-om.
Sasha was musician-instr
‘Sasha was a musician.’ (no lifetime effect)
b. Saša byl muzykant.
Sasha was musician
‘Sasha was a musician.’ (lifetime effect)

*Problem:* Case is not introduced only by D.

D. The object shift problem

* Object shift triggered by specificity is supported on semantic grounds (Diesing 1992) and is robustly attested (Holmberg 1986, i.a.).
* **Problem 1:** Some languages with DOM based on specificity lack obligatory object shift for marked objects (Lidz 2006, Kalin 2014).
* **Problem 2:** Object shift triggered by most other DOM factors (e.g., animacy), is neither plausible on semantic grounds nor robustly attested (though cf. Woolford 1995, 1999).

Appendix B: Evidence for additional features

* [**SPECIFIC**] and [**DEFINITE**]
  - Indefinite pronouns (Haspelmath 1997)
  - Non-scopal interpretations of indefinites (Fodor and Sag 1982)
  - Second language acquisition (Ionin et al. 2004, 2009)

* [**HUMAN**] and [**ANIMATE**]
  - Verbal marking in Algonquian languages (Piggott 1989, Wiltschko and Ritter 2014, i.a.)
  - Verbal prefixes in Abkhaz (Hewitt 1979, cited by Mithun 1986)
  - Nominal marking in Selayarese (Finer 1997)
  - English relative pronouns (*who* vs. *which*)
  - Impersonal pronouns (Sigurðsson and Egerland 2009, Fenger 2015)

Appendix C: Activating secondary licensers

* Many attempts to model various “last resort” effects have been made:

* Global strategies are better equipped to account for secondary licensers, since a secondary licenser is merged iff...
  (i) there is a nominal containing ✧, and
  (ii) that nominal can’t be licensed by a licenser that’s already there.
  → The “decision point” for activating secondary licensers (e.g., at v) is typically lower than the obligatory licenser and a potential intervener, i.e., the decision can’t be made locally.

(65) Some examples of global last resort mechanisms:
a. Chomsky 1995:
  (i) For any two convergent derivations D and D′ from a numeration N, D is more optimal than D′ if |OD| < |OD′|, where OD is the set of distinct operations O in a derivation.
  (as formulated in Johnson and Lappin 1997)
  (ii) α enters the numeration only if it has an effect on output.
b. Ξ (Rezac 2011): An uninterpretable feature may enter the numeration only if needed for Full Interpretation of the syntactic structure built from it.

Appendix D: Morphological case

How does morphological case fit into this picture?

(66) | DOM = DAT | DOM ≠ DAT |
--- | --- | --- |
DOM O raises obligatorily | Hindi (Bhatt and Anagnostopoulou 1996) | Turkish (Keç 1991) |
DOM O doesn’t raise obligatorily | unattested? | Kannada (Li 2006) |
Hebrew (Shlonsky 1997) |

* All nominals bear an unvalued case feature, but it is not ✧.
* (66) suggests there are different ways DOM case interacts with licensing.
  - Cells A vs. B: DOM is a form of inherent licensing showing up structurally in a spec-head configuration (e.g., raising to spec-ApplP).
  - Cells C and D: DOM case is dependent case, but only nominals that have been licensed are visible for case competition.
    - C: Case competition cannot see into VP.
    - D: Case competition can see into VP.