Licensing and identifying *pro*

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Null subjects in grammatical theory, in linguistic typology and in language acquisition

Whether and where to pronounce what sorts of DPs?

Recall:

(1)   **θ-criterion:**

    a. Each CHAIN is assigned exactly one θ-role.

    b. Each θ-role is assigned to exactly one CHAIN.

(2)   **Uniformity of Theta-Assignment Hypothesis (UTAH):** Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure (i.e. θ-roles are uniformly projected in the syntax).

(3)   **Case Filter:** *DP if DP has a *phonetic* matrix but no (abstract) Case.

(4)   **Extended Projection Principle (EPP):** Every clause (IP) must have a structural subject (in Spec(IP).

    [Cf. RG's "Final-1 Law" and LFG's "Subject Condition".]

DP varieties

(5) a. [−ANAPHORIC, −PRONOMINAL]:

        i. *John, Mary, …, The man that I saw yesterday, That professor, …*

        ii. traces of *wh*-movement (as in, e.g., *Who$_j$ does she$_i$ like t$_j$?)?*, …

  b. [+ANAPHORIC, −PRONOMINAL]:

        i. *myself, yourself, himself, herself, …, each other, one another, …*

        ii. traces of A-movement (as in, e.g., *John$_i$ was liked t$_i$*)?

  c. [−ANAPHORIC, +PRONOMINAL]:

        i. *I, me, you, she, her, he, him, we, …*

        ii. **pro (as in, e.g., Spanish [$_{IP}$ pro$_i$ cant-o] '(I) sing+1sg')?**

  d. [+ANAPHORIC, +PRONOMINAL]:

        PRO (via PRO Theorem)? [See 10/24/03 lecture]

Some evidence that pro *in (5c) is indeed a pronoun—resumption:*

(6)   a.   *That asshole X,*
            $*$[who$_i$ I loathe and despise the ground t$_i$ walks on],
            pointed out that . . .

      b.   *That asshole X,*
            $*$[$_{CP}$ who$_i$ [$_{TP}$ I loathe and despise [$_{DP}$ the ground [$_{CP}$ $\mathcal{O}_j$ [$_{TP}$ t$_i$ walks on t$_j$]]]]],
            pointed out that . . .

      c.   *That asshole X,*
            $\sqrt{}$[who$_i$ I loathe and despise the ground $\boldsymbol{he}_i$ walks on],
            pointed out that . . .

                              (See Prince 1990, http://babel.ling.upenn.edu/ ellen/respro.ps)

(7)   *That asshole X,*
            [who$_i$ I loathe and despise $\sqrt{}$t$_i$/$*$him$_i$],
            pointed out that . . .

(8)   a.   *That's the guy [$_{CP}$ who$_i$ [$_{IP}$ Mary knows [$_{DP}$ the woman [$_{CP}$ who$_j$ [$_{IP}$ $*$($\boldsymbol{he}_i$) married t$_j$*

      b.   *Ese es el tipo [$_{CP}$ que$_i$ [$_{IP}$ Maria conoce [$_{DP}$ a la mujer [$_{CP}$ [con quién]$_j$ [$_{IP}$ $\boldsymbol{pro}_i$ se casó t$_j$*

"Null subject" as a parameter?

(9)   a.   *John/$*\emptyset$ saw that film*   (English)

      b.   *Juan/$\emptyset$ vió ese film*   (Spanish)

(10) a.   *He said that $*$(it) seems to him that John killed the dog*   (English)

      b.   *Él/$\emptyset$ dijo que $\emptyset$ le   parece que Juan mató al perro*   (Spanish)
            He   said that   to-him/her seems that Juan killed the dog
            'He said that it seems to him/her that Juan killed the dog'

What's a "parameter"?

(11) a.   An isolatable property that correlates with a cluster of grammatical phenomena.

      b.   A "switch" whose value is fixed in the course of language acquisition

                              $\boxed{\textbf{UG}}$ qua S_0 (initial state of language faculty)
            [universal principles alongside parameters with un-assigned, perhaps default, settings]
                              $+$
                  $\boxed{\textbf{PLD}}$ (source of "triggers" or "cues" for the fixing of parametric values)
                              $=$
                  $\boxed{\textbf{Idiolect-Specific Grammar}}$ qua S_s (steady state of language faculty)
                  [universal principles alongside parameters with values fixed]

A "Null Subject Parameter" à la (e.g.) Jaeggli & Safir 1989?

(12) a. What grammatical properties are related with the licensing of *pro*?

      i. Free subject inversion?

     ii. Violations of *that*-trace filter?

    [Cf. Bani-Hassan Arabic (*pro*, subject inversion, subject extraction over a filled complementizer) vs. Levantine Arabic (no *pro*, no subject inversion, no subject extraction over a filled complementizer); Kenstowicz 1989]

   b. How does UG connect the properties in (12a)?

Licensing and Identification of *pro*

Is "rich" verbal agreement a necessary and/or sufficient condition?

(13) **Spanish:**

habl-o	'I speak'	1sg
habl-as	'you speak'	2sg
habl-a	'he/she speak'	3sg
habl-amos	'we speak'	1pl
habl-áis	'you (pl.) speak'	2pl
habl-an	'they speak'	3pl

(14) **English:**

to talk	infinitive
talk	present 1s, 2s, 1pl, 2pl, 3pl
talk-s	present 3s

(15) **French:**

[parl-e]	infinitive ('to talk')
[parl]	present 1s, 2s, 3s, 3pl
[parl-õ]	present 1pl
[parl-e]	present 2pl

(16) But, what about licensing of *pro* in Chinese? The latter has no verbal inflection whatsoever.

Jaeggli & Safir's (1989) proposal:

(17) The Null Subject Parameter: Null subject are *licensed* in all and only languages with morphologically uniform inflectional paradigms.

(18) Morphological Uniformity: An inflectional paradigm P in a language L is morphologically uniform iff P has either only underived forms or only derived forms.

(19) Identification by Agreement: AGR can identify an empty category as thematic

pro iff the category containing AGR Case-governs the empty category [and AGR is "rich enough"].

German

(20)   (*ich*) *arbeit-e*   'I work'   1s
          (*du*) *arbeit-est*   'you work'   2s
          (*er/sie*) *arbeit-et*   'he/she work'   3s
          (*wir*) *arbeit-en*   'we work'   1p
          (*ihr*) *arbeit-et*   'you (pl.) work' 2p
          (*sie/sie*) *arbeit-en*   'they work'   3p

(21) a.   * *Er   sagte, dass ∅ den   Hund getötet hat*
           He-NOM said   that   the-ACC dog   killed   has
          'He said that he/she has killed the dog'

     b.   *Er   sagte, dass ∅ ihm   scheint, dass Hans den   Hund getötet hat*
          He-NOM said   that   him-DAT seemed   that Hans the-ACC dog   killed   has
          'He said that (it) seemed to him that Hans killed the dog'

(22) a.   German null subjects function as expletives only—no thematic null subjects

     b.   German (as a V/2 language) has the subject's Case-governor (Tense) in COMP and AGR in INFL.

West Flemish:

(23) a.   *dase* pro *komt* 'that she comes'

     b.   *da pro *komt* 'that he/she comes'

(24)   *dase* is the agreeing complementizer; thus, in (23a) the Case-governor (here Tense) and AGR are in the same node.

European Portuguese:

(25) a.   * (*Eu*) *vi* [pro *a roubarem automóveis*]   ("Prepositional Inflected Infinitive")
          'I saw them stealing cars'

     b.   *E difícil* [pro *trabalharem tanto*]   ("Bare Inflected Infinitive")
          'It is difficult for them to work that hard'

(26) a.   The Prepositional Inflected Infinitive construction (as in (25a)) instantiates ECM, with ACC case on the lexical subject of the inflected infinitive (i.e., ACC Case-governor and infinitival Agr are in separate nodes).

     b.   In the Bare Inflected Infinitive construction (as in (25b)) instantiates ECM, infinitival Agr does govern NOM Case on the lexical subject (i.e., NOM Case-governor and

infinitival Agr are in the same node).

(27)   NON-LOCAL IDENTIFICATION OF AGREEMENT: A subordinate null subject is "con-
         trolled" by a higher subject—"whenever there is no local government by tense/agreement
         with morphological content, then a c-commanding NP must provide an antecedent . . . [the
         subordinate] Agr inherits features from a c-commanding NP, usually a higher sub-
         ject, and then these features identify the null subject of [the subordinate] complement
         clause" (Jaeggli & Safir 1989:36, à la Borer 1989; but see Landau, to appear [and
         10/24/03 lecture]).

(28)   *Zhangsan$_i$ shuo* [pro$_i$ AGR$_i$ *lai le*   ]   (Chinese)
         Zhangsan say   come   ASP
         'Zhangsan said that he came'

Problems

(29) a. One parameter setting; two typological classes—inflecting (e.g., Spanish) vs. isolating
          (e.g., Chinese)?

      b. Where do parameters live? In the *morphology*?

(30)   What grammatical properties cluster around the "null subject parameter"?

pro-*licensing with(out) free-subject inversion*

(31) a. *Gianni ha telefonato* 'Gianni has telephoned'   (Italian)

      b. *Ha telefonato Gianni* 'Gianni has telephoned'

(32) a. *Zhangsan kanjian le Lisi* 'Zhangsan saw Lisi'   (Chinese)

      b. * *Kanjian le Lisi Zhangsan*

That-*trace filter violations with(out) pro-licensing*

(33)   *Chi$_i$ credi   che*   pro *verrà*   t$_i$?   (Italian)
          who believe COMP   will-come
          'Who do you believe that will come?'

(34)   [*Welche Leute*]$_i$ *meinst du, dass Peter glaubt, dass t$_i$ recht hätten*
            which people   think you that Peter believes that   right have
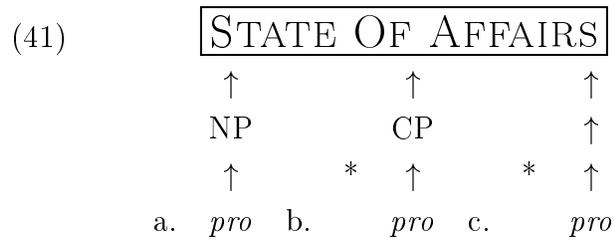   'Which people do you think that Peter believes (*that) are right?' (German; Law 1991)

Morphological uniformity with(out) (thematic) pro-licensing

(35) a. Haitian Creole, like Chinese, shows no agreement- or TMA-related verbal inflection.

      b. Haitian Creole, unlike Chinese, licenses only expletive *pro*—no licensing of thematic
          pro (Déprez 1992; but see DeGraff 1991, 1996).

(36) a. *Boukinèt   di   toutmoun   (ke   )   Ø   genlè   Jak   renmen   li*
       Boukinèt   say   everyone   that   seem   Jak   love   3sg
       "Boukinèt has told everyone that it seems that Jack loves her"

    b. *Mwen   kwè   (ke   )   Ø   te   fè   frèt   Kenscoff*
       1sg   believe   that   ANT   make   cold
       "I believe that it was cold in Kenscoff"

    c. *Timoun   yo   kwè   (ke   )   Ø   gen   jwèt   sou   tab   la*
       child   the-PL   believe   that   have   toys   on   table   the
       "The children believe that there are toys on the table"

    d. *Mwen   kwè   (ke   )*
       1sg   believe   that
          Ø te manke   Bazin   yon voum vòt   pou   li   monte   prezidan
           ANT lack   Bazin   a lot vote   for   3sg   rise   president
       "I believe that Bazin lacked the many votes that he needed to become president"

    e. *Mwen   kwè   (ke   )*
       1sg   believe   that
          Ø   ap   rete   liv   sou   tab   la
             FUT   remain   book   on   table   the
       "I believe that here will remain books on the table"

(37)   *(mwen)   achte   twa   liv*
       1sg   buy   three   book
       "I bought three books"

What kind of 'pronoun' is *pro*? (Iatridou & Embick 1997)

(38)   *If [we arrive late]ᵢ itᵢ will convince Mary to buy us a car*

(39) a. * *Si [pro arribem   tard]ᵢ proᵢ convencerá   la Maria de compra-nos un cotxe*
       If   pro arrive-1PL late   pro convince-FUT the Mary to buy-us   a car
       'If we arrive late, it will convince Mary to buy us a car' (Catalan)

    b. *If [arribem tard]ᵢ aixoᵢ convencerà la Maria de comprar-nos un cotxe*

(40)   *Se [loroₖ non tornassero]ᵢ, questoᵢ preoccuperebbe tuttiⱼ*
      If   they not return   this   would worry   everyone
         perchè proᵢ farebbe   loroⱼ pensare che proₖ hanno dimenticato il plano
         because pro would-make them think   that pro have forgotten   the plan
      'If they didn't return, this would worry everyone, because it would make them think
      that they had forgotten the plan'   (Italian)

(41)   S T A T E   O F   A F F A I R S
                  ↑   ↑   ↑
                 NP   CP   ↑
                  ↑   *   ↑   *   ↑
            a.   *pro*   b.   *pro*   c.   *pro*

Iatridou & Embick's analysis

(42) a. CP/IP lack Φ-features:

        i. CP/IP lack the feature Gender [36]

       ii. CP/IP lack the feature Number [37,41]

     iii. CP/IP (probably) lack the feature Person

   b. Referential *pro*—in null-subject languages that license *pro* via morphological richness (e.g., Spanish, Italian, Catalan, etc.)—must be associated with Φ-features.

     Pro is the real "pro-*noun*".