

Pro drop patterns and analyticity

GOALS: To explore (a) an alternative perspective on the nature of 'pro-drop', and (b) how the occurrence of "radical" pro-drop patterns in a language may be related to analytic, agglutinating morphology.

BACKGROUND

The relation of verbal agreement morphology to the occurrence of pro drop.

- Observation: European languages with rich, verbal agreement patterns allow for phonetically empty subjects in finite clauses 'pro' - Spanish, Italian etc. Those with impoverished verbal agreement, do not - English, French, German.

Italian

- (1)
- | | |
|----------|-----------------------|
| mangio | I eat |
| mangi | you _{SG} eat |
| mangia | he/she eats |
| mangiamo | we eat |
| mangiate | you _{PL} eat |
| mangiano | they eat |
- (2) Gianni_i ha detto che $e_{i/k}$ ha telefonato.
Gianni has said that has telephoned
'Gianni said that he called.'
- (3) John said that *(he) telephoned.

A common view: full/rich agreement provides a means to identify the reference of the subject and licenses the occurrence of 'pro', an empty pronoun.

Object agreement and pro

Certain languages exhibit object agreement markers on verbs and allow for specific-definite objects to remain phonetically unexpressed - license 'pro' in object position:

Chichewa

- (4) mikango yanu i-na-zi-thamangits-a *e*
lions your SM-PAST-OM-chase-ASP
'Your lions chased them.' (Baker 1988, in Ouhalla 1999)

Pashto, a split ergative language:

(a) nominative-accusative case patterns in the present tense and verb agreement with the subject

(b) ergative-absolutive case patterns in the past, and verb agreement with the object
pro can occur in subject (but not object) position in the present tense, and in object (but not subject) position in the past tense (Huang 1984):

Pashto

- (5) a. *e* mana xwr-am b. Za *(mana) xwr-am
 apple eat-1.M.SG I apple eat-1.M.SG
 'I eat the apple.' 'I eat the apple.'
- c. *(Ma) mana wa-xwar-a d. Ma *e* wa-xwar-a
 I apple PERF-eat-3.F.SG I apple PERF-eat-3.F.SG
 'I ate the apple.' 'I ate the apple.'

Subject pro-drop languages such as Italian, Spanish which do NOT have object agreement markers do NOT allow for pro-drop patterns in object position.

The occurrence of pro-drop is seen to be regularly linked to the occurrence of agreement.

The problem: "radical" pro drop in languages without agreement marking

Many languages which have neither subject nor object agreement regularly allow argument omission/a pro-drop patterning, e.g:

Japanese, Korean, Chinese, Thai, Vietnamese, Indonesian, Burmese, Khmer...

Chinese

- (6) Zhangsan shuo *e* kanjian-le Lisi.
Zhangsan say saw Lisi
'Zhangsan said he saw Lisi.' (Huang 1984)

Japanese

- (7) kodomo-wa_i [haha-ga *e*_{i/k} sikaru daroo to] omotta
child-TOP mother-NOM scold will C thought
'The child thought that his mother would scold him.' (Nakamura 1991)
- (8) John-ga_i [Mary-ga *e*_{i/k} nagutta toki] naite-ita
John-NOM Mary-NOM hit time crying-was
'John was crying when Mary hit him.' (Nakamura 1991)

How can this patterning be reconciled with agreement-licensed pro-drop?

Huang 1984: pro-drop is licensed to occur either where a language has full agreement, or where a language has no agreement, but not where a language has impoverished partial agreement.

The object pro vs. topic-bound variable debate.

Intersecting with discussions about how to capture agreement-based pro-drop together with agreement-less pro-drop ("radical" pro-drop) in the 1980s, was an extended debate about omitted object arguments.

One view: empty objects in certain languages (at least) are variables bound by empty topics, e.g. Chinese (Huang 1984, 1989), European Portuguese (Raposo 1986) not pro. Subject-object asymmetries in the distribution of and interpretations open to empty subjects and objects may be captured in this way.

A second view: empty object positions in other languages (e.g. Quechua, Korean, Thai: Cole 1987) may not seem to show the restrictions found in Chinese/Portuguese, and so can/should be analysed as occurrences of pro.

Speas (1994, 2004): The Licensing of Agreement

- Proposal: poor agreement, rather than pro, needs to be licensed.
- If I^0 has only partially-specified phi-features, these must be provided by an element in SpecIP.
- pro lacks phi-features, and so cannot license a partially-specified I^0
- languages with poor agreement therefore are not pro-drop
- languages with rich agreement do not require an element in SpecIP to license this agreement, and so are pro-drop
- If there is NO agreement in I^0 (Chinese, Japanese etc), there is no agreement to be licensed, and so pro can occur in SpecIP
 - pro occurs either with rich agreement or no agreement

Focus of this class: Neeleman and Szendroi 2005. Radical pro drop and the morphology of pronouns. Ms. London and Utrecht.

- A reconsideration of the challenge of accounting for the cross-linguistic distribution of pro-drop patterns from a new perspective.
- The hypothesis that agreement/lack of agreement may not be the key property behind the occurrence of pro in a language, and that pro-drop patterns may result from the presence of agglutinating, analytic morphology in DPs.
- A new view of pro-drop as a late insertion, Spell-Out phenomenon.

Reasons for wishing to re-examine the cross-linguistic occurrence of pro-drop

(a) There are languages where the absence of verbal agreement does NOT result in the availability of pro-drop (unlike Thai, Khmer etc). For example, Swedish, Norwegian and Afrikaans, and creoles such as Papiamentu, Jamaican creole, and Tok Pisin:

Jamaican Creole
(9) *(mi) a rait
I am write
'I am writing.'

Papiamentu
(10) Ta kiko *(bo) ta hasi?
PRT what you PROG do
'What are you doing?'

(b) There are languages where the occurrence of partial (i.e. non-full) agreement on verbs does NOT block the availability of pro-drop patterns (unlike English, French etc), for example, Kokota (Palmer 1999).

(c) Generally, if full lack of agreement allows for pro-drop, lack of object agreement in English, German, French may be expected to allow for object pro-drop in these languages, but this does not occur.

A number of potential reasons to look for explanations of the occurrence of pro-drop beyond just agreement paradigms.

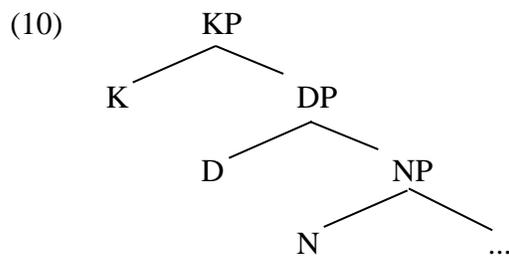
NOTE:

- The central interest of Neeleman and Szendroi (N&S) is on explaining the (non)-occurrence of pro-drop in languages that have zero or impoverished subject/object agreement - the occurrence of "radical pro-drop".
- The proposals developed will allow for pro-drop to occur in TWO major ways: (i) as the result of agglutinating, analytic morphology in DP, and (ii) as the result of rich verbal agreement. (i) is the new proposal of the paper, (ii) incorporates the valuable insights and observations of earlier work.

Three key properties of the proposal in N&S

I. Spell-out rules for pronouns

Assumption: extended nominal projections are as in (10). K = case



Late spell-out (Halle and Marantz 1993, Jackendoff 1997).

- syntactic terminals do not contain phonological information
- syntactic representations are associated with phonological material in a mapping procedure at PF
- this allows for the spell-out not only of terminal nodes, but also *larger chunks of structure*

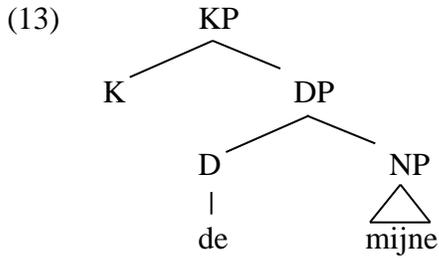
Pronouns often spell-out larger chunks of structure than just D or N

- Weerman and Evers-Vermeul (2002) on 3 types of pronoun in Dutch
- regular possessive pronouns realize just D:

(11) (*de) mijn mooie boek
 the my beautiful book

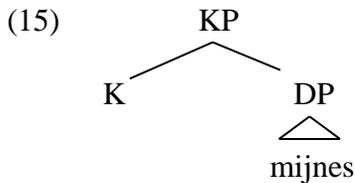
- a second type of possessive pronoun spells-out NP
- an overt determiner must occur
- an overt N and overt Adjectives cannot occur

- (12) a. de mijne is gestolen b. *Mijne is gestolen c. *De mijne mooie boek
 the mine is stolen mine is stolen the mine beautiful book
 'Mine has been stolen.'



- a third type of possessive pronoun in non-standard Dutch spells-out DP
- no other overt D, N or Adj can occur

- (14) a. mijnes is gestolen b. *De mijnes is gestolen c. *Mijnes mooie boek
 mine is stolen the mine is stolen mine beautiful book
 'Mine has been stolen.'



- Weerman and Evers-Vermeul suggest that personal pronouns like *hem* 'him' and *hij* 'he' spell-out KPs
- they cannot co-occur with any other KP/DP-internal elements, and show overt case alternations

- (16) a. b.

- (17) PF spell-out rule for *hem*

[_{KP} +p, -a, 3, SG, MASC, ACC] /hem/

II. Pro drop as zero spell-out of regular pronouns

Key proposal: phonetically null arguments are *regular pronouns in syntax* that fail to be realized at the PF interface, and are not a special lexical element 'pro'.

Radical pro-drop languages have available the spell-out rule for pronouns in (18):

(18) [KP +p, -a]

III. The role of the Elsewhere Condition (Kiparsky 1973)

General intuition behind the Elsewhere Condition: where two rules could potentially apply in the same environment, the more specific rule blocks the application of the more general rule (which applies 'elsewhere').

Example: English past tense form of the verb 'go' = 'went' not '*go-ed'

The specific rule for 'go' in (19c) pre-empts the application of the general past tense rule in (19b):

- (19) a. GO /go/
b. PAST /-ed/
c. GO+PAST /went/

(20) Formalism of the Elsewhere Condition:

If the structural description of a rule A (a special rule) properly includes the structural description of a second rule B (a more general rule), then it is rule A which is applied to an appropriate input form (not rule B).

- (19c) properly includes (19b), so (19c) applies rather than (19b).

Two implications of the Elsewhere Condition for the phonological realization of syntactic structures.

Implication 1

The Elsewhere Condition favours spell-out of a category C over spell-out of the categories contained within C, all else being equal.

- (21)
- | | | | | |
|-----------------|----|-------|------|-----------------|
| | | V | | target of (19c) |
| | | └─┬─┘ | | |
| target of (19a) | GO | | PAST | target of (19b) |

Rule (19c) spells-out a constituent which contains two other categories. Spell-out of V as /went/ therefore blocks individual spell-out of the categories contained within V: GO and Past *go-ed

GENERALIZATION: Spell-out of a higher-level category will generally involve a more specific rule than spell-out of the categories contained in it. It will therefore be favoured over spell-out of lower-level categories.

Implication 2

All else being equal, the Elsewhere Condition gives preference to a phonological realization of a category C that spells out more of C's features over a phonological realization that spells out fewer features (again a more specific rule, referring to more

features, than a less specific rule, that could be applied in a wider set of environments).

Example case: the spell-out of person agreement in German

Assumption: person distinctions are syntactically encoded through two features:

PAR (participant in speech act)

ADD (addressee)

1st person = [PAR] (a participant but not an addressee)

2nd person = [PAR, ADD] (both a participant and an addressee)

3rd person = [] (no person features, neither participant nor addressee)

(22) Spell-out rules for person in German:

a. [_{PERSON} PAR] /e/

b. [_{PERSON} PAR, ADD] /st/

c. PERSON /t/ (i.e. simply 'person', no sub-features PAR or ADD)

Applications:

- for 3rd person, only (22c) can apply - (22a/b) are over-specified
- for 1st person, both (22a) and (22c) might apply in principle
- for 2nd person, all of (22a-c) might apply in principle

The correct patterns are captured if it is assumed that selection of the rule which spells-out more of C's features over a phonological realization that spells out fewer features is made:

- for 1st person, (22a) spells out more features than (22c) so blocks (22c)
- for 2nd person, (22b) spells out more features than either (22a) or (22c), and so blocks both of these

(23) a. ich spiel-[_{PERSON} PAR] ich spiele

I play

b. du spiel-[_{PERSON} PAR, ADD] du spielst

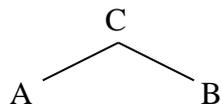
you play

c. er spiel-[_{PERSON}] er spielt

he play

Optionality in rule application

The two implications of the Elsewhere Condition may conflict with each other. Implication I favours spell-out of higher categories. Implication II favours spell-out of more features. Consider a situation where category C contains two categories A and B:



If the spell-out rule for category C realizes fewer features than the use of spell-out rules for both categories A and B, then there is a conflict between Implication I (spell-out higher categories) and Implication II (overt realization of more features).

- a stalemate: neither form will block the other, both realizations are allowed
- the importance of 'all else being equal' - the effects of the implications apply only as long as there is no conflict between them; conflict optionality

Back to pro drop

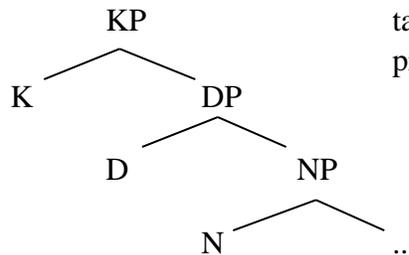
Consider instances where the spell-out rule for pronouns targets KP, as in (17), and the general 'radical' pro-drop rule (18) also targets KP:

(17) $[_{KP} +p, -a, 3, SG, MASC, ACC]$ /hem/ PF spell-out rule for Dutch *hem*

(18) $[_{KP} +p, -a]$

- Rules (17) and (18) are in competition, targeting the same chunk of syntactic structure.
- Due to the Elsewhere Condition, (17) will always win out, being the more specific rule which spells-out more features of the target than (18), a much more general rule.
radical pro-drop will always be blocked where languages have pronoun spell-out rules such as (17). Hence Dutch does not exhibit radical pro-drop.

(24) target of spell-out rules for pronouns



target of radical pro-drop rule (18)

Does pro-drop ever occur when spell-out rules for pronouns and a pro-drop rule target the same category KP?

Yes. A language may have a **context-sensitive pro-drop rule** different from (18), mentioning the presence of **agreement**, as in (25):

(25) $[_{KP} +p, -a, \textit{i}]$ /_ [\textit{i}]

(25) states that a pronoun may be spelt-out as zero if it occurs in the context of matching verbal agreement.

(25) is NOT in competition with the spell-out rules that result in overt pronouns. Although both may target KP, each is more specific than the other in different ways. Compare (25) with a rule (26) for Italian *egli* 'he':

(26) $[_{KP} +p, -a, 3, SG, MASC, NOM]$ /egli/

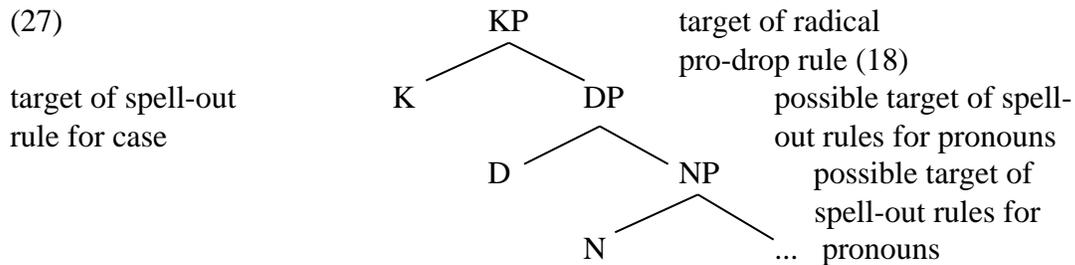
(26) is more specific than (25) in mentioning SG, MASC, NOM.
 (25) is more specific than (26) in mentioning the presence of agreement.

(25) and (26) are not in an 'elsewhere relation', so either can be employed, and Italian (and other languages with full/rich agreement) can have context-sensitive pro-drop (where this is made possible by the presence of verbal agreement).

How does radical pro-drop occur?

For the radical pro-drop rule (18) to be able to have an effect and not be blocked, a language must have spell-out rules for lower levels of structure than KP.

Consider the situation if a language has a separate spell-out rule for K, case. This will force the spell-out rule for pronouns to be understood as targeting a category other than KP, perhaps DP or NP:



The result - two options:

Option 1: the pronoun and its case-marker are spelled-out by the two spell-out rules. This is possible because it results in the overt spell-out of more features than use of the pro-drop rule (18) (the effects of Implication 2 of the Elsewhere Condition).

Option 2: the pro-drop rule (18) is used. This is possible because the spell-out rules are not targeting the same chunks of structure, and Implication 1 of the Elsewhere Condition favors/allows for the spell-out of higher categories which contain sets of lower categories.

An example case: **Japanese**

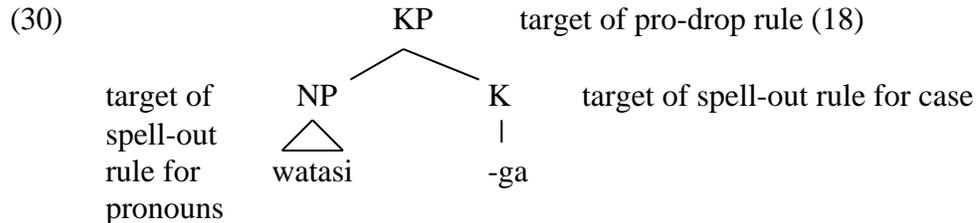
• Japanese has case-morphemes which are added to pronouns. These can be assumed to be added by the spell-out rules in (28):

- (28)
- [_K NOM] /ga/
 - [_K ACC] /o/
 - [_K DAT] /ni/
 - [_K GEN] /no/

Because there is a spell-out rule for K, the spell-out rule for pronouns cannot target KP, and must target some lower category - either DP or NP (N&S assume NP):

- (29) [NP +p, -a, 1, SG] /watasi/
 [NP +p, -a, 3, SG, MASC] /kare/

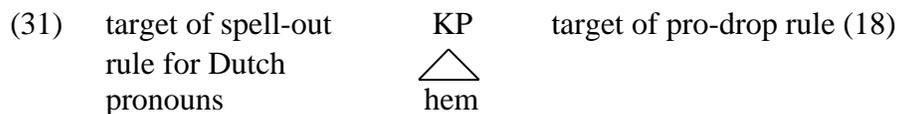
| | |
|-----------|--------|
| watasi-ga | kare-o |
| I-NOM | he-ACC |
| 'I' | 'him' |



Because Japanese is a language where the situation in (27) holds, EITHER NP and K can be spelt-out overtly, OR KP can be interpreted as by the pro-drop rule.

Important generalization: the occurrence of sets of spell-out rules for categories lower than KP is what critically allows for radical (non-agreement-mediated) pro-drop, and this requires clear agglutination of some KP-internal feature on pronoun stems.

If a language has pronoun forms that are purely fusional, there will not be sets of spell-out rules for KP-internal categories. Pronoun spell-out rules and the radical pro-drop rule (18) will therefore both target KP, and the pronoun spell-out rules will block the pro-drop rule (18), being more specific and spelling out more features overtly.



Non-case-marked radical pro-drop languages

In languages without case-markers, radical pro-drop will still be licensed if some other KP-internal feature is spelt-out on pronouns in an agglutinating way.

The occurrence of *any* KP-internal productive/regular agglutination on pronouns will provide evidence for sets of KP-internal spell-out rules targeting categories lower than KP, and hence not in competition with the pro-drop rule (18).

In all cases, this should allow for pro-drop to occur.

Wherever radical pro-drop occurs (pro-drop not licensed contextually by agreement), N&S predict there must be some regular KP-internal agglutination/regular analytic morphology.

Chinese

In Chinese, it is suggested that the existence of the regular, agglutinative, plural attachment *-men* indicates that there are two KP-internal spell-out rules, one for [PLURAL] and one for pronouns. Pronouns are therefore spelt-out as categories lower than KPs (NPs, for N&S).

- (32) [NP +p, -a, 1, SG] /w_/ [K ...] Chinese
 [NP +p, -a, 2, SG] /n_/ [PL] /men/
 [NP +p, -a, 3, SG] /t_/

These rules generate pronouns like (33).

- (33) a. w_-men- b. n_-men-
 I-PL-CASE you-PL-CASE
 'we/us' 'they/them'

Because of this agglutination of the KP-internal plural morpheme *-men* with pronouns, it is expected that Chinese will allow radical pro-drop, and show forms such as (6).

Languages with no verbal agreement and no KP-internal agglutination

Languages with no KP-internal agglutination are expected NOT to license radical pro-drop. If such languages also have no verbal agreement to license context-sensitive pro-drop, then no pro-drop will occur in the language.

Example: Jamaican creole and other creoles:
 fusional pronouns, no case-marking, no agglutinative plural marking

Jamaican creole

- (34)
- | | | |
|---|-------|-----|
| | SG | PL |
| 1 | mi | wi |
| 2 | yu | unu |
| 3 | im, i | dem |

- (35) a. *(Mi) a rait. b. Nobadi neva sii *(im).
 I am write nobody never see him
 'I am writing.' 'Nobody ever saw him.'

- For approaches to pro-drop which suggest full lack of agreement may result in the possibility of pro-drop (e.g. Speas 1994, 2004), the non-occurrence of pro-drop in non-inflecting creole languages is potentially problematic, but explained (here) by the fusional nature of the pronominal system.

Languages with fusional case-marking

Languages which have case-distinctions present in KPs, but have these encoded in a non-agglutinative, fusional way are expected not to have radical pro-drop. If such languages have insufficient verbal agreement to have context-sensitive pro-drop, pro-drop is expected not to occur.

Example languages: Swedish, German, English, French

Swedish

| | | | |
|--|------------|------------|------------|
| | NOMINATIVE | ACCUSATIVE | POSSESSIVE |
|--|------------|------------|------------|

| | | | |
|--------|-----|-------|--------|
| 1 SG | jag | mig | min |
| 2 SG | du | dig | din |
| 3 SG M | han | honom | hans |
| 3 SG F | hon | henne | hennes |
| 1 PL | vi | oss | vår |
| 2 PL | ni | er | |
| 3 PL | de | dem | deras |

- (36) a. I går tok *(han) sin hatt.
yesterday took he 3.REFL hat
‘Yesterday, he took his (own) hat.’
- b. Jag har *(henne) inte gett lov att komma.
I have her not give permission to come
‘I didn’t give her permission to come.’

Afrikaans

| | NOMINATIVE | ACCUSATIVE | POSSESSIVE |
|--------|------------|------------|------------|
| 1 SG | ek | my | |
| 2 SG | jy | jou | |
| 3 SG M | hy | hom | sy |
| 3 SG F | sy | haar | |
| 3 SG N | dit | | sy |
| 1 PL | ons | | |
| 2 PL | julle | | |
| 3 PL | hulle | | |

- (37) a. Ons is egter vol vertroue dat *(ons) sal slaag.
we are however full confidence that we will succeed
‘We are full of confidence, however, that we will succeed.’
- b. Ons sal hulle nie toelaat om oor *(ons) te loop nie.
we will them not allow for over us to walk not
‘We will not allow them to walk over us.’

Languages with fusional case- and plural-marking, but rich verbal agreement

Expectation: radical pro-drop is not allowed, but context-sensitive pro-drop may occur.

If only (rich) subject agreement occurs on the verb, regular pro-drop will be restricted to subject position.

Examples: Spanish, Italian

(38) *Italian strong pronouns*

| | NOMINATIVE | ACCUSATIVE |
|--------|------------|------------|
| 1 SG | io | me |
| 2 SG | tu | te |
| 3 SG M | lui | |
| 3 SG F | lei | |
| 1 PL | noi | |
| 2 PL | voi | |
| 3 PL | loro | |

Pro-drop in subject position

- (2) Gianni_i ha detto che *e_{i/k}* ha telefonato.
Gianni has said that *he* has telephoned
'Gianni said that he called.'

No equivalent pro-drop of specific individuals in object position

- (39) Maria *(te) ha visto ieri
Maria you has seen yesterday
'Maria saw you yesterday.'

Further examples of languages with agglutinative marking of features within KP

Korean

Agglutinative case-marking in KP permits radical pro-drop.

- (40) [NP +p, -a, 1, SG] /na/, ... [NP +p, -a, 1, PL] /wuli/, ... Korean
[NP +p, -a, 2, SG] /ne/, ... [NP +p, -a, 2, PL] /ne-huy/, ... (simplified)
[NP +p, -a, 3, SG] /ku/ [NP +p, -a, 3, PL] /ku tul/

- (41) [K NOM] /ka/ [K ACC] /(l)ul/ Korean
[K GEN] /uy/ [K DAT] /ey/; /eykey/; ...

Application of these rules gives rise to inflected pronouns like the one in (42):

- (42) ku-tul-ka Korean
he-PL-NOM
'they'

- (43) Chelswu-ka_i [Yenghi-ka_i *e_{i/k}* hyeppak ha-ess-ta]-ko cwucang ha-ess-ta.
Chelswu-NOM Yenghi-NOM threaten did C claim did
'Chelswu claims that Yenghi threatened him.' (Yoon 1985)

- (44) John-un_i [Bill-i *e_{i/k}* cenhwa ha-ess-ta]-nun sasil-ul acik moru-n-ta.
John-TOP Bill-NOM phone did ADNOM fact-ACC yet know-not
'John does not yet know that Bill called him.' (Yoon 1985)

Burmese

Agglutinative case- and number-marking permits radical pro-drop
(no verbal-agreement)

- (45) [NP +p, -a, 1, SG, M] /canaw/ [PL] /toú/ Burmese
[NP +p, -a, 1, SG, F] /camá/
[NP +p, -a, 2, SG] /niñ/ (simplified)
[NP +p, -a, 3, SG, M] /thu/
[NP +p, -a, 3, SG, F] /thumá/
- (46) [K NOM] /ká/ [K ACC] /kou/ Burmese
[K GEN] /yé/
- (47) thu-toú- ká Burmese
he-PL-NOM
'they'

And similar patterns in Turkish, Hindi, Assamese....

Assessment and potential problem cases

- A different perspective on the licensing of pro-drop attributes the potential occurrence of pro-drop in a language to differences in the morphological composition of pronouns and the agglutinative, analytic expression of features on pronouns.
- A novel approach, which has considerable success in dealing with 'problematic' cases of pro-drop - languages which may not be expected to have pro-drop if this is assumed to result from the presence/absence of verbal agreement only.
- The approach does NOT attempt to discuss the issue of how the occurrence of pro-drop may also be pragmatically-conditioned. This issue is seen as fully separate from the morpho-syntactic licensing of pro-drop in a language. Other investigators might not agree with this side-lining of 'pragmatic' restrictions on the distribution of pro.
- The approach is tested against 20 languages of various types. It remains to be seen whether there will be many problematic cases for the approach. The paper itself mentions **Finnish** as being a potential counter-example to expectations raised by the paper, and the status of **Portuguese** is also somewhat murky.
- Here we can note briefly that certain **Southeast Asian languages** may look difficult to account for.

Languages such as **Thai** and **Indonesian** have the following relevant properties:

- (a) no verbal agreement
- (b) no case-marking on pronouns or other DPs
- (c) pronouns which are quite different in shape for each 1/2/3 person form
- (d) radical pro-drop patterns

Thai does have a morpheme *phuak* 'group' which can precede pronouns to create an unambiguously plural form:

- (48) phuak khun/khaw
group you/he
'you_{PL}/they' (for either subject or object use)

But *phuak* is: (a) fully optional (i.e. pronouns can be interpreted as plural forms without the use of *phuak*)
(b) not very commonly used
(c) mostly restricted to a quite informal register

Question: is the existence of this morpheme salient enough to trigger an analysis of pronouns in Thai as spell-outs of a category lower than KP, hence causing pro-drop?

Indonesian allows for the optional use of demonstratives on pronouns to indicate (a) emphasis, or (b) deictic location:

- (49) a. Kau kira saya ini pelayanmu? b. mereka itu
you think I this slave-you 3.PL that
'Do you think I am your slave?' 'they over there/who have been mentioned'

It also allows certain numbers and quantifiers to appear with pronouns:

- (50) a. mereka berdua b. kami semua
they two we all
'both/the two of them' 'all of us/we all'

Such patterns might indicate agglutination with pronouns in KP and the necessary trigger for radical pro-drop.

However, they also raise the question of whether languages such as **English** might be expected to have radical pro-drop, on the basis of the similar patterns in (51):

- (51) a. both of them d. we all/with us all
b. the two of them e. we two/three
c. they both/with them both f. I saw [them lot] last night (British English)

Questions relating to what constitutes evidence for KP-internal agglutination therefore remain.

- Generally, however, N&S (2005) is a well-thought-out and provocative paper which shows that analyticity potentially may have very interesting interactions with a key area of morpho-syntax.
- How analyticity may conspire with late spell-out to cause cross-linguistic variation in syntax is an area with much potential for future investigation.

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