ALL-IN-ONE:
Generic inclusive null subjects in Hungarian

Gréte Dalmi
grete@t-online.hu

Main claims

1. Hungarian does not fit the typological hierarchy of NSLs established by Roberts & Holmberg (2010).
2. The 3SG generic inclusive subject *az ember* is a free genericity-inducing lexical item, always interpreted with widest scope (Moltmann 2006, 2010, 2012). It appears as pro_{GEN} in subordinate finite clauses and as PRO_{GEN} in subordinate non-finite clauses. Both pro_{GEN} and PRO_{GEN} must be bound by a 3SG generic inclusive antecedent outside their minimal domain. Matrix 3SG generic inclusive (lexical or null) dative experiencers bind pro_{gen} and control PRO_{GEN} in subordinate clauses.
3. 3SG generic inclusive subjects always include the speaker and the addressee. 3PL generic exclusive subjects exclude the speaker but include the addressee. 3PL generic exclusive subjects interact with quantifiers; 3SG generic inclusive subjects do not. The former are bound by the universal quantifier, the latter are in the scope of GEN.

1. The typological hierarchy of NSLs

The Null Subject Parameter (Jaeggli & Safir 1989: 29)

(1) Null subjects are permitted in all and only languages with morphologically uniform inflectional paradigms.

Holmberg (2005, 2010)

(2) (i) expletive null subjects (corresponding to *there/it*)
(ii) referential null subjects (corresponding to lexical subjects)
(iii) generic null subjects (corresponding to *you/one/people/we*)

Roberts & Holmberg (2010) give a typology of Null Subject Languages (NSLs) according to the type of null subject they allow:

The typology of NSLs (Roberts & Holmberg 2010)

(3) Type 1 Expletive null subject languages (German, Dutch)
Type 2 Partial null subject languages (Finnish, Russian)
Type 3 Consistent null subject languages (Italian, Greek)
Type 4 Radical null subject languages (Chinese, Indonesian)

TYPE 1

(4) Gestern wurde __ viel getanzt.
yesterday was EXPL a lot danced
'There was a lot of dancing yesterday.' (German, Vikner 1997)

(5) __ Rigndi!
EXPL rained
'It rained!' (Icelandic, Biberauer, 2010)

TYPE 2

(6a) *pro puhuu englantia hyvin.
(he) speak.PRES3SG English well
'He speaks English well.'

(6b) Pekka$_i$ väittää [että pro_i puhuu.
Pekka claims that (he) speak.PRES3SG
englantia hyvin].
English well
'Pekka$_i$ claims that he$_i$ speaks English well.' (Finnish, Holmberg 2010)

TYPE 3

Stylistic inversion

(7) __ Ho telefonato Gianni.
PERF telephone.PART Gianni
'Gianni telephoned.'

No complementizer-trace effect

(8) Chi hai ditto che __ ha scritto
who have.2SG say-PART that has write-PART
questo libro?
this book
'Who did you say wrote this book?' (Italian, Rizzi 1982)

TYPE 4

(9) __ kanjian ta le.
(he) see he ASP
'He sees him'

(10) Ta kanjian __ le.
He see (him) ASP
'He sees him.' (Chinese, Huang 1984)

The Hierarchy of Null Subject Languages (Roberts&Holmberg 2010:12)
(11) Expletive NSLs ⊃ Partial NSLs ⊃ Consistent NSLs ⊃ Radical NSL
(Type 1) (Type 2) (Type 3) (Type 4)

"...for each system S_i, the set of positions in which a pronoun can remain unexpressed in S_i is a proper subset of the set of positions in which a pronoun can remain unexpressed in all other systems S_j, where S_i is to the left of S_j".

Problems with this typological hierarchy:
- Supersets share all the properties of subsets but not the other way round. This is not fulfilled in (11):

--Expletive null subjects are allowed in Type 1, 2 and 3 but are not allowed in Type 4.
--3SG referential subjects can be null only when they are bound by an antecedent in Type 2, but they can always be null in Type 3.
--3SG generic subjects must be null in Type 2 but they must not be null in Type 3.
--Alternation between 3SG generic inclusive and 3SG referential subjects is impossible in Type 2 and Type 3 but it is possible in Type 4.

- Hungarian crosscuts this typology as it shares some (but not all) properties of Type 2--Type 4. Other European Uralic languages (e.g.Tundra Nenets) also do (Vilkuna 1997).

Holmberg's theorem (Holmberg 2010)
(12) Type 2 Partial NSLs: 3SG generic subjects must always be null; 3SG referential subjects must not be null (in main clauses);
(13) Type 3 Consistent NSLs: 3SG generic subjects must not be null; 3SG referential subjects can be freely dropped (in main clauses).

Type 2 NSL: 3SG generic null subject
(14) Tässä *pro*$_{GEN}$ istuu mukavasti.
here one sits comfortably
'One can sit comfortably here.'

Type 2 NSL: 3SG referential lexical subject
(15) Hän/**pro* istuu mukavasti tässä.
he/**pro* sits comfortably here
'He sits comfortably here.' (Finnish, Holmberg 2010)

Type 3 NSL: 3SG generic lexical subject
(16) Se si /**pro*$_{GEN}$ e morti, non ci si/*pro*$_{GEN}$ muove piu.
If one is dead not RFL one move any more
'If one is dead, one does not move any more.'
(Italian, D'Alessandro & Alexiadou 2003)

Type 3 NSL: 3SG referential null subject
(17) *pro* Ho telefonato.
(he) has telephone.PART
'He has telephoned.' (Italian, Rizzi 1982)

Type 4 NSL: alternation between 3SG referential and 3SG generic subjects
(18) Ah John$_i$ waa hai jingwok *pro*$_{i/GEN}$ jiu gong
PRT John say in England he/one need speak

jingman.
English
'John$_i$ says that in England *he$_i$/one* needs to speak English.'
(Cantonese Chinese, Holmberg 2010)

(19) John$_i$-wa kono beddo-de-wa yoku
John-TOP this bed-in-TOP well

nemu-reru-to *pro*$_{i/GEN}$ Iu.
sleep-can- COMP he/one say
'John$_i$ says that *he$_i$/one* can sleep well in this bed.'
(Japanese, Holmberg 2010)

2. Hungarian as a NSL

2.1. Null subjects in Hungarian

Expletive null subject → Type 1 and 2

(20) Már hajnal-od-ott $pro_{EXPL,}$ amikorra
already dawn-REFL-PAST3SG EXPL by which time

el-alud-t-ak$_k$ pro_k.
PFX-sleep-PAST-3PL (they)
'It was already dawning by the time they fell asleep.'

Referential null subject → Type 3

(21) Vera$_i$ fél-t, [hogy $pro_{i/j}$ le-kés-0-i a
Vera feared that s/he PFX-miss-PRES-3SG the

film-et].
movie-ACC
'Vera$_i$ feared that s/he$_{i/j}$ (herself /someone else) would miss the movie.'

Generic exclusive null subject → Type 2 and 3

(22) Itt nem beszél-nek pro_{arb} magyar-ul.
here not speak-PRES3PL (people) Hungarian-FORM
'People do not speak Hungarian here.'

Referential null object → Type 4

(23) Lát-t-am pro_1, hogy ver-ik a gyerekek
see-PAST-1SG (I) that beat-PRES3PL[+DEF] (the children)

pro_2 .
(him/her)
'I saw that the children were beating him/her.'

Null subjects in Hungarian appear in contexts that exclude it from all the four typological groups.→ Partially Radicaly NSL (Hungarian and other European Uralic languages).

(24) *Partially Radical NSLs*
(i) expletive null subjects
(ii) 3SG referential null subjects
(iii) any referential null argument

(iv) optional coreference between 3SG null subject and an argument in the matrix clause
(v) alternation between 3SG referential and 3SG generic null subjects

The distribution of 3SG null subjects in Null Subject Languages

3SG null subjects	*Expletive NSLs*	*Partial NSLs*	*Consistent NSLs*	*Radical NSLs*	*Partially Radical NSLs*
Expletive	•	•	•		•
Generic-incl		•		•	• %
Generic-excl		•			•
Referential		•	•	•	•
Optional coreference		• %			•
Generic/referen-tial alternation				•	• %
Other null arguments			•	•	•

2.2. Generic null subjects in Hungarian

Types of generic subject in Hungarian (based on Holmberg 2005, 2010)

(25) i. inclusive *one*: *az ember* 'the man'; pro_{GEN} ; PRO_{GEN}
ii. exclusive *people*: *az emberek* 'the people'; pro_{arb} ; PRO_{arb}
iii. arbitrary *you*: te; pro_{2SG}
iv. specific we: mi; pro_{1PL}

1PL specific null subject

(26) Ilyenkor az-t gondol-juk $pro_{1PL,}$ hogy
at such times it-ACC think-PRES-1PL (we) that

mindjárt elmúlik a fájdalom.
at once PFX-go-PRES3SG the pain
'On such occasions we think that the pain will go at once.'

2SG arbitrary null subject

(27) Nem tud-hat-od $pro_{2SG,}$ hogy mi-t
not know-OPT-PRES-2SG (you) that what-ACC

hoz-0-0 a holnap.
bring-PRES-3SG the tomorrow
'You never know what's round the corner.'

3PL exclusive null subject

(28) Azt mondják pro_{arb}, [hogy Péter-t kórház-ba
it-ACC say-3PL (people) that Peter-ACC hospital-ILL

szállít-ott-ák pro_i].
take-PAST-3PL (they)
'People say that Peter was taken to hospital.'

3SG inclusive lexical subject in main clauses

(29a) *Az ember/*pro_{GEN}* mindig fél-0, [hogy
the man /(one) always fear-PRES3SG that

le-zuhan-0 a repülőgép].
off-crash-PRES3SG the airplane
'One always fears that the airplane will crash.'

3SG inclusive null subject in subordinate clauses

(29b) *Az ember*$_{GEN}$ mindig fél-0, [hogy le-
the man always fear-PRES3SG that off-

zuhan-0 *pro_{GEN}*] /*$ő_i$.
crash-PRES3SG (the man)
'One always fears that one/*he will crash.'

(30) Ha az ember iszik, nem vezet
if the man drink-PRES3SG not drive-PRES3SG

pro_{GEN} /*az ember/*ő.
the man / he
'If one drives, one does not drink.'

3. Generic inclusive subjects: lexical vs. null

Moltmann (2006, 2012)
Two kinds of generic ONE: (i) free, genericity-inducing item; (ii) bound variable.

(31a) *One* knows [what *one* should wear in the Opera].
(31b) *Everyone/*Someone* knows [what *one* should wear in the Opera].
(32a) *One* can only lose *one's* own keys.
(32b) *He can only lose one's own keys.

GEN is a complex operator (contra Chierchia 1995 and Krifka&al. 1995)
(i) it does not interact with true quantifiers;
(ii) it has widest scope;
(iii) it has modal force (it ranges over possible worlds and is restricted by an R accessibility relation from the actual world to the normal worlds));
(iv) it is first person-oriented (based on the speaker's observation or induction)
(v) it is context-dependent (it ranges over individuals and is restricted by an N normality condition and a C contextual relevance condition).

(33) $\forall w \forall x(wRw_0 \,\&\, x \in D(w) \,\&\, N(w)(x) \,\&\, C(w)(x) \rightarrow P(w)(x))$

Hungarian *az ember* 'the man' and *pro*$_{GEN}$

The 3SG generic inclusive lexical subject:
(i) can serve as an antecedent for reflexives;
(ii) can serve as an antecedent for the null subject of depictive adjunct predicates;
(iii) can serve as an antecedent for *pro*$_{GEN}$;
(iv can control PRO$_{GEN}$.

(34) Manapság *az ember*$_{GEN}$ lát-hat-ja *magá-$t_{GEN/1}$*
nowadays the man see-OPT-3SG self-ACC

az internet-en.
the internet-SBL
'Nowadays *one* can see *oneself/*himself* on the internet.'

(35) Az ember$_{GEN}$ nem vizsgál-0 beteg-et_j,
the man not examine-PRES3SG patient-ACC

ha részeg 0 *$pro_{GEN/*j}$* /*$ő_i$.
when drunk COP.PRES3SG (the man/he)
'*One* does not examine a patient$_j$ when *one /*he$_i$* is drunk.'

(36) Azok-ban az idők-ben *az ember*$_{GEN}$ nem akar-t
those-INESS the times-INESS the man not want-PAST3SG

[meg-operál-ni *PRO*$_{GEN}$ egy halálos beteg-et].
PFX-operate-INF a lethally ill patient-ACC
'In those times, *one* would not want [*PRO*$_{GEN}$ to operate on lethally ill patients].'

No WCO-effect

(37) [$_{ForceP}$ GEN [$_{TOPP}$*Az ember-nek*$_{GEN}$ mindig ad-0
the man-DAT always give-PRES3SG

ajándék-ot az *pro*$_{GEN}$ any-ja]].
present-ACC the (the man.NOM) mother-POSS3SG
'*One's mother* always gives a present to *one*.'

WCO-effect

(38) **Valaki-nek*$_i$ mindig ad-0 ajándék-ot
someone-DAT always give-PRES3SG present-ACC

az *pro*$_i$ any-ja.
the s/he-NOM mother-POSS3SG
'*His*$_i$ *mother* always gives *someone*$_i$ a present.'

(39) [$_{ForceP}$ GEN [$_{TOPP}$ *Az ember-nek*$_{GEN}$ mindig ad-0
the man-DAT always give-PRES3SG

ajándék-ot az *pro*$_i$ any-ja.
present-ACC the (s/he.NOM) mother-POSS3SG
'**His/her*$_i$ mother always gives a present to *one*.'

Semantic restrictions on 3SG generic inclusive subjects in Hungarian

(40)(i) 3SG generic inclusive lexical subjects have widest scope interpretation irrespective of their syntactic positioning;
(ii) 3SG generic inclusive subjects (both lexical and null) are in the scope of GEN and are restricted by the generic self-detached attitudinal modal base.
(iii) The logophoric interpretation of 3SG null subjects is excluded whenever they are bound by a 3SG generic inclusive lexical antecedent.

3.1. PRO$_{GEN}$

(41a) John knows [$_{CP}$ what [*one* should wear in the Opera]].
(41b) John knows [$_{CP}$ what [PRO*arb* to wear in the Opera]].

(42a) [$_{ForceP}$ GEN....[$_{TP}$*One* feels tired [after *one* walks in the park]]].
(42b) [$_{ForceP}$GEN..... [$_{TP}$*One* feels tired [after *PRO*$_{GEN}$ walking in the park]]].

(43a) [$_{ForceP}$GEN.....[$_{TP}$It is fun (for *one*) [if *one* walks in the park]]].
(43b) [$_{ForceP}$ GEN....[$_{TP}$It is fun (for *one*) [*PRO*$_{GEN}$ to walk in the park]]].

3.2. Non-nominatve generic inclusive lexical vs.null subjects

(44) [$_{ForceP}$[$_{TOPP}$ A lány-ok-nak$_i$ [$_{FinP}$ kellemetlen volt, [$_{CP}$ hogy
the girl-PL-DAT unpleasant was that

táncol-j-anak *pro*$_i$ a részeg tanár-ral]]].
dance-SBJ-3PL(they) the drunk teacher-COM
'It was unpleasant for the girls that they should dance with the drunk teacher.'

(45) [$_{ForceP}$[$_{TOPP}$A lányok-nak$_i$ kellemetlen volt [$_{ForceP}$ táncol-ni
the girl-PL-DAT unpleasant COP.PAST3SG dance-INF

PRO$_i$ a részeg tanár-ral].
the drunk teacher-COM
'It was unpleasant for the girls to dance with the drunk teacher.'

(46) [$_{ForceP}$GEN [$_{TOPP}$ Az ember-nek$_{GEN}$ ...[$_{FinP}$ kellemetlen
the man-DAT unpleasan

0 [ha *pro*$_{GEN}$kölcsönkér-0]]]].
COP.PRES3SG if (one) borrow-PRES3SG
'It is unpleasant (for one) if one borrows money.'

(47) [$_{ForceP}$GEN [$_{TOPP}$ Az ember-nek$_{GEN}$ ... [$_{FinP}$ kellemetlen
the man-DAT unpleasant

0 [kölcsönkér-ni-e PRO$_{GEN}$]]]].
COP.PRES3SG loan-ask-INF-3SG
'It is unpleasant (for one) [PRO$_{GEN}$ to borrow money].'

(48) [$_{FinP}$ Kellemetlen 0 [kölcsönkér-ni -*e/*ük/*-ed
unpleasant COP.PRES3SG loan-ask-INF - 3SG/3PL/2SG

PRO_{arb}]]]].
'It is unpleasant [PROarb to borrow money].'

3.3. *Some interpretive differences between 3PL exclusive and 3SG generic inclusive subjects*

(i) Temporal and locative adverbials (Tóth 2010)

3PL GENERIC EXCLUSIVE LEXICAL SUBJECT

(49) A középkor-ban az ember-ek fél-tek
the Middle Ages-INESS the man-PL fear-PAST3PL

a villámlás-tól.
the lightning-ABL
'In the Middle Ages people feared lightning.'

3PL GENERIC EXCLUSIVE NULL SUBJECT

(50) A középkor-ban fél-tek pro_{GENEX}
the Middle Ages-INESS fear-PAST3PL (people)

a villámlás-tól.
the lightning-ABL
'In the Middle Ages people feared lightning.'

3PL REFERENTIAL SUBJECT

(51) Fél-tek pro_i a villámlás-tól.
fear-PAST3PL (they)the lightning-ABL
'They feared the lightning.'

(ii) General vs. actual readings (Bródy 2010)

General

(52a) Párizs-ban az ember-ek divatos-an öltöz-nek.
Paris-INESS the man-PL fashionab-ly dress-PRES3PL
'In Paris *people* dress fashionably.'

(52b) Azok az emberek, akik Párizs-ban vannak, divatosan
those the people who Paris-INESS are fashionably

öltöznek.
dress-PRES3PL
'People who are in Paris...'

Actual (episodic)

(53a) Párizs-ban az ember-0 divatosan
Paris-INESS the man-SG fashionably

öltöz-ik.
dress-PRES3SG
'In Paris *one* dresses fashionably.'

(53b) Amikor az ember Párizs-ban van, pro_{GEN}/*ő / *az ember
when the man Paris-INESS is one/*he /*the man

divatosan öltöz-ik.
fashionably dress-PRES3SG
'When *one* is in Paris, *one /*he /*the man* dresses fashionably.'

Summary

Generic inclusive subjects are realized either by the lexical DP *az ember* 'the man' or by pro_{GEN} in Hungarian finite clauses. This corresponds to the genericity-inducing vs. bound variable occurrences of *one* identified by Moltmann (2006, 2010, 2012). The generic inclusive non-nominative subject of modal, psych-impersonal, evaluative predicates can antecede reflexives, secondary adjunct predicates and can control the subject of infinitival clauses, just like its nominative counterpart.
Generic inclusive PROarb or PRO_{GEN} appear only in non-finite clauses. The former is a free pronominal, the latter requires a generic inclusive antecedent outside its minimal binding domain. Neither of them alternates with the generic inclusive lexical subject *az ember* 'the man'.
Gneric null subjects are crucial for the typological system of NSLs propsed by Roberts & Holmberg (2010). The syntactic properties of generic inclusive null subjects exclude Hungarian from any NSL type established by them, and their proper subset hierarchy cannot be upheld.

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