

**SESSION II: PROBLEMS WITH THE NULL SUBJECT PARAMETER (NSP)**

1. Problems for the traditional *pro* analysis
  - Empirical:
    - positional restrictions on null subjects
    - morphologically rich languages lacking null subjects
    - morphologically poor languages having null subjects
    - correlations predicted by the Null Subject Parameter (NSP) not holding up
  - Theoretical and conceptual:
    - acquisition
    - empty categories in Minimalism (to be discussed in Session III)

**2. EMPIRICAL PROBLEMS**

**2.1. Positional restrictions**

- Some languages only allow null subjects in specific positions:

- |     |    |   |          |
|-----|----|---|----------|
| (1) | a. | <i>Es schneit heute</i><br>it snows today = “It is snowing today”                                   | [German] |
|     | b. | <i>Heute scheid es</i><br>today snows it = “Today it is snowing”                                    |          |
| (2) | a. | <i>Es wurde gestern getanzt</i><br>it became yesterday danced = “There was dancing yesterday”       |          |
|     | b. | <i>Gestern wurde (*es) getanzt</i><br>yesterday became it danced = “Yesterday there was dancing”    |          |
| (3) | a. | <i>*(Það) rigndi ígær</i><br>it rained yesterday<br>“It rained yesterday” = “Yesterday it rained”   |          |
|     | b. | <i>Í gær rigndi (*það)</i><br>yesterday rained it = “Yesterday it rained”                           |          |
| (4) | a. | <i>*(Það) hefur komið strákur</i><br>it has come boy = “There came a boy”                           |          |
|     | b. | <i>Í gær hefur (*það) komið strákur</i><br>yesterday has it come boy = “Yesterday there came a boy” |          |

→ Two oddities:

- (a) expletive *pro* is only permitted clause-internally – specifically, in postverbal position, i.e. Spec-TP because these are V2 languages (cf. Vikner 1995)
- (b) these languages feature an overt expletive – contrast Italian, Spanish, etc.

- Solution (?): expletive distribution = the consequence of **parameter interaction**: NSP meets V2
- Observation: no modern-day V2 language is a full NSL



- “... the actual richness of AGR [=agreement marking – TB] puts an upper bound on the possible values of the recovery parameter”, but “[w]ithin this upper bound, choices would seem to be arbitrary” (Rizzi 1986: 544)  
→ How rich is “rich enough”? (cf. Jaeggli & Safir 1989, Vikner 1997, Rohrbacher 1999 and Rizzi 2002 for some “counting” suggestions, and i.a. Bobaljik 2002 and Müller 2006, 2007 for a rejection of this mode of thinking)

**Conclusion:** There doesn't seem to be a straightforwardly expressible correlation between morphological richness and NSL status, although inflection does seem to be important – cf. the “partial null subject” cases, Irish and Hebrew:

- (9) Irish (cf. McCloskey & Hale 1984): conditional paradigm for *cuir* – “put”

chuir-finn	chuir-fimis
chuir-feá	chuirfead sibh (“you (pl)”)
chuirfeadh sí (“she”)	chuirfeadh siad (“they”)

→ null subjects only possible with 1SG, 1PL and 2SG (synthetic forms)

- (10) Hebrew (cf. Shlonsky 2007): past tense paradigm for “study”

lamad-ti	(1SG)	lamad-nu	(1PL)
lamad-ta	(2MSG)	lamad-tem	(2PL)
lamad-t	(2FEMSG)	lamd-du	(3PL)
lamad	(3MSG)		
lamd-da	(3FEMSG)		

→ null subjects only possible in 1<sup>st</sup> and 2<sup>nd</sup> person

### 2.3. Morphologically poor languages having null subjects

- Null subjects are widespread in East Asian languages, many of which are isolating (e.g. Chinese, Japanese, Korean, Burmese, Thai, Vietnamese, Indonesian, Khmer) and none of which exhibit verbal agreement morphology

- (11) a. *Zhangsan shuo mingtian bu bi lai* [Chinese]  
Zhangsan say tomorrow not need come  
“Zhangsan says he (himself or another male) need not come tomorrow”
- b. *John-wa [siken-ni otita no] o mada siranai* [Japanese]  
John-<sub>TOP</sub> exam failed that yet not-know  
“John still doesn't know that he (himself or another male) failed the exam”
- c. *John-i [po-ess-ta-ka] malha-ess-ta* [Korean]  
John-<sub>SUBJ</sub> see-<sub>PAST-DECL-COMP</sub> say-<sub>PAST-DECL</sub>  
“John said that he (himself or another male) saw”

- (12) Japanese verbal forms

yom-ru – “read” (present)	yom-oo – “read” (hortative)
yom-ta – “read (past)	yom-itai – “want to read”
yom-anai – “read” (negative)	yom-are – “was read” (passive)
yom-eba – “read” (conditional)	yom-ase – “make read” (causative)

- Not only subjects, but other arguments too can be dropped (from Huang 1984)

- (13) Q: *Zhangsan kanjian Lisi le ma?*  
 Zhangsan see Lisi ASP Q  
 “Did Zhangsan see Lisi?”
- A: (a) *Ta kanjian ta le*  
 he see he ASP  
 (b) *kanjian ta le*  
 see he ASP  
 (c) *ta kanjian le*  
 he see ASP  
 (d) *kanjian le*  
 see ASP  
 (e) *wo cai kanjian le*  
 I guess saw ASP  
 (f) *Zhangsan shuo kanjian le*  
 Zhangsan say saw ASP

Huang (1984): “hot” vs “cool” languages (with “medium” ones in the middle)

- 2 approaches to East Asian languages:
    - (a) the **discourse *pro*-drop** approach (Huang 1984 et seq.): East Asian languages are “cool” and the null subjects they exhibit are no different from the null objects/arguments;  $\neq$  *pro*, but variables bound by a topic (overt/covert)
    - (b) the **agreement-based** approach (cf. Jaeggli & Safir 1989): East Asian languages permit *pro* because of their morphologically uniform paradigms
  - ad (b) (cf. Jaeggli & Safir 1989 30):
- (14) **Principle of Morphological Uniformity:** An inflectional paradigm P in a language L is morphologically uniform iff P has either only underived inflectional forms (i.e. lacks inflectional marking altogether – TB) or only derived inflectional forms<sup>1</sup>

(15) The **Null Subject Parameter:** Null subjects are permitted in all and only languages with morphologically uniform inflectional paradigms (cf. also Speas 2006)

- Rizzi’s (1986L 545ff) take on this:

“the basic typological generalization concerning *pro* in subject position is that it is possible in languages with strong Agr or no Agr at all”

“Universal Grammar offers the option of using  $\phi$ -features, and some grammatical systems take it, whereas others do not ...”

- problems with this proposal are numerous:

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<sup>1</sup> More precisely, Jaeggli & Safir (1989) require that “all forms in the inflectional paradigm ... are morphologically complex. There can be no mixture of morphologically complex forms with bare stems.” So the various languages in (8) are okay despite the fact that each person&number doesn’t have a distinct form; none of the forms are stems. The same is true for Irish. Contrast English, though, which does mix morphologically complex forms (*sings*) and stems (*stem*).

- (a) many languages completely lacking verbal agreement don't allow *pro*-drop – cf. Afrikaans, Swedish, Danish, etc. and also creoles like Papiamentu, Jamaican Creole, Tok Pisin, etc.
- (b) there are also languages like Kokota (Solomon Islands, cf. Palmer 1999) which exhibit non-uniform verbal, but allow *pro*-drop
- (c) if no agreement at all license *pro*, why don't we see object-drop in languages which completely lack object agreement (e.g. English, German, French, etc.)?

- ad (a) (Huang 1984): dropped objects most clearly reveal discourse orientation
- (16) a. *Zhangsan shuo Lisi bu renshi* [Chinese]  
 Zhangsan say Lisi not know  
 “Zhangsan said that Lisi did not know him (i.e. a male other than Z)”
- b. *Zhangsan shuo Lisi bu renshi ta*  
 Zhangsan say Lisi not know he  
 “Zhangsan said that Lisi did not know him (i.e. Z or some other male)”
- i.e. in a pragmatically neutral context, null objects can't be co-referential with the matrix subject<sup>2</sup>

- Where there's a topic, null objects are more naturally construed with the topic:
- (17) a. *Neige ren Zhangsan shuo Lisi bu renshi* [Chinese]  
 that man Zhangsan say Lisi not know  
 “That man<sub>1</sub>, Zhangsan said that Lisi doesn't know him<sub>1</sub>”
- b. *John-wa minna-ga [Bill-ga settokusuru to] omotte iru* [Japanese]  
 John-TOP everyone-NOM Bill-NOM persuade that think is  
 “John<sub>1</sub>, everyone thinks that Bill will persuade him<sub>1</sub>”

- Huang (1984): where there's no overt topic, there's a null one
- (18) [<sub>Top</sub> EC<sub>1</sub>] *Zhangsan shuo Lisi bu renshi* t<sub>1</sub>(=(16a))  
 Zhangsan say Lisi not know  
 “Him<sub>1</sub>, Zhangsan said that Lisi did not know”
- i.e. there is no null object as the object has been topicalised and then deleted

Thus: what we have in object position is an A'-bound variable.

- 2 types of languages:
    - (a) those featuring null subjects (Italian, etc.) – subject-prominent
    - (b) those that allow null topics (Chinese, etc.) – object-prominent (cf. Li 1976)
  - Corroborating evidence from spoken German:
- (19) a. *(Ich) hab' ihn schon gesehen*  
 I have him already seen = “Already seen him”
- b. *(Das) hab' ich schon gesehen*  
 that have I already seen  
 “Seen it already”
- c. *\*Ich hab' () schon gesehen*  
 I have already seen

<sup>2</sup> A: *Shei kanjian-le Zhangsan?*  
 Who see- PERF Zhangsan? = “Who saw Zhangsan?”

B: *Zhangsan shuo Lisi kanjian-le*  
 Zhangsan said Lisi saw- PERF = “Zhangsan said Lisi saw him (i.e. Z)”

Here the antecedent is *Zhangsan* in the preceding question and not the one in the matrix clause. (discourse orientation)

→ Deleted element must be located in clause-initial position (Spec-CP), i.e. it must have been topicalised first

- 2 parameters:
  - (a) Null Subject Parameter: ON: Italian, Spanish, etc. vs OFF: English, French
  - (b) Null Topic Parameter: ON: Japanese, German, etc. vs OFF: English, Italian
- problems: not all East Asian languages seem to work just like Japanese – cf. Cole (1987) who suggests that at least Korean, Thai and Quechua probably do feature *pro*

NB: possibility that all null subjects may not be of the same type, i.e. that a given surface phenomenon doesn't necessarily have to "look the same" underlyingly.

#### 2.4. The correlations predicted by Rizzi's NSP

- Rizzi (1982) predicts the following direct and indirect correlations:<sup>3</sup>
  - (20) a. direct/biconditional correlations:
    - Expletive null subjects ↔ Free Subject Inversion
    - Free Subject Inversion ↔ *that*-trace violation
  - b. indirect/implicational correlation:
    - Referential null subjects → Expletive null subjects

Expected language types:<sup>4</sup>

(21)

Null referential	Null expletive	Free Subj Inversion	<i>That</i> -trace violation
+	+	+	+
-	+	+	+
-	-	-	-

- Immediate problem: German, Icelandic ... - null expletives, but not Free Inversion
- Gilligan (1987: 157) having surveyed 100 languages, representative of all the families identified in Ruhlen's (1986) language classification: "... it seemingly cannot be the case that a single parameter setting is responsible for this collection of constructions [Rizzi's NSP-correlated ones – TB]: there are simply too many languages in which the direct correlations do not hold."
- Gilligan's results: there are only 4 robust correlations, all of them unidirectional:
  - (21) a. Null referential subjects → Null expletives (cf. also Nicolis 2007)
  - b. Free Subject Inversion → Null expletives (statistically)
  - c. Free Subject Inversion → *that*-t
  - d. *that*-t → Null expletives
- Newmeyer (2005: 204): "These results are not very heartening for either Rizzi's theory nor for Safir's, nor, indeed for any which sees in null subject phenomena a rich clustering of properties. In three of the four correlations, null nonthematic subjects are entailed, but that is obviously a simple consequence of the virtual non-existence of

<sup>3</sup> These predictions are identical to those made by Taraldsen (1980), with the difference that Taraldsen didn't consider Free Subject Inversion.

<sup>4</sup> Safir (1985) deconstructed the NSP into 3 bits, dissociating null referential subject, null expletives and Free Subject Inversion, so he predicted 5 different language types

languages that manifest *overt* nonthematic subjects. Even worse, five language types are attested whose existence neither theory predicts.”

## 2.5. Acquisition

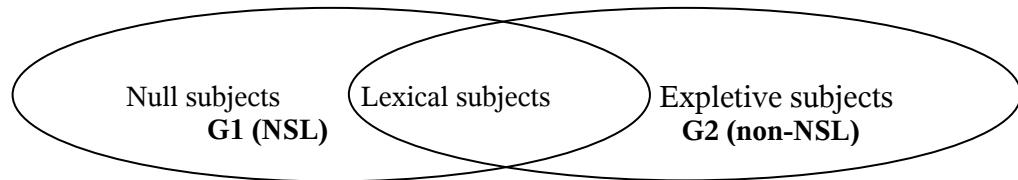
- Cues?
- Berwick’s (1982) **Subset Principle**: The learner will always postulate the “smallest” possible grammar in the first instance, waiting for positive evidence that this grammar is too restrictive before opting for a “larger” grammar.
- One way of implementing this: parameter settings can be distinguished as **marked** vs **unmarked**, with the latter being what the child starts off with (i.e. unmarked parameter settings will generate a maximally “small” grammar).
- NSP: we could view the non-NSL (i.e. the “English” setting) as unmarked, being the one that will generate a grammar that allows only finite clauses with overt subjects and not, additionally, those with covert subjects (cf. Rizzi 1986: 525ff).

OR:

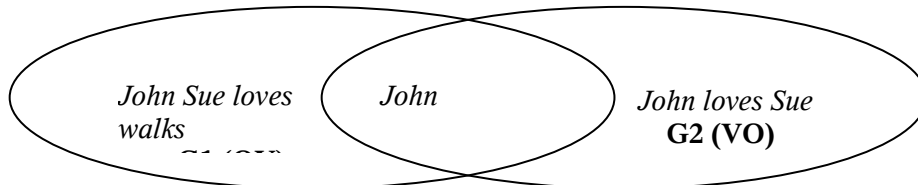
We could view *pro*-drop as the subset option, taking the view that this option doesn’t require overt expletives ... and children acquiring all languages appear to go through a “null-subject” phase (cf. Hyams 1983).

- In reality: GB parameters actually involved intersections rather than superset-subset relationships

(22)



(23)



- A further acquisitional consideration: discourse factors determine the overt vs covert status of subjects

(24) *Juan y yo llegabamos a casa* [Spanish]

Juan and I arrived to home

“Juan and I arrived at home”

(a) \**Tenia las llaves*  
have-1/3SG.IMPERF the keys

(b) *Yo tenia las llaves/El tenia las llaves*  
I have-1SG.IMPERF the keys/ He have-3SG.IMPERF the keys  
“I had the keys/He had the keys”

BUT:

(25) *Juan llegaba a casa*  
Juan arrived to home

“Juan arrived at home”  
*Tenia las llaves*  
 have-3SG.IMPERF the keys  
 “He had the keys”

- Null subjects in First Language Attrition contexts (cf. the work of Antonella Sorace and associates)

- (26) a. *O Janis<sub>i</sub> prosvale ton Petro<sub>k</sub> otan pro<sub>i</sub>/aftos<sub>k</sub> ton plisiase* [Greek]  
 the Janis insulted the Petro when *pro*/he him approached  
 “Janis insulted Petro when he<sub>i</sub>/he<sub>k</sub> approached him”  
 b. *O Janis<sub>i</sub> prosvale ton Petro<sub>k</sub> otan AFTOS<sub>i/k</sub> ton plisiase*  
 the Janis insulted the Petro when he<sub>i/k</sub> him approached  
 “Janis insulted Petro when HE/he approached him”

- Attrition affects the use of overt subjects in L1 Greek and Italian: subjects overuse overt forms, i.e. the marked/non-neutral character of these structures has undergone “bleaching”.
- Correlation in first language acquisition? Wexler (1998) proposes Very Early Parameter Setting (VEPS) model in terms of which “basic” parameters are set very early on ... and the NSP is one of these. So we should see the correlating properties appearing correctly as they start appearing in the child’s language. Mondoñedo, Snyder & Sugisaki (DATE) suggest this is correct for clitic climbing.
- A correlation that has been observed in acquisition: there is a negative correlation between null subject languages and the so-called **Optional Infinitive Stage** (cf. the work of Wexler in particular)

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