

Subject islands are still islands (even when the subject is a *wh*-filler)

Grant Goodall

Department of Linguistics / UC San Diego



The phenomenon

Subject island effect

In filler-gap dependencies, gaps resist being located within a subject (Chomsky 1973):
(1) * [Which animal] will [movies about ___] be produced?

Gaps within fillers

Acceptability appears to increase when subject is itself a filler:

- (2) [Which animal] do you wonder [how many movies about ___] will be produced?
Especially for Spanish (Torrego 1985) and Italian (Rizzi 2006), but also for English (Kayne 1984, Lasnik & Saito 1992; though see Müller 1995, Gallego 2009). Other examples:
(3) ?Which athletes do you wonder [which pictures of ___] are on sale?
(4) ?Who can't you decide [how many pictures of ___] to buy for your kids?
(5) De qué autora no sabes [qué traducciones ___] han ganado premios internacionales?
'By what author don't you know what translations have won international awards?'

How can this be happening?!

Why this is unexpected: syntax

Many general principles have been proposed for syntax that have the effect of prohibiting (2):

- Freezing Principle (Wexler & Culicover 1980)
- Criterial Freezing (Rizzi 2006)
- Chain Uniformity (e.g. Takahashi 1994)

All prohibit extraction of one phrase followed by subextraction out of that same phrase.

Why this is unexpected: processing

Sentences like (2) would require extraordinary effort for the processor. Specifically, when the processor encounters [how many movies about], it presumably needs to:

- Recognize this as a filler.
 - Do this before the other filler-gap dependency is resolved.
 - Recognize that there is a gap within this filler from the other filler-gap dependency.
- Processing would appear to be so difficult that we would expect acceptability to go down, not up.

Does this phenomenon really exist?

YES
Then...
How can we deal with the significant challenges it poses for syntax and processing?

NO
Then...
How could earlier researchers have come to such a different conclusion?

Much earlier work was on Pied-Piping languages (Spanish and Italian) where gap site is not entirely clear. English is ideal test case, since it allows both Pied-Piping and Preposition-Stranding, where gap site is clear.

Experiment: Methods

Acceptability experiment

- 7-point scale (1 = "very bad", 7 = "very good")
- 48 participants saw 4 tokens of each condition
- 57 filler items (1.2 : 1 filler/experimental ratio)
- 12 lists: counterbalanced (Latin square) and pseudo-randomized; 12 additional lists with reverse order
- 2 subjects randomly assigned to each list

Materials

3 x 2 x 2 design

- Location of affected (extracted from) constituent:
matrix clause
vs.
embedded clause
vs.
embedded SPEC/CP (fronted)

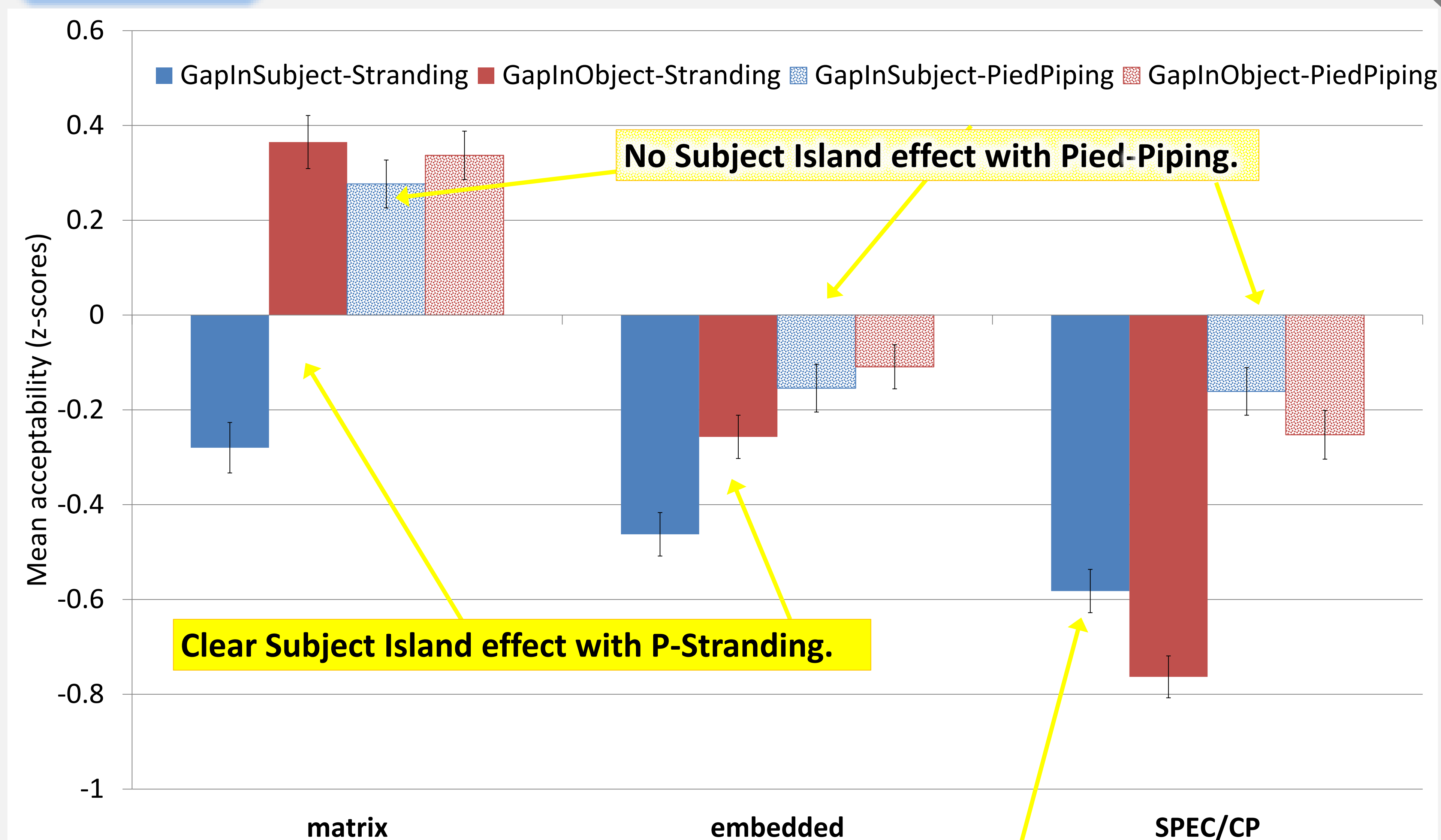
- Grammatical function of affected constituent:
subject
vs.
object

- Type of *wh*-extraction:
Preposition Stranding
vs.
Pied-Piping

Affected constituent		With Preposition Stranding
Location	Grammatical function	Sample stimuli
matrix	Subject	[Which animal] will [several movies about ___] be shown to the visitors?
	Object	[Which animal] will they show [several movies about ___] to the visitors?
embedded	Subject	[Which animal] do you wonder whether [several movies about ___] will be shown to the visitors?
	Object	[Which animal] do you wonder whether they will show [several movies about ___] to the visitors?
embedded SPEC/CP	Subject	[Which animal] do you wonder [how many movies about ___] will be shown to the visitors?
	Object	[Which animal] do you wonder [how many movies about ___] they will show to the visitors?

Affected constituent		With Pied-Piping
Location	Grammatical function	Sample stimuli
matrix	Subject	[About which animal] will [several movies ___] be shown to the visitors?
	Object	[About which animal] will they show [several movies ___] to the visitors?
embedded	Subject	[About which animal] do you wonder whether [several movies ___] will be shown to the visitors?
	Object	[About which animal] do you wonder whether they will show [several movies ___] to the visitors?
embedded SPEC/CP	Subject	[About which animal] do you wonder [how many movies ___] will be shown to the visitors?
	Object	[About which animal] do you wonder [how many movies ___] they will show to the visitors?

Results



Conclusions

- **Preposition Stranding:** Subject Island effects suggest speakers do posit gaps within affected constituent with Preposition Stranding.
- **Pied-Piping:** Lack of Subject Island effects suggest speakers do not do this with Pied-Piping.
- **Neither type** shows improvement when gap is purportedly inside filler, contrary to claims.

This is a reassuring and welcome conclusion:
Going against basic principles of processing and/or grammar does not make sentences more acceptable!

What about earlier research?

Why have so many people reached a different conclusion?

- SPEC/CP case with Pied-Piping appears to be better than clear subject island case (with P-stranding).
- Subject vs. object asymmetry reverses in SPEC/CP case.

We have seen here that gaps in fillers are not better than gaps in subjects when:

- gap position is clear
- full factorial analysis is considered