

Incremental acquisition of morphosyntactic variation: Evidence from children's Spanish subject pronoun expression

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VARIABLE GRAMMAR

- Procedural knowledge that generates systematically variable patterns of language use.
- Spanish subject pronoun expression (\emptyset bailo ~ yo bailo 'I dance') is variable and systematic among adults
- Conditioned by person/number, priming reference, TMA, clause type, etc.

CHILDREN & VARIATION

- Structured phonological variation emerges early, ~3 years old (Nardy et al. 2013, Roberts 2004)
- Structured morphosyntactic variation? Little is known (but see Smith, Durhan & Richards et al. 2013).

RESEARCH QUESTIONS

When/how does a variable grammar develop during childhood?

More specifically:

1. Do Spanish-speaking children demonstrate adult-like systematicity in their variable use of subject pronouns?
2. Do patterns of pronoun expression change with age?

PARTICIPANTS

- Children: monolinguals (Spanish) in Mexico.
 - 6/7-year-olds (N = 19)
 - 8/9-year-olds (N = 47)
 - 10/11-year-olds (N = 35)
 - 12+-year-olds (N = 53)



DATA

- Sociolinguistic interviews, picture book narration, story re-tell
- Contexts studied: Pronoun ~ \emptyset (variable contexts).
- Exclusions: contexts of little to no variation, e.g. 3pl nonspecifics, subject-headed rel. clauses, unidentifiable referents, etc.
- N tokens: 6/7s: 1,551; 8/9s: 1,597; 10/11s: 1230; 12+s: 1545

ANALYSIS (separate binary logistic regressions in Rbrul for each age group)

- **Dependent variable:**
Expressed/omitted subject pronoun (yo bailo ~ \emptyset bailo).
- **Independent variables:**
 1. Person/number: 1sg, 2sg, 3sg, 1pl, 3pl
 2. Priming: previous mention of referent = expressed or omitted pronoun.
 3. Reference: Same vs. switch in subject reference across consecutive clauses
 4. TMA: Present indic., preterit, imperfect indic., other
 5. Clause: Main, subordinate, coordinate
 Interaction term: Reference*Clause

RESULTS

Table 1. Rates of subject pronoun expression, Mexican children & adults

6/7-yr-olds	8/9-yr-olds	10/11-yr-olds	12+-yr-olds	Adults (Shin forthcoming)
9%	8%	10%	12%	20%

Interpretation:

- We knew that very young children (age 1-2) underproduce subject pronouns (Valian 1990, Valian & Eisenberg 1991).
- Now we know this 'underproduction' persists into school-age (Shin 2012, Shin & Erker 2015)

Table 2. Significant predictors of subject pronoun expression

6/7	8/9	10/11	12+
Person	Person	Person	Person
Reference	Priming	TMA	Priming
Priming	TMA	Priming	Reference
	Reference	Clause	TMA
		Reference	Clause

Increasing complexity of pattern

Table 3. Reference factors predicting pronoun expression

	6/7	8/9	10/11	12+
Pronoun expression	switch	switch	switch	switch
Pronoun omission	no-switch	no-switch	no-switch	no-switch

Table 4. Priming factors predicting pronoun expression

	6/7	8/9	10/11	12+
Pronoun expression	Pronoun _	Pronoun _	Pronoun _	Pronoun _
Pronoun omission	\emptyset _	\emptyset _	\emptyset _	\emptyset _

Table 5. Person/number factors predicting pronoun expression

	6/7	8/9	10/11	12+
Pronoun expression	1sg	2sg	2sg	1sg
	2sg	1sg	1sg	3sg
Pronoun omission	3pl	3pl	3pl	2sg
	1pl	1pl	1pl	1pl

Table 6. TMA factors predicting pronoun expression

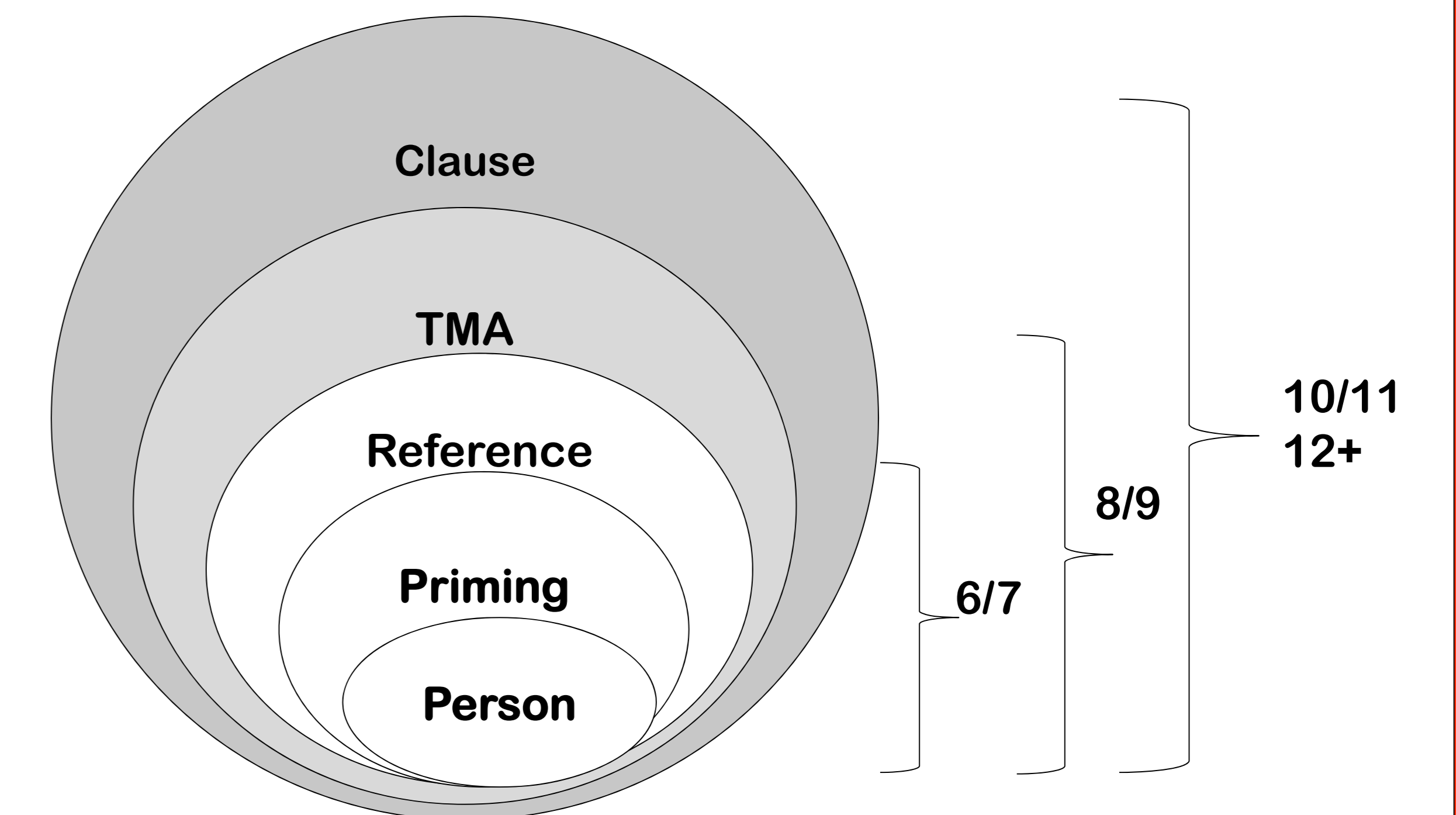
	6/7	8/9	10/11	12+
Pronoun expression	--	Imperfect	Imperfect	Imperfect
Pronoun omission	--	Preterit	Present	Present
		Other	Other	Other

Table 7. Clause factors predicting pronoun expression

	6/7	8/9	10/11	12+
Pronoun expression	--	--	Main	Dependent
			Dependent	Main
Pronoun omission	--	--	Coordinate	Coordinate

CONCLUSIONS

- Children's use of subject pronouns is systematic.
- With age, they develop sensitivity to more constraints on pronoun expression.
→ Increasing complexity of pattern over time.



EXPLANATIONS

Adult input → children

Are children acquiring adult-like constraint hierarchies in this particular order because more robust statistical tendencies in the input are easier to observe and learn?

and/or

Child developmental processes → adult pattern

Are children converging on the constraint hierarchies in this particular order because the first ones learned are the most functionally optimal constraints?

If so, is the adult pattern the result of the development process?

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References: See handout