



Early Use of Spanish Verbal Gender Markers to Anticipate a Referent

Natalia Arias-Trejo & Elda A. Alva Canto
Facultad de Psicología, UNAM



INTRODUCTION

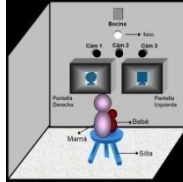
In Spanish, the most common grammatical gender rule is that words ending in 'a' are feminine and words ending in 'o' are masculine. Toddlers are sensitive to article-noun gender agreement (Lew-Williams & Fernald, 2007). Furthermore, 30-month-olds use adjective gender-markers to infer an unnamed referent (Arias-Trejo et al., 2010). At present, it remains unclear whether toddlers, exposed to a rich inflected language, benefit from exposure to gender information contained in alternative grammatical categories such as verbs.

OBJECTIVE

Do gender cues available at the end of Spanish imperative verbs guide referent identification at 30 and 36 months of age?

PROCEDURE

IPL: Intermodal Preferential Looking Paradigm (Golinkoff et al., 1987)



PARTICIPANTS

30- & 36-month-olds (± 15 days):
30 children in each age group.

Full-term Spanish learners, with no visual or auditory problems.

DESIGN

- 12 feminine-masculine object pairs
6 marked & 6 unmarked trials
- **Marked:** object pairs which names are gender-marked **a/o**:
e.g., vaca (cow) – plato (plate)
- **Unmarked:** object pairs which names are not gender-marked:
e.g., flor (flower) – pastel (cake)
- **Auditory input**
míralo (masculine ending) or
mírala (feminine ending)

Object names are never heard.

Trial example

Marked nouns



¡míralo!

Unmarked nouns



¡mírala!

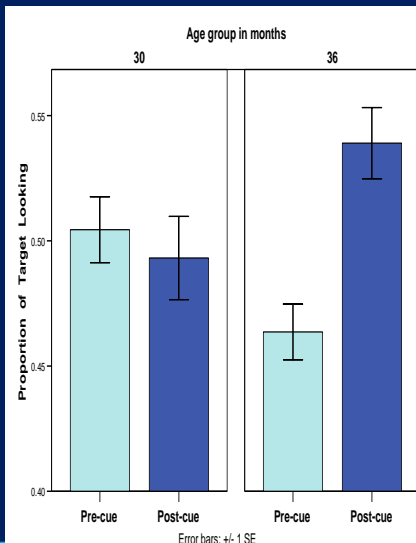


Measure: PTL (proportion of target looking) before and after the verbal cue

RESULTS

2 x 2 x 2 ANOVA
Effect of Gender-cue (Pre vs Post) x
Type of trial (marked vs unmarked nouns) x
Age (24- vs 30-m-olds)

Interaction Gender-cue x Age ($F(1, 59) = 5.48, p = .023, \eta^2 = .09$)



RESULTS

• 36-m-olds, but not 30-m-olds, correctly inferred the unnamed referent: the imperative verb 'míralo' was associated to masculine and 'mírala' to feminine targets. This pattern of response was the same for both types of trials.

DISCUSSION

• Age differences: developmental change in toddlers' ability to capture informative gender cues in different types of words.

• 36m: Match between the grammatical gender of the enclitic pronoun 'lo/la', embedded at the end of the verb, and the gender of target object.

• Early ability to extract gender cues from different grammatical categories other than nouns to correctly infer a target.

This ability might enhance a more rapid and accurate online language processing.

• Similar performance with gender-marked (a/o) and unmarked nouns (different endings) suggests a solid knowledge of grammatical gender of familiar words at 36 months of age. Thus, toddlers learn gender through phono-morphological cues (la vaca) & distributional cues (la flor bella).

This research captures 3-year-olds' sophisticated online ability to infer an unnamed noun by extracting gender information embedded in verbs.

Acknowledgements

Julia B. Barrón Martínez for her invaluable help on this research.
CONACyT postdoctoral research grant 201252.

Contact

nariast@unam.mx
Poster presented at the European Society for Cognitive Psychology, ESCOP 2011.

Arias-Trejo, N., Falcón, A., & Alva-Canto, E. A. (2010). *Early Learners' Access to Meaning through Gender Information: Data from Spanish*. Paper presented at the 17th Biennial International Conference on Infant Studies.

Golinkoff, R. M., Hirsch-Pasek, K., Cauley, K. M., & Gordon, L. (1987). The eyes have it: Lexical and syntactic comprehension in a new paradigm. *Journal of Child Language*, 14(1), 23-45.

Lew-Williams, C., & Fernald, A. (2007). Young children learning Spanish make rapid use of grammatical gender in spoken word recognition. *Psychological Science*, 18(3), 193-198.