

Linguistic input to preverbal Argentine babies

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Abstract

Introduction: Research on language acquisition emphasizes the pivotal role of early linguistic input in shaping children's language development. However, a significant portion of studies focus predominantly on English (Kidd & Evan, 2022), revealing a bias towards samples predominantly comprising Caucasian infants from North America and Western Europe (Singh et al., 2022), thereby lacking diversity. This study aims to examine the lexical and morphosyntactic features of Infant-Directed Speech (IDS) in Argentinian Spanish, contributing to cross-linguistic understanding.

Methodology: Sixty-four mother-infant dyads, native speakers of Argentinian Spanish, participated, with infants aged 3-10 months. A corpus was compiled from semi-structured play sessions using CLAN software (MacWhinney, 2000).

Results: Kruskal-Wallis tests, detailed in Table 1, revealed significant differences in Argentinian Spanish IDS related to child age. Infants aged 6-8 months received less diverse vocabulary, while older infants encountered greater diversity. Younger infants heard more verbs, whereas older ones heard fewer. Also, infants aged 3-5 months were exposed to fewer closed words, contrasting with those aged 9-10 months, who heard more. Morphosyntactic analysis showed a decline in noun/verb ratio with increasing age, while the open/closed word ratio peaked in intermediate ages, indicating greater use of closed words as infants matured.

Discussion: The findings illustrate mothers' adaptive modifications to the lexical and morphosyntactic features of IDS, tailoring speech to their infants' cognitive needs. This study underscores the significance of linguistic input during the prelinguistic stage, shedding light on an underexplored variant of Spanish.

This study addresses gaps in research by focusing on Argentinian Spanish IDS, offering insights into language acquisition beyond English-dominated literature. The results highlight the dynamic nature of maternal speech and its impact on early language development, emphasizing the need for diverse linguistic research to capture the complexity of language acquisition processes across different linguistic and cultural contexts.

Table 1

IDS linguistic features by infant age

	Age 1	Age 2	Age 3	H	p
Maternal emissions per minute	18.3 (29.6)	18.6 (34.3)	20 (33.5)	.82	.66
Infant emissions per minute	1.5 (26.6)	3.4 (32.9)	5.8 (40.9)	5.04	.08
Words per emission	2.6 (37.4)	2.3 (28.5)	2.3 (32.8)	2.84	.24
Morphemes per word	3.5 (36.9)	3.1 (28.3)	3.3 (34.1)	2.8	.25
Ratio of distinct words (TYPES)	113 (30.9)	109.5 (29)	144 (41.9)	4.75	.09
Total words (TOKENS)	431.5 (28.8)	433.5 (31.4)	554 (40.5)	3.51	.17
Lexical diversity	31.7 (35.7)	25.4 (25.3)	34.7 (42)	8.53	.014
% Nouns	35.9 (39.6)	33 (33)	24.7 (20.3)	9.24	.01
% Verbs	31.4 (27.6)	33.2 (32.9)	36.3 (39.4)	3.45	.18
% Adverbs	16.1 (32.9)	14.1 (28.8)	18.6 (39.4)	3.05	.22
% Adjectives	4.8 (29.7)	5.5 (33.2)	5 (35.6)	.91	.63

% Repetitions	16.9 (35.2)	16.6 (30.4)	15.2 (37.6)	.83	.66
Noun/verb ratio	1.35 (40.8)	1.1 (32.2)	.7 (20.2)	10.4	.005
Open/closed word ratio	.96 (334.5)	1.3 (37.7)	.8 (19)	9.8	.007
Total open words	173 (26.5)	205.5 (32.6)	237 (41.8)	5.6	.06
Total closed words	173 (27.2)	192.5 (30.3)	285.5 (45.3)	8.8	.01

Note. Medians, mean range values, H value, and statistical significance (Kruskal-Wallis test) are presented for each linguistic variable analyzed based on infant age. *df* = 2. Age 1 = infants between 3-5 months (N=22), Age 2 = infants between 6-8 months (N=28), and Age 3 = infants between 9-10 months (N=14).

References

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