

The acquisition of Italian prepositions: a study on children's early spontaneous speech

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Topic

Q: What is the order of P acquisition in Italian?

- Two broad aims:
 - Acquisitional debate: functional material in a morphologically rich language
 - **Case Marker Ps have a different acquisition path in morphologically rich languages than in non-rich ones.**
 - Theoretical debate: categorization of Italian prepositional items
 - **Simple Ps are not a uniform class even in acquisition. At least two classes should be individuated.**

1. Introduction

- Cross-linguistically, languages make systematic distinctions between at least two types of adpositions, i.e. simple and complex ones, which exhibit different morpho-syntactic, semantic, and phonological properties.
- A categorization of adpositions into the functional/lexical class is by no means uncontroversial: no clear consensus on what diagnostics should be used to decide on the matter. In addition, it is subject to cross-linguistic variation

(Jackendoff 1973, 1977, 1991; van Riemsdijk 1990; Giorgi 1991; Grimshaw 1991; Rooryck 1996; Zwarts 1997, 2005; den Dikken 2003; Svenonius 2006; Asbury et al. 2008; Terzi 2008; Cinque & Rizzi 2010, Manzini & Franco 2016; Garzonio & Rossi 2020 a.o.).

1. Introduction: Italian Ps

- Traditionally, in Italian, a partition between two distinct sets of prepositions (Ps) has been proposed : simple/proper and complex/improper Ps.
- Simple/proper Ps include a set of monosyllabic items (*di* ‘of’, *a* ‘to’, *da* ‘from’, *in* ‘in’, *con* ‘with’, *su* ‘on’, *per* ‘for’, *tra/fra* ‘between’), that are often fused with the determiner, tend to be semantically vague, and constitute a closed class.
- Complex Ps, e.g., *dietro* ‘behind’, *dentro* ‘inside’, *sopra* ‘above’, are at least bimorphemic, are stressed and form quite a big inventory (see Rizzi 1988 for an extensive description). They often require or optionally take a simple preposition in order to be linked to their DP complement: *dietro a* ‘behind at’

(Rizzi 1988, Salvi & Vanelli 2004, Tortora 2005, Cinque 2010, among others)

1. Introduction: Italian Ps

- Diagnostics

- a) semantic content (but see Cinque 2010: 11)
- b) closed vs. open class (but see Svenonius 2007)
- c) synthetic forms of the P with (the various forms of) definite article
- d) possibility for their complement to be omitted or extracted
- e) possibility of taking another PP as their complement: PP headed by simple P
- f) acting as complementizers (Kayne 2004)

Su 'on'

- As simple Ps, synthetic forms P+D

***su-lla** sedia* 'on-the chair'

- As complex Ps, possibility for its complement to be omitted or extracted

*lo metto **su*** 'I put it up'

1. Introduction: Italian Ps

Simple Ps do not behave as a uniform group

- Simple Ps such as *a* 'at' and *di* 'of' instantiate and case-mark a grammatical relation, respectively the case of the "indirect object", dative, and the genitive or partitive.
- The morphemes *su*, *tra*, *con*, *in*, *per*, and possibly *da*, should be better characterized as either a hybrid class in-between functional and lexical Ps, or as truly complex Ps.

(Manzini & Franco 2016; Garzonio & Rossi 2018, 2020; Franco 2019, a.o.)

2. Insights from acquisition

- It is well known that children begin using lexical items early on (typically around one year of age), and functional items later (typically around two).
- At the early stages of linguistic development (“telegraphic”), children’s linguistic production is characterized by a heavy use of lexical items and a general lack of functional ones (Brown & Fraser, 1963; Brown, 1973; Bowerman 1973; Lebeaux 1988; Radford 1990; Platzack 1992).
- Functional elements that are missing from early child production include auxiliaries, possessives, verb inflection, determiners, expletive subjects, complementizers (see Radford (1995) for a synthesis of this literature).

2. Insights from acquisition

- While it is generally accepted that lexical items appear before functional ones, it has been also shown that in morphologically rich languages, some functional morphology is produced in the early stages (Caselli, Casadio & Bates 1999 for Italian; Aksu-Koc 1988 for Turkish, Levy 1988 for Hebrew, etc.).

Given the theoretical proposals on Ps

- If prepositions are a hybrid category, the lexical Ps should enter the children's spontaneous production before the functional ones.
- In morphologically rich languages some functional Ps should be found earlier than in morphologically non-rich languages

2. Previous studies: acquisition of Ps

- **English, German, Icelandic, and Greek:** late production of functional Ps
 - appearance of functional Ps around 2;5-2;9
 - Many more lexical Ps than functional Ps
 - Even when the functional Ps enter into the children's production, they occur at a very low rate.
 - Production of lexical Ps at a constant rate through age, while rate of functional Ps increase over time

(Grimm 1975; Tomasello 1987; Thordardottir & Weismer 1998; Caselli, Casadio & Bates 1999; Littlefield 2005, 2006; Sigurjónsdóttir 2005; Morgenstern & Sekali 2009; Alexaki, Kambanaros & Terzi 2009; Stewart 2015)

2. Previous studies: acquisition of Ps

- **French and Spanish:** no delay in the production of functional Ps was found (Morgenstern & Sekali 2009; Yáñez and Zúñiga 2009; Stewart 2015;)
 - Appearance of functional Ps at 1;8, while lexical Ps appear later
 - More functional Ps than lexical Ps even when the lexical Ps enter into the children's production.
 - Production of functional/lexical Ps at a constant rate through ages

Open issues

- As for Spanish/French, no or very few lexical Ps in the early telegraphic speech
- Lack of uniform criteria for defining “functional” vs. “lexical” Ps
- Different syntactic configurations

3. Our study

Q: What is the order of P acquisition in Italian?

- Longitudinal analysis of the spontaneous productions of 7 children in three CHILDES corpora (Anselmi, Calambrone, Tonelli).
 - Age range: 1;5 to 3;4
- We followed the conventional guidelines for utterance inclusion and exclusion (Brown 1973)

3. Our study: data collection

- Children's productions 2038 occurrences containing a lexicalized P

(1) a. **CHI**: libro di Erri (Gregorio, 1;9, 010924b.cha, l.248)

b. **CHI**: e queste sono dell' orsetto (Elisa, 1;11, 011004.cha, l. 164)

c. **CHI**: sportive da calcio dov' è, sportive da calcio?

(Marco, 2;3, 020329.cha, l.368)

3. Our study: variables

Variables: syntactic contexts x N of syllables

- **Adverbial P (=without a complement)**

- *contro, dentro, senza, sopra, sotto, su*

- **P + complement**

- **Monosyllabic Ps:** *a* 'to/at', *di* 'of', *da* 'from/by', *in* 'in', *con* 'with', *su* 'on', *per* 'for', *tra* 'between'

- **Polysyllabic Ps:** *dentro* 'inside', *sopra* 'on/above', *sotto* 'under', *contro* 'against', *senza* 'without'.

- **Polysyllabic Ps co-occurring with monosyllabic Ps:** *sopra di* 'above of', *sotto a* 'under at/to', *dentro a/in* 'inside at/in', *senza di* 'without of'.

3. Our study: research questions

Q: What is the order of P acquisition in Italian?

Q1: What is the order of acquisition between adverbial Ps and P+complements?

→ Given the telegraphic nature of children's speech, we expect adverbial Ps to appear before P+complement

3. Adverbial P vs. P+complement

P-TYPE	Age					
	1;6	1;7	1;8	1;9	1;10	1;11
Adverbial	100%	70%	56.8%	54.1%	41%	25.4%
P+compl.	-	30%	43.2%	45.9%	59%	74.6%

→ The rate of P+DP increases as a function of MLU

→ **Adverbial Ps > P+complement**

3. Adverbial P vs. P+complement

- Adverbial Ps: order of production

Age				
1;6	1;8	1;10	2;0	2;3
Dentro 'inside' Su 'up'	Sotto 'below'	Sopra 'above'	Senza 'without'	Contro 'against'

Adverbial Ps: Dentro/su > sotto > sopra > senza > contro

3. Our study: research questions

Q: What is the order of P acquisition in Italian?

Q2: Do the same early Ps produced in adverbial contexts appear in P-complement contexts?

Q3: What is the order of acquisition in P+complement contexts?

Littlefield (2006)

Adverbial P > Lexical P > Functional P

3. Comparison adverbial Ps vs P+complement

Age							
1;7	1;8	1;9	1;11	2;0	2;2	2;3	3;1
a 'at/to' di 'of'	in 'in'	con 'with' senza 'without' su 'on' da per	da 'at'	per 'to/for' sotto 'under' sopra 'on' dentro 'inside'	senza di 'without of'	Contro 'against' Sotto a 'under at' Dentro a 'inside at' Dentro in 'inside in'	Tra 'between'

Adverbial Ps: Dentro/su > sotto > sopra > senza > contro

- In P+DP context, the earlier produced Ps differ from those produced in P-ADV
- *Senza* appears before in P+DP than adverbially.

3. Order of acquisition: P+complement

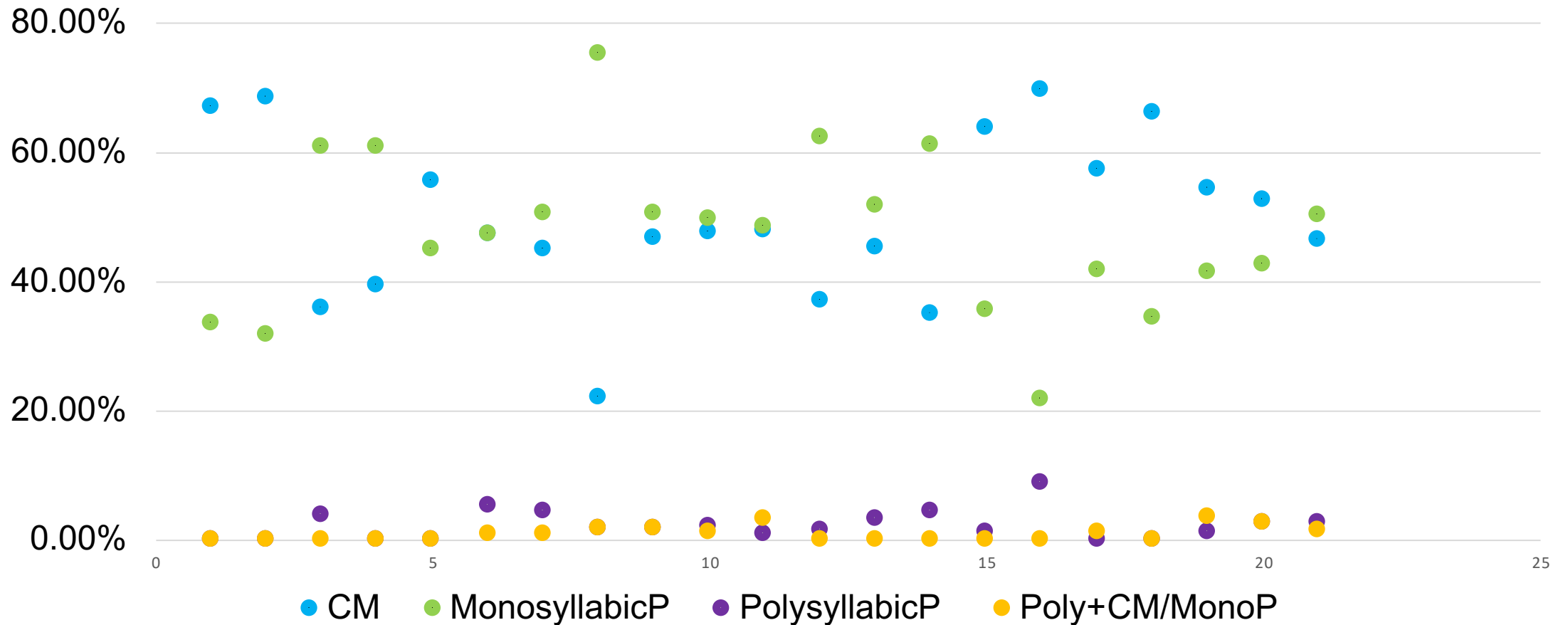
1;7	1;8	1;9	1;11	2;0	2;2	2;3	3;1
Case Markers	MonoP	MonoP PolyP	MonoP	MonoP PolyP	PolyP+ MonoP	PolyP PolyP+MoP	MonoP
a di	in	con su senza da per	da	per sotto sopra dentro	Senza di	Contro Sotto a Dentro a Dentro in	tra

→ **A/DI > Monosyllabic P > Polysyllabic P > PolysyllabicP+MonosyllabicP**

→ The length of P is not the only factor determining its early production

→ Exceptions: *senza, per, contro, tra*

3. Rate of P production across age



→ Constant rate of P production through development

4. Discussion

Q: What is the order of P acquisition in Italian?

- Adverbial Ps before P+complement
- Adv-Ps: Dentro/su > sotto > sopra > senza > contro
 - **Consistent with English acquisition**
 - **Lexical items and telegraphic speech**
 - **Semantic complexity (Clark 1981)**
- Different Ps according to the two syntactic contexts: not the same lexical items
- In P+complement contexts, the earlier Ps are *a/di*
 - **Different from English acquisition**

4. Discussion: acquisition debate

English, (Littlefield 2006)

- Adverb > Lexical > Functional
- appearance of functional Ps around 2;5-2;9
- No constant rate of P for functional Ps

Italian

- adverbs appear before P+complement (roughly one-two months before)
- P+complement: case markers appear between 1;7-1;8
- Constant rate of P production for all Ps

→ Case Marker Ps have a different acquisition path in morphologically rich languages than in non-rich ones.

4. Discussion

- P+complement Contexts

a/di > in > con/su/senza > da > per/dentro/sotto/sopra > senza di > contro/dentro in> tra

The order seems to be determined by a cumulative effect of different factors:

- Monosyllabic vs. polysyllabic
- Semantic complexity: in/su (Clark 1981; Parisi & Antinucci 1970; Brown 1973; Clark 1977, 1981; Johnston & Slobin 1979)
- Encoding grammatical relations
- Frequency in the input

4. Discussion: theoretical debate

a/di > in > con/su/senza > da > per/dentro/sotto/sopra > senza di > contro/dentro in > tra

- Classification of Ps
 - *a/di* separated from the other simple Ps (Rizzi 1988; Manzini & Franco 2016; Garzonio & Rossi 2018, 2020)
 - *Con/da/per* (Franco & Manzini 2017)
 - *Tra* patterns with lexical Ps (Franco 2019)
 - Special status of *in* and *senza*

Thank you