Dealing with derivational complexity in clitic production: a study on structural position and combination in acquisition of Italian

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Clitic pronouns are early acquired grammatical elements in Italian, with correct productions appearing around 2 years of age in proclitic position (**la**$_{CL}$ saluto *I greet her,* Guasti, 1993/4, Guasti et al., 2016). This is consistent with the approach to acquisition of grammar in generative syntax as the building of the syntactic tree starting from a reduced structure (Radford, 1996, Clahsen, 1990/1991 and subsequent work), where syntactic operations taking place in lower positions, like procliticization, are more quickly mastered than operations taking place higher in the structure (e.g., Rizzi, 2018, Friedmann, Belletti & Rizzi, 2020).

In this study, we aim at investigating the phenomenon of cliticization in Italian children across different understudied conditions, specifically focusing on the effects of derivational complexity on pace of acquisition. We tested cliticization of DO and IO arguments in proclisis (**lo**$_{CL,DO}$ dà al bambino, *pro it gives to the child*) and enclisis (la mamma dice di dar**lo**$_{CL,DO}$ al bambino, *the mum says to give-it to the child*). We further tested cliticization of two arguments, known as clusterization (**gliela**$_{CL\ IO+DO}$ ruba *pro to-him/her-it steals*).

Three groups of children took part in the study: a group of preschool children (number = 18, mean age in years 4;5), a group of young primary school children (number = 20, mean age 6;7), and a group of older primary school children (number = 20, mean age 8;5). Participants were within normal ranges in Colored Progressive Matrices (Raven et al., 1998) and background linguistic tasks. Experimental tasks were picture-prompt-with-question elicitation tasks consisting of 8-12 balanced items per condition. Participants were asked to answer a question eliciting a clitic in the desired position (see examples in page 2).

Results show that accuracy is affected by the type of cliticization, with significantly higher accuracy in proclisis over enclisis in the preschoolers (p= .025) and the young primary schoolers (p= .002), but not in the 8-year-olds (p= .105). Moreover, production of clitic combinations is low in preschoolers and young primary schoolers in proclisis, and across groups in enclisis. Results are presented in Table 1, page 2. Our data thus confirm the early acquisition of the operation of cliticization when this involves proclisis and single clitics, while showing that other instances of cliticization, namely enclisis and clusterization, occur in later stages. The latter require more complex derivations and/or involve higher parts of the structure, thus suggesting a role of derivational complexity in the order of acquisition of Italian clitic pronouns.

Task examples

a. Production of 3rd person clitics:
IO proclitic probe: In questa scena, ci sono un commesso, una signora, e un maglione. Che cosa fa il commesso alla signora$_{fem}$?
> *In this scene, we have a clerk, a lady, and a pullover. What does the clerk do to the lady?*

Expected answer: pro **le**$_{CL,IO\ fem}$ dà (/passa/mostra) il maglione
> *(she) gives (/hands/shows) her the pullover*

b. Production of 3rd person clusters:
Enclitic probe: In questa storia la mamma dice a Marco di togliere oppure di ridare il giornale a Sara. Qui la mamma dice a Marco di togliere il giornale a Sara. E qui cosa dice?
> *In this story, the mother tells Marco to take away or give back the newspaper to Sara. Here the mother tells Marco to take away the newspaper from Sara. What does she say here?*

Expected answer: di ridar**glielo** $_{CL,\ IO+DO,\ masc}$
> *to give it back to Sara*

Tables

	preschool (4;5)	young primary (6;7)	old primary (8;5)
3rd p clitic proclisis	7.1/12 (60%, sd 3.29)	8.8/12 (73%, sd 3.12)	10.6/12 (88%, sd 2.24)
3rd p clitic enclisis	4.8/12 (40%, sd 3.26)	7.1/12 (59%, sd 3.61)	88/12 (73%, sd 3.12)
3rd p cluster proclisis	3/8 (37%, sd 2.73)	3.2/8 (40%, sd 2.43)	4.2/8 (52%, sd 3.1)
3rd p cluster enclisis	1.7/8 (21%, sd 2.21)	1.3/8 (16%, sd 1.82)	2.7/8 (34%, sd 3.09)

Table 1. Raw scores, percentages, and standard deviations of accuracy on the production tasks grouped by sentence type (proclisis and enclisis) and age group.

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