Generational attrition: first language attriters and heritage speakers on production of Italian clitic pronouns

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Numerous studies on attriters and heritage speakers show that the grammars of these bilingual speakers' present signs of language change on some syntactic structures, particularly if they allow for alternatives. In this study, we present a comprehensive assessment of production of Italian clitic pronouns targeting an array of clitic pronouns: direct object (DO) > indirect object (IO) > double-object clitic (1st/2nd person and 3rd person) in two adult populations, aiming to explore the role of complexity in positive outcome. Heritage grammars (HGs) typically show a varying degree of receptive and productive likeness to native grammars, which varies greatly among individuals and within a single individual's lifespan. Recent literature is stressing on the importance of steering away from the interpretation of HGs as the result of *incomplete acquisition* (Polinsky 2018). This way, HG would be a native grammar in its own right that presents differences as well as similarities with the baseline grammar. In fact, in recent literature HLs are being proposed not only as prime examples of change in contact, but also as foreshadowing diachronic change in monolingual settings at a much faster pace (D'Alessandro 2020). In this study, we aim to contribute to this issue with data from clitic pronoun, a structure at the interface between syntax, pragmatics and phonology. Overall, we expect this structure to show some degree of vulnerability in both populations. However, due to the difference in input quantity as well as quality, as well as the role of the majority, non- clitic language, we expect HSs to disfavour the use of this element.

Methods: 59 participants took part to the study (30 heritage speakers, HS and 29 Attriters, ATT). Both groups completed a language Questionnaire to be classified in each group (Leap Q) and a baseline task in both Italian and English. All HS were born in Scotland to first generation Italians parents. The group of ATT comprises native speakers of Italian born in Italy and moved to the UK later in life. Participants performed three elicitations tasks (two created for the study and one adapted from Mantione,et al., (*in preparation*) . All tasks had a similar procedure: a preamble with a picture and a context to elicit a DO clitic, IO clitic, a clitic cluster with 1st and 2nd person and a clitic cluster with 3rd person, all in proclitic position.

Preamble: In questa scena, ci sono [NP]$_{agent}$, [NP]$_{Object}$, [NP]$_{patient}$
                    In this scene, there are [NP]$_{agent}$, [NP]$_{Object}$, [NP]$_{patient}$

Do and IO clitic:

PREAMBLE	EXPECTED ANSWER
Cosa fa il papa' al flauto?	Lo regala al bambino
What do.3s the dad to-the recorder?	*It.masc gift.3s to-the boy*
What does the dad do to the recorder?	*He gifts it to the boy*
Cosa fa la nonna al bambino?	Gli legge una storia
What do.3s the granma to-the kid?	*him.masc reads.3s a story*
What does the granma to kid?	*She reads to him a story*

1st and 2nd person clitic clusters:

PREAMBLE	EXPECTED ANSWER
Cosa faccio io con il disegno?	Me lo mostri
What do.1s I with the drawing	*To-me it.masc show.2s*
What am I doing with the drawing?	*You show it to me*
Cosa fai tu con il regalo?	Te lo do
What do.2ndyou with the gift	*To-you it.masc show.2s*
What are you doing with the gift?	*I give it to you*

3rd person clitic clusters:

PREAMBLE	EXPECTED ANSWER
Qui cosa fa?	*Glielo ridà*
Here what do.3rdhe	To-him it give back
What does he do here?	He gives it back to him

Results The results of the four elicited clitics' structures are summarised in the table and plot below.

	DO	IO	Me lo Cluster	Glielo Cluster
ATT	76.92	71.26	41.16	33
HS	33.59	29.44	16.45	0.00

Figure 1. Performance across production tasks in the two groups.
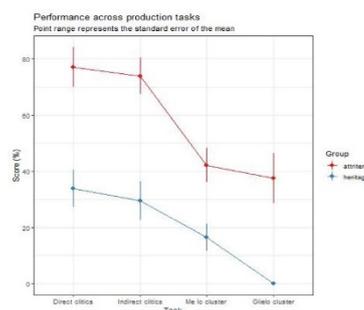
Direct-Indirect Clitics: The two groups show a significant difference with ATT producing more clitics ($\beta = 3.58$, $p < 0.001$). **Clitic Cluster Me lo:** This task gave participants the chance to answer in three ways, namely: a fully correct answer with a cluster (e.g. "me lo regala"), a single clitic (e.g. "lo regala a me"), or a clitic-free answer (e.g. "regala il telefono a me"). Results show a significant effect of Group ($\beta = 1.75$, $p < 0.001$), with HS producing fewer clitics, giving answers in the lower correctness gradient. **Clitic Cluster Glielo:** The results of the model show a significant effect of Group ($\beta = 1.03$, $p < 0.001$), with HS producing fewer clitics. As visualised in figure 2, in the *Glielo* cluster structure Heritage Speakers avoid completely the production of the cluster.
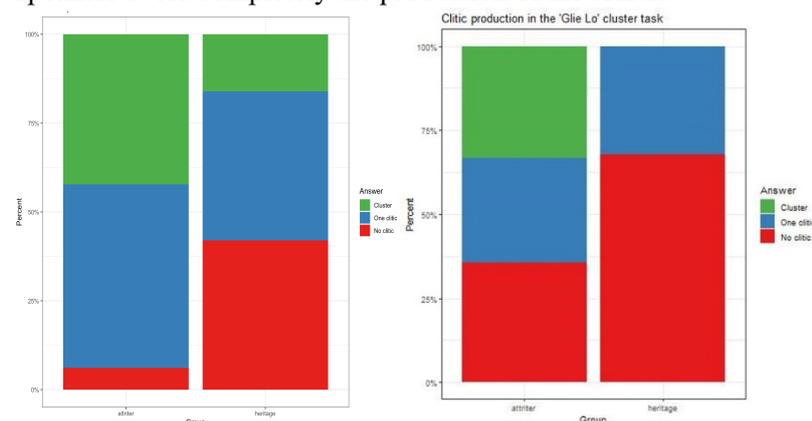

Figure 2. Clitics production in the *Me/lo, Te/lo* Cluster Task and in the *Glielo* task.

Discussion The two groups, namely first-generation Italian speakers and second-generation (heritage) Italian speakers living in an English-speaking environment, create a generational attrition where attriters provide heritage speakers with the input that determines the acquisition of their heritage language.
Results show first generation Italian speakers frequently produce this element when it is a single argument, but infrequently cliticise two arguments at the same time. On the other hand, second generation Italian speakers always show a preference for the production of lexical NPs the majority of the time regardless of the type of clitic elicited, thus maintaining the canonical argument structure, and rarely produce clitic combinations. Importantly, when clitics are produced by this population, few mistakes on features and no mistakes of misplacement are made. Our data shows that, if a structure allows for optionality and requires a syntactic operation, bilingual speakers will prefer the less computationally demanding alternative in production in different capacities according to the group, but, regardless of the group, they will not make structural mistakes.

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