

Resumptive relatives and passive relatives in cochlear-implanted and normal hearing children: evidence from an elicited production task

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In hearing-impaired children, acquisition is in most cases delayed (De Villers et al., 1994; Caselli et al., 1994), even in those subjects fitted with a cochlear implant (Caselli et al., 2012; Volpato, 2010), in some cases even deviating from normal hearing children (Chesi, 2006).

In this study, we discuss two answering strategies provided by a group of 13 Italian hearing-impaired children fitted with a cochlear implant (CI group, age range: 7;9-10;8; mean age: 9;1) compared to a group of 13 Italian normal hearing children (NH group, age range: 5;0-7;9; mean age: 6;7) in a production task eliciting relative clauses (Volpato 2010). CI children were matched to NH children on the basis of morpho-syntactic abilities. CI children were born to hearing parents. They were implanted between the age of 1;9 and 3;4, were trained orally, and did not use sign language.

The production task aimed to elicit object relatives (ORs). However, in addition to this sentence type, also passive sentences (passive relatives, PRs) were appropriate and felicitous answers in the discourse context. Thus, in our analysis we investigate two aspects in the CI and NH groups: (1) the use of ORs with resumptive elements and (2) the use of relative clauses built with the passive voice.

(1) Results show that both NH and CI children produce ORs with gap (*I bambini che il papà pettina* 'The children that the father combs'), ORs with resumptive clitic pronouns (*I bambini che il papà li pettina* 'The children that the father combs them'), and ORs with resumptive DPs (*I bambini che il papà pettina i bambini* 'The children that the father combs the children'). The presence of resumptive clitics is in line with other studies on the production of relative clauses, showing that resumptive ORs are attested cross-linguistically (Italian and French: Guasti & Cardinaletti, 2003; English: McDaniel et al., 1998; Spanish: Ferreiro et al., 1976). The use of ORs with gap and with resumptive clitic is higher in NH children than in CI children. Taking into consideration NH children's chronological age, this result is expected since this strategy is frequent in young children. Most interestingly, the CI group produced more ORs with resumptive DPs than the NH group, for which this structure is found only in very few occurrences in the youngest children. This doubling head phenomenon is also observed in Hebrew hearing-impaired children (Friedmann & Szterman, 2006), but it is absent or rare in normal hearing children. The presence of this structure can be related to the linguistic delay associated with hearing impairment (Friedmann & Szterman, 2006).

2. Both CI and NH children also produced passive relatives (*I bambini che sono pettinati (dal papà)* 'The children that are combed (by the father)'). The CI group produced more passive relatives than the NH group. The use of passive voice has been at the heart of a lively debate as to whether early passive sentences are unambiguously eventive passives or adjectival passives. For the NH group, the presence of passive relatives is not surprising, since Italian typically-developing children produce passive sentences with the auxiliary *venire*, which conveys an eventive interpretation, before the age of four (Volpato et al., in press). For hearing-impaired children, the use of passive voice has never been investigated. This study shows that the passive voice is correctly produced also by some CI children, passive relatives being produced in most cases with the auxiliary *venire*. This conclusion is strengthened by the observation that some passives were also built with the auxiliary *essere* followed by the *by*-phrase, for which only an eventive reading is possible. Even though we observed redundancy in the use of the *by*-phrase, which was not always required by the context, the production of this element confirms that the passives produced by CI children are true verbal passives. The

use of passive relatives in the group of CI children shows that some of these participants have competence of passive sentences and consequently good competence of the Italian language. As for the use of ORs with resumptive DP and PRs, inter-subject variability is observed. CI children who consistently use passive relatives did not produce ORs with resumptive DPs.

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