

## **The sounds of silence: further European Portuguese data on the (a)typical nature of the initial consonant omission process**

Initial Consonant Omission (ICO) is traditionally considered an atypical process in the typological proposals used by Speech and Language Pathologists (a.o., Dodd, 2005; Miccio & Scarpino, 2008; Lousada, 2012; Mendes et al., 2013). However, European Portuguese (EP) onsets have been episodically reported as triggering ICO in typical language development (TD) (Freitas, 1997; Costa & Freitas, 1999). The use of this repair strategy was also reported for Dutch (Fikkert, 1994), German (Grijzenhout & Joppen, 2002), Finnish (Savinainen-Makkonen, 2000), Mandarin (Hua & Dodd, 2000), Brazilian Portuguese (Martins & Mariano, 2020), and Spanish (Guzzo, 2024) TD children. This raises issues concerning the use of ICO as a clinical marker. Furthermore, it challenges the prediction of CV as the exclusive unmarked pattern in child phonology. Another issue concerning ICO is its distribution within the word: although it is used in the clinical practice as associated to word initial onsets (Dodd et al., 2003; Lousada, 2012), studies also reported word-medial C deletion (Dodd, 2005; Freitas, 1997). Our main goal is to describe the use of this repair (henceforth, empty onset repair strategy (EOS)) in Portuguese TD children, in order to discuss its (a)typical nature. Furthermore, we will use prosodic (syllable constituency; word position) and segmental (manner and place of articulation) variables to observe its distribution. Finally, we will explore EOS as a marker of immature phonological development.

Longitudinal spontaneous data from four TD Portuguese children aged 1;2-3;3 were described. Each child was videotaped for at least 1 year, at home, in a naturalistic setting. Data are available in open access at Phonbank. The description of syllable and prosodic word distribution of EOS was based on a quantitative analysis considering word-initial and word-medial target singletons and clusters. Segmental effects were calculated as a function of the variables *manner* (plosive, fricative, nasal, liquid) and *place* (labial, coronal, dorsal) of *articulation* (MoA; PoA). The measures used were EOS rates and Percent Singleton Consonants Correct (PSCC).

EOS was attested in all children observed, with different global EOS rates. These rates tend to show a negative correlation with phonological maturity (see the contrast in EOS and PSCC for J and L; EOS: J=13%; L=0,1%; PSCC: J=51%; L=83%). EOS was used both word-initially (J=63%; M=61%; R=66%; L=74%) and word-medially (J=37%; M=39%; R=34%; L=25%), with a preference for word-initial targets. No clear tendency was attested for singletons ver”sus clusters. As for the segmental variables, the observation of MoA showed that liquids were the most affected by EOS (see table 1); as for PoA, dental and alveolar triggered EOS more frequently than the other PoAs (see table 2). Results show that EOS occurs in TD Portuguese children, challenging its categorization of ICO as an atypical process in the clinical practice. Furthermore, it occurs in both word positions (initial; medial), not only word-initially. Results will be discussed showing that input-based approaches do not account for the use of EOS. The hypothesis of a negative correlation between phonological maturity and EOS was confirmed. Children use V for CV and CCV targets: the processing of V as an unmarked pattern to deal with problematic structures will be addressed. MoA preferences match the prediction on the complexity of specific feature cooccurrence in EP (Amorim, 2014), in this case, [+consonantic; +sonorant; +continuous]. The use of EOS for [coronal; + anterior] PoA was not expected; we will discuss this result based on the unspecified nature of coronals (Mateus & Andrade, 2000), the complexity of the coronal inventory in EP ([coronal; ± anterior]) and its impact on the nature of child phonological representations. Finally, our results contribute to the enhancement of the clinical practice, where EOS/ICO should be discussed and used with caution as a marker of atypical

development. Further research is needed to compare EOS/ICO in TD children and children with different diagnoses.

	<i>João</i>	<i>Marta</i>	<i>Laura</i>	<i>Raquel</i>
<i>Plosive</i>	4,6%(104/2260)	0,9%(28/3021)	0,04%(4/8925)	0,9%(38/4432)
<i>Fricative</i>	14%(95/678)	1,8%(16/879)	0,2%(7/3765)	1,3%(21/1657)
<i>Nasal consonant</i>	6,3%(48/765)	2,1%(17/797)	0,1%(3/3824)	1,6%(31/1963)
<i>Liquid</i>	<b>28,8%(136/473)</b>	<b>4,2%(46/1098)</b>	<b>0,3%(8/2955)</b>	<b>21%(244/1163)</b>

Table 1: MoA Effect

	<i>João</i>	<i>Marta</i>	<i>Laura</i>	<i>Raquel</i>
<i>Labial</i>	5%(60/1202)	1,9%(26/1356)	0,1%(5/5131)	0,7%(18/2441)
<i>Coronal anterior</i>	<b>11,5%(220/1916)</b>	<b>2,6%(69/2609)</b>	<b>0,2%(15/9630)</b>	<b>6,3%(275/4356)</b>
<i>Coronal posterior</i>	9,5%(29/304)	1,4%(19/1386)	0,1%(3/4815)	3,7%(32/859)
<i>Dorsal</i>	9,8%(74/754)	0,7%(8/1111)	0,1%(2/3125)	0,6%(9/1559)

Table 2: PoA Effect

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