

## Stress, intonation or phrasing? Focus marking and cross-linguistic influence in L2 French and L2 Italian

Bianca Maria De Paolis<sup>1,2</sup>, Federico Lo Iacono<sup>1</sup>

<sup>1</sup> LFSAG (Laboratorio di Fonetica Sperimentale 'Arturo Genre'), Università di Torino (Italy),

<sup>2</sup> UMR 7023 SFL (Structures Formelles du Langage), Paris 8 / CNRS (France)

Prosodic markers of linguistic focus have been the object of a great deal of research in the last few decades (see [1] for an overview), and aspects in the description of focus-related prosodic phenomena still make the object of a lively debate. One key unresolved issue involves establishing a taxonomy of language typologies based on how they express focus (e.g. *plastic* vs *non-plastic*, *intonation* vs *word-order* languages): recent research has brought to light an intricate scenario, as exemplified by [10] on focus marking in Italian. Another point of debate is the conciliation of the phonetic and phonological dimension of this marking, i.e. what can be reconnected to one, what to the other [3, 9].

The investigation of prosodic focus marking in L2 speech represents a captivating line for addressing these questions in linguistics. In fact, this inquiry offers an entry point for the exploration of languages belonging to different prosodic typologies, through strategic selection of L1-L2 combinations [11, 2]. Furthermore, observing L1 influence on L2 can shed light on the interplay between phonetic and phonological aspects in the source languages.

Building upon the current research on focus marking and the acquisition of L2 prosody, our study aims at further investigating both tracks, and is articulated around two key questions:

- (i) What cues do L2 speakers of Italian and French use to prosodically encode focus?
- (ii) Can we interpret these cues in term of L1 transfer on the phonological level?

The novelty of our work lies in the choice of a less-explored language pair, Italian and French, and the use a methodology designed for ecological validity, featuring task-elicited speech, adapted from Gabriel's protocol [6]. *Stimuli* were presented to 30 participants (15 L2 French + 15 L2 Italian), collecting a total of 900 target utterances: 30 speakers x 2 focus conditions x 5 syntactic types of target constituent x 3 repetitions. Our points of inquiry are Paris for L2 French and Turin (Piedmont) for L2 Italian. Data was transcribed by hand and automatically segmented [7]; a layered annotation was conducted to encompass all aspects potentially contributing to focus marking.

In a departure from constraining hypotheses, we prioritized an extensive initial qualitative analysis, also informed by prior studies on L1 data collected with the same couple of languages and methodology ([5, 4]). This phase has guided subsequent quantitative investigations, choice of parameters, and statistical analysis. Three features were chosen and extracted for each target focus constituent, guided by what significantly emerged as distinctive in the two native groups: (i) duration of nuclei in stressed syllables; (ii) rise-fall configurations in intonation (coded through Polytonia script [8]); (iii) presence of word-initial glottalisation. These three phonetic cues were considered as indices of as many phonological phenomena: stress, pitch accents, and presence of prosodic boundaries. The examination of these three aspects across language groups revealed some commonalities, suggesting potential universals in L2 prosody acquisition; however, notable variations were also identified, underscoring the impact of crosslinguistic influence in such a vulnerable area for learners. Our results show that intonation (pitch accents) is often used by French speakers of Italian L2, and less often by Italian speakers in French L2. Duration behaves in the opposite way: it is exploited by Italian learners in L2 French, but not the other way around. Insertion of prosodic boundaries seems to constitute instead a shared strategy. Figures 1 and 2 allow for a comparison of all these outcomes. Our results have potential impact on L2 acquisition models, and also help shed light on the weight of all these different focus correlates in the two native languages.

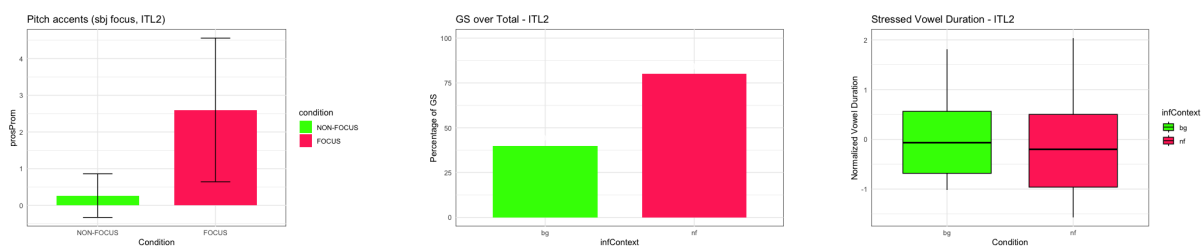


Figure 1: Results from group ITL2

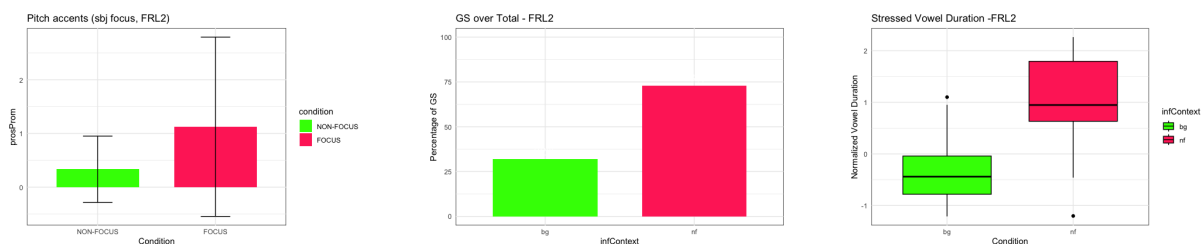


Figure 2: Results from group FRL2

## References

- [1] A. Arvaniti and R. Ladd. Prosodic prominence across languages. *Annual Review of Linguistics*, 9(1):171–193, 2023.
- [2] C. Avesani, G. Bocci, M. Vayra, and A. Zappoli. Prosody and information status in Italian and German L2 intonation. In M. Chini, editor, *Il parlato in italiano L2: aspetti pragmatici e prosodici*, pages 93–116. Franco Angeli, Milano, 2015.
- [3] F. Cangemi and M. Grice. The Importance of a Distributional Approach to Categoriality in Autosegmental-Metrical Accounts of Intonation. *Laboratory Phonology*, 7(1):1–20, 2016.
- [4] B. M. De Paolis, A. Romano, and C. Andorno. Prosodic and syntactic markers of narrow focus in Italian L1 and L2 (French L1): an experimental study. In *Atti del XIX Convegno Nazionale AISV - Associazione Italiana di Scienze della Voce, Lecce, February 2023*. Studi Aisv, 2023.
- [5] B. M. De Paolis, F. Santiago, and C. Andorno. Syntaxe ou prosodie? une étude préliminaire sur l’expression de la focalisation étroite par les apprenants italophones de français l2. In *Proc. XXXIVe Journées d’Études sur la Parole*, pages 851–860. ISCA Archives, 2022.
- [6] C. Gabriel. On Focus, Prosody, and Word Order in Argentinian Spanish. A Minimalist OT Account. In *Revista Virtual de Estudos da Linguagem*, Special issue 4:183–222, 2010.
- [7] T. Kisler, U. D. Reichel, and F. Schiel. Multilingual processing of speech via web services. *Computer Speech and Language*, 45:326–347, 2017.
- [8] P. Mertens. Polytonia : a system for the automatic transcription of tonal aspects in speech corpora. *Journal of Speech Sciences*, 4(2):17–57, 2014.
- [9] S. Roessig, B. Winter, and D. Mücke. Tracing the phonetic space of prosodic focus marking. *Frontiers in Artificial Intelligence*, 5, 2022.
- [10] S. Sbranna, C. Ventura, A. Albert, and M. Grice. Prosodic marking of information status in italian. *Journal of Phonetics*, 97:1–13, 2023.
- [11] G. Turco, B. Braun, and C. Dimroth. Prosodic and lexical marking of contrast in l2 italian. *Second Language Research*, 31(4):465–91, 2015.