



Focus-induced variations in prosody and word order in native and non-native Italian and French

A thesis conducted under joint supervision and submitted by

Bianca Maria De Paolis

for the degree of Doctor of Philosophy in *Linguistics*

(Sciences du Langage / Linguistica, linguistica applicata e onomastica)

Corso di dottorato in Digital Humanities (XXXVI ciclo)

Laboratorio di fonetica sperimentale "Arturo Genre"

Università di Genova / Università di Torino

École doctorale n° 224 Cognition, langage, interaction

UMR 7023 Structures Formelles du Langage

Université Paris 8

Defended June, 21st 2024

Chair

Christoph GABRIEL, Full Professor (Johannes Gutenberg-Universität Mainz)

Jury Members

Patrizia GIULIANO, Associate Professor (Università Federico II di Napoli)

Cyrille GRANGET, Full Professor (Université Toulouse - Jean Jaurès)

Supervisors

Cecilia ANDORNO, Associate Professor (Università di Torino)

Sandra BENAZZO, Full Professor (Université Paris 8)

Antonio ROMANO, Full Professor (Università di Torino)

Fabián SANTIAGO, Associate Professor (Université Paris 8)

Acknowledgments

Over the past three and a half years, I've often contemplated the moment when I would write this page. Partly because I daydreamed about when (finally!) the day would arrive, eagerly awaited, to conclude my work and put a final period to it. Partly, it was an exercise in memory, trying to recall the long list of individuals who accompanied me along this journey, whom I wish to acknowledge. I had assumed that after rehearsing this phase countless times in my mind, the writing would be less emotional; yet here I am, with a tear or two.

I'll begin by expressing my heartfelt gratitude to Christoph Gabriel, Patrizia Giuliano and Cyrille Granget, for agreeing to serve on my jury. Your commitment to investing your time and expertise in reviewing my work, along with your insightful evaluation and constructive feedback, are deeply valued. A special expression of thanks goes to Christoph Gabriel for his generosity in sharing materials and providing advice on methodology in the very first stage of this thesis work.

I'd also like to thank the discussants who assessed my work and offer valuable advice over these three years: Ada Valentini, Giovanna Marotta, Mario Squartini.

A sincere expression of gratitude goes to my supervisors. Antonio, for our daily exchanges and constant reflections, that enriched my work day by day; for the care and affection you have for me and all your students, and the tenacity you have in pursuing your approach and your ideas. But even more so, for igniting the "spark" within me: I can now confidently say that attending your course on *Linguistica generale* twelve years ago, in the first semester of my university studies, changed my life.

To Cecilia, my deep gratitude for believing in me from our initial meeting onwards, and for being a guiding light throughout my path. For imparting more knowledge than I had initially imagined, all without talking down to me; for embodying a model of lucidity, intelligence, scientific rigor, straightforwardness; for tirelessly following every stage of my thesis; for the discretion with which you always added your master's touch in the shared works. Working with you is a pleasure as well as a privilege.

A sincere thank you also goes to my Parisian supervisors, Fabián and Sandra. You welcomed and supported me in Paris during a delicate phase of my work and life in general: COVID-19 was still hitting hard between 2021 and 2022, and experiencing even a semblance of normality was a great relief. Your assistance always arrived at the right moment, whether it was for a work session on methodology, reviewing an abstract, or simply sharing an apéro. Thank you for your invaluable assistance,

support, encouragement, and collaboration over these three years.

A special mention goes to all my colleagues and friends, fellow PhD students and young researchers, who shared a part, long or short, of this challenging path with me: especially Mauro and Adrien, and, of course, my "siblings" from LFSAG, Valentina D., Valentina C., Daniela, Anna, Federico, Elisa (let's just say you're part of LFSAG too). I hold you all in high esteem; you've been and continue to be a significant example for me.

I am also very thankful to my Parisian friends, for providing me company, precious advice, and, last but not least, accomodation: Giulia Z. and Ilinca. Of course, I am also thankful to all the participants who volunteered for my research, because without them, this study would never have materialized (literally). Special thanks to my friends who have generously participated in these quirky experiments for years now — Francesco, Paola, Dario, Giulia. I thank all my friends, whom I cherish dearly even though they did not participate in the recordings; I will not write your names because they are numerous, but you know if you belong here.

Lastly, I want to thank my family, who provided me with direct help at times — I've also tormented them with recordings — and at other times, support that goes beyond work. I thank Giuliano, among the many other things he knows, for listening to me complaining over Praat scripts bugs until two in the morning, for fixing cables, plugs, and microphones countless times, for enduring hours of travel on Flixbus from Turin to Paris. I hope you'll forgive me for the times I may have seemed distracted, pondering speech articulation instead of fully engaging in our conversations :)

I thank my sister Costanza, Davide, and their wonderful girls, Rebecca and Marta, a constant and inexhaustible source of joy. I thank my parents: I believe this work can be seen as a synthesis of what I've learned from both of you. I hope you understand how much this means — and, above all, I hope you accept this statement as a compliment. Thank you for everything.

Abstract

English

The interaction between cross-linguistic influence and universal tendencies in second language acquisition is at the center of growing scientific interest. This study examines the possible effects of both factors on prosody and syntax in L2 learners of Italian and French, languages that are closely related, but feature differences in syntactic flexibility and certain phonological traits. Our work focuses on different focus sub-types (broad, identification, correction) by native and L2 speakers of Italian and French.

Our sample consists of four groups: 15 French and 15 Italian speakers, 15 Italian-speaking learners of French L2, 15 French-speaking learners of Italian L2, with varying levels of proficiency. Speakers' productions were collected through a protocol comprising a controlled task and two partially controlled tasks.

The results from native speakers confirm what has been observed in the literature, also allowing observations to better describe the category of focus in the two linguistic systems. In L2 speakers, the influence of the L1 positively affects syntax, while the prosodic level proves to be more complex. Learners, indeed, show a similar use of prosody from a functional point of view, but with divergent phonetic implementations; in some contexts, markedness factors seem to also influence the learners' acquisition process. The analysis by proficiency levels indicates a non-linearity in the acquisition path: better morpho-syntactic competence does not imply a more target-like behavior in expressing information structure. The influence of the L1 can emerge in different phases and at different levels, underscoring the complexity of the integration between prosody and syntax in conveying pragmatic information.

Abstract

Italiano

L'interazione tra influenza interlinguistica e tendenze universali nell'acquisizione L2 è al centro di un crescente interesse scientifico. Questo studio esamina i possibili effetti di entrambi i fattori sulla prosodia e la sintassi negli apprendenti di italiano e francese L2, lingue affini, ma che presentano divergenze nella flessibilità sintattica e in certi tratti fonologici. Il nostro lavoro si concentra sull'espressione di diversi tipi di focus (ampio, stretto identificativo, stretto correttivo) da parte di parlanti nativi e non-nativi di italiano e francese.

Il campione è costituito da quattro gruppi: 15 parlanti francesi e 15 italiani, 15 apprendenti italo-fonici di francese L2, 15 apprendenti franco-fonici di italiano L2, con livelli di competenza diversi (A2-C1). Le produzioni dei parlanti sono raccolte con un protocollo che comprende un task controllato e due parzialmente controllati.

I risultati dei parlanti L1 confermano quanto osservato in letteratura, permettendo alcune osservazioni utili a delineare meglio il fenomeno del focus nei due sistemi linguistici. Nei parlanti L2, notiamo che l'influenza della L1 influisce positivamente sulla sintassi, mentre il livello prosodico si rivela più complesso. Gli apprendenti, infatti, mostrano un uso simile della prosodia dal punto di vista funzionale, ma con implementazioni fonetiche divergenti; in alcuni contesti, fattori di marcatezza sembrano influenzare il processo acquisizionale. L'analisi per livelli di competenza, inoltre, indica una non linearità nel percorso di acquisizione: una migliore competenza morfo-sintattica, infatti, non implica necessariamente un comportamento più vicino al target nell'espressione della struttura informativa. L'influenza della L1 emerge infatti in fasi diverse su livelli diversi, sottolineando la complessità dell'integrazione tra prosodia e sintassi nel veicolare l'informazione pragmatica.

Abstract

Français

L'interaction entre l'influence interlinguistique et les tendances universelles dans l'acquisition d'une langue seconde est au centre d'un intérêt scientifique croissant. Cette étude examine les effets possibles des deux facteurs sur la prosodie et la syntaxe chez des apprenants L2 d'italien et de français, langues étroitement liées, mais présentant des différences dans la flexibilité syntaxique et certains traits phonologiques. Notre travail se concentre sur différents sous-types de focalisation (large, étroit-identificative, étroit-corrective) par des locuteurs natifs et non-natifs d'italien et de français.

L'échantillon se compose de quatre groupes : 15 locuteurs français et 15 italiens, 15 apprenants italophones du français L2, 15 apprenants francophones de l'italien L2, avec des niveaux de compétence variables (A2-C1 du CECRL). Les productions des locuteurs ont été recueillies à l'aide d'un protocole comprenant une tâche contrôlée et deux tâches partiellement contrôlées.

Les résultats des locuteurs natifs confirment ce qui a été observé dans la littérature, et suggèrent quelques observations utiles pour mieux définir le phénomène du focus dans les deux systèmes natifs. Chez les locuteurs L2, nous remarquons que l'influence de la L1 affecte positivement la syntaxe, tandis que le niveau prosodique se révèle plus complexe. Les apprenants montrent une utilisation similaire de la prosodie d'un point de vue fonctionnel, mais avec des réalisations phonétiques divergentes ; dans certains contextes, des facteurs de marquage semblent influencer le processus d'acquisition. L'analyse par niveaux de compétence, en outre, indique une non-linéarité dans le parcours acquisitionnel : une meilleure compétence morpho-syntaxique n'implique pas nécessairement un comportement plus proche de la cible dans l'expression de la structure informationnelle. L'influence de la L1 peut émerger à différentes phases à différents niveaux, soulignant la complexité de l'intégration entre prosodie et syntaxe dans la transmission de l'information pragmatique.

Contents

List of Figures	xiii
List of Tables	xix

I Theoretical framework and state of the art	2
1 Information Structure marking	3
1.1 IS: definition and basic notions	3
1.1.1 Focus	4
1.1.2 Contrast	6
1.1.3 Interaction of focus and contrast and focus subtypes	7
1.2 Linguistic reflexes of focus: syntax and word order	8
1.2.1 Word order: fronting and postposition	8
1.2.2 Focus constructions: the cleft sentence	10
1.3 Linguistic reflexes of focus: intonation and the phonology dilemma	11
1.3.1 Focus and prosodic structure	12
1.3.2 Focus and intonation	14
1.4 Focus in Romance: Italian and French	15
1.4.1 Native Italian	16
1.4.2 Native French	18
1.4.3 Interlinguistic comparison	18
2 IS and Second Language Acquisition	21
2.1 L2 acquisition: history and basic notions	21
2.1.1 Instructed and non-instructed SLA	22
2.1.2 Interlanguage and learner variety	23
2.1.3 Learning process: mechanisms and factors	25
2.2 Information structure marking in L2	26
2.2.1 Focus mapping in L2	27
2.2.2 L2 prosody acquisition models	28
2.2.3 Learning a close-related language	29
2.3 Focus marking in L2 Italian and French	29
2.3.1 L2 Italian	30
2.3.2 L2 French	30

3	Research Questions	33
II	The experimental study	35
4	Methodology	37
4.1	Sample	37
4.1.1	Study design	38
4.1.2	Choice and recruitment of the speakers	39
4.1.3	Proficiency assessment	39
4.2	Tasks	40
4.2.1	Types of data	41
4.2.2	Reproducibility and comparability	42
4.2.3	Description of the protocol	42
4.3	Tools for the analysis	47
4.3.1	Transcription	47
4.3.2	Coding	47
4.3.3	Statistics	49
5	Results: syntax and word order	51
5.1	Marked word orders in the native groups	52
5.1.1	L1 French	53
5.1.2	L1 Italian	57
5.1.3	Interlinguistic comparison: native groups	61
5.1.4	Cleft structures in the native groups	62
5.2	L2 Italian and L2 French	69
5.2.1	Marked word orders in the non-native groups: L2 French	69
5.2.2	Marked word orders in the non-native groups: L2 Italian	74
5.2.3	Cleft sentences in the non-native groups	78
5.2.4	Role of proficiency level	83
5.3	Discussion	86
6	Results: prosody	91
6.1	Methodological clarifications	92
6.1.1	The dataset	92
6.1.2	Prosodic annotation	94
6.2	Prosody in the native groups	99
6.2.1	L1 French	99

6.2.2	L1 Italian	103
6.2.3	Interlinguistic comparison	105
6.3	Prosody in L2	106
6.3.1	L2 French	106
6.3.2	L2 Italian	108
6.3.3	Prosody in L2: inter-group comparison	110
6.4	Discussion	111
7	Integrating prosody and syntax	113
7.1	Syntax and intonation in the native groups	113
7.1.1	L1 French	113
7.1.2	L1 Italian	116
7.1.3	Interlinguistic comparison	118
7.2	Syntax and intonation in non-native groups	120
7.2.1	L2 French	120
7.2.2	L2 Italian	122
7.2.3	Comparison and discussion	124
8	Other prosodic marking strategies	127
8.1	Duration	128
8.1.1	Methodological clarifications	129
8.1.2	Duration in L1 groups	129
8.1.3	Duration in L2 groups	131
8.1.4	Discussion	133
8.2	Prosodic phrasing: the role of glottal stop	135
8.2.1	Methodological clarifications	136
8.2.2	Glottalisation in L1 groups	137
8.2.3	L2 groups	141
8.2.4	Discussion	142
9	Discussion	145
9.1	Main findings: native groups	145
9.1.1	Information structure marking	145
9.1.2	Focus and contrast marking strategies	147
9.1.3	Different components of prosodic marking	148
9.2	Main Findings: L2	149
9.2.1	Input and salience in L2 acquisition	149
9.2.2	Two faces of cross-linguistic influence	150
9.2.3	Non-linearity in L2 acquisition	150

Contents	xii
9.2.4 Prosody and L2 learning models	151
9.2.5 Interplay of syntax and prosody in L2	152
9.3 Closing remarks	153
References	159
Appendix	177

List of Figures

1.1	Prosodic hierarchy as exemplified in Gussenhoven (2004), with the example sentence "Too many cooks spoil the broth".	13
1.2	Expected effect of narrow focus (solid line) in comparison to the regular downstep pattern of the broad focus condition (dotted line): (a) focus on an initial argument (A1), (b) focus on a non-initial argument (A2), and (c) focus on a final verb (V) (Féry and Kügler, 2008).	15
1.3	Corrective-focus utterance "No, guarda che vivono a Milano" uttered by a native Italian speaker from Florence (Gili Fivela et al., 2015).	17
1.4	Utterance "Ah non, ils vivront à Limoges", with correction focus on <i>Limoges</i> , uttered by a native French speaker from Marseille (Delais-Roussarie et al., 2015).	19
2.1	Extended markedness scale of sentence prosody (from Zerbian, 2015)	28
4.1	Some slides from the "picture story" task (French version).	45
4.2	Picture of the experimenter (left) and picture of the participant (right).	46
4.3	Example of Prosogram output for the utterance "Bon alors ça c'est des idées générales, moi j'ai des questions précises", from Mertens (2022).	49
4.4	Example of complete transcription and annotation on 6 tiers: <i>Polytonia</i> labels, phones, syllables, utterance, informational context and syntax/word-order.	50
5.1	Some slides from the "picture story" task (French version).	51
5.2	Screenshot of Praat window with different tiers of annotation, "syntax" tier highlighted in red.	52
5.3	Non-canonical structures used for subject focus (FRL1 group).	53
5.4	Non-canonical structures used for object focus (FRL1 group).	54
5.5	Non-canonical structures used for indirect object focus (FRL1 group).	55
5.6	Non-canonical structures used for adverbial focus (FRL1 group).	56
5.7	Non-canonical structures used for subject focus (ITL1 group).	57
5.8	Non-canonical structures used for object focus (ITL1 group).	58
5.9	Non-canonical structures used for indirect object focus (ITL1 group).	59
5.10	Non-canonical structures used for adverbial focus (ITL1 group).	60

5.11 Proportion of word orders used for NF marking in French L1 (all target constituents mixed).	61
5.12 Proportion of word orders used for NF marking in Italian L1 (all target constituents mixed).	62
5.13 Proportion of it-cleft structures produced by the two native groups in narrow-focus context, by role of target constituent.	63
5.14 It-cleft structures produced by the two native groups in the two different contexts: correction and identification (all target constituents).	64
5.15 It-cleft structures produced by each speaker of the two native groups (subjects).	65
5.16 It-cleft structures produced by each speaker of the two native groups (objects).	66
5.17 It-cleft structures produced by each speaker of the two native groups (adverbials).	67
5.18 Marked word orders used for subject focus (identification and correction) by FRL2 speakers.	70
5.19 Marked word orders used to mark object focus (identification and correction) by FRL2 speakers.	70
5.20 Marked word orders used to mark indirect object focus (identification and correction) by FRL2 speakers.	71
5.21 Marked word orders used to mark adverbial focus (identification and correction) by FRL2 speakers.	72
5.22 Word orders used to mark narrow focus (all constituents mixed) by FRL2 speakers.	73
5.23 Non-canonical word orders for subject focus marking in L2 Italian (identification and correction).	74
5.24 Non-canonical word orders for object focus marking in L2 Italian (identification and correction).	75
5.25 Non-canonical word orders for indirect object focus marking in L2 Italian (identification and correction).	76
5.26 Non-canonical word orders for adverbial focus marking in L2 Italian (identification and correction).	77
5.27 Non-canonical word orders for narrow focus marking in L2 Italian (all target constituents).	78
5.28 Count of it-cleft structures produced by the the four groups, all types of constituents mixed.	79
5.29 Count of it-cleft structures produced by the two L2 groups (target subjects).	80
5.30 It-cleft structures produced by the two L2 groups for objects (direct and indirect).	80
5.31 Proportion of it-cleft structures produced by the two L2 groups (subjects and objects).	81

5.32	It-clefts produced by the two L2 groups (all target constituents, narrow-focus condition).	83
5.33	Number of cleft structures produced by each speaker of B- and C-level in all narrow-focus conditions.	84
5.34	Cleft structures produced by of B- and C-level speakers of FRL2, in identification and correction condition.	85
5.35	Cleft structures produced by A-, B- and C-level speakers of ITL2.	85
5.36	Cleft structures produced by A-, B- and C-level speakers of L2 Italian in identification and correction condition.	86
5.37	Non-canonical constructions produced by ITL2 speakers in narrow focus condition, with comparison to source language (left) and target language (right).	87
5.38	Non-canonical constructions produced by FRL2 speakers in narrow focus condition, with comparison to source language (left) and target language (right).	88
6.1	Two realisations of intonational type "rising" in broad focus condition by two female speakers of the L1 groups.	97
6.2	Two realisations of intonationql type "rising" in broad focus condition by two male speakers of the L2 groups.	97
6.3	Two realisations of type "flatlow" in identification focus condition by two female speakers of the L1 groups.	98
6.4	Two realisations of intonational type "flatlow" in identification focus condition by two female speakers of the L2 groups.	98
6.5	Two realisations of intonational type "flathigh" in identification focus condition by two speakers of the L1 groups.	99
6.6	Two realisations of intonational type "flathigh" in identification focus condition by two male speakers of the L2 groups.	99
6.7	Two realisations of intonational type "falling" in correction focus condition by two female speakers of the L1 groups.	100
6.8	Two realisations of intonational type "falling" in correction focus condition by two speakers of the L2 groups.	100
6.9	Distribution of contours in broad, identification, correction focus utterances for target subjects (group FRL1).	101
6.10	Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects and adverbials (group FRL1).	102
6.11	Distribution of contours in broad, identification, correction focus utterances for target subjects (group ITL1).	103
6.12	Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects (group ITL1).	104

6.13	Distribution of contours in broad, identification, correction focus utterances for target subjects (group FRL2).	106
6.14	Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects (group FRL2).	107
6.15	Distribution of contours in broad, identification, correction focus utterances for target subjects (group ITL2).	108
6.16	Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects (group ITL2).	109
7.1	Marking strategies used in narrow-focus contexts by FRL1 speakers, all target constituents mixed.	114
7.2	Marking strategies used by FRL1 speakers in narrow focus contexts for target subjects.	115
7.3	Marking strategies used by FRL1 speakers in narrow focus contexts for target non-subjects.	115
7.4	Marking strategies used in narrow-focus contexts by ITL1 speakers, all target constituents mixed.	116
7.5	Marking strategies used by ITL1 speakers in narrow focus contexts for target subjects.	117
7.6	Marking strategies used by ITL1 speakers in narrow focus contexts for target non-subjects.	118
7.7	Acoustic representation and transcription of sentence "Non, c'est Jules" as uttered by a male native French speaker in corrective-focus context.	119
7.8	Acoustic representation and transcription of sentence "No, è Giulio" as uttered by a female native Italian speaker in corrective-focus context.	119
7.9	Marking strategies used in narrow-focus contexts by Italian speakers of L2 French, all target constituents mixed.	120
7.10	Marking strategies used by FRL2 speakers in narrow focus contexts for target subjects.	121
7.11	Marking strategies used by FRL2 speakers in narrow focus contexts for target non-subjects.	121
7.12	Marking strategies used in narrow-focus contexts by French speakers of L2 Italian, all target constituents mixed.	122
7.13	Marking strategies used by ITL2 speakers in narrow focus contexts for target subjects.	123
7.14	Marking strategies used by ITL2 speakers in narrow focus contexts for target non-subjects.	123
8.1	Boxplot of target vowel duration (ITL1 group).	130

8.2	Boxplot of target vowel duration (FRL1 group).	130
8.3	Boxplot of target vowel duration (ITL2 group).	132
8.4	Boxplot of target vowel duration (FRL2 group).	132
8.5	Glottal stop between phrases "il giornale" and "in edicola", uttered by a native Italian speaker.	135
8.6	Two examples of variability in the realization of glottal stops.	137
8.7	Proportion of occurrences of glottal stop in the two contexts, non-focus vs focus, for the Italian group.	138
8.8	Proportion of occurrences of glottal stop in the two contexts, non-focus vs focus, for the French group.	139
8.9	Spectrogram of the phrase "in edicola" ("at the newsstand") in a non-focus context as uttered by an Italian speaker (see example 67).	140
8.10	Spectrogram of the phrase "in edicola" ("at the newsstand") in a corrective focus context as uttered by an Italian speaker (see example 68).	140
8.11	Glottal stops in FRL2 group.	141
8.12	Glottal stops in ITL2 group.	142

List of Tables

4.1	Summary of the final sample characteristics.	39
4.2	Proficiency levels of participants taking part in the study.	41
4.3	Occurrences of target constituents in the read-aloud task.	44
4.4	Questions in the picture-story task.	45
4.5	Taxonomy of non-canonical constructions used in corpus labeling (focus constituents are underlined).	48
5.1	Regression results for group ITL1.	68
5.2	Regression results for group FRL1.	68
5.3	Regression results for group FRL2.	82
5.4	Regression results for group ITL2.	83
6.1	Distribution of token types in the dataframe, including both L1 and L2 productions.	94
6.2	Prosodic types retained from Polytonia, with the example Marie/Maria.	96
8.1	Number of occurrences of glottal stop in the two contexts, focus vs non-focus, for the Italian group.	137
8.2	Number of occurrences of glottal stop in the two contexts, focus vs non-focus, for the French group.	138
8.3	Occurrences in the two contexts, group FRL2.	141
8.4	Occurrences in the two contexts, group ITL2.	142

We look at the world once, in childhood. The rest is memory

Louise Glück

Part I

Theoretical framework and state of the art

CHAPTER 1

Information Structure marking

In this chapter we will review the concepts that constitute the background of our work, with particular attention to those issues and definitions that play an important role in shaping our research. In the first section, we will deal with Information Structure (IS): its birth and development as a discipline of work, its rooting within the theory of communication; we will establish a working terminology for its basic notions and implicatures in other adjacent fields. In the second and third section, we will review and analyse, in a cross-linguistic perspective, the interactions that IS, and more specifically focus and contrast, entertain with syntax and word-order on one hand, and prosody on the other. This separation between syntactic and prosodic phenomena is obviously an abstraction: in the reality of speech, it is very rare (if not impossible) that syntactic movements linked to IS take place without consequences (or motivations) linked to prosody. Nonetheless, we believe it is useful to list the two set of phenomena more schematically in view of the experimental study, in which the different factors were investigated separately at first, and then integrated at a later stage. In the fourth section we will have a closer look at the way these parameters and notions interact in two specific linguistic systems, Italian and French.

1.1 IS: definition and basic notions

The term *information structure* (henceforth, IS) refers to the structuring of the sentence in information blocks that differ from each other in terms of communicative function or saliency. It is usually assumed that the father of IS is Mathesius (1928), founder of Prague Linguistic circle, who first coined the terms *theme* and *rheme*, in addition to the otherwise ambiguous terms *subject* and *predicate*. The first organic conception of IS, though, is found later in Halliday (1967) and then in Chafe (1976), under the expression *information packaging*: with this formulation, Chafe designs the way a speaker "packs" the utterance in order to successfully deliver his message to the addressee. In this view, the string of information can be formulated in different ways, without changing its propositional

content: the aim of a particular "packaging" is to better fit the communicative situation, and reach the needs of the addresser and the addressee in a more effective way.

It goes without saying that a certain structure (or packaging) can only be felicitous and useful if anchored in a given communicative context: the notion of information packaging, thus, is strictly linked to that of Common Ground (CG), introduced by Stalnaker (1974, 2002) on the basis of Grice's groundwork (Grice, 1989). In the theory of communication, CG indicates the speakers' presupposition in a given conversational context and a given moment; in other words, all the background information that is taken for granted by all the participants in a conversation. Conversational moves continuously modify CG and its articulation in what is presupposed/required and what is being asserted/proffered. Going back to Chafe, we can say, then, that the information is "packaged" on the basis of the CG, i. e. what is assumed to be shared with the addressee in a determined point of the conversation.

Drawing from these first, founding works, studies on IS have since explored multiple perspectives and directions, attempting to catch the diverse reflexes of IS on discourse and grammar, and the complex interplay between information-structural categories and all the possible linguistic levels involved in their expression. It is undoubted that the diversity of IS notions and definitions is a consequence of the vast scope of these interactions (Féry and Ishihara, 2016). Furthermore, it must be noticed that IS also reflects, in Bally's terms (Bally, 1932), the *modus* of an utterance (e. g. the attitude of the speaker towards the proposition), thus involving extra-linguistic, cognitive and mental states of referents, actions, locations, and many other (Lambrecht, 1994).

To avert the risk of confusion in this matter, it is crucial to establish precise definitions for these information-structural notions, integral to our interpretation and application throughout the work. For this purpose, we rely on Krifka's taxonomy (Krifka, 2008), integrating where needed with input from other scholars. We will review some basic notions of IS, and the way they interact with each other, in the following paragraphs.

1.1.1 Focus

Several definitions of *focus* have been proposed since the advent of the first studies on IS. It must be stated that delineating a notion such as focus is anything but easy, due to its very close relationships with other informational functions, such as those of *new* (as opposed to *given*), *rheme* (in complementarity with *theme*), and *comment* (in complementarity with *topic*); we remind to Lambrecht (1994) for an in-depth definition of all these other categories. If, in fact, "focus", "rheme" and "new" had been considered as overlapping categories in the very first accounts (Sgall et al., 1986), the separation of these categories on different levels of variation has brought to less ambiguity in the field. Since Chafe (1976), scholars have, in fact, started to distinguish the new-given opposition

(pertaining to a psychological dimension of "activation levels") and the theme-rheme opposition (pertaining to the semantics of "aboutness") from the focus-background, which is more closely tied to the illocutionary force (Lombardi Vallauri, 2009). An effective definition (if vague, and, perhaps as such, widely agreed upon by scholars) can be the following: focus is the most dynamic part of the utterance, the one carrying its illocutionary force, i. e. the one which contributes most substantially to the evolution of the CG.

- (1) a. Did Maria buy a newspaper?
- b. [Yes]_F.

In a conversation like the one in (1), the information sought by the speaker who asks the question is whether the action of buying a newspaper has been performed; the focus of the answer, then, is the assertion of the polarity (in this case, positive) of the action mentioned in the question.

- (2) a. Who bought the newspaper?
- b. [Maria]_F did.

In this other case, example (2), the fact that someone bought a newspaper is already asserted in the question, thus not-at-issue; the focus of the answer, then, is the person who performs the action: the communicative move of the speaker consists in specifying an agent associated to the given predicate.

Going deeper and narrowing the scope of this first definition of focus, Krifka also states that "focus indicates the presence of alternatives that are relevant for the interpretation of linguistic expressions" (Krifka, 2008: 247). This definition is in fact the central claim of Rooth's theory of Alternative Semantics (Rooth, 1992): in his vision, focus assigned to a linguistic expression X always indicates that there are alternatives to X relevant in current discourse. Going back to example (1), if the particle 'Yes' is the focus, the relevant alternative that is set out by this answer is then the negative particle, 'No'. In example (2), on the other hand, the answer 'Maria' gives rise to another set of alternatives, i. e. any other individual (or group of individuals) who could possibly perform the same action of buying a newspaper. Note that the two definitions of focus that we have provided in this section do not restrict this category in function of its semantic implications: indeed, it is up to the different expressive strategies of the focus to attribute nuances on the semantic level.

1.1.2 Contrast

Contrast stands as a pivotal concept within Information Structure (IS), playing a crucial role in communication dynamics. Despite its significance, defining and delineating contrast remains a subject of debate. Recent accounts (see especially Molnár, 2002) view contrast as an independent grammatical category; however, achieving a precise and unanimous understanding of this concept remains elusive.

In broad terms, contrast is characterized by the explicit dissimilarity between two juxtaposed items. Yet, defining the degree of dissimilarity required for elements to be labeled as "contrastive" in information-structural terms poses a challenge. Moreover, the explicitness in expressing opposing units raises questions: must both items be explicitly mentioned and juxtaposed to denote actual contrast?

- (3) a. What did Marie buy, a book or a newspaper?
- b. She bought [a newspaper]_F.

In example 3, the alternatives (book or newspaper) are explicit: one could, quite straightforwardly, individuate contrast between the two objects - also because the disjunctive particle "or" implies that, if one has been bought, the other hasn't. Example 4, instead, shows a more ambiguous case:

- (4) a. Marie bought a book.
- b. Marie bought [a newspaper]_F.

In this case, the object denoted by the focused element in the answer contrasts with the object introduced in the question. Whether both of these examples should be fully considered as instances of contrast is still lively debated within the scientific community (see Repp, 2010, 2016 and references therein).

The presented examples underscore another layer complicating the definition of contrast—its apparent convergence with both *focus* and *topic* (Vallduví and Vilkuna, 1998). As detailed in the prior section (1.1.1), the mere presence of focus implies the existence of alternatives, aligning with Rooth's notion that a focus is truly such when set in contrast with its alternatives. However, as pointed out by Repp, contrast is distinct in its explicit relational nature compared to focus: focus centers *on* an item, whereas contrast operates *between* items (Repp, 2010: 1335). In this context, it's worth noting that while focus may suggest the presence of alternatives, these alternatives could remain implicit. Conversely, the manifestation of contrast appears closely tied to the explicitness of alternatives. Another pivotal factor in delineating contrast is the size of the alternative set generated by the presence of a focus: the closer the set, the more conspicuous the contrast, and vice versa.

In light of all these considerations, we could assert that focus and contrast are distinct concepts: from our standpoint, focus triggers considerations of alternatives, while the explicitness and closeness of the set play create (or enhance) contrast. In this view, the "contrastive feature" can be applicable to other IS categories, including topic and focus, influencing the level of contrastiveness they entertain with their alternatives.

1.1.3 Interaction of focus and contrast and focus subtypes

The relationship between focus and contrast, as we have seen, is not one that is easy to delineate: this relationship, in fact, represents a source of disagreement in the classification of different focus subtypes. In this paragraph we will define and analyse in further detail the subtypes that are directly implicated in our research.

On the one hand, we find authors (Rizzi, 1997, 2004; Belletti, 2001) according to whom there are types of focus not affected by contrast at all, like information focus (example 5), and others that are, e. g. correction focus or information focus in closed-question exchanges (examples 6, 7).

- (5) a. Who bought the newspaper?
b. [Marie]_F bought it.
- (6) a. Who bought the newspaper, Julia or Marie?
b. [Marie]_F bought it.
- (7) a. Did Julia buy the newspaper?
b. No, [Marie]_F bought it.

If, however, we take Rooth and Krifka's basic assumptions (1.1.1) at face value, we must admit accordingly that each of the *foci* in the previous examples carries a certain amount of contrast with respect to its inherent alternatives. In fact, even in example 5, the answer "Marie" *can* be given an exhaustive interpretation, implying that no one else bought the newspaper; in such case, the other propositions evoked by focalization do not hold, and there is contrast between the focus and the non-holding alternatives (Vallduví and Vilkuna, 1998, Molnár, 2002, Krifka, 2008, Cruschina, 2021). Mediating between the two views, it can be said that the degree of contrast entertained by the focused constituent with its potential alternatives constitutes a *continuum*. In this perspective, we can disentangle the two poles: identification focus (example 5), where no clear delimitation of alternatives is provided, and corrective focus (example 7), where the current focus explicitly cancels from the CG a previously asserted one. In this way, example (5) would be a less contrastive type of focus, since the answer "Marie" can - but not necessarily

or explicitly does - set out exclusive alternatives to the candidate focus; example (7), opposedly, would be a more contrastive one (and not the *only* contrastive one).

Another fundamental distinction often explored is focus scope, which centers on the extent to which the focal domain spans within a sentence or a single constituent. When the focal domain encompasses entire sentences, it typically falls under the classification of "broad focus." In such instances, all information is presented with equal saliency, without emphasizing a particular sub-part. Conversely, "narrow focus" pertains to a more localized domain, emphasizing individual words or constituents and drawing attention to a specific segment of the utterance. This segment, being informationally more salient than the rest of the sentence, constitutes the background (Ladd, 2008).

Based on the distinctions that we have just made in this paragraph, a scale of six levels of "strength" - that we take the freedom to call "contrastiveness" - can be described, drawing from Féry (2013), Kiss (1998), Jackendoff (1972), Vallduví and Vilkuna (1998), and Zimmermann (2008). Starting from the weakest, Féry lists: a. All-new sentence (broad information focus); b. Informational narrow focus; c. Exhaustive/identificational interpretation of a narrow focus; d. Association-with-focus (particles); e. Contrastive focus: parallelism, right-node-raising, selection; f. Contrastive focus: correction.

1.2 Linguistic reflexes of focus: syntax and word order

The articulation between focus and background, as well as the function (identification or correction) of the focused constituent, is conveyed through different means, possibly involving multiple linguistic levels: morphology, syntax, word order, lexical particles, intonation. With regard to syntax and word-order, several means can be exploited, to an extent that depends on the specific discursive situation and language-specific constraints: postverbal subject, fronting, dislocations, etc. The idea is that languages generally have an unmarked, typical word order; free alternations are not really free, in which they depend on Information-structural meaning and they are mapped with specific functions; they do not, in fact, violate "economy" principles: different orders do not convey identical meanings (Neeleman and Van de Koot, 2016); it must be noted, though, that "the application of specific syntactic operations depends both on the size and on the subtype of focus, although not always unambiguously" (Cruschina, 2022: 1).

1.2.1 Word order: fronting and postposition

Operations involving word-order are observed in many languages as markers of information structure. In this paragraph we will deal with the main instances of word-order changes that have been found to be significant in focus marking, with particular attention to

SVO languages, since French and Italian belong to this category. As a general tendency, cross-linguistic preference for placing new information after given information has been observed (Clark and Haviland, 1977; Skopeteas and Fanselow, 2009). However, as we have pointed out in the previous paragraphs, focus and background are not exactly overlapping to the "new" and "given" categories (see par 1.1.1): the principle "given-before-new" needs then to be refined in order to correctly account for different focus-related movements. In fact, in many cases focus can also trigger leftward movements, like fronting¹. These two possible instances of displacement, right- and left-ward (also called D-type and H-type in López, 2016) are usually referred to as postverbal focalization (PoF) and Focus Fronting (FF). We will follow Cruschina (2022) in delineating the main features of these dislocations and their contexts of use. The first category we will deal with is postverbal focus (PoF), i.e. the placement of the focus constituent in the postverbal position, like in example 8. PoF corresponds with two principles that have been observed to be fundamental in accounting for focus-induced word-order variations (see Neeleman and Van de Koot, 2016): "Given-before-New" and "No-focus-resumption". In fact, PoF are considered the most natural and pragmatically appropriate option for narrow focus in Romance, across all focus subtypes and contextual conditions.

- (8) a. Chi ha comprato il giornale?
 b. L'ha comprato [Maria]_F.

As shown by Dufter and Gabriel (2016), the reordering of the postverbal constituents is admitted, possible or favored in clauses also depending on the type of the verb (unaccusative, unergative, transitive). The syntactic marking of PoF is evident with subject inversion but less clear when it comes to focal direct objects, or other constituents that would typically appear at the end of the clause (ex. 9).

- (9) a. Che cosa ha comprato Maria?
 b. Ha comprato [un giornale]_F.

In such cases, the narrow-focus configuration can be considered as an instance of focus *in-situ*; controversy exists regarding judgments on these matters. For example, Zubizarreta (1998) deems SVOXP, where the focus constituent is not sentence final, ungrammatical in Spanish and Italian but grammatical in French, suggesting that focus *in-situ* is only possible in non-null subject languages, not limited to subjects but also encompassing objects.

¹We will not deal here in detail with right and left dislocations with clitic resumption, which have been confirmed to be excluded strategies for focus, and apply instead to topics (see Poletto and Bocci, 2016).

Focus fronting (FF) serves as an additional construction in Romance for marking narrow-focus structures; it is typically observed in colloquial and spoken language.

- (10) a. Che cosa ha comprato Maria?
 b. [Il giornale]_F ha comprato Maria.

While it holds true that the majority of Romance languages use FF as a syntactic strategy for indicating contrastive focus, recent discussions have brought to light two issues with this generalization. Specifically, certain Romance languages appear to diverge from this pattern by incorporating cleft sentences or PoF alongside FF to signal contrastive focus, akin to information focus. French is an example that exemplifies this deviation. This aspect is undoubtedly of primary interest to us, since we French is one of the two languages we will examine in our work; for a comprehensive discussion, we remind to the next sections, 1.4.

1.2.2 Focus constructions: the cleft sentence

The study of it-cleft sentences² has recently been the subject of a great deal of research, either in terms of their informational properties, or in terms of their frequency and the restrictions to which they are subject, in different languages. To identify the structure we rely on the definition given by De Cesare: "A cleft construction is a biclausal sentence structure, consisting of a copular clause and a relative(-like) clause. Semantically, clefts are specificational constructions associated with an exhaustive interpretation. Pragmatically, clefts can play a variety of functions, which are mostly related to focusing" (De Cesare, 2017: 536). The most frequently named functions for cleft structures are identificative and corrective, exemplified here by examples (11) and (12) respectively:

- (11) a. Who bought the newspaper?
 b. It's [Maria]_F who bought the newspaper.
- (12) a. Giulia bought the newspaper.
 b. No, it's [Maria]_F who bought the newspaper, not Giulia.

As the examples show, in both cases the cleft sentence has the function of specifying the identity of a referent about a given predication, which remains in background; in both cases, the identity of the referent is the focused information of the sentence.

²For the purpose of our work, we will mainly deal with it-cleft constructions. Other configurations exist, such as presentational clefts, pseudo-clefts and inverted pseudo-clefts (De Cesare, 2014). Yet, we will not thoroughly describe them, since their presence in our corpus is negligible, and in any case does not play a significant role in the subsequent analysis.

Both statements are therefore narrowly focused, but the statement in example (12) has the additional function of correcting a previous statement, i.e. it carries a corrective focus. Identificative and corrective functions are considered in the literature to be part of a contrastive focus continuum (Cruschina, 2021; Molnár, 2002; Repp, 2010), with identification being a less marked case (or, depending on the authors, not marked by contrast) and correction a more marked case of contrast. Several studies have also pointed out the presence of asymmetries in clefts use and function. The first factor that influences the use of this structure is the syntactic role of clefted constituent: subjects more often clefted than non-subject constituents such as other verb arguments or adverbial phrases (Destruel, 2016; Van den Steen, 2005; Roggia, 2008). Another parameter in determining the frequency of this focus strategy is the contrastiveness characterising the focus constituent: in several languages, clefts are more frequent for more contrastive focus types (Dufter, 2009; Destruel and DeVeugh-Geiss, 2018).

1.3 Linguistic reflexes of focus: intonation and the phonology dilemma

Intonation in non-tonal languages has been considered "around the edge of language", a "half-tamed savage", citing two famous expressions by Bolinger (1964, 1978). The motivation behind such considerations is that intonation can convey and express many aspects of human communication: speakers's attitude and emotions, physiological states, pragmatic aspects like politeness or grades of illocutionary force, regional and dialectal speaker's background. In other words, intonation doesn't only concern the *dictum*, but also the *modus* (Bally, 1932). In this multi-faceted picture, the role of information structure is hard to place: some scholars, in fact, have argued that information-structural phenomena fall within both grammatical and expressive categories, and crucially, the two are very hard to disentangle.

Moreover, the description and interpretation of intonation patterns poses a problem in terms of distinction between phonological representation and phonetic implementation. Hirst (2024) refers to this dilemma as the "prosodic paradox": what is -etic (i. e. objective, gradient-structured, physiologically constrained) and what is -emic (i.e. discrete, categorical, language-specific) in intonation? When dealing with notions such as "accent", "stress", "tone", how can one escape from terminological confusion and language-specific constraints? While current intonation theories, such as the Autosegmental-Metrical (Pierrehumbert, 1980; Arvaniti, 2022), heavily rely on the concept of discrete and absolute categories in intonation, the validity of this fundamental premise remains a subject of extensive debate. Scholars have scrutinized and contested this notion, as evidenced by the discussions in works like Martin (2001); Wightman (2002); Marotta (2008).

Irrespective of one's epistemological stance on intonation theories, a more robust consensus emerges when focusing on the expression of two aspects: i. modality, i.e. the distinction between questions and assertions, ii. delineation of focus-background in discourse. The role of intonation, in fact, seems to find greater agreement in serving these two linguistic functions. In Bolinger terms, these two aspects could be said to constitute the ones in which it is easier to tell apart the "tamed half", i.e. the grammatical and linguistic part, and the "untamed half", i.e. the expressive one (Gussenhoven, 2004). The following sections will delve into the aspects of intonation associated with expressing information structure, exploring established patterns of interaction. More specifically, the upcoming paragraphs will provide an overview of the pivotal effects that focus has been observed to exert on two integral elements of prosody: phrasing and rhythm on the one hand (par. 1.3.1), intonation and melodic structure on the other (par. 1.3.2).

1.3.1 Focus and prosodic structure

Speech exhibits an organizational structure that operates independently of other linguistic levels, such as morphology and syntax, yet remains closely intertwined with them. Prosodic elements play a crucial role in shaping the organization and planning of speech, serving as cues for listeners engaged in speech processing and syntactic bootstrapping. This prosodic organization involves structuring speech into phrasal constituents, which are phonetically marked at their edges through mechanisms such as articulatory strengthening at the beginning and lengthening at the end. Internally, phrases are also organized either by stress—emphasizing specific syllables over others—or by the repetition of a relatively stable tonal pattern within short phrases. Both forms of organization contribute to the perception of rhythm in speech, framing utterances as comprised of groups with similar and repetitive patterns. Some of these prosodic features may be universal and physiologically constrained, such as those linked to breathing, while others are language-specific. For instance, lexical stress is present in English, Italian, and Spanish, whereas the recurrence of intonational edge-patterns is observed in Korean, Japanese, and French (Arvaniti, 2020). Based on these phonetic traits, utterances can be decomposed into precise prosodic hierarchies (Selkirk, 1984, Nespor and Vogel, 1986). In theories of prosodic structure, constituents are represented following a labeled tree-system. As previously mentioned, two features distinguish this bracketing from syntactic representation: the prosodic hierarchy and its strict layering. Figure 1.1 shows a representation of this hierarchy using a sample English sentence.

The impact of focus on prosodic structure is evident, as it interacts with the position and realization of accents, stress, and boundaries. Often, the presence of focus leads to a specific parsing, involving the insertion (or reinforcement) of a prosodic boundary on either the left or right edge of the focused constituent. This serves to confer greater

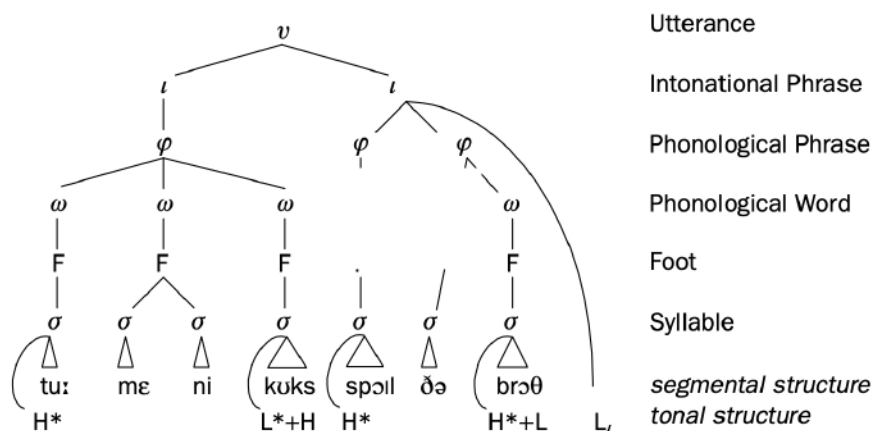


Figure 1.1: Prosodic hierarchy as exemplified in Gussenhoven (2004), with the example sentence "Too many cooks spoil the broth".

acoustic prominence to the focused element, or, more simply, to separate it from the less salient part of the utterance, creating a kind of "packaging" that distinguishes constituents bearing different information-structural roles within individual prosodic units (Féry, 2013). The following examples, taken from Samek-Lodovici (2005), illustrate this:

- (13) a. Che cosa hai fatto ieri?
b. ((Sono andato a Roma)φ(con Mario)φ)ι.

In Example 13, response (b) constitutes a broad-focus utterance, "Sono andato a Roma con Mario" ("I went to Rome with Mario"), parsed into two phonological phrases of the same hierarchical level (φ), forming together an intonational phrase (ι). In the second example, 14, question (a) specifically inquires about the location where a particular event (going somewhere) with a certain person (Mario) occurred. The narrow focus in response (b) is on the prepositional phrase "a Roma": this focus placement prompts a restructuring of the prosodic hierarchy of the utterance, introducing a stronger boundary after the focused constituent to separate it from the post-focal part. Consequently, the focus phrase is realized as an independent intonational phrase (ι), to which post-focal material of a lower hierarchical level is added ("con Mario", φ).

- (14) a. Dove sei andato con Mario?
b. ((Sono andato a Roma)ι(con Mario)φ)ι.

In light of these considerations, we acknowledge that the role of prosodic structuring is fundamental in focus marking; Féry even contends that "prominence and alignment are

different correlates of focus, and alignment is more frequent than prominence" (Féry, 2013: 684). In this perspective, however, the phonetic cues that speakers of each specific language use to encode notions such as stress, boundaries, and accents become crucial in defining what "alignment" is and, therefore, in testing its link with focus cross-linguistically.

1.3.2 Focus and intonation

Intonation serves a pivotal role in the nuanced expression of meaning and function within discourse. Phonetically, it encompasses two closely intertwined elements: the fundamental frequency (f_0), representing the periodic waveform of speech sounds, and pitch, the perceptual counterpart determining the high or low nature of a sound (Ladefoged, 1995; Gussenhoven, 2004). The function of intonation in indicating focus resides at the intersection of biological codes (Ohala, 1984) and the conventional, "grammatical" correlation between f_0 and linguistic meaning (Gussenhoven, 2004). Rather than delving into the debate surrounding these perspectives, our objective is to provide an explanation based on observed patterns of how speakers manipulate f_0 to mark focus, while offering a balanced cross-linguistic perspective.

The initial studies on the interplay between focus and intonation primarily focused on English and other West-Germanic languages, leading to the formulation of base rules to account for intonation-information structure interactions (Truckenbrodt, 2016). The extensive tradition of studies on West Germanic languages, including English, German, and Dutch, highlights a close relationship between prosodic accentuation and information structure. Specifically, focus is signaled through specific configurations of f_0 , identified as pitch accents in Autosegmental-Metrical (AM) theory, used to give prominence to the focus constituent (Bolinger, 1961; Chafe, 1976; Cruttenden, 1986; Halliday, 1967; Pierrehumbert, 1980; Büring, 2010; Gussenhoven, 2004; Jackendoff, 1972; Truckenbrodt, 2016; Zubizarreta and Nava, 2011; Féry, 2013). Background and given elements, conversely, tend to be deaccented, showing minimal involvement in major f_0 movements (Halliday, 1967; Ladd, 2008; Féry and Kügler, 2008). For further insight into the expected effect of narrow focus compared to the regular downstep pattern of the broad focus condition, refer to figure 1.2. This figure illustrates the anticipated impact of narrow focus on different elements, including focus on an initial argument (A1), focus on a non-initial argument (A2), and focus on a final verb (V). The solid line represents the expected effect of narrow focus, while the dotted line depicts the regular downstep pattern of the broad focus condition.

In accordance with the aforementioned descriptions, the configurations of f_0 are manifested, or, to use AM (Autosegmental-Metrical) terminology, "anchored" on specific

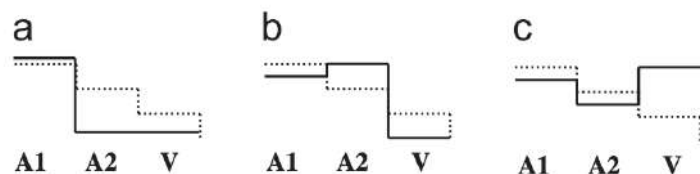


Figure 1.2: Expected effect of narrow focus (solid line) in comparison to the regular downstep pattern of the broad focus condition (dotted line): (a) focus on an initial argument (A1), (b) focus on a non-initial argument (A2), and (c) focus on a final verb (V) (Féry and Kügler, 2008).

segments of the focus constituent, known as tone-bearing units (TBUs). The exact nature of these TBUs and their placement in the prosodic hierarchy (refer to Figure 1.1) is language-specific. In stress languages, TBUs align with stressed syllables, more precisely, with their *nuclei*, as observed in English, Spanish, and Italian. On the other hand, in edge-prominent languages like Korean and French, TBUs are typically situated at prosodic boundaries—specifically, in the first or last syllable of the phonological phrase (identified as ϕ in the description provided in paragraph 1.3.1).

1.4 Focus in Romance: Italian and French

This section delves into a focused examination of Italian and French, the languages central to our study. We aim to highlight their distinctive features in information structure marking and the linguistic expression of focus. Early research on the intonation of West-Germanic languages has contributed to subsequent studies on Romance languages, establishing the conventional binary classification of "plastic" and "non-plastic" languages, initially proposed by Vallduví (1991). While numerous studies assert that Romance languages primarily employ prosody to mark correction, especially for emphatic stress (Ladd, 2008; Cruttenden, 1986; Lambrecht, 1994; Zubizarreta, 1998), a shift in perspective has emerged with works such as Face and D'Imperio (2005). This evolving understanding transcends the earlier binary framework and offers a more nuanced portrayal of focus marking in Romance languages, revealing specific features distinct from those observed in English or West-Germanic languages. In the subsequent sub-sections, we will provide an in-depth description of Italian and French, the focal points of our investigation. Additionally, we will conduct a brief comparative analysis between the two languages to identify aspects that may influence our hypotheses concerning the impact of cross-linguistic differences and similarities in L2 acquisition.

1.4.1 Native Italian

Italian has experienced a significant shift in the understanding of variation in focus-marking since being liberated from rigid definitions such as "non-plastic" and "word-order language". Numerous studies have explored the phenomenon of focus marking in this language, approaching it from different perspectives. Some studies have focused on prosody, investigating the role of intonation and timing (Farnetani and Zmarich, 1997; Hirschberg and Avesani, 1997; D'imperio, 2002; Romano and Mattana, 2008; Bocci and Avesani, 2011; Gagliardi et al., 2012); others have examined syntax and word order (Belletti, 2009; Rizzi, 1997); within a formal framework, some studies have also explored the interface between prosody and syntax (Frascarelli, 2000; Samek-Lodovici, 2005). However, the complex nature of diatopic variation in Italian has posed a significant challenge to the development of a comprehensive theory of focus representation. As for prosodic marking, most studies have concentrated on regional varieties rather than on general traits valid for the whole system. The comprehensive paper by Gili Fivela et al. (2015) constitutes an attempt to synthesize the findings about prosody, but skepticism has arisen due to the substantial amount of variation, leading to doubts about whether particular tonal configurations, seen as categorical intonation units, are systematically observed in all varieties of Italian, and produced by most Italian speakers as markers of focus (see par. 1.3). The presence of strong regional variation, coupled with diverse methodological approaches and the absence of a unified perspective, has resulted in a fragmented understanding of prosodic focus marking in Italian (Sbranna et al., 2023). Nevertheless, some recurring themes have emerged from the studies. A prevalent feature of focus marking in Italian seems to be represented by prosodic restructuring: this is the direction proposed by studies such as Frascarelli (2000); Gagliardi et al. (2012). Poletto and Bocci (2016), focusing on the Tuscan variety, also find that major f_0 movements are absent, but changes in focus condition can impact duration and phrasing. This goes in the same direction, pointing at the fact that focus marking can be achieved through phrasing and metrical re-structuring, but not through pitch modulation. Furthermore, default prosodic structure requirements can override information-structural prominence, in which post-focal content can be assigned an accent because of its metrical position, despite its information-structural role (Farnetani and Zmarich, 1997; Brunetti et al., 2011; Bocci and Avesani, 2011). As anticipated in the introduction to this section 1.4, several authors have also affirmed that prosodic marking can be present for corrective statements, but not in cases of identification Bocci and Avesani (2006). In the case of correction, then, these same authors state that focus is marked through a major pitch movement (which, in the AM frame, is called a pitch accent) of type $H+L^*$, H^*+L or $L+H^*$. Figure 1.3 shows the acoustic representation and f_0 contour for a corrective-focus utterance "No, guarda che vivono a Milano" ("No, they live in Milan"). In this picture,

we can retrieve some of the features just listed as prosodic focus markers: stressed syllable lengthening (in this case, vowel [a]), and the presence of a specific f0 movement on in correspondence of the nuclear syllable [la](labelled by the authors as an L+H* pitch accent).

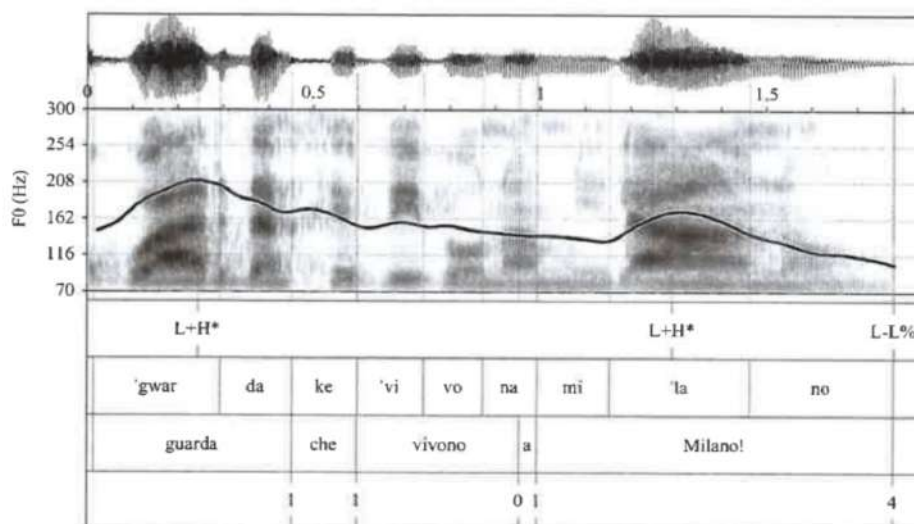


Figure 1.3: Corrective-focus utterance "No, guarda che vivono a Milano" uttered by a native Italian speaker from Florence (Gili Fivela et al., 2015).

Regarding syntax and word order, Italian is predominantly characterized as a language with flexible word order, employing various structures to emphasize sentence focus. These structures encompass object or adverbial fronting, subject displacements in postverbal positions, and it-clefts. However, the extent to which these movements are discretionary or constrained by pragmatic, semantic, or phonological factors remains an unsettled issue (Cruschina, 2021; Rizzi, 1997; Belletti, 2001, 2009). Nevertheless, there is a widely accepted consensus that the structures mentioned earlier are the most commonly encountered in Italian, as well as *in-situ* prosodic marking. In this regards, a quite neglected but to us important issue is that focus constituent embedded in it-clefts, postverbal subject and fronted objects can (and frequently do) share the same prosodic patterns of constituents marked *in-situ* (Pinelli et al., 2018). This means that the two types of marking, prosodic and syntactic, do not seem to entertain a mutually exclusive relationship. We will come back to this issue in the cross-linguistic comparison and in the definition of our research hypotheses.

1.4.2 Native French

French, often considered less flexible compared to other Romance languages, employs specific syntactic constructions, such as the *c'est*-cleft, to mark focus. It has been argued that this structure is largely used because it allows French to accommodate prosodic prominence that aligns with the focus position (Lambrecht, 2001; Larrivée, 2022). The default strategy appears to be the cleft construction, with a complete absence of VS structures, which are, instead, found in Italian and other Romance languages (Belletti, 2009, among others). In formalist accounts, it has been explained in terms of pro-drop/non pro-drop opposition: both clefts and postverbal subjects fulfill the same purpose, namely to move the subject in the rightmost position of the intonational phrase (ι, see figure 1.1); in non pro-drop languages, like French, this can only be achieved by the formulation of a cleft structure, that causes the subject to move rightwards, after the copula. For what concerns prosody, studies on French have shown that focused elements in French can be marked by a specific f_0 contour, with higher pitch and delayed alignment compared to non-contrastive contexts (Di Cristo and Hirst, 1998; Jun and Fougeron, 2000). Other authors have emphasized the role of boundary strengthening (Michelas and German, 2020), within a multidimensional picture of marking that involves phrasing as well as intonation (D'Imperio et al., 2012; Féry, 2001). In this same directions, studies have shown a tendency for narrow-focused constituents to be parsed in separate prosodic constituents of lower level ϕ - which, depending on the approach, are called Accentual Phrases (Jun and Fougeron, 2000; Welby, 2006; D'Imperio et al., 2012; Delais-Roussarie et al., 2015) or Phonological Phrases (Féry, 2001; Post, 2000). Recent studies have also underlined the importance of the "initial rise", i.e. an increase of f_0 associated with the left edge of the Accentual Phrase (D'Imperio et al., 2012; German and D'Imperio, 2016), and its possible strengthening function of left boundaries in focus AP. In figure 1.4, we can see the acoustic representation with superposed f_0 track of an utterance carrying a corrective focus on the prepositional phrase, "à Limoges". In the image, readers can identify key features, including two high f_0 peaks (labelled as H^* and $H+!H^*$) coinciding with the negative particle "non" and the corrective-focus constituent "Limoges." Additionally, the third peak is notably not aligned with the last, default-prominent syllable of the Accentual Phrase, in contrast to the Italian example in 1.3, where this alignment occurred; it is instead aligned with vowel [i] in "Limoges".

1.4.3 Interlinguistic comparison

The focus-marking systems in French and Italian share commonalities in employing intonation, boundary strengthening, cleft structures and specific word-order configurations to highlight focused elements. However, significant divergences exist, notably in word order flexibility, treatment of contrast, and the phonetic encoding of the aforementioned

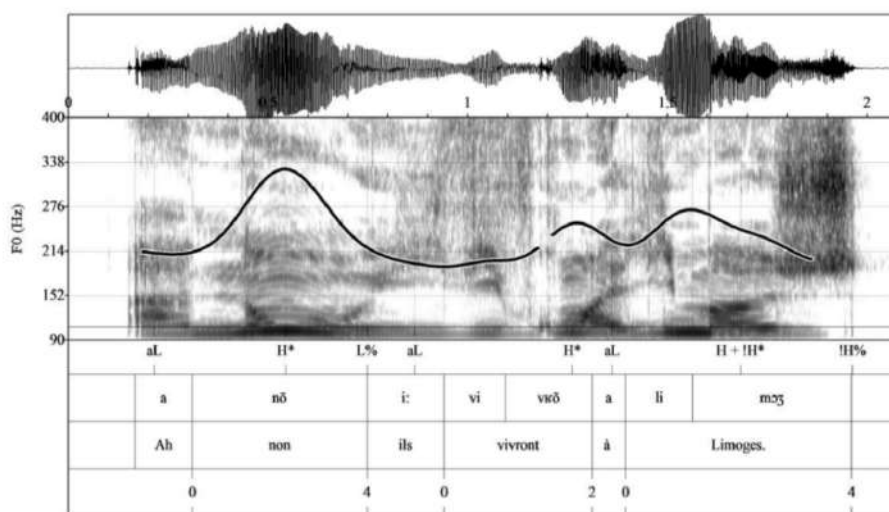


Figure 1.4: Utterance "Ah non, ils vivront à Limoges", with correction focus on *Limoges*, uttered by a native French speaker from Marseille (Delais-Roussarie et al., 2015).

prosodic features. We wish to resume and point out the main ones in the following lines, since these points of contact and divergence will have direct impact on the formulation of our research hypotheses.

French exhibits little flexibility in word order, with a strong preference for the use of it-cleft sentences over other types of constituent displacements – which are mostly considered as ungrammatical, or are anyway seldom attested. In contrast, Italian demonstrates greater syntactic flexibility, allowing for extensive dislocation options, such as verb arguments fronting (with no embedding in it-clefts), or postverbal placement of subjects. Another divergence, that is somehow a consequence of French lesser flexibility, lies in the differentiation between focus subtypes: it has been observed that French may treat identification focus more similarly to corrective focus, blurring distinctions between different degrees of contrast. In terms of syntax, the typological similarities between Italian and French are observed in the syntactic structuring of cleft sentences. Despite being marked structures, the transfer from source to target language works in a positive direction. However, differences arise in the variety of word-orders used to mark focus, and in terms of frequency and pragmatic context of clefts. This combination of similarities and divergences can be observed in form of transfer in L2 production, this time operating in both ways, positively and negatively.

With regard to intonation, Italian and French are classified under the same typology,

in which both languages are intonation languages, i.e. without lexical meaning of tones (Gussenhoven, 2004). Secondly, they belong to different classes in terms of word prominence: Italian, in fact, is a free-stress language, while French presents a less straightforward structuring, posing problems in both the definition of a prosodic hierarchy and in the identification of pitch accent location and anchoring; the presence itself of a word stress in French is highly debated. In any case, it is agreed that such stress, whether present, isn't distinctive on the word level; rather, it serves as a demarcation at the utterance level, marking the edge of accentual phrases. In addition, accentuation within an accent group is optional, and can depend on many factors, such as phrase length and speech rate. As a consequence, French exhibits variability in prosodic prominence placement; moreover, the assignment of both pitch accents and boundary tones to the word-final syllables implies a sort of syncretism between accentuation, intonation and marking of discourse-level prominence. Notably, this divergence also influences the duration of stressed vowels, adding a temporal dimension to the phonetic realization of focus-related prosody.

In light of these considerations, Rasier and Hiligsmann (2007) define Italian's sentence prosody, especially rhythmic and accentual patterns, as firmly structurally determined. French, instead, would be situated in the middle way between structurally and pragmatically determined. According to this typology of sentence prosody, a markedness scale has also been formulated, so that predictions about the acquisition of certain properties can be made, based on the markedness differential hypothesis (Eckman, 1977). In this view, languages in which prosody is structurally determined are less marked than languages where prosody is pragmatically determined; in our case, this translates into French being more marked than Italian.

CHAPTER 2

IS and Second Language Acquisition

In this chapter, our primary focus is on the exploration of Second Language Acquisition (SLA), particularly its relevance to how learners and non-native speakers acquire the ability to mark focus in a second language (L2). We commence by presenting a succinct history of the discipline, accompanied by definitions of fundamental concepts that play a pivotal role in our current investigation. The second section delves into the implications of these concepts and principles on non-native speech, emphasizing the interactions between syntax, prosody, and pragmatics discussed in Chapter 1. Lastly, we provide an overview of existing research conducted on these themes in the context of Italian and French. This examination highlights unanswered questions, thereby delineating the scope of our research within this evolving field.

2.1 L2 acquisition: history and basic notions

Learning a second language (i. e., a language other than one's mother tongue) is a situation most humans in the world are confronted to in their life. While, historically, contact between languages has always existed in human civilization, today's highly globalized and interconnected world represents a most suitable context for the expansion of this phenomenon. Multilingualism is a state that touches a good half of the world's population today, keeping the estimate down (Klein and Dimroth, 2009; Grosjean, 2010): the variety of settings can range from long-established situations of diglossia to migration contexts, through guided education, study-abroad experiences and much more.

The growing importance and scope of multilingualism is certainly one of the reasons behind the development SLA as an autonomous discipline, starting from the 1980s and 1990s (see Klein, 1998 and references therein). In the last decades, there has been a continuous refinement of methodology and an increasingly precise definition of the various factors and contexts that can influence L2 acquisition. The growing interest in the discipline has also resulted in the development of different entry points and theoretical frameworks for approaching the subject; a proliferation that has not

always been beneficial, but nevertheless seems inevitable, given the wealth of factors that characterize SLA. However, the fundamental questions that drive scholarly interest in this area of research remain more or less the same: the goal of SLA studies is to understand "which laws govern this process of language acquisition, which factors influence its course, why it sometimes stops before matching the language of the environment, to which extent it is accessible to intervention, such as explicit correction or even language teaching" (Klein and Perdue, 1992: xi). In the following paragraph we will go through some of the core issues in the field, and in particular those that have a direct impact on our research questions and the interpretation of our result. Fundamental difference (Bley-Vroman, 1989)?

2.1.1 Instructed and non-instructed SLA

At the birth of the discipline, studies targeting second-language learners mainly focused on classroom learning (Lado, 1957; Corder, 1975). It was from the 1980s-90s that scholars began to look at the phenomenon of L2 acquisition from another perspective, observing the process outside the context of education, moving toward the study of adult migrant subjects in particular (Noyau, 1988). The fact that two such distant learning contexts may have specificities is certainly intuitive; however, distinction between the two has led to a rigorous definition of methods, categories and frames of study specific to the analysis of these two environments. It must be remembered, however, that in the reality of things it is rare for a speaker's experience to belong totally to one or the other category: an adult migrant worker may come sooner or later to take of a language course, just as a foreign language student may spend many years in the classroom and then land in an immersive situation (Doughty, 2003; Hulstijn and Ellis, 2005). For the purpose of our work, we will mainly be concerned with non-instructed SLA, bearing in mind that some forays into the world of instructed SLA may be necessary, as we will be dealing schooled adults with (at least) some language learning experience in a school setting.

Immersion in the target country has long been regarded as the optimal environment for language learning, due to abundant genuine input and opportunities for interaction with native speakers (Sieloff Magnan and Lafford, 2018). In such setting, language is learnt without intentional intervention or guidance, through natural and spontaneous interaction and natural communication. The interest of studying non-instructed SLA, thus, lays in the fact that more spontaneous aspects of learning can be observed, isolating the process from tutoring interference: "we must investigate language acquisition in its natural habitat—outside the classroom, without the influence of systematic intervention" (Klein and Dimroth, 2009: 506). The idea of studying unguided acquisition stems from the desire to observe the mechanisms behind the (inherently systematic) functioning and (continuous) evolution of interlanguage. Of course, the analysis of factors or interventions

that may hinder the learner in this evolution is also of great practical interest; however, the assumption behind the separation of the two acquisition settings is that these questions are different in nature, and more easily resolved by distinguishing the two areas of inquiry.

Non-guided acquisition possesses, therefore, specificities, which make it more or less interesting for certain purposes, and which, above all, must be taken into account during all experimental phases, from the design of the methodology to the interpretation of the results. The main features of non-guided SLA can be summarized in three macro points, following the formulation of Klein and Dimroth (2009):

- *Access to the Linguistic System*: in tutored acquisition, linguistic material undergoes pre-processing and is frequently accompanied by metalinguistic descriptions. In untutored SLA, on the contrary, the sounds (or graphic representations) of the language are presented within a meaningful context: from this context, it is the learner who deduces the connection between sound and meaning, and builds the construction of complex expressions from simpler ones.
- *Communicative Pressure*: in immersion settings, learners cannot afford to wait for the acquisition of appropriate structures in the target language: they must immediately utilize the raw material for communication purposes, and expand their repertoire of expressive means to the fullest extent possible.
- *Systematic External Control*: outside the classroom, the learner can gauge their success through two indicators: the ability to comprehend and be understood, and a sense of alignment with others in terms of their speaking style.

2.1.2 Interlanguage and learner variety

The passage from a classroom setting to a more spontaneous, migrant-like one, in some way coincided with the shifting interest from the notion of *error* to what appeared instead to be a more organic, autonomous system, namely the *interlanguage* or *learner variety*. The fundamental difference between the two approaches is to evaluate, or not evaluate, learners' productions in terms of their proximity to the target, in other words "the extent to which the learner's language corresponds, or fails to correspond, to the language of those he or she is learning from" (Klein and Perdue, 1992: xi.) The first scholars to adopt this approach and coin a non-error-based definition for the language of learners were Corder (1967) with the notion *idiosyncratic dialects*, or Selinker (1972), with the notion of *interlanguage*, and Nemser (1971), who used the term *approximate systems*. The vision was then fully developed by Klein and Perdue (1992, 1997), who defined learner varieties as linguistic systems in their own right, instead of imperfect imitations of a real language. Interest in learner varieties has a different (and complementary) motivation

than the "traditional" interest in the notion of error and deviation from target. If the analysis of errors can be useful to derive insights and tools to be used in educational perspective, the study of learning varieties is crucial to understand the processes that characterize and shape SLA, as we have already stated in paragraph 2.1.1. Learner varieties, in fact, are linguistic systems that are initially rather simple, characterized by an inherent systematic and evolutionary capacity, and above all, already usable for communication (Klein and Dimroth, 2009: 504); this primacy of communicative function is perhaps the most interesting aspect for those approaching the study of non-guided SLA (Klein and Perdue, 1992, 1997).

Approaching interlanguage as an autonomous and worthy system in its own right implies, in addition to a more fruitful interest in its operation, greater caution against strong biases and dangerous fallacies that lurk in direct comparisons between learners and native monolingual speakers. Many scholars, in fact, have argued against merely comparative approaches, in which juxtaposing learners' productions to a native target leads to the so-called *comparative fallacy*, i.e. mistakenly analyzing the systematic nature of a language by comparing it to another (Bley-Vroman, 1983; Lakshmanan and Selinker, 2001; Dekydtspotter et al., 2006): "[A]ny study which classifies interlanguage (IL) data according to a target language (TL) scheme or depends on the notion of obligatory context or binary choice will likely fail to illuminate the structure of the IL", (Bley-Vroman, 1983: 15). In this view, since the learner's system possesses its own intrinsic value, it should be studied based on its internal logic, rather than being viewed solely as a distorted version of the target system. Despite the need for a term of comparison to identify phenomena of an interlinguistic nature, such as *transfer* or *cross-linguistic influence* (notions that will be explored in more detail in par. 2.1.3), a solely comparative approach risks diverting attention from the true workings of interlanguages. Another important caveat is put forward by Grosjean (1989) and Cook (1992), who argue against the so-called *monolingual fallacy*. This bias consists of the assumption that monolingualism is the norm for human communication and that native competence is the ideal. Against this view, Grosjean and colleagues argue that 1) there is no such thing as a "perfect" monolingual; 2) multilinguals are individuals with sufficient communicative competence for everyday life. The idea of achieving "equal and perfect knowledge" of multiple languages is considered not only an unattainable condition (a "myth", in the words of Grosjean, 2010), but also an undesirable one (Cook, 1992). The linguistic configuration of multilingual speakers is characterized by the constant interaction of their languages, and this must be valued and highlighted in a bi/multilingual perspective of SLA.

2.1.3 Learning process: mechanisms and factors

Besides from the setting, although in strict correlation with it, different mechanisms shape the process of SLA. Learners acquire a second language through a fundamental capacity, which is that of copying and reproducing a linguistic system (Klein and Dimroth, 2009): this process can be said to be universal, but it is influenced by numerous factors. These variables concern:

- the "material" that learners process during the acquisition phase (i.e. the characteristics of linguistic input coming from native speakers);
- the individual characteristics of the learner, such as age, previous knowledge of other linguistic systems, literacy, that determine how the input is elaborated and exploited by learners.

The first category collects the features related to the *input*, that is, the linguistic material coming from speakers of the target language, that learners use to work out their own system. Despite the diversity of approaches taken in the various studies of SLA, scholars agree that input is an essential component of the process (Gass, 1997; Mackey and Gass, 2015). An important distinction that must be made is then between *input* and *intake*, the latter being what the learners "keep" in all they receive (Leow, 1995). Frequency, saliency and transparency can have an impact on what is "taken", interiorized by the learners and used to the evolution of their interlanguage (Goldschneider and DeKeyser, 2005; Ellis, 2006): the more a feature or construction of the target language is frequent, salient and/or transparent, the greater its impact on the system of the learners will be (Bartning and Hammarberg, 2007) (Bybee and Hopper 2001a; Ellis 2002). The way features such as transparency and saliency are perceived and used to develop the learner variety can also depend on contingent factors, as for example the level of proficiency and competence that the learner has in a precise moment. Markedness also plays a significant role in the development of grammatical patterns in individuals learning a foreign language. The Markedness Differential Hypothesis (MDH), proposed by Eckman (1977), is a well-known concept in this field: according to the MDH, when two languages differ, acquiring marked structures is more challenging compared to acquiring unmarked structures.

Moving to the individual factors, the age of the learner is an important parameter in the study of foreign language acquisition. This is especially true in the field of phonology and phonetics (Flege, 1995), where the term "phonological filter" has long been used (Trubeckoj, 1939) as language skills develop, speakers become deaf to non-distinctive elements in their reference language system). At what point in their lives do speakers develop this partial or total "deafness"? The concept of a *critical period* for L2 acquisition was introduced by Lenneberg (1967), who suggested that, after reaching adulthood,

individuals lose their innate ability to learn a language automatically through exposure alone; the specific age at which this phenomenon occurs is still a matter of debate there might not be a precise moment when it happens. The question, instead, revolves around whether this phenomenon unfolds gradually or discretely—and whether there exists an initial or final threshold (see Birdsong, 1999 for a thorough discussion of this issue). Cross-linguistic influence, initially conceptualized as "interference" (Weinreich, 1953) and later termed "transfer" by Lado (1957), remains a critical factor in SLA. This phenomenon encompasses the impact of a learner's native language on the acquisition and use of a second language. More broadly, it can be defined as the influence exerted by one or more languages within a speaker's linguistic repertoire over one or more of the other languages. Diverging from the conventional perspective that views transfer solely as a potentially negative influence, cross-linguistic influence recognizes that this impact can also manifest positively. The transfer encompasses the migration of linguistic knowledge, structures, or strategies from the native language to the target language, introducing both advantageous and disadvantageous effects to the language learning process.

This influential factor operates across various linguistic dimensions, spanning pronunciation, vocabulary, grammar, and discourse patterns (Jarvis and Pavlenko, 2010: 1). Scholars such as Cook (2003), Jarvis and Pavlenko (2008), Kellerman and Sharwood Smith (1986), Odlin (1989), Ringbom (2007), Selinker (1972), and Tarone, Gass, and Cohen (1994) have extensively explored the nuanced facets of cross-linguistic influence, shedding light on its complexities.

An intriguing aspect to note is that cross-linguistic influence can manifest in different measures, varying across linguistic domains, with certain areas proving more susceptible to its effects. Vulnerable areas include those involving interfaces (Sorace, 2005, 2011; Sorace and Keller, 2005), where multiple levels of linguistic structuring are at play, and cases where linguistic-pragmatic is not one-to-one. Information structure marking encapsulates all these features, prompting our inquiry into this specific aspect. Further elucidation on these characteristics will be provided in the subsequent sections.

2.2 Information structure marking in L2

Both information structure and L2 acquisition have emerged as expanding research domains, drawing the attention of an increasing number of scholars in recent times. Due to their relatively recent prominence, numerous issues in these fields remain subjects of ongoing and spirited debate. This might lead one to think that it is premature to lump them together in the same research. If, however, we consider the argument presented earlier—that learner varieties, despite their simplified nature, possess inherent organicity

and systematicity—it becomes apparent that studying IS phenomena can benefit from the contribution of a linguistic variety purposefully constructed for communicative efficacy and immediacy. This same idea is present behind the work of the scholars who first pioneered this line of research (Benazzo and Giuliano, 1998; Dimroth, 1998; Watorek and Perdue, 1999; Andorno, 2000). Their studies have highlighted a crucial aspect: L2 discourse-management and L2 phonology exhibit a notable similarity, both incorporating L1 patterns deeply ingrained in the learner's communicative behaviour. These linguistic areas tend to resist modification and development to a greater extent than morphological or lexical patterns. From our perspective, they represent a compelling terrain for exploration, and their parallel behavior suggests them as an effective entry point for studying communicative moves. In the context of natural acquisition and a functionalist research approach, discourse and prosodic meanings serve not merely as among several levels of analysis, but as the perspective from which one observes the learner's communicative activities through speech. The rationale for examining prosodic realization within discourse, rather than "outside of discourse", lies precisely in the desire to investigate its function. This approach entails studying prosody not merely as a secondary articulation, but as an intrinsic and indispensable functional element in the structure of utterances. Consequently, the inquiry naturally centers on discerning the purpose of specific prosodic realizations and, conversely, understanding how certain informational structures are expressively manifested—often through prosody.

2.2.1 Focus mapping in L2

As we have seen in the previous paragraph, IS and prosody are two challenging areas for second language learners. Despite non-native speakers improving their proficiency in L2 vocabulary and grammar with time, they continue to encounter difficulties in adjusting the structure of their utterances to fit the context and adhering to the discourse organizational principles of the target language (Ringbom, 2006; Benazzo et al., 2012; Carroll and Lambert, 2006; von Stutterheim and Carroll, 2005; Carroll and von Stutterheim, 2003). As a result, non-native speakers may construct a discourse that aligns with the information flow patterns of their L1 ("discourse accent", von Stutterheim, 2003). While some scholars have attributed this difficulty of L2 learners to the presence of a specific Interface between discourse and prosody (the so-called Interface Hypothesis, Sorace, 2005, 2011), others have argued that the problems arise from the fact that pragmatic categories are not equally explicitly encoded on the same level, and they are not equally relevant, across languages (Matić and Wedgwood, 2003; Dimroth and Narasimhan, 2012). The expression of focus, and namely the information-focus and contrastive-focus subtypes, is especially bound to create difficulties in the acquisition process, since these categories are encoded in discourse through specific syntactic and prosodic patterns (see sections 1.2 and 1.3).

In the expression of focus, then, the difficulties of prosody sum up to those of its mapping with syntax: this combination often represents a "final hurdle" learners hardly overcome, not even in advanced stages of acquisition (Mennen, 2015). According to some authors (Zerbian, 2015), prosodic marking of IS categories is typologically marked (in the sense of Eckman, 1977), and hence difficult to acquire and less likely to be found in learner varieties. This would imply, therefore, a less markedness of syntax, which would become a medium for learners to favor over metrical or intonational.

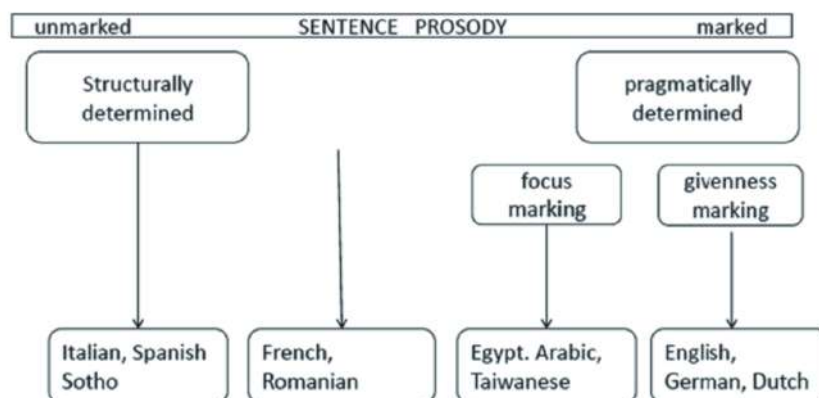


Figure 2.1: Extended markedness scale of sentence prosody (from Zerbian, 2015)

We will further discuss the position of French and Italian language in figure 2.1 in section 2.3.

2.2.2 L2 prosody acquisition models

Phonetics and phonology represent a problematic area for L2 learners, in which L1 transfer seems to be particularly persistent (Mennen, 2004); prosody itself has been described as an important factor in the perception of "foreign accent" (Boula de Mareüil and Vieru-Dimulescu, 2006). Previous research in the field of prosodic expression of focus has shown that non-native speakers tend to mark IS through their L1 focus-projection rules and intonational patterns, even at an advanced level of proficiency (Kelm, 1987; McGory, 1997; Nguyễn et al., 2008; Rasier, 2007; Swerts and Zerbian, 2010; Ueyama and Jun, 1998, Zubizarreta and Nava, 2011). Additionally, the literature on L2 intonation indicates that L1 transfer can also impact more subtle aspects of prosodic structure, such as the precise phonetic realization of similar pitch movements in phonology (Atterer and Ladd, 2004; Gut, 2009; Mennen, 2004). Traditionally, however, models of phonological acquisition have focused on the segmental level (cf. Flege, 1995 and Best 1995), while interest in the prosodic aspect of L2 acquisition is relatively recent. Thus, prosodic acquisition models are new and still under debate; many aspects remain to be clarified and aspects, such as the variation in focus marking, still haven't been accounted for (Gili Fivela and

Avesani 2021; Mennen and De Leeuw, 2014). There is no consensus, thus, as to whether L1 transfer is active on the semantic level (meaning associated to different prosodic configurations); systemic level (inventory of configurations); realizational level (phonetic implementation of phonological inventory) (Rasier and Hiligsmann, 2007; Zerbian, 2015; Mennen, 2004, 2015; Mennen and De Leeuw, 2014).

2.2.3 Learning a close-related language

The role of typology in learning a closely related language can have both advantages and challenges. When learning a close-related language, in fact, typological similarities between the native and target languages can facilitate the acquisition process; some studies, though, have shown that some drawbacks are also possible in close-related combinations. Closely related languages often share grammatical structures, vocabulary, and phonological patterns. This similarity can make it easier for learners to recognize and internalize these familiar elements, leading to faster acquisition. Learners can, in some way, leverage their existing linguistic skills and apply them to the target language. Moreover, similarity in typological features can reduce the cognitive load on learners: they can rely on existing language processing strategies and patterns, leading to quicker understanding and production. However, acquiring a closely related language is not without its challenges (Ringbom, 2006; Ringbom and Jarvis, 2009; Benazzo and Andorno, 2017). Noticing a slight difference can be harder than noticing a greater one, and learners may assume they understand the target language without actively engaging in the learning process. This complacency can lead to interference from the native language, resulting in errors or fossilized patterns (Benazzo and Andorno 2017, Comrie, B. (2003), Özçelik, Ö. (2018), Rothman, J., and Cabrelli Amaro, J. (2010).

2.3 Focus marking in L2 Italian and French

General second language acquisition models, as reviewed earlier, would predict that French, in comparison to Italian, exhibits a higher degree of "markedness" in its prosody, due to more stringent pragmatic constraints. Specifically, the prosody of French is intricately linked to information structure, while Italian's prosody may offer learners a relatively less marked system (see 2.1 for an exploration of markedness scale). This observation can align with broader linguistic theories, such as the Markedness Hypothesis (Eckman, 1977), which posits that languages with more marked features pose greater challenges for learners. Additionally, studies, such as (Yan and Calhoun, 2022), have delved into the distinction between syntax and prosody in information-structure marking, revealing that syntax is often considered less "marked" than prosody in this context. In this section, our focus is on reviewing studies conducted on IS marking in L2 French

and L2 Italian, emphasizing aspects that align or diverge from these predictions, and identifying areas that warrant further investigation.

2.3.1 L2 Italian

As we have already stated in paragraph 2.2, mastering the interplay between prosody and syntax in the expression of information structure is a challenge for L2 learners. A few studies have addressed the question with regards to Italian L2, confirming the persistence of L1 influence in this area, although with different outcomes, mostly depending on the typological distance between source and target languages. In Turco et al. (2015); Benazzo et al. (2012); Andorno and Turco (2015) and (Benazzo et al., 2012), West-Germanic speakers are said to show effects of CLI in the use of pitch accents and *verum* focus to mark polarity focus in Italian. In Avesani et al. (2015) German learners appear to have acquired the (negative) relation between discourse properties and their prosodic marking that holds in Italian, but show signs of transfer on the phonological level. In a similar way, Busà and Stella (2012) have observed that English speakers show non-targetlike behaviour in prosodic focus marking, in particular they don't seem to correctly modulate duration, which is an important cue for focus in Italian. For what concerns syntax, studies by Belletti and Leonini (2004) show that non-native speakers do not effectively use post-verbal subjects; nevertheless, no information is provided about other cues to IS that could compensate underuse of marked word orders.

Some question still need to be addressed: what could be the outcome of a combination of close-related languages, as in the case of French learners? Many studies have looked at prosody OR syntax; but what is the interplay between the two?

2.3.2 L2 French

The issue has also attracted the attention of scholars with regard to French as a second language; the general picture is similar to those that we have just sketched for Italian. A good number of studies has observed the behaviour of Germanic learners Thörle (2020); Benazzo et al. (2021a): when moving to French L2, German speakers set prosody aside, showing that they have grasped that in the target language it plays a more marginal role in the expression of IS; however, despite this approach, they still exhibit effects of cross-linguistic influence or acquisitional features, such as overmarking. As for the syntactic and word-order levels, studies such as Donaldson (2011a,b) display native-like behavior. This results is particularly interesting, because it challenges the general hypothesis that non-native speakers should be limited in acquiring effective means for IS marking. In this same direction, research by Bartning and Hammarberg (2007) describes the use of *c'est* clefts in French L2 acquisition by Swedish learners, stating that the construction is readily adopted in virtue of its high frequency in input. This finding also aligns with

previous work by Véronique (1994). The results of these latter works seem to suggest the idea, already proposed by Zerbian (2015) (see 2.2.1), that syntactic marking is easier to acquire and produce than prosodic marking.

CHAPTER 3

Research Questions

Building on the descriptions and comparison drawn in the previous paragraphs, our goal in this work is to observe the productions of non-native speakers, and try to interpret them in terms of cross-linguistic influence and L2 acquisition universals, bearing in mind the closeness of the two languages in question, and its possible consequences. The novelty of the study lies not only in its consideration of a hitherto little-studied combination of languages, but also in combining the syntactic and prosodic perspectives: in this sense, we want to test the possible contribution of a methodology explicitly designed to bring the two together. While we are aware that analyzing prosody through semi-spontaneous speech is not an easy task, we think that fully-scripted speech would reduce the validity of conclusions, especially in investigating information-structural categories such as focus, that draw from the fields of communication and pragmatics.

Our hypotheses are derived directly from the differences between Italian and French (which we have sum up in par. 1.4.3), predictions made by acquisition models and hypotheses (Mennen, 2015; Rasier and Hiligsmann, 2007), and our approach in terms of second language acquisition (see Chapter 2).

Our research questions can thus be articulated as follows:

1. **Focus marking in French and Italian:** Despite substantial research on the prosodic marking of focus in Italian and French, unresolved issues persist. Is word order the primary means of expressing focus, or does prosodic marking play a significant role? Do prosodic features in French and Italian reveal unexpected patterns compared to more studied Germanic languages? How do these patterns relate to the phonology of each language? Do our findings align with previous studies?
2. **Prosody-syntax relationship:** In light of the observed increase of contrast across identification and correction contexts in Italian and French, how is *continuum* expressed by syntax and prosody? What type of relationship do these two entertain, additive or trade-off? How do they interact to mark different degrees of focus and

contrast? Does the same relationship between syntax and prosody apply in both L1 and L2 productions?

3. **Interplay of syntax and prosody in L2:** How do L2 speakers mark different focus subtypes, and is there a dominance of syntax or prosody in their productions? Do our results match predictions made by models of L2 acquisition regarding the preponderance of one or the other in non-native speech?
4. **Prosody and L2 learning models:** Given the resistance to change observed in accent patterns and phonological features in L2 learning, how do the dynamics of transitioning from accent to non-accent, intonation to non-intonation, and the role of chunking and parsing impact our understanding of L2 acquisition of prosodic features? Considering observed differences on both phonological and phonetic levels, how do non-native speakers in L2 productions elaborate this divergence, and to what extent does it impact overall prosodic patterns in their speech?
5. **Saliency and Input Factors in L2 Acquisition:** Expanding on the concept of varying saliency in linguistic structures during L2 acquisition, we ask ourselves whether certain marking strategies in L1 exhibit greater ease of identification, processing, and acquisition by learners. Does the relative ease of acquisition depend on the saliency of these structures in the input?
6. **Two faces of cross-linguistic influence:** What impact does the typological proximity of French and Italian have on shaping L2 productions? Does this proximity facilitate or obstruct the acquisitional process, and is there evidence of both positive and negative transfer? Is this effect equally visible on syntax and prosody?
7. **Non-linearity in L2 acquisition:** Investigating the non-linear path revealed in proficiency levels, what specific connections exist between morpho-syntactic proficiency and target-likeness in information structure marking for L2 learners?

Part II

The experimental study

CHAPTER 4

Methodology

In this section, we will describe the design of our study and present the methodological choices that underpin our research strategy. As a general posture, we decided to take a quantitative and data-centric approach, revolving around the systematic analysis of large collections of language data (Granger, 2012). Unlike a theory-driven approach that starts with pre-existing hypotheses and seeks to confirm or reject them, we think this approach allows researchers to explore language patterns and regularities directly from the observed data, progressively generalizing and deriving theories or rules based on the patterns found within the corpus. Combined with a quantitative analysis, this method offers the possibility to yield precise and robust data, and build up on systematic data observation, rather than being limited to preconceived assumptions. However, we also acknowledge that a purely quantitative approach might overlook the intricacies of the complex processes involved in Second Language Acquisition. Therefore, qualitative elements will also be incorporated into the discussion. This combination allows us to gain a more comprehensive and nuanced understanding of SLA, leveraging the strengths of both methods. By combining controlled experiments and statistical analyses as well as case studies and more punctual considerations, we can triangulate our findings, strengthening the validity and reliability of our results. The strength of this combination is especially fruitful in the field of SLA, as many previous studies have demonstrated (Larsen-Freeman and Cameron, 2008; Levis and LeVelle, 2016). Particularly, we plan to integrate qualitative data to analyze the most interesting and complex findings, allowing for a more holistic perspective on language acquisition.

4.1 Sample

In this section we will outline the essential framework for selecting and describing the participants who were involved in the study. Careful consideration was put in the choice of the sample, in order to ensure the generalizability and validity of the study's findings. We will detail the criteria used to recruit participants, including the target population

and any specific inclusion or exclusion criteria. Moreover, we will provide demographic information about the selected sample, such as age, gender, educational background, linguistic experience, and any other relevant characteristics that may influence the study's outcomes.

4.1.1 Study design

As we have stated, our study aims at observing and describing the production of Italian L2 and French L2 speakers, and comparing them to the production of native speakers of both the source and the target languages, i.e. Italian and French. For this purpose, we decided to set up an inter-subjective, cross-sectional, multi-group design.

- *inter-subjective*: the research focuses on the analysis and interpretation of language data from the perspective of multiple individuals or language users. The term emphasizes the importance of considering and understanding the shared meanings, interpretations, and communicative practices that emerge within a community of speakers.
- *cross-sectional*: the design involves the collection and analysis of data from different groups of participants at a single point in time. The aim is to compare and examine language-related variables across diverse groups without following them over an extended period. The gathering of data is conducted simultaneously, and the data collected provides a snapshot of the linguistic characteristics, behaviors, or patterns at a specific moment for each group under investigation.
- *multi-group*: the research design involves the comparison and analysis of multiple distinct groups or populations, that can differ based on various linguistic, cultural, or demographic characteristics. Data is collected from separate groups and then analyzed and compared, aiming to investigate potential differences or similarities between them concerning language-related factors.

This approach, as described by Jarvis and Pavlenko (2010), is particularly interesting in the field of SLA, as it combines several elements to investigate trends and correlations across multiple groups. The underlying assumption of this method, as stated by Gass and Selinker (2001), is that comparing multiple groups would yield results similar to what would be found if we observed a single individual over an extended period. Despite the cross-sectional nature of the data, this design allows us to gain insights into inter-subjective patterns and variations among distinct groups while exploring potential longitudinal associations.

Group	Sex	Age
FRL1	4M / 13F	range = 31, mean = 27,5, SD = 9,5
ITL1	3M / 11F	range = 10, mean = 25,6, SD = 10
ITL2	7M / 10F	range = 35, mean = 27,4, SD = 8,6
FRL2	8M / 8F	range = 25, mean = 32,5, SD = 7,4

Table 4.1: Summary of the final sample characteristics.

4.1.2 Choice and recruitment of the speakers

Participants were recruited and recorded between summer 2021 and fall 2022, in Turin, Italy (Italian L1 and Italian L2 groups) and Paris, France (French L1 and French L2 group). Given that the intonational phonology of Italian strongly varies across regions, special care was taken in circumscribing Italian speakers' areas of origin, in order to minimize the impact of diatopic variation (see D'imperio, 2002 and references therein). As for Italian (native and non-native), we chose to adopt as a point of inquiry the area of Turin, whose variety is described, with particular interest for prosodic focus, in Romano and Mattana (2008); native and non-native speakers of French were recruited and recorded in Paris. Only adult speakers were chosen ($age \geq 18$), in order to avoid the so-called *critical period* (Lenneberg, 1967; see discussion about this issue in paragraph 2.1.3). Native speakers were recruited by word of mouth or through interventions during some lectures at the University of Turin and Paris 8 University. For recruiting non-native speakers, in addition to personal contacts and word of mouth, online communities of *expats* (such as Facebook groups, Français à Turin, nd; Italiani a Parigi, nd) were also very helpful. At registration, speakers completed a questionnaire concerning their sociobiographical characteristics and language background; questions were articulated to assess inter-group homogeneity with respect to age, literacy and other learning variables. Blank versions of the questionnaires and consent forms can be found in both Italian and French versions in Appendix (9.3). In addition, L2 speakers were administered a written assessment test, which we will discuss in more detail in the next section (paragraph 4.1.3). Table 4.1 gives a summary of the sample characteristics.

4.1.3 Proficiency assessment

In order to satisfy the cross-sectionality ratio, we recruited the non-native speakers by making sure to cover multiple proficiency levels, so as to represent different stages of the

acquisitional pathway¹. Proficiency levels were assessed through three complementary tests: self-assessment, written cloze test (Vedder, 2008 for Italian and Tremblay and Garrison, 2010 for French), and evaluation of oral productions by experienced L2 Italian and L2 French teachers. Blank versions of the cloze tests and of the sociobiographical questionnaires containing the self-assessment section are included in Appendix (9.3). Oral evaluations were performed over the task-elicited speech; the more informative task for this purpose was the picture comparison, occasionally integrated by the picture story; both tasks will be described in the next paragraph (4.2). In assessing L2 proficiency, fellow teachers were advised to employ, in addition to the usual CEFR indicators (CEFR, 2020), the comprehensive framework of CAF, drawing upon the works of Pallotti (2009) and Norris and Ortega (2009). The acronym CAF stands for Complexity, Accuracy, and Fluency, and consists in a triadic approach aimed at provide multifaceted evaluation of language proficiency. By applying these diverse indices, a robust and nuanced assessment of L2 proficiency was achieved. In instances where conflicting evidence arose from the written and oral evaluations, we prioritized the oral assessment over the written one; this decision was based on a well-founded approach, widely suggested and endorsed in the field of language proficiency studies (Tremblay and Garrison, 2010). As many other scholars do, in fact, we believe that spoken communication better reflects real-time language processing and linguistic spontaneity, thereby offering valuable insights into a learner's ability to use the language in natural contexts. By giving precedence to the oral evaluation, we aimed to account for the dynamic nature of language use and better capture the learners' communicative competence and language performance in authentic situations. The results of the evaluation and the resulting group breakdown are shown in table 4.2.

4.2 Tasks

In this section we will describe the tasks we used to elicit the speakers' productions. We will explain the reasons that led us to choose certain task types, taking into consideration both the aims of our study and the methods adopted by other works in the field, with a view to cross-linguistic comparability. We will also detail the data collection protocol and the composition of the material collected. The stimuli and supports used during the collection are fully available in the appendix 9.3.

¹The representation of proficiency levels should, however, be taken with some caveats: it has been evident for several years now that the L2 learning trajectory is not linear, starting from works such as Norris and Ortega (2003) and Larsen-Freeman (2006).

Group	CEFR Level	N. speakers	Total
FRL1	-	17	17
ITL1	-	14	14
FRL2	A1-2	2	16
	B1-2	7	
	C1-2	7	
ITL2	A1-2	4	17
	B1-2	7	
	C1-2	6	

Table 4.2: Proficiency levels of participants taking part in the study.

4.2.1 Types of data

In studying information structure marking an important methodological issue arises: one one hand, the need to analyze speech that (at least partially) conserves conversational value and illocutionary force is felt; on the other hand, the perspective of a prosodic analysis asks for the elicitation of highly controlled, fully comparable phonetic units. These two requirements, unfortunately, are contradictory and pose problems for designing a viable collection protocol. Given these challenges, we decided to exclude learner corpora, and instead create a dataset of more controlled productions, containing a sufficiently high number of analyzable target structures. For this sake, we have developed a comprehensive protocol that encompasses different types of data, ranging from more controlled (read-aloud, question-answer pairs) to spontaneous speech. We recognize the importance of analyzing speech that retains its conversational value and illocutionary force to understand information structure accurately. By incorporating both controlled and spontaneous data, our protocol seeks to strike a balance between these two conflicting requirements, ensuring a viable and comprehensive collection methodology for our research. This approach will allow us to delve into the complexities of information structure marking while preserving the authenticity and naturalness of the spoken language.

In light of the methodological challenges outlined earlier, we have also chosen to prefer production tasks over grammaticality judgments (GJTs) from our research methodology. The rationale behind this decision is to mitigate potential biases, such as the monolingual/comparative fallacy (see par. 2.1.2). Numerous studies in the field of SLA, in fact, have criticized the reliability of GJTs (Ellis, 1991; Gass, 1994; Carroll and Meisel, 1990); especially because grammaticality is not a clear-cut dichotomy, but rather a spectrum,

ranging from fully acceptable to marginally acceptable sentences (Sorace and Keller, 2005).

4.2.2 Reproducibility and comparability

Another aspect that we considered in the choice of the experimental design was the need to compare our results with those of other language combinations, which is an essential step in the identification and distinction of CLI from other learning phenomena. In fact, identification of CLI not only depends on intragroup homogeneity, but also intergroup heterogeneity (Jarvis and Pavlenko, 2010: pp. 41f.): the latter can be assessed more reliably if the productions of a group of users in a recipient language are compared to those of other speakers of the same recipient language that don't share the same source languages (e.g., comparisons of German-, French-, Spanish-speaking learners of Italian). Since a direct comparison is viable only with identical type of data and tasks, we decided to take up part of our collection protocol from existent studies. The choice fell on the protocol devised by Gabriel (2010) and then taken over by Feldhausen and Del Mar Vanrell (2016) and Gabriel and Grünke (2018).

Apart from the specific needs of a study on CLI, we also believe that the repeated use of the same data elicitation protocol is important to ensure comparability and reproducibility of results, a need that is still too little felt, in our opinion, in the field of SLA and linguistics more generally (Marsden et al., 2018).

4.2.3 Description of the protocol

Several attempts and pilot studies were made before finding the right set of tasks to meet all these criteria². In the following lines we will present the final set of tasks, which includes three: a read-aloud, the picture-story task (from Gabriel, 2010), and a picture comparison task. The quantitative analyses presented in chapters 5, 6, and 7 focus on the picture-story task. Concurrently, other tasks were transcribed, although they were not labeled for this stage of analysis. These other recordings and transcriptions have been instrumental for qualitative observation and insights; we have anyway preserved these unlabeled tasks for future analyses, with plans to explore task-induced variations.

²In a first phase, preliminary recordings were made with a small sample of 4 participants, 2 ITL1 and 2 ITL2, who were administered 5 speech tasks, from most to least controlled. The original design involved a read-aloud task, the "picture story" task from Gabriel (2010), and three different *stimuli* for the spontaneous speech: a picture comparison, a customized Map Task (Anderson et al., 1991), and the table game Guess Who (2021). The role-playing game Map Task and the "Guess Who" board game proved less productive for our purposes than the picture comparison task; the latter, therefore, was retained at the expense of the other two in the final protocol. Through the analysis of these early productions, we identified the most effective tools for elicitation of the target structures, and with appropriate refinements, additions and cuts we developed the final protocol.

All support material, including pictures and written scripts, is available in the Appendix section (9.3).

Read-aloud. The participant is given three short written dialogues, and is asked to interpret, reading aloud, one of the two characters; the second character is played by the experimenter (in this case, the author). These dialogues strategically include a regular number of occurrences of focused elements in marked and unmarked positions, or embedded in it-cleft sentences. The focus constituents span different syntactic categories, including subjects, verbs, arguments of the verb (direct and indirect object). Target constituents were designed to be composed, as far as possible, of sonorous segments (vowels, nasals, approximants), so as to make it easier to observe f0 movements on the constituents themselves. The task is presented in Italian to participants in the ITL1 and ITL2 groups and in French to those in the FRL1 and FRL2 groups. The length of target constituents (in syllable) in the Italian and French version has been kept the same³. Below are two excerpts from the dialogues: example 15 is from the Italian version, and example 16 is from the French version. The complete scripts can be found in the appendix (section 9.3).

- (15) a. EXP: Hai cucinato la parmigiana?
 b. PART: No, ho cucinato le lasagne. *Correction; Object; SVO; 3 syllables*
 a. EXP: E chi ha fatto il dolce?
 b. PART: È Giovanna che ha fatto il dolce. *Identification; Subject; Cleft; 3 syllables*
- (16) a. EXP: Tu as préparé un gâteau ?
 b. PART: Non, j'ai préparé de la marmelade. *Correction; Object; SVO; 3 syllables*
 a. EXP: Et qui est-ce qui a fait le dessert?
 b. PART: C'est Jean-Marie qui a fait le dessert. *Identification; Subject; Cleft; 3 syllables*

Table (4.3) shows the number of occurrences placed in the text for each focus subtype, target constituent, and syntactic configuration.

Picture story. Following the model of Gabriel (2010), the speaker is shown a Power Point presentation containing two short picture stories, accompanied by a caption, and then some questions pertaining to the illustrated scenes. The speaker is asked to read

³Of course, the actual number of syllables for French constituents depends on the each participant's realisation.

Target Const.	Focus type	Word order	N. occurrences
Subject	Correction	Marked	1
		Unmarked	1
Direct object	Identification	Unmarked	1
	Correction	Unmarked	5
	Correction	Marked	2
Indirect object	Correction	Unmarked	1
Verb	Correction	Unmarked	1

Table 4.3: Occurrences of target constituents in the read-aloud task.

the questions and answer them aloud, producing a "complete sentence". The questions are phrased so as to elicit responses with three types of focus: broad focus, narrow identification focus, narrow corrective focus (see paragraph 1.1.3). Identification focus is elicited through a partial question, and correction focus through an assertive statement accompanied by a tag-question⁴, through which the speaker's reaction (in this case, corrective) is sought. As in the previous task, the targeted focus constituents belong to different syntactic categories: subject, verb, verb arguments, and adverbials. Participants are not given any guidance on how to formulate the response, other than to avoid elliptic responses (e.g., "Who's buying the newspaper?", "Maria"), and always include a verb. In this way, speakers are free to formulate the structure they deem most appropriate according to the questions they are asked⁵. Like the read-aloud, the task is proposed in Italian to participants in ITL1 and ITL2 groups; in French to those in FRL1 and FRL2 groups. We illustrate below an excerpt from the French version (4.1), with examples of questions and expected answers (17).

- (17) a. Q: Qui achète le journal au kiosque?
b. PART: C'est Marie qui l'achète.
a. Q: Julie donne le journal à son frère, non?
b. PART: Non, c'est Marie qui donne le journal à son frère.

⁴On the role of tag questions as biased questions, cf. Romero (2020).

⁵Unfortunately, sometimes - and this is in effect a weakness of our tagset - the part of the prompt regarding the production of "complete" (non-elliptical) sentences was understood as the obligation to produce "canonical sentences", leading to avoid non-SVO orders. We will discuss this issue in further detail in the Results section (5).

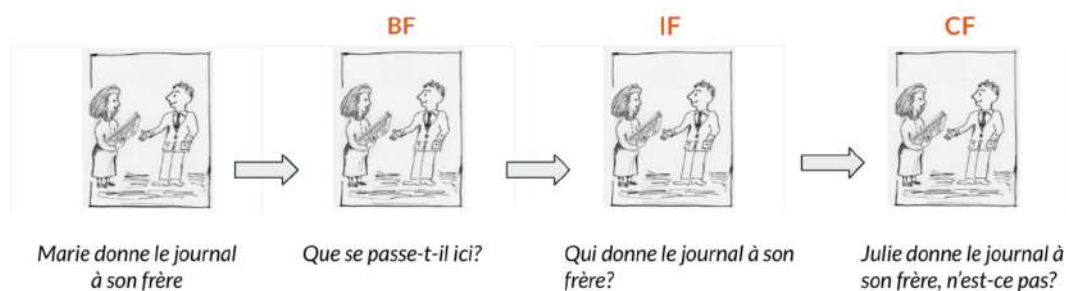


Figure 4.1: Some slides from the "picture story" task (French version).

The total number of questions posed to each participant was 29, including 3 fillers. Table (4.4) displays the distribution of questions across various focus subtypes and target constituents. As for the phonological composition of target constituents, since the represented scenes were to be kept the same across the two languages, it was not always possible to control for the number of syllables and segmental composition ("kiosque" and "edicola" do not have the same length in syllables, but are the only possible translations in French and Italian for the word "newsstand"). When possible, though, the segmental material was kept similar across the two versions; this is the case, for example, of proper nouns ("Marie" and "Maria" or cognate words like "journal" and "giornale").

Target const.	Focus type	N. occurrences
-	Broad	4
Subject	Identification	3
	Correction	3
Direct object	Identification	2
	Correction	2
Indirect object	Identification	2
	Correction	2
Adverbial	Identification	2
	Correction	2
Verb	Identification	2
	Correction	2

Table 4.4: Questions in the picture-story task.

Picture comparison. The experimenter (in this case, the author) and participant each have an image in front of them; without seeing each other's, they must describe their own and find any differences. The two images present a similar but not identical scene, and are designed to elicit in speakers the production of contrastive focus structures on different syntactic categories. To avoid priming effects on syntax, the experimenter conducts the conversation following a script that does not involve the use of marked structures. The two pictures used in the task are shown below⁶. An excerpt of transcription of the task performed by an Italian L2 speaker is shown in example 18.

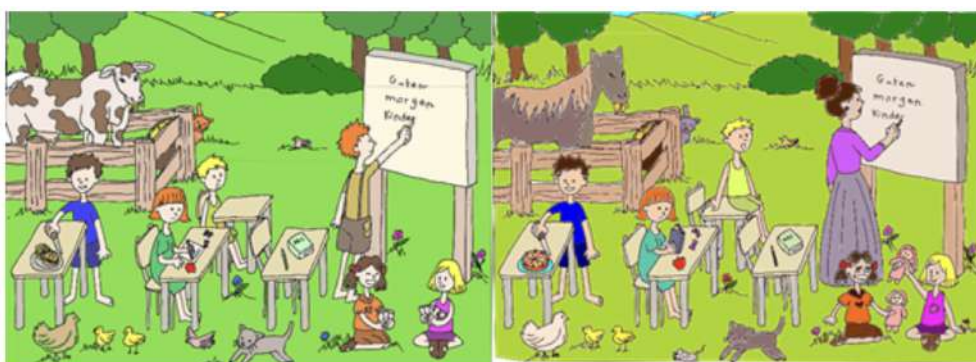


Figure 4.2: Picture of the experimenter (left) and picture of the participant (right).

- (18) a. EXP: Nella mia immagine c'è una piccola classe di bambini che sta facendo lezione all'aperto. Anche tu ce l'hai?
- b. PART: Sì, sì sì, proprio così.
- a. EXP: Ok. In basso, cioè davanti all'animale nella staccionata, c'è un bambino vestito di blu coi capelli scuri.
- b. PART: Sì, anche io ce l'ho.
- a. EXP: Ok. Il bambino sta tagliando a metà un panino.
- b. PART: Allora no, sta tagliando una torta a fette.

The three tasks were administered in a random order. Recordings for groups ITL1 and ITL2 took place in the soundproof booth located inside the Laboratorio di Fonetica Sperimentale "Arturo Genre" (Università di Torino), while groups FRL1 and FRL2 were recorded in the soundproof booth of laboratory "SFL - Structures Formelles du Langage" (Université Paris 8). Due to restrictions during the second year of the COVID-19 pandemic, access to university facilities was limited at times. Consequently, some participants were recorded in alternative premises, utilizing portable instrumentation while strictly adhering to safety distances.

⁶We would like to thank Ilinca Cojan for creating the graphics used as *stimuli*.

Recordings within the laboratory facilities were made using a Focusrite Scarlett interface and Shure SM58 microphones. When laboratory access was restricted, recordings were conducted using a portable recorder, Zoom H4N, and an AKG C520 cardioid electrostatic headband microphone. All audio files were recorded in .wav format with a sampling rate of 44100 Hz.

4.3 Tools for the analysis

In this section we will describe how the data was treated, i.e. transcribed and labelled, in order to prepare and enable the analysis.

4.3.1 Transcription

The sum of the three tasks gives about 10 minutes of speech for each participant; with 64 participants, the total of the data amounts to about 10 hours of speech. The audio files of the picture-story task have been transcribed and segmented at the level of utterance, word, syllable and phone. Orthographic transcription was done manually on Praat (Boersma and Weenink, 2023). For segmentation, two automatic scripts were used, EasyAlign (Goldman, 2011) for French L1 and L2 and WebMAUS (Kisler et al., 2017) for Italian L1 and L2. The automatic segmentation was fully reviewed and corrected, and manually realigned where necessary. The read-aloud and picture comparison tasks have been transcribed, but they have not been segmented, since for the moment they have only been used for an initial inspection and qualitative observation.

4.3.2 Coding

Syntactic and word order level phenomena were manually annotated using a specific tagset, adapted from Brunetti et al. (2011). We illustrate the labels, giving a description and examples in Italian and French for each of them⁷ in table 4.5.

Establishing a procedure for prosodic annotation was a more difficult process. The challenges encountered in coding prosodic phenomena are compounded by the inherent conflict between assuming a specific phonological system as a framework for analyzing learners' productions and the core concept of interlanguage (or *learner variety*, see par. 2.1.2). From our point of view, in fact, learners' speech is not merely an "interfered" target language; thus, we cannot presuppose and apply a determined phonological system for their productions—neither that of the L1 nor that of the L2. By definition, non-native speech can display features of both the source and the target languages, along with the

⁷In the table, underlined constituents correspond to sentence *foci*; please note that they do not always coincide with dislocated elements.

Label	Description	Example (IT)	Example (FR)
<i>sbjinv</i>	Subject inversion	L'ha comprato <u>Maria</u> .	-
<i>clld</i>	Clitic left dislocation	Il giornale lo compra <u>in edicola</u> .	Le journal, elle l'achète <u>au kiosque</u> .
<i>clrd</i>	Clitic right dislocation	Maria lo compra <u>in edicola</u> , il giornale.	Marie l'achète <u>au kiosque</u> , le journal.
<i>noncl-d</i>	Dislocation without clitic	In edicola Maria compra <u>il giornale</u> .	Au kiosque, Marie achète <u>le journal</u> .
<i>obj-sep</i>	Object separation	Maria dà a suo fratello <u>il giornale</u> .	Marie donne à son frère <u>le journal</u> .
<i>focfr</i>	Focus fronting	<u>Il giornale</u> Maria compra in edicola.	-
<i>pres</i>	Presentational sentence	C'è Maria che dà il giornale a suo fratello.	Il y a Marie qui donne le journal à son frère.
<i>cleft</i>	Cleft sentence	È <u>Maria</u> che dà il giornale a suo fratello.	C'est <u>Marie</u> qui donne le journal à son frère.
<i>pscleft</i>	Pseudo-cleft sentence	Quello che dà Maria al fratello è <u>il giornale</u> .	Ce que Marie donne à son frère c'est <u>le journal</u> .

Table 4.5: Taxonomy of non-canonical constructions used in corpus labeling (focus constituents are underlined).

outcome of learning universals; crucially, the balance between these components results from individual variables, and above all, from speakers' unique linguistic background and cognitive profile. It is therefore very hard, if not impossible, to presuppose what traits should be interpreted as phonological (i.e., discrete and distinctive within a given linguistic system) and what should not (see the discussion in par. 1.3). For all these reasons, we decided to opt for a neutral, automatic annotation tool, which is at the same time an algorithm *and* a notation, Polytonia (Mertens, 2014), itself based on the *Prosogram* system (Mertens, 2004). The advantage of Polytonia's prosodic transcription is that "[it] does not assume a particular phonological theory of intonation [...]. Rather it aims to determine the pitch level and movement of each syllable in a manner motivated by tonal perception, in such a way that these (categorised) observations can serve as an input to phonological analysis and interpretation" (Mertens, 2022). It is important to note that the only theoretical assumption about prosody and prosodic structure made

by Polytonia is related to the syllable. Numerous studies focusing on L2 prosody have successfully employed this tool, with recent examples including the works of Benazzo et al. (2021b) and Santiago et al. (2022).

The algorithm provides a series of symbols that represent tonal levels and the perceptible melodic movements of all syllables, based on the notion of the *seuil de glissando* (Rossi, 1971). The system provides 5 symbols for the tonal level: L (low), M (mid), H (high), B (bottom) and T (top). It also provides 5 melodic movements: R (large rise), F (large fall), r (small rise), f (small fall), and – (level). Finally, the system can provide the combination of these symbols. An example of Prosogram output is visible in figure 4.3.

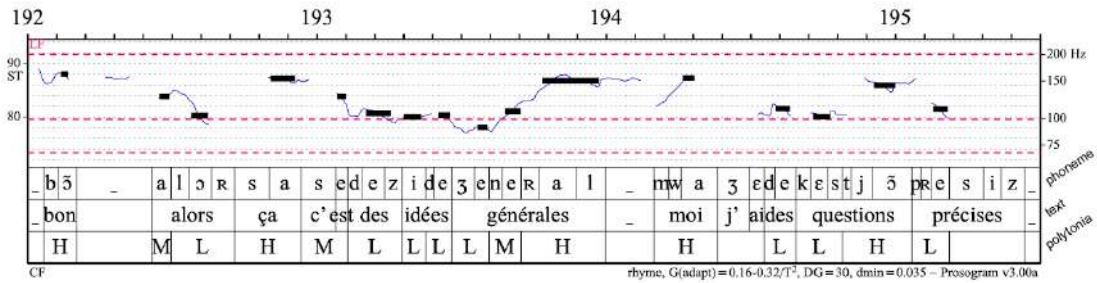


Figure 4.3: Example of Prosogram output for the utterance "Bon alors ça c'est des idées générales, moi j'ai des questions précises", from Mertens (2022).

The intonation of target words, such as "Maria" or "giornale", was profiled by combining the Polytonia labels assigned to individual syllables. For instance, to determine the contour exhibited by the target constituent "Maria", we assembled the Polytonia labels associated to each one of three syllables, [ma.'ri:.a]. In the example shown in figure 4.4, the prosodic contour of the target word would be L-Hf-L. Prosodic phenomena were thus automatically tagged using the Polytonia script for Praat, and then manually corrected in case of errors⁸. Figure 4.4 shows an example of complete transcription annotation, including labelling of syntax and prosody, for the utterance "È Maria che compra il giornale in edicola", produced by a native Italian speaker.

4.3.3 Statistics

We constructed various statistical models, encompassing both linear regressions and chi-square tests, through diverse functions in R (R Core Team, 2022). Within each subsection, we detail the distinct models. The choice of independent variables or predictors varied across different stages of the analyses, including informational context (with a specified number of levels: broad focus, identification focus, corrective focus), syntactic role of

⁸These errors are generally due to erroneous pitch detections by Praat, mostly octave jumps due to glottalization or presence of non-modal voice.

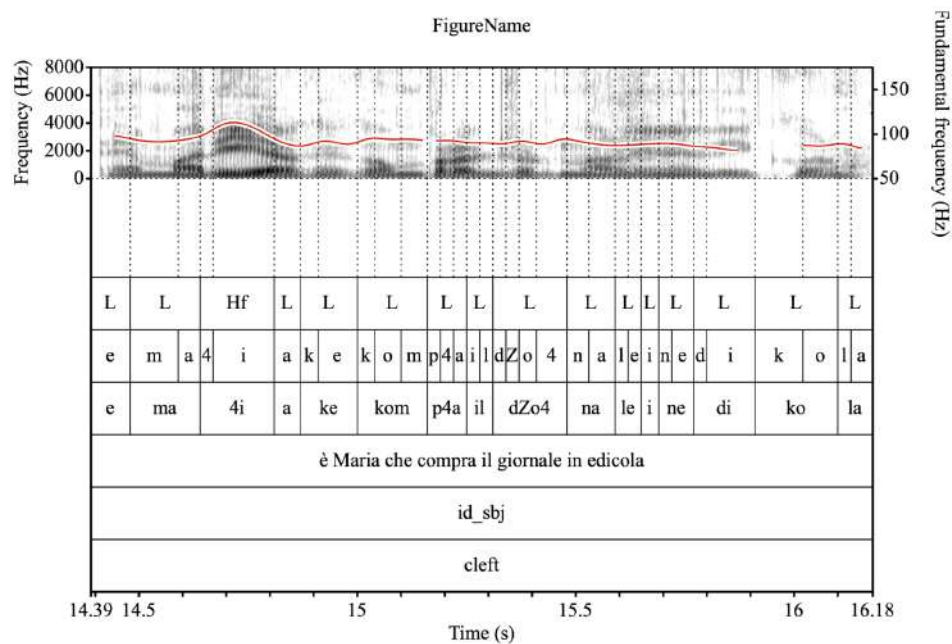


Figure 4.4: Example of complete transcription and annotation on 6 tiers: *Polytonia* labels, phones, syllables, utterance, informational context and syntax/word-order.

target constituent (with a specified number of levels, subject vs non-subject), language (participant’s L1/L2), and proficiency levels (A, B or C).

For models constructed via linear regression (lm), categorical predictors underwent recoding using "dummy coding" through the `contrast()` formula in R. This process aimed to address the categorical nature of certain predictors. In instances where convergence issues arose, non-parametric models, such as standard chi-square tests, were employed as an alternative approach.

CHAPTER 5

Results: syntax and word order

As we have stated in the very first lines of this work, the separation between syntax and prosody is an abstraction (see Chapter 1). Taking this into account, we will however proceed with the analysis of one factor at a time – syntax and word order, intonation – and then integrate the different components, in a more organic and coherent discussion, at a later stage (see Chapter 7).

The first step, which is the one we will tackle in this chapter, is that of syntactic and word order analysis. As described in the Methodology section (4), the corpus we are going to rely on is made up of task-elicited speech, collected through a question-answer task based on a picture story. As mentioned, the questions are formulated in such a way as to elicit answers with three different types of focus: broad, identification focus, corrective focus. The target constituents are of different nature: subject, direct object, indirect (prepositional) object, verb, adverbial.

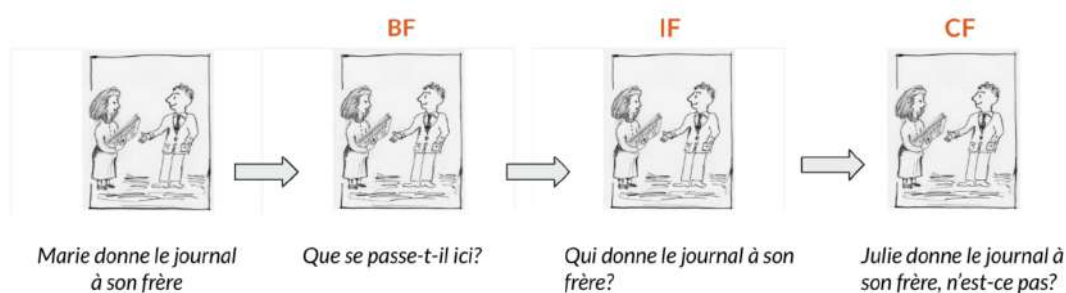


Figure 5.1: Some slides from the "picture story" task (French version).

The production of 60 participants was taken into account, and each speaker produced, according to the protocol, 26 target sentences, resulting in a final dataset of $26 \times 60 = 1560$ utterances. Of these 1560, 51 were discarded because they did not conform to the delivery provided or were not semantically-pragmatically felicitous.¹ This left a total of

¹Sentences were excluded for two possible reasons. The first is related to non-compliance with the

1509 analyzable items. The dataset was obtained by extracting the annotations made on Praat in the "syntax" tier, which contains the annotation of syntactic and word-order phenomena (see figure 5.2).

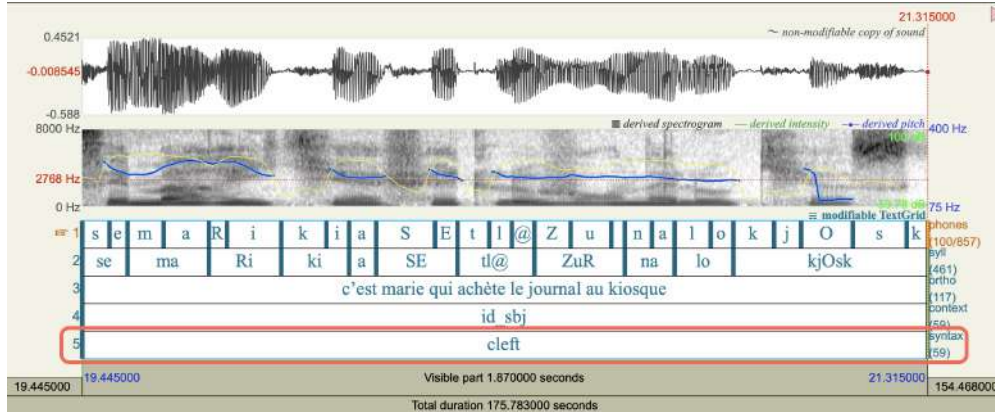


Figure 5.2: Screenshot of Praat window with different tiers of annotation, "syntax" tier highlighted in red.

The analysis was then conducted by counting the occurrences of the different labels illustrated in paragraph 4.3.2, in the different information contexts, for different syntactic constituents, in the four groups. After a first inspection and a descriptive, general analysis (the results of which are illustrated in section 5.1), we took a closer look at those structures that occurred most frequently and seemed particularly interesting for our purpose, namely it-cleft sentences. For this more circumscribed phase of the analysis, we built different statistical models (linear regressions and chi-square tests), using specific functions in R (R Core Team, 2022). In the case of models built via `lm`, categorical predictors were re-coded with the help of "dummy coding". In the case of convergence issues, we built non-parametric models, such as typical chi-square tests.

5.1 Marked word orders in the native groups

We will first proceed with an overview of the different strategies used by native speakers of French and Italian, commenting briefly on the differences found between the two groups. In a second step, we will focus on observing those structures and orders that

delivery: in the task, the request was to answer the questions by formulating "complete sentences," i.e., containing a finite verb. Cases in which the speakers answered instead with single syntagms (e.g., Q. "À qui Marie donne-t-elle le journal?"; A. "À son frère") or clefts without a relative clause (e.g., Q. "Qui donne le journal à son frère?"; A. "C'est Marie") were excluded from the analysis. The second reason is, on the other hand, related to the semantic coherence of answers: if the utterance is not felicitous or does not express disagreement with an incorrect description of the story, then it is ruled out of the analysis (e.g., Q. "Julie donne le journal à son frère, non?" A. "Oui, Marie donne le journal à son frère" instead of correct answer A. "Non, c'est Marie qui donne le journal à son frère").

by their frequency or salience we think may deserve a broader analysis, namely cleft sentences (section 5.1.4).

5.1.1 L1 French

In the following chart, figure 5.3, we show the non-canonical structures used to mark subject focus by French native speakers.

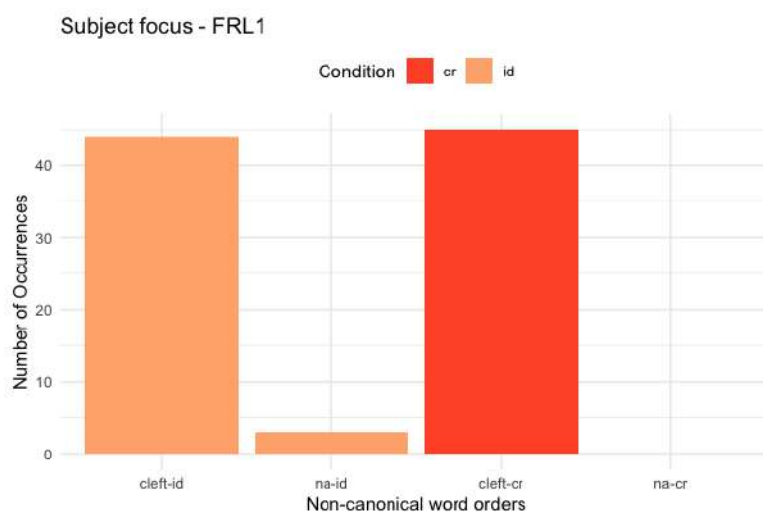


Figure 5.3: Non-canonical structures used for subject focus (FRL1 group).

As can be easily observed, the cleft sentence (like the one in example 19, uttered by a French native speaker) is the prevalent strategy in context of subject focus.

- (19) a. Qui achète le journal au kiosque?
 b. C'est [Marie]_F qui achète le journal au kiosque.

This structure is used by French speakers in 91.7 % of identification focus utterances and 97.8 % of corrective focus utterances. Although there is a higher frequency of use in the second, more contrastive condition, the difference is not statistically significant ($p = 1$). The few remaining utterances (8,3% for identification and 2,2% for correction) fall into the "na" category, i.e. they show no marked word order, as in the following example.

- (20) a. Qui achète le journal au kiosque?
 b. [Marie]_F achète le journal au kiosque.

We illustrate in the chart below (fig. 5.4) the results for another syntactic component, direct objects.

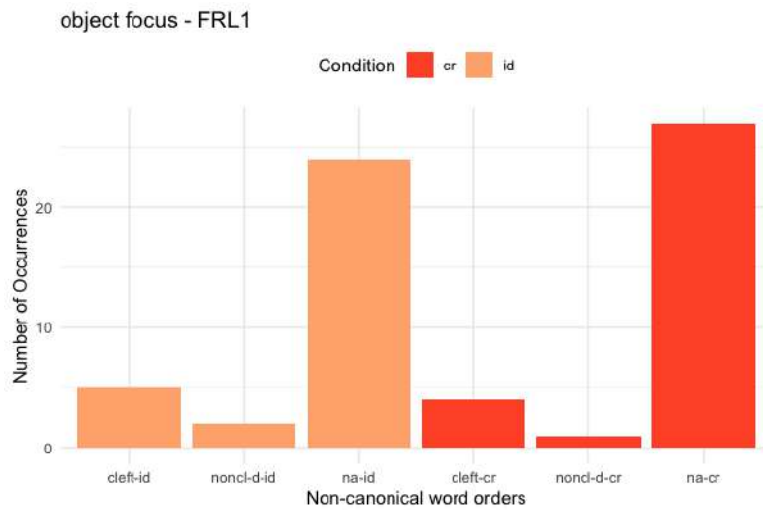


Figure 5.4: Non-canonical structures used for object focus (FRL1 group).

First of all, we see that the number of occurrences of it-cleft sentences is substantially lower, if compared to the case of subjects. However, the strategy is still quite frequent: 15,6% of cases for identification, and 12,5% for correction, with realisations similar to example 21. Again, the difference between identification and correction is not statistically significant ($p=0.7665>0.05$, obtained with a chi-square test).

- (21) a. Qu'est-ce que Marie donne à son frère?
 b. C'est [un journal]_F que Marie donne à son frère.

Unlike the marking of the subject, which was expressed in only two possible structures, here we also observe a third possibility: a few cases (3 for identification and 1 for correction) of displacement without anaphoric anticipation or resolution, i.e., those orders that are labeled in our coding system as "noncl-d". Below we illustrate three examples, taken from our dataset, respectively for the "noncl-d" (ex. 22), "na" (ex. 23), and "obj-sep" (ex. 24) categories.

- (22) a. Qu'est-ce que Marie achète au kiosque?
 b. Au kiosque Marie achète [le journal]_F.

- (23) a. Qu'est-ce que Marie achète au kiosque?
 b. Marie achète [le journal]_F au kiosque.

- (24) a. Qu'est-ce que Marie donne à son frère?

- b. Marie donne à son frère [le journal]_F.

In cases 22 and 24, the result of the movement is to leave the focused object as the only constituent in utterance-final position. Interestingly, this is essentially a symmetric strategy to that of the cleft, which instead moves the object "to the left", thus to utterance-initial position. In contrast to what happened with subjects, utterances with canonical order (syntactically unmarked) constitute the vast majority of the total here (75% for identification and 84.4% for correction).

We move now to indirect (prepositional) objects. The results for this syntactic constituent are shown in figure 5.5.

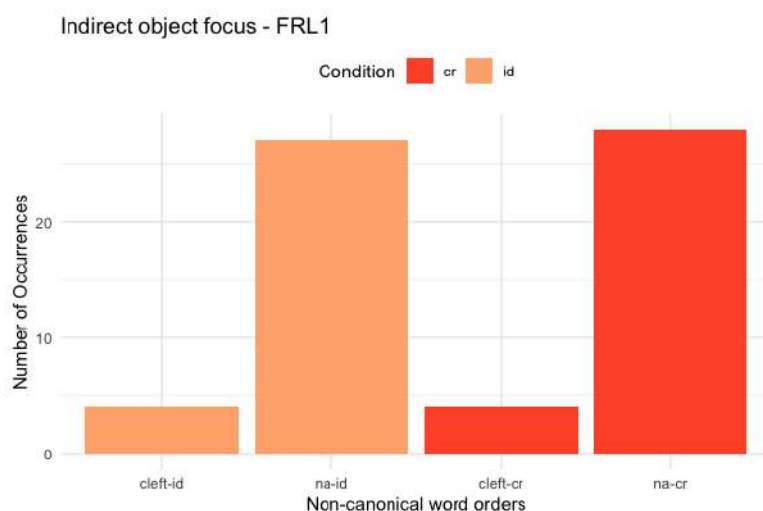


Figure 5.5: Non-canonical structures used for indirect object focus (FRL1 group).

For this constituent type, we observe a two-category system similar to what we observed for subjects, but with different proportions. The only non-canonical construction employed by French speakers is, in fact, the it-cleft, which appears in 6 out of 32 cases (18.8%) for the identification condition and 4 out of 32 cases (12.5%) in the correction condition. We provide examples of it-clefts in the two different conditions in 25 and 26.

- (25) a. À qui Marie donne-t-elle le journal?
 b. C'est [à son frère]_F que Marie donne le journal.
- (26) a. Jules a téléphoné à Christine, n'est-ce pas?
 b. Non, c'est [à Emilie]_F que Jules a téléphoné.

As was the case with direct objects, "na" (unmarked) sentences represent the majority of the cases; we provide an example of this configuration in 27.

- (27) a. Jules a téléphoné à Christine, n'est-ce pas?
 b. Non, Jules a téléphoné [à Emilie]_F.

We move now to the final category of constituents, namely adverbial phrases, i.e. those components that provide additional information but do not affect the verb's valency. In the following plot (fig. 5.6) we show the situation for French speakers.

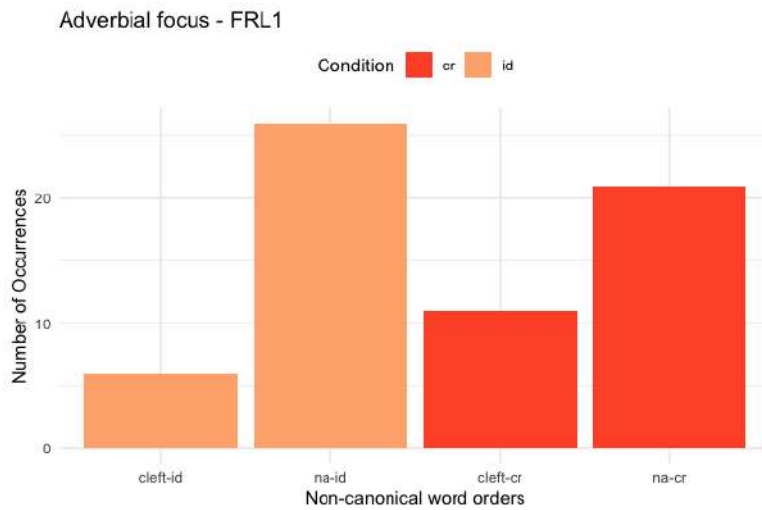


Figure 5.6: Non-canonical structures used for adverbial focus (FRL1 group).

Once again, we are faced with two possibilities: it-cleft structure or unmarked word-order in which adverbials are placed at the end of the utterance. Cleft structures represent 18,8% of cases for identification focus and 34,4% for correction focus, while the "unmarked" category (with adverbials in final position) includes the rest of the realisations.

The observation of these data makes it quite clear that, as far as word order and the use of non-canonical structures are concerned, it – clefts are the main—and practically only – means for the expression of focus. This is confirmed by the very small presence of other marked word orders: 4 cases out of a dataset of 461 utterances. While it-clefts are consistently the most frequently used marked structure, the ratio of cleft to syntactically unmarked utterances varies significantly depending on the type of focused constituent. The situation for subjects differs from that of direct and indirect objects, with adverbials falling somewhere in between – closer to objects than to subjects. Moreover, the use of marked structures or word orders does not seem to be influenced by the degree of contrast: in most cases, there is no significant difference in frequency between identification focus and correction focus. The only case in which there seems to be a differentiation between focus subtypes is that of adverbial phrases (see fig. 5.6). We will discuss all these aspects in more detail in section 5.1.4, after having illustrated the overall results for the native

Italian group.

5.1.2 L1 Italian

In the following chart, figure 5.7, we show the non-canonical structures used to mark subject focus by the Italian native speakers.

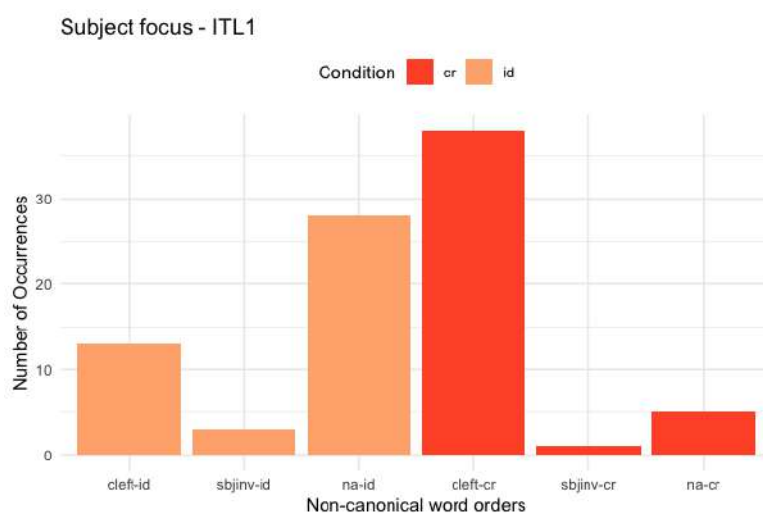


Figure 5.7: Non-canonical structures used for subject focus (ITL1 group).

On first observation, we see that the vast majority of utterances fall into a category between cleft and syntactically unmarked, respectively illustrated in examples (28) and (29).

- (28) a. Giulia ha dato il giornale al fratello, no?
 b. No, è [Maria]_F che dà il giornale a suo fratello.

- (29) a. Chi compra il giornale in edicola?
 b. [Maria]_Fsta comprando il giornale.

There are also 3 occurrences of postverbal subjects (with left dislocation of objects), all in the identification-focus condition. We give an example in 30.

- (30) a. Chi compra il giornale in edicola?
 b. Il giornale lo compra [Maria]_F.

Another interesting observation prompted by this count is the complementarity between it-clefts and unmarked utterances in the identification vs. correction condition. Conversely, occurrences of postverbal subjects show no significant difference between the two

conditions. For identification focus, there are a few occurrences of it-clefts and a majority of unmarked utterances; in the correction condition, the situation is reversed, with the majority of utterances featuring an it-cleft structure, and the remaining responses being unmarked.

We now move to the results for direct object marking, shown in figure 5.8.

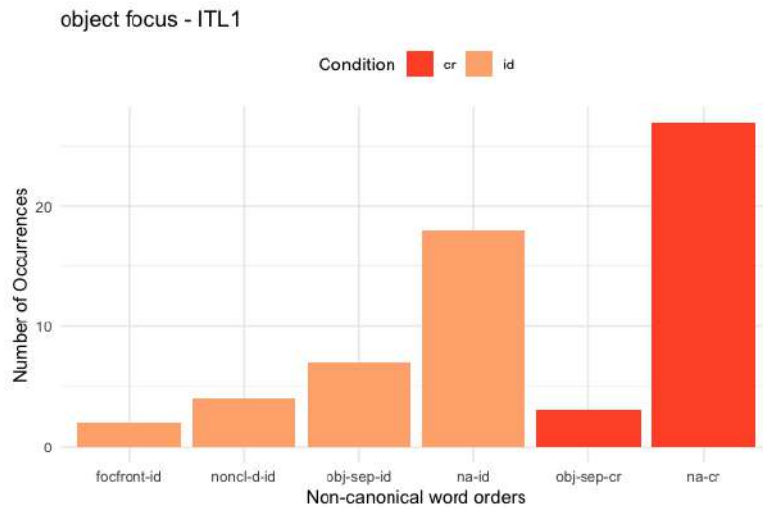


Figure 5.8: Non-canonical structures used for object focus (ITL1 group).

For this syntactic component, the vast majority of utterances produced by native Italian speakers show a canonical word order: 62,5% of identification-focus answers are syntactically unmarked; the percentage increases to 90,6% for correction focus. Interestingly, there is no occurrence of it-cleft structures for object-focus marking. Instead, the few instances of non-canonical structures observed for direct-object marking consist of 2 cases of focus fronting with subject post-position (6,3% of identification focus utterances, ex. 31) and 13 cases of non-clitic displacements (31,3% of identification focus utterances and 9,4% of correction focus utterances, ex. 32). Within these 13 cases, the majority is represented by object separations (*obj-sep*), where the direct object is placed apart from the verb by another intervening phrase, such as an indirect object or an adverbial (ex. 33).

- (31) a. Che cosa compra Maria in edicola?
 b. [Il giornale]_F compra Maria.
- (32) a. Che cosa compra Maria in edicola?
 b. Maria in edicola compra [il giornale]_F.
- (33) a. Che cosa dà Maria a suo fratello?

- b. Maria dà a suo fratello [il giornale]_F.

Let's now consider indirect objects. The results for this syntactic constituent are shown in figure 5.9.

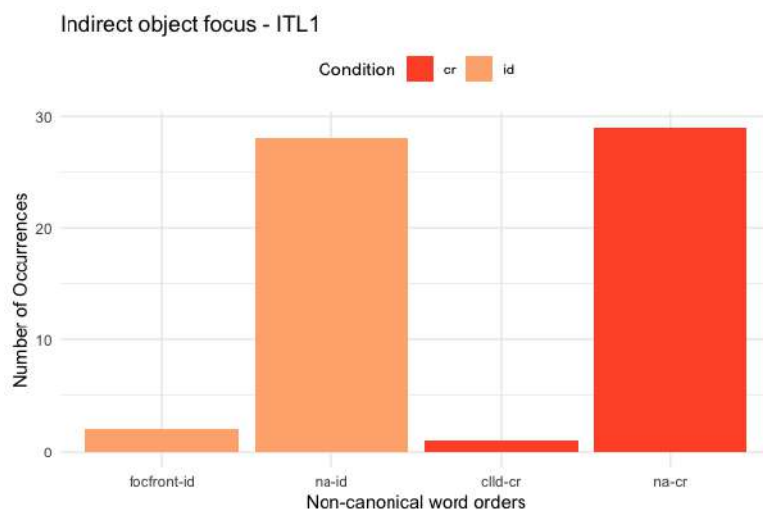


Figure 5.9: Non-canonical structures used for indirect object focus (ITL1 group).

The typical response for this constituent is syntactically unmarked, as in example 34. Canonical word-orders make up the 87,5% of cases for identification focus (28 out of 32), and 96,9% of cases of correction focus (31 out of 32).

- (34) a. A chi dà il giornale Maria?
b. Maria dà il giornale [a suo fratello]_F.

There are, still, a few exceptions: 3 cases of focus fronting in the identification context, and 1 case of clitic left dislocation in the corrective-focus context. We report one example of each in 35 and 36:

- (35) a. A chi dà il giornale Maria?
b. [A suo fratello]_F dà il giornale Maria.
- (36) a. Maria dà il giornale al fratello di Giulia, no?
b. No, il giornale lo dà [a suo fratello]_F.

We now observe the results for the last type of target constituent, namely adverbial phrases. In the following plot (fig. 5.10) we show the situation for native Italian speakers.

Again, the typical response for this constituent is a syntactically unmarked utterance, as the one reported in example 37:

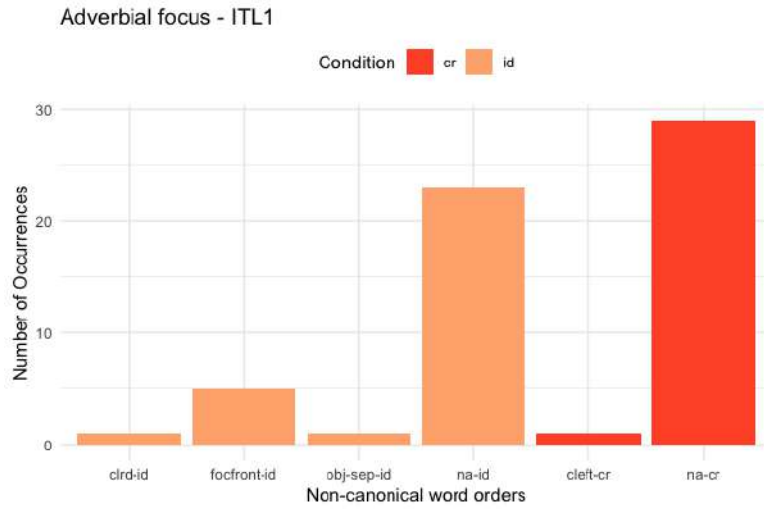


Figure 5.10: Non-canonical structures used for adverbial focus (ITL1 group).

- (37) a. Dove compra il giornale Maria?
 b. Maria compra il giornale [in edicola]_F.

This type of answer constitutes 75% of the total for the identification-focus condition and 96,9% of total for the correction-focus condition. The few remaining cases include two occurrences of clitic right dislocation with subject postposition—one for identification and the other for correction (see ex. 38). Additionally, there are five cases of focus fronting, all observed in the identification condition (see ex. 39), and two cases involving object separation. Both instances of this construction are found in the identification-focus context (see ex. 40).

- (38) a. Dove compra il giornale Maria?
 b. Lo compra [in edicola]_F il giornale Maria.

- (39) a. Dove compra il giornale Maria?
 b. [In edicola]_F Maria compra il giornale.

- (40) a. A che ora Aurora ha invitato a cena Emilia?
 b. Aurora ha invitato a cena [alle nove]_F Emilia.

Observation of the Italian data shows a more varied picture than the French data. The first consideration to be made is that there is a clear distinction in marking strategies for subjects on the one hand, and for all other constituents on the other. In the case

of subjects, cleft structures represent the main strategy speakers rely on, and this is particularly true for corrective focus contexts. When we turn to the other target constituents, instead, we see that instances of marked word orders never reach a significant percentage, and the vast majority of responses are uttered in canonical order. This certainly suggests that the point to look at might be another, namely that of prosodic marking: once again, we refer to Chapter 6 for a more in-depth examination of this aspect. Another noteworthy characteristic we wish to emphasize is the consistent differentiation made by Italian speakers between identification and correction focus. This differentiation is evident in both the use of distinct arrays of constructions for each case, and the frequency of these constructions in the two specific contexts. Specifically, speakers employ a wider range of word-order displacements for identification, while they especially use it-clefts for correction. Even if one of the word-orders is used in both one situation and the other, however, it is exploited with a different frequency.

5.1.3 Interlinguistic comparison: native groups

Building on the previous analysis of sentence structures in French and Italian, we attempt to provide an overall view of word-order-related patterns of narrow focus marking for the two L1s. The following charts show the different strategies used to mark narrow focus (identification and correction) in French (5.11) and Italian (5.12).

Word orders in Narrow Focus marking - FRL1

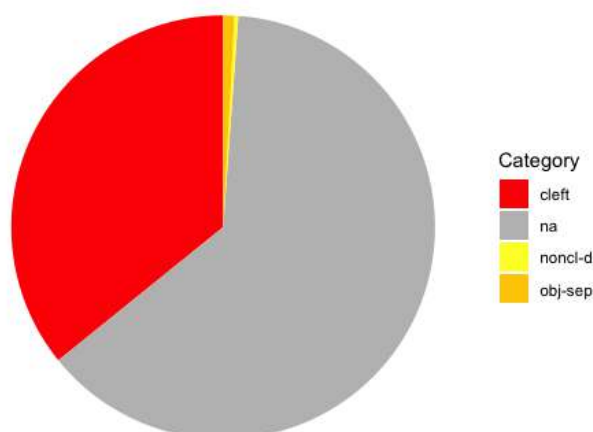


Figure 5.11: Proportion of word orders used for NF marking in French L1 (all target constituents mixed).

It becomes evident that, while French exhibits a decisive prevalence of cleft sentences, Italian offers a diverse array of possibilities for focus marking. In this group's production, in fact, we observe occurrences of many non-canonical structures: clitic and non-clitic

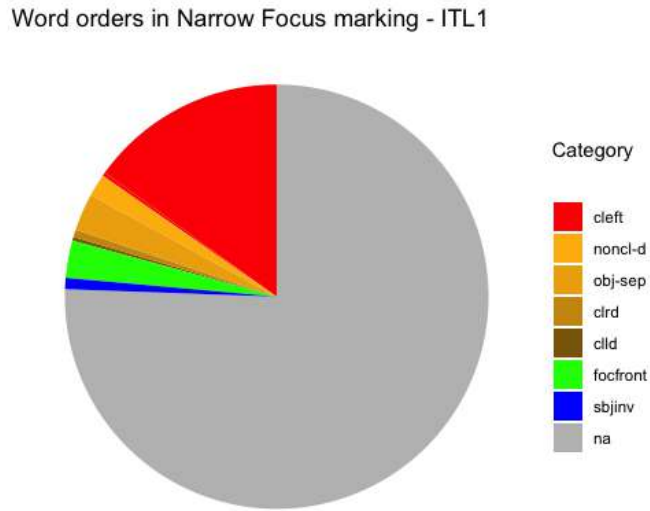


Figure 5.12: Proportion of word orders used for NF marking in Italian L1 (all target constituents mixed).

displacements, object separation, fronting, subject inversion (we remind to table 4.5 for examples of these constructions). These results reflect trends already described and observed in previous studies, and thus match the descriptions found in the literature (see par. 1.2). Despite this diversity, however, the overall presence of marked word orders is lower in Italian than in French, indicating a potential predominance of *in-situ* prosodic marking; we refer once again to chapter 6 for a discussion of this aspect. In the midst of these observations, we deem it necessary to devote more in-depth analysis to the structure that stood out most in terms of both frequency and behaviour in the two native groups, namely the it-cleft sentence. The upcoming paragraphs will thus focus on the specific analysis of it-cleft sentences, with the aim of shedding light on their function and properties in the productions of the two native groups.

5.1.4 Cleft structures in the native groups

The definition of cleft sentences and their function has been provided in 1.2.2. Given their prominent role in expressing focus, notably in Romance languages (see Roggia, 2008 for an overview), and their prominent frequency within our corpus, we opted to dedicate a comprehensive section to their analysis.

Upon initial observation of the data, it became evident that speakers across all groups frequently utilized this construction to articulate their responses in the task. A detailed analysis of the speakers' responses corroborated the observation that the most prevalent

marked order in narrow focus situations is, indeed, the cleft sentence.

An equally evident aspect, however, was that the frequency of clefts was sharply different between the two native groups, and that their context of occurrence was constrained by both syntactic and information-structural parameters. For the analysis, we considered all the sentences that matched the it-cleft prototype², in Italian and French: *È (NP) che (VP)*, *C'est (NP) qui/que (VP)*. We excluded utterances featuring only the copula without relative phrase.

As we can see from the charts 5.11 and 5.12, cleft sentences are far more frequent in the French group than in the Italian one (35,2% against 15,3%). This result comes as no surprise, as several studies had already reported similar percentages (Roggia, 2008; Dufter, 2009; De Cesare et al., 2016). This difference between Italian and French is not the only sharp tendency emerging from the data: another important asymmetry is that observed between the different syntactic roles of the focus constituents. In both groups, in fact, the percentage of cleft sentences is considerably higher when the focus constituent is a subject (93,6% in French and 55,2% in Italian), compared to the other syntactic types (18,3% in French and 0,5% in Italian for all the other types of target constituent). We can observe this in the next chart, fig. 5.13.

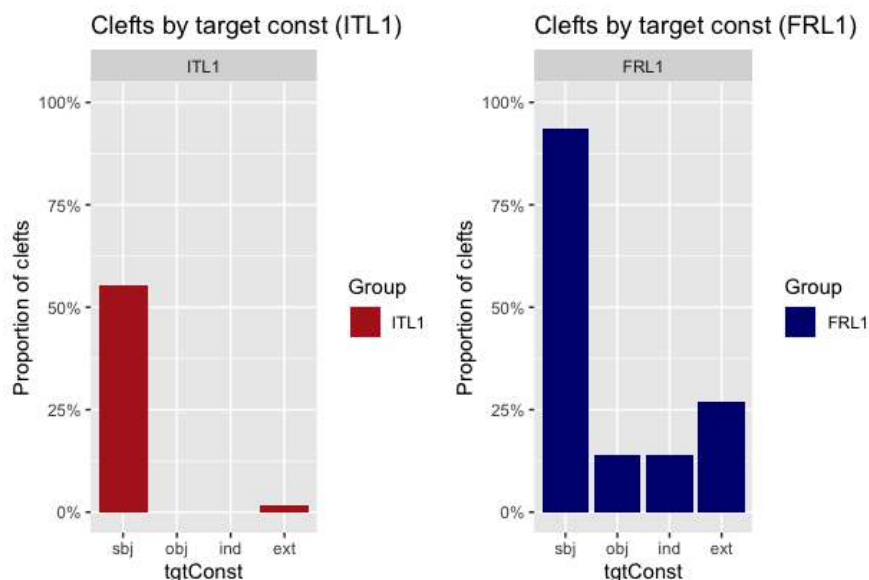


Figure 5.13: Proportion of it-cleft structures produced by the two native groups in narrow-focus context, by role of target constituent.

²Our corpus also includes one instance of pseudo-cleft sentence (uttered by a native French speaker) and a few instances of presentational clefts. However, both categories are only observed in broad focus contexts, and are therefore excluded from the forthcoming analysis, that deals specifically with narrow-focus marking.

This asymmetry in frequency is also not surprising, and had already been reported in numerous studies, such as Roggia (2008). Attempts to explain this phenomenon have been made from both functionalist (De Cesare et al., 2016) and formalist (Friedmann et al., 2009) perspectives. Functionally, subjects may require more prominent marking than other syntactic elements. This is because, by default, they occupy the initial position within the utterance, which, according to communicative principles Givón (1989), is typically reserved for topics. Thus, a more explicit and salient signaling may be necessary for non-final *foci*. Within the generative framework, the interpretation suggests that the crucial distinction lies in the varying levels of syntactic complexity between subject and non-subject cleft constructions. This dissimilarity influences the production and frequency of subjects vs non-subject clefts, as well as the speed of their processing in perception. Notably, a quantitative corpus analysis conducted by Samo and Merlo (2021) reveals a similar pattern to what we observe in our French data for adverbial it-clefts: they are less frequent than subjects, but significantly more frequent than objects.

Another element we would like to comment on is the effect of contrast on it-clefts frequency, since it is linked to considerable differences in the behaviour of speakers of the two native groups. In the Italian group, the two types of focus imply a significant difference in it-clefts frequency: the less contrastive function, i.e. identification focus, implies a lower frequency of clefts than the more contrastive function, i.e. correction focus. The different degree of contrast, on the other hand, does not seem to have an effect in French: it-cleft sentences represent the default strategy for both focus types. We show this asymmetry, with all constituent types mixed, in figure 5.14.

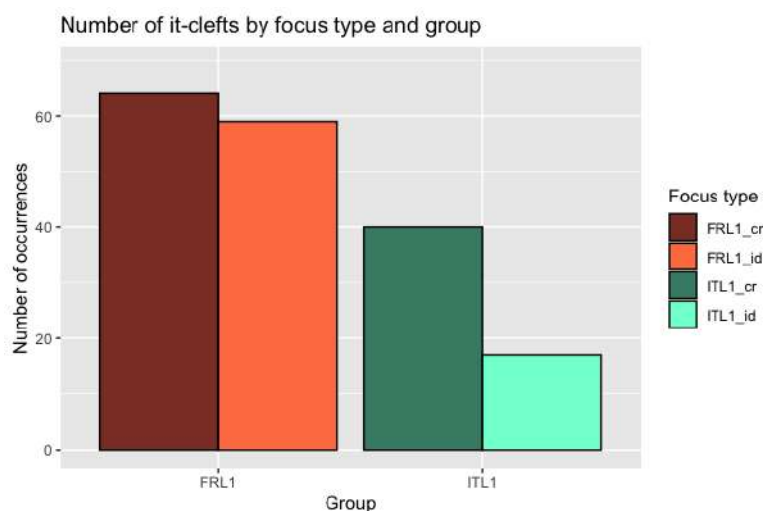


Figure 5.14: It-cleft structures produced by the two native groups in the two different contexts: correction and identification (all target constituents).

A caveat exists in this representation because, as our observations indicate (see Fig.

5.13), the number of clefts produced by speakers for each type of syntactic role can vary significantly. This variation has implications for the emergence of this information-structural distinction. While differences related to the level of contrast are easily observable for the subject component, in fact, the phenomenon might be more challenging to discern for other roles. This is especially true given the much lower absolute frequency of it-clefts for these roles. In an attempt to disentangle these factors, in the next lines we will show and comment the amount of it-clefts produced in the two narrow-focus conditions for each one of the different target constituents tested. We start from showing the results for subjects, in figure 5.15.

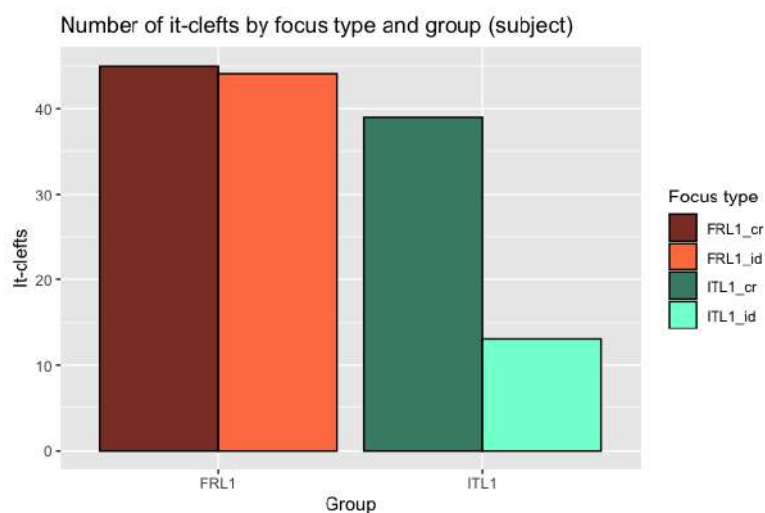


Figure 5.15: It-cleft structures produced by each speaker of the two native groups (subjects).

As we can see, the results are quite different between the two groups in this case. In the first context, that of identification focus on the subject, the French speakers produce 92% of cleft structures, whereas the Italian speakers produce 7 out of 27 (26%). In the context of corrective focus on the subject, in fact, the proportion of cleft structures produced by the speakers is similar in the two groups: the FRL1 speakers produce 100% cleft structures, the ITL1 speakers produce 89%. The effect of the focus type is evident for Italian, but not for French. However, it is worth pointing out that for French there could also be a "ceiling effect", since the percentage of cleft is already very high for the identification condition (91,7%). It might be useful, for this effect, to supplement with information on another syntactic components, namely objects and adverbials.

In figure 5.16 we can see the percentage of clefts produced for focused objects³. As in the previous case, the two narrow-focus conditions are shown, *if* and *cf*.

³Since we have seen (cf. figure 5.13) that direct and indirect objects behave in the same way with

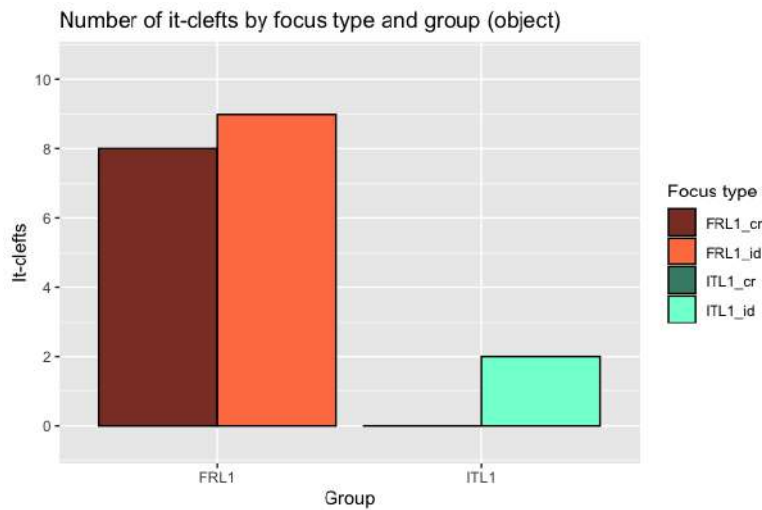


Figure 5.16: It-cleft structures produced by each speaker of the two native groups (objects).

We see that the focus type doesn't have a significant effect on the use of it-cleft structures in the French group ($p = 0.7731$). On the other hand, it is difficult to say whether the effect is present for object focus in Italian: ITL1 speakers do not produce it-clefts at all for this target constituent. Examples of typical utterances for the two groups in the two focus conditions, for identification and correction focus in Italian (ex. 41) and 42) and French (ex. 43 and 44).

- (41) a. Che cosa compra Maria in edicola?
 b. Maria compra [un giornale]_F in edicola.
- (42) a. Maria compra una rivista di cruciverba, giusto?
 b. No, Maria compra [un giornale]_F in edicola.
- (43) a. Qu'est-ce que Marie achète au kiosque?
 b. C'est [un journal]_F que Marie achète au kiosque.
- (44) a. Marie achète des mots-croisés, n'est-ce pas?
 b. Non, c'est [un journal]_F que Marie achète au kiosque.

We now move to the third category of syntactic constituent, which seems to behave differently from both subjects and (direct / indirect) objects: adverbials. The results are

regard to it-clefts, we will consider them in the same calculation.

shown in figure 5.17.

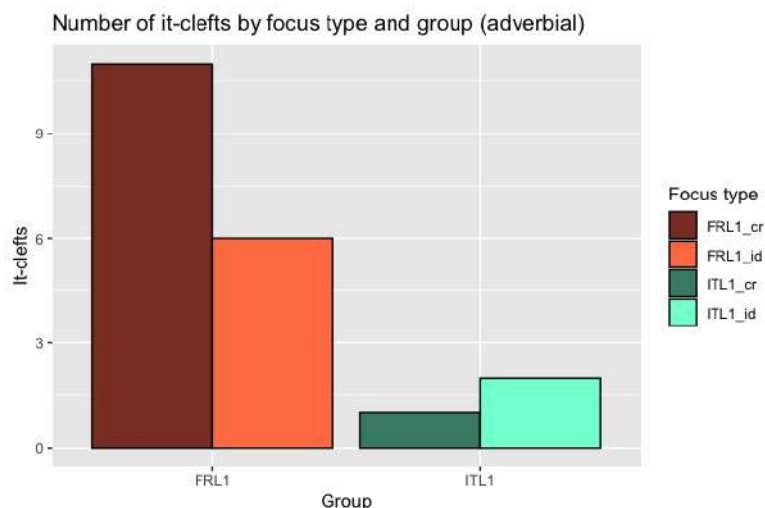


Figure 5.17: It-cleft structures produced by each speaker of the two native groups (adverbials).

Again, the difference between the two focus subtypes is not significant in French ($p=0.1724$). Similar to the case for objects, it is challenging to determine whether the effect is present in Italian, as there is only one occurrence of a cleft sentence uttered in a corrective context.

In light of these results, it becomes evident that the two parameters – syntactic role of the target constituent and type of focus – interact differently in the two languages. The first factor, the syntactic role, exhibits a similar effect in both languages. On the other hand, the second factor, the degree of contrast, has an effect only in Italian, and notably, it is only visible on a certain syntactic role, namely the subject. Given this situation, we fitted a statistical model with a linear regression and two interacting factors (target constituent and information-structural context) to test our impressions in the two native languages.

```
model <- lm(cleft ~ focus type * syntactic role)
```

The results in Italian L1 are highly significant, both for the predictor *syntactic role* alone and for the interaction *focus type * syntactic role*. In other words, the difference between the two focus conditions, identification vs correction, is strongly marked by Italian speakers, but this fact can only be appreciated when the focus constituent is a subject – hence the interaction (see table 5.1).

The same doesn't stand for the French group, for which the only valid predictor is the *syntactic role*. The interaction is not significant, since variation in none of the two

Coefficients	Estimate	Std. Error	t value	Pr(> t)
foc type	-0.03333	0.07418	-0.449	0.65491
synt role	0.24444	0.07418	3.295	0.00171 **
foc type * synt role	0.61111	0.10491	5.825	2.92e-07 ***

Table 5.1: Regression results for group ITL1.

predictors influences the other one. Results are summarised in table 5.2.

Coefficients	Estimate	Std. Error	t value	Pr(> t)
foc type	0.04167	0.06767	0.616	0.54039
synt role	0.76042	0.06767	11.237	< 2e-16 ***
foc type * synt role	-0.02083	0.09570	-0.218	0.82840

Table 5.2: Regression results for group FRL1.

The first factor examined was the syntactic role of the focused constituent (subject vs. non-subject) in determining the occurrence of it-clefts. Our findings in French revealed a consistent pattern where focused subjects were systematically clefted, irrespective of their function within the sentence. The second factor we investigated in was the functional one, specifically the degree of contrast or subtype of focus (identification vs. correction), in addition to the syntactic role (subject vs. non-subject). We observed that Italian speakers responded to both parameters: focused subjects were more frequently clefted than objects, yet both subjects and objects were preferably clefted in corrective-focus contexts.

While it does not directly fit into the patterns and hypotheses just outlined, we find it interesting to note that in French there are a few instances of it-cleft sentences even in broad focus contexts, as in example 45. Although the phenomenon is not common (occurring only four times out of 185 broad-focus utterances), we consider it noteworthy to highlight this functional extension, that is not attested in Italian.

- (45) a. Qu'est-ce qu'il se passe ici?
 b. C'est Marie qui est en train d'acheter un journal.

5.2 L2 Italian and L2 French

As we have been able to observe, the speakers of the two native groups adopt partly similar, partly different strategies to highlight focus constituents through word order and syntax. First of all, we observe that it-clefts are the most common syntactic configuration for focus constituents, in both French and Italian. Besides this, native speakers of Italian present a more variegated range of configurations, whereas the French rely almost exclusively on it-clefts, with the exception of two *obj-sep* and one *noncl-d* constructions. By narrowing our view on the use of it-clefts, then, we were able to observe that the frequency of this specific construction depends on different combinations of factors in the two language groups. In French, the likeliness of use for it-clefts is determined by the role of the focused constituent (subject or non-subject); in Italian, it is determined by both the syntactic role of the focused constituent and the focus type (identification or correction).

Having highlighted both the commonalities and the significant points of divergence between the two native groups, the question arises regarding how learners will respond to these factors. Following the methodology applied in the analysis of native groups, we will now outline the examination of diverse word-order patterns used to express identification and correction focus within the non-native groups, with the aim to provide an overview of the strategies employed by L2 speakers.

5.2.1 Marked word orders in the non-native groups: L2 French

The analysis will begin with the FRL2 group, comprising Italian learners of L2 French, and subsequently, we will explore the ITL2 counterpart, consisting of French learners of L2 Italian.

In the following chart, figure 5.18, we show the range of non-canonical structures used for subject focus, identification and correction.

As shown in the chart, the only marked order attested for subject focus marking is the it-cleft structure, of which we provide an example in 46.

- (46) a. Qui achète le journal au kiosque?
b. C'est [Marie]_F qui achète le journal au kiosque.

In this sense, the behaviour of the French L2 speakers seems rather target-like: clefts represent the only possible marking strategy for subjects; there are no occurrences of postverbal subjects, a structure that instead appears, albeit rarely, in Italian L1.

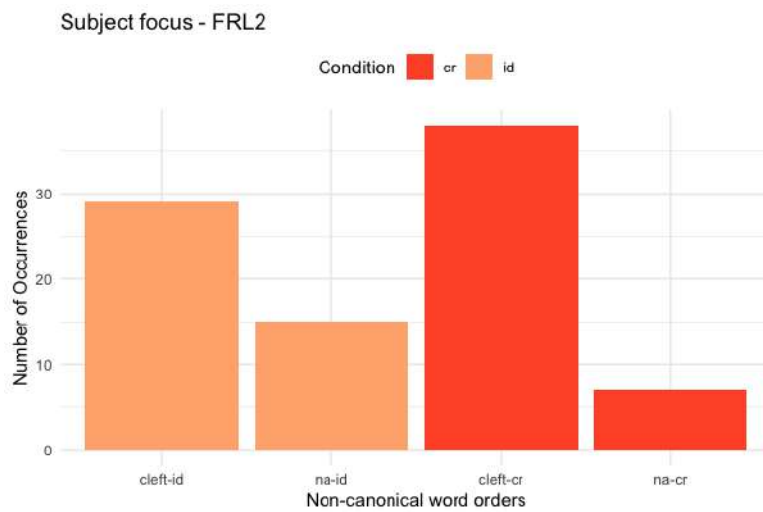


Figure 5.18: Marked word orders used for subject focus (identification and correction) by FRL2 speakers.

Some differences from the native speakers of French, however, are noticeable in terms of frequency and functional differentiation of the clefts; for these considerations we refer to the more detailed discussion that we are going to tackle in section 5.2.3.

We now move to the non-canonical word orders used to mark object focus in non-native French; results are shown in figure 5.19.

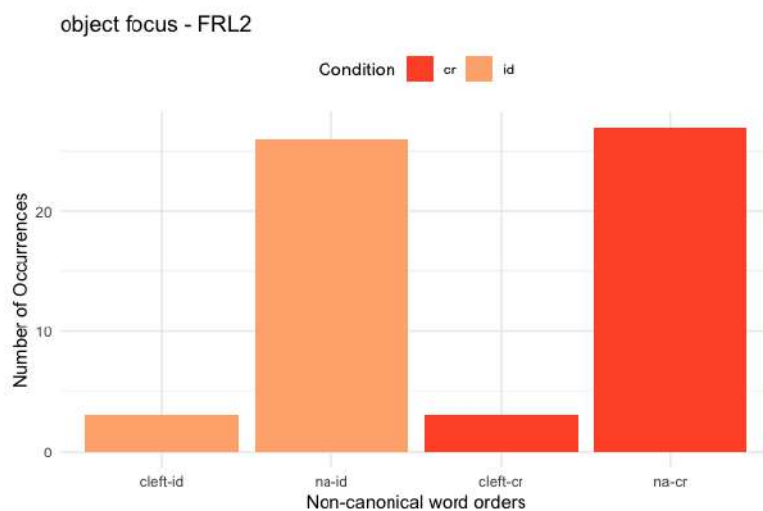


Figure 5.19: Marked word orders used to mark object focus (identification and correction) by FRL2 speakers.

As we can see in the chart, the vast majority of utterances are syntactically unmarked.

There are a few instances of it-cleft sentences (2 for identification and 1 for correction, all produced by the same speaker), and a few *obj-sep*; we give an example of each of these two non-canonical orders in examples 47 and 48, respectively.

- (47) a. Qu'est-ce que Marie donne à son frère?
 b. C'est [le journal]_F que Marie donne à son frère.
- (48) a. Qu'est-ce que Marie donne à son frère?
 b. Marie donne à son frère [un journal]_F.

If we compare these results to those of the target language (5.4), we immediately see that the *obj-sep* order is never attested in the production of French native speakers. On the other hand, *obj-sep* is a possibility for object focus marking in Italian L1 (see chart 5.8): in ITL1 group's productions, the structure occurs several times (14% of cases). For this reason, we could interpret the presence of this construction as an instance of L1 influence.

As for it-clefts, even if they are quite frequent, the number of occurrences in the FRL2 group is much lower compared to what has been observed for native French; we will discuss this thoroughly in the section dedicated to the use of this structure in non-native groups.

We now move to indirect object focus; the results are shown in fig. 5.20.

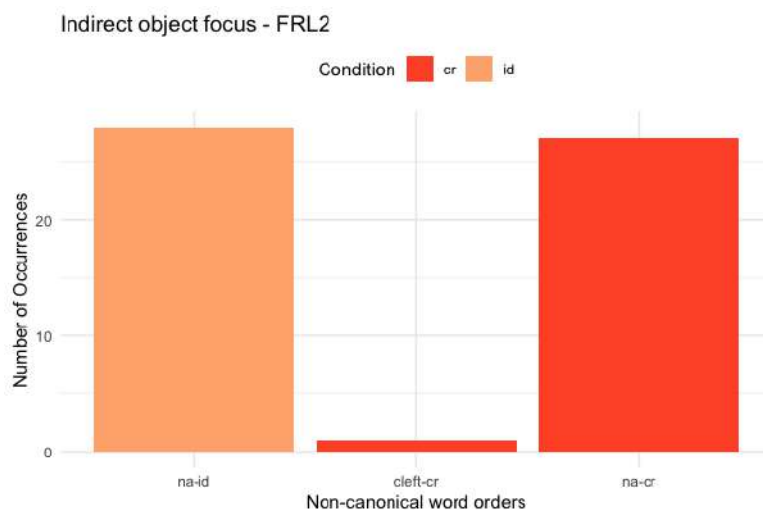


Figure 5.20: Marked word orders used to mark indirect object focus (identification and correction) by FRL2 speakers.

Again, the repertoire of strategies is minimal: the only non-canonical order attested in this context is the it-cleft sentence. This structure recurs 4 times, twice for identification

and twice for correction, and all realisations are by a single speaker (the same one who produced the 3 clefts for direct object marking, cf. 5.19). We provide an example of this structure in context in 49.

- (49) a. À qui Marie donne-t-elle le journal?
 b. C'est [à son frère]_F que Marie donne le journal.

These results point to a divergence from the pattern of the speakers' L1, and a partial approximation to the behaviour of the FRL1 group (see fig. 5.5); there is, however, a divergence from both native Italian and French in the overall frequency of it-clefts, which we will discuss in the dedicated section. As far as the comparison with the ITL1 group is concerned, we notice that the repertoire of strategies is quite different: the group of native Italian speakers showed several occurrences of fronting and clitic dislocations (see figure 5.9); clefts, on the other hand, were completely absent.

To conclude this subsection, we show the results for adverbial focus. As shown in the chart, fig. 5.21, Italian learners of FRL2 produced some instances of it-cleft sentence (2 for identification and 4 for correction; this time uttered by four different speakers) and one focus fronting. We give examples of these two structures in 50 and 51.

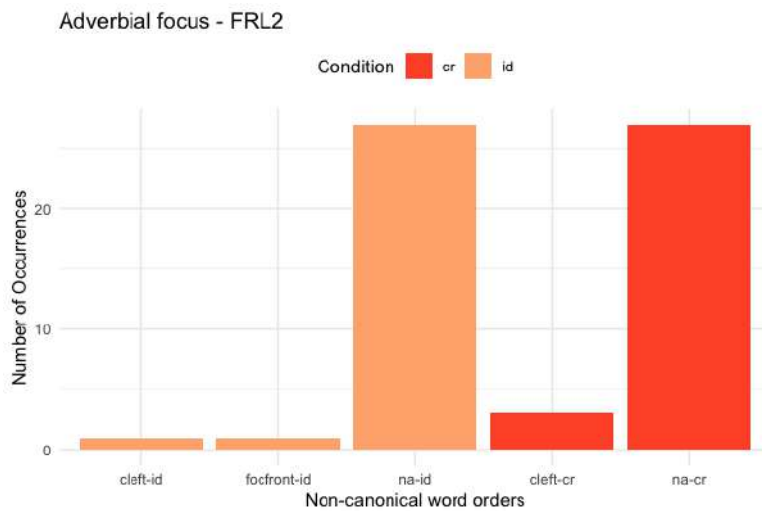


Figure 5.21: Marked word orders used to mark adverbial focus (identification and correction) by FRL2 speakers.

Overall, these results show an approximation, albeit partial, to the French target: in fact, learners produce cleft sentences even though they are not part of the repertoire of native Italian for this constituent type (cf. fig. 5.10). Nonetheless, the frequency of these structures is low, and does not match the levels of native French group (cf. fig. 5.6); we will deal in further detail with the difference between identification and correction in

section 5.2.3. Compared to the source L1 of the speakers, it is quite evident that the repertoire of solutions has shrunk: among all the strategies observed in the native Italian group, only focus fronting is used here, and not frequently; all other types of word-order manipulations, with and without clitics, are not attested.

- (50) a. Jules a invité Émilie à sept heures, n'est-ce pas?
 b. Non pas du tout, c'est [à neuf heures]_F que Jules a invité Émilie.
- (51) a. Où est-ce que Marie achète le journal?
 b. [Au kiosque]_F Marie achète le journal.

To sum up, we show in figure 5.22 a representation of all the possible strategies used by FRL2 speakers to mark narrow focus – all constituents and focus types mixed.

Word orders in Narrow focus marking - FRL2

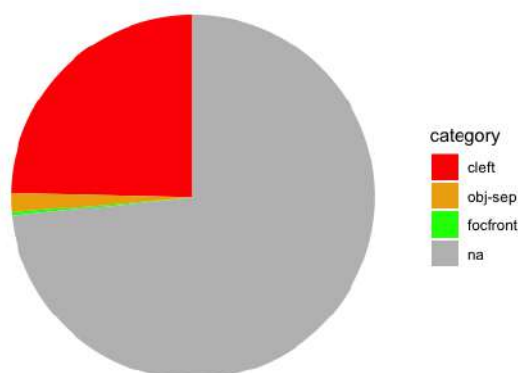


Figure 5.22: Word orders used to mark narrow focus (all constituents mixed) by FRL2 speakers.

We observe that the chart exhibits similarities with both French L1 (5.11) and Italian L1 (5.12). While the overall repertoire of strategies is more extensive compared to the target language, it is less extensive when compared to the L1. There are some instances of word-order manipulations, but the majority of marked structures is represented by it-clefts; this constitutes a similarity to the L2, and an approximation to the target language. However, in comparison to the native French group, the frequency of marked structures remains lower: the proportion of canonical and non-canonical sentences is more similar to that of the ITL1 group than the FRL1 group. The number of occurrences of object separation and fronting, anyway, is lower than in the ITL1 group, demonstrating that learners have grasped that French is less prone than Italian in making use of these construction.

The responsibility for the overall lower proportion of marked structures seems to lie in the limited number of it-cleft sentences, not compensated for by a broader range of marked structures and non-canonical word orders. Consequently, compared to the target language group, a higher number of focus phrases are not marked at all at the word-order level. Two possible explanations emerge: first, learners might not have mastered it-clefts sufficiently to use them confidently and effectively for expressing information structure. The second possibility is that a less decisive role of syntax is compensated for by a preponderant use of prosody. We will deepen the analysis of this aspect in Chapter 7, following our observation and analysis of the prosodic phenomena in Chapter 6.

5.2.2 Marked word orders in the non-native groups: L2 Italian

We will now move to the results of the other L2 group, namely that of French learners of L2 Italian. As we did for the previous groups, we will start from the analysis of different word-orders used to mark focused subjects. The results for this syntactic role are shown in figure 5.23.

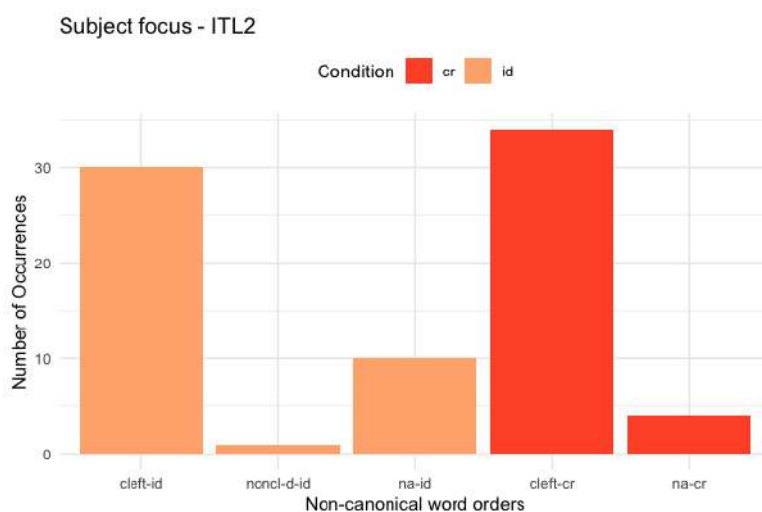


Figure 5.23: Non-canonical word orders for subject focus marking in L2 Italian (identification and correction).

It-cleft structures clearly constitute the main strategy that ITL2 speakers use to highlight subject focus, 79,5% of cases for identification focus and 82,9% for correction. Apart from it-clefts, we observe one occurrence of non-clitic displacement; the few remaining utterances are syntactically unmarked. In 52 and 53 we provide examples of the two marked word-orders.

- (52) a. Chi ha telefonato a Emilia?

- b. È [Giulio]_F che ha telefonato a Emilia.
- (53) a. Chi compra il giornale in edicola?
b. In edicola [Maria]_F compra il giornale.

As for direct objects, the results are shown in figure 5.24.

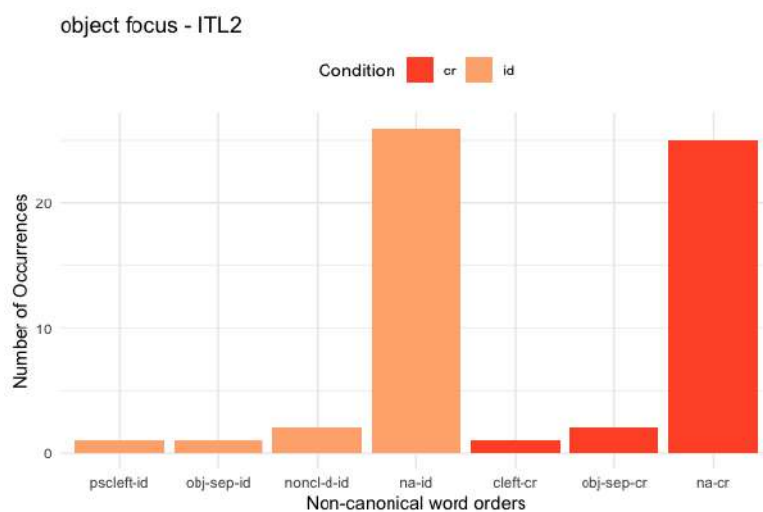


Figure 5.24: Non-canonical word orders for object focus marking in L2 Italian (identification and correction).

The picture here is quite different, since there is more variety in marked structures. We can observe two occurrences of it-cleft sentences (both in the correction context), two occurrences of object separation (one for identification and one for correction), and two occurrences of non-clitic displacement (both for identification). We provide examples of all these structures in 54, 55 and 56.

- (54) a. Maria dà a suo fratello una rivista di cruciverba, giusto?
b. No, non è una rivista di cruciverba, è [il giornale]_F che Maria sta dando a suo fratello.
- (55) a. Maria dà a suo fratello una rivista di cruciverba, giusto?
b. No, Maria dà a suo fratello [un giornale]_F.
- (56) a. Che cosa dà Maria a suo fratello?
b. A suo fratello Maria dà [un giornale]_F.

Interestingly, ITL2 speakers exhibit a distinct pattern of behavior compared to both the source language and the target language speakers. The majority of ITL2 answers, in fact,

remain syntactically unmarked: 93.3% for identification and 73.3% for correction. Unlike native French speakers, who mostly rely on *it*-cleft constructions, ITL2 learners don't adopt this strategy exclusively: utterances from this group feature other constructions, such as object separation and non-clitic displacements. However, the frequency of these word-orders is not comparable to that observed in the native Italian group.

Moving on to the expression of focus on indirect objects, the results are presented in figure 5.25.

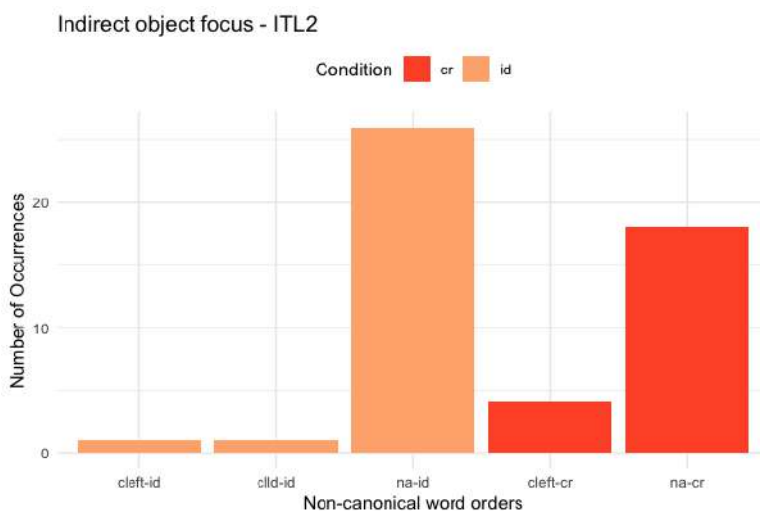


Figure 5.25: Non-canonical word orders for indirect object focus marking in L2 Italian (identification and correction).

Except for one occurrence of clitic left dislocation (see example 57), the only instances of marked structures are *it*-cleft sentences (example 58).

- (57) a. A chi dà il giornale Maria?
 b. Il giornale lo dà [a suo fratello]_F.
- (58) a. Giulio ha telefonato a Cristina, giusto?
 b. No, è [a Emilia]_F che ha telefonato Giulio.

This behaviour certainly reminds of that of the native French speakers. In this case, however, we can observe a quite sharp differentiation between the two focus types, identification and correction, which is instead more typical of L1 Italian speakers: the amount of clefts rises considerably in the corrective context; consequently, syntactically unmarked sentences are less numerous in this condition.

We conclude this section with the analysis of adverbial focus in Italian L2; the results are as shown in figure 5.26, in the next page.

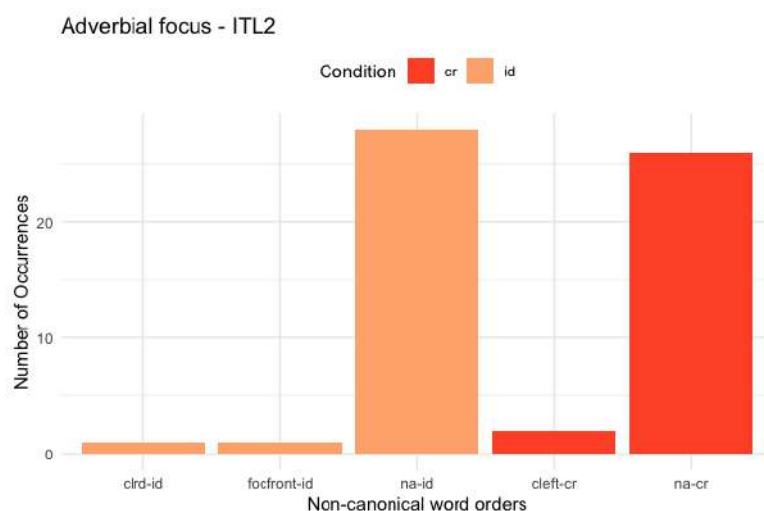


Figure 5.26: Non-canonical word orders for adverbial focus marking in L2 Italian (identification and correction).

In this case again, the vast majority of answers is syntactically unmarked. We can observe 3 occurrences of it-cleft sentences (see ex. 59), one of clitic right dislocation (ex. 60) and one of focus fronting (ex. 61).

- (59) a. Giulio ha invitato Emilia a cena alle sette, giusto?
 b. No, è [alle nove]_F che Giulio l'ha invitato a cenare.
- (60) a. Dove compra il giornale Maria?
 b. Lo compra [in edicola]_F il giornale.
- (61) a. A che ora Giulio ha invitato a cena Emilia?
 b. [A nuove]_F Giulio ha invitato a cena Emilia.

As we did for the other three groups, we will now take a comprehensive look at the word-order strategies used to mark narrow focus for Italian L2 speakers. The chart for Italian L2 is depicted in figure 5.27. The examination of this group reveals a more varied linguistic landscape compared to the speakers' native language, French L1, suggesting an approximation to the target language, Italian. However, it is noteworthy that in the Italian native group, ITL1, these diverse linguistic solutions not only appear sporadically, but occur rather frequently. In Italian L2, instead, they often constitute a "unicum", as it-cleft sentences remain the predominant structure.

When examining the chart depicting the word-order strategies employed by Italian L2

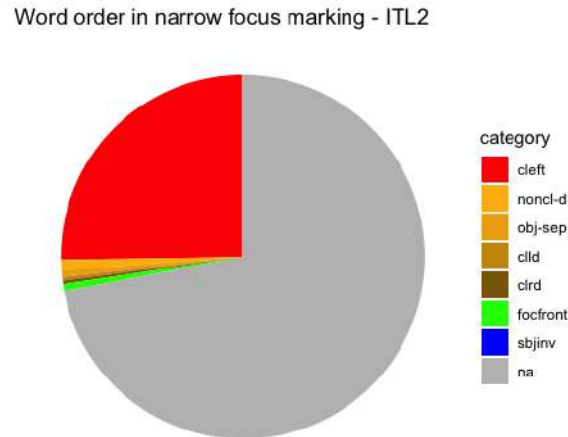


Figure 5.27: Non-canonical word orders for narrow focus marking in L2 Italian (all target constituents).

learners (Figure 5.27), notable similarities emerge with both French L1 (Figure 5.11) and Italian L1 (Figure 5.12). The overall frequency of marking through word-order is lower if compared to the source language, and slightly higher if compared to the target. Italian L2 learners exhibit a wider repertoire of strategies; however, when the order is marked, it is almost exclusively done using it-clefts, resembling the pattern observed in their source language. This prompts a question: does the relatively low frequency of marking among Italian L2 learners reflect a preference for prosodic marking, or does it only indicate potential challenges in managing non-canonical orders other than it-clefts, without compensation through prosody? Further exploration of these aspects are reserved for Chapter 7, following our examination and analysis of the prosodic features in Chapter 6.

5.2.3 Cleft sentences in the non-native groups

As we did for L1 groups, we are now interested in seeing whether the models we applied for French L1 (one factor) or Italian L1 (two factors) can be fit with L2 data. If we look more specifically at the difference between the two focus-conditions, identification and correction, we immediately see that the picture is different from that of the two source languages (figure 5.28).

The results from the two L2 groups indeed show striking similarities, setting them apart from both L1 groups. Specifically, regarding the overall occurrence of clefts, French L2 and Italian L2 display noteworthy parallels, positioning them between the two L1 groups.

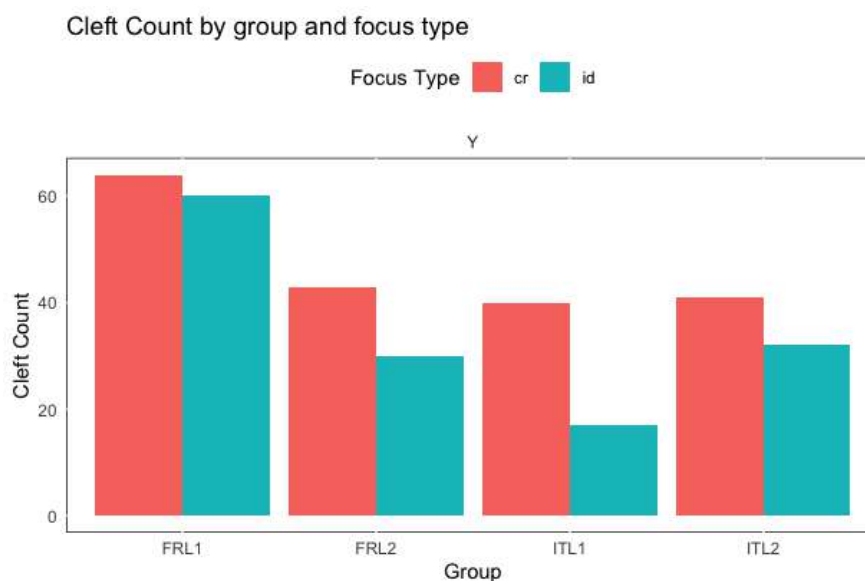


Figure 5.28: Count of it-cleft structures produced by the the four groups, all types of constituents mixed.

As for the functional differentiation, it was evident that French L1 and Italian L1 exhibited different behaviors; in the L2 groups, the two focus conditions seem distinguishable, albeit to a lesser extent compared to Italian L1. The following paragraphs will outline the outcomes of statistical tests conducted to ascertain the significance of these differences, focusing specifically on subject versus non-subject cases.

We begin our discussion observing the target constituent that had showed the most interesting results in the two source language groups, namely subjects (figure 5.29).

The insights drawn from the chart focusing on subjects echo those encompassing all constituents. Yet, the distinction between focus subtypes becomes more pronounced in this specific analysis. In terms of overall it-cleft usage, both the ITL2 and FRL2 groups find themselves positioned between the respective source and target language groups, indicating a convergence toward the target language, but also, potentially, signs of influence from the L1. Specifically, Italian learners of French L2 exhibit a higher frequency of it-clefts than native Italian speakers, while French learners of L2 Italian use the structure less extensively than native French speakers. However, L1 influence seems to manifest on the functional level, i.e. in the treatment of the two focus types. Italian learners of French L2 appear to distinguish between identification and correction (even if in a less clear manner than ITL1); conversely, French learners of L2 Italian do not exhibit such a sharp differentiation.

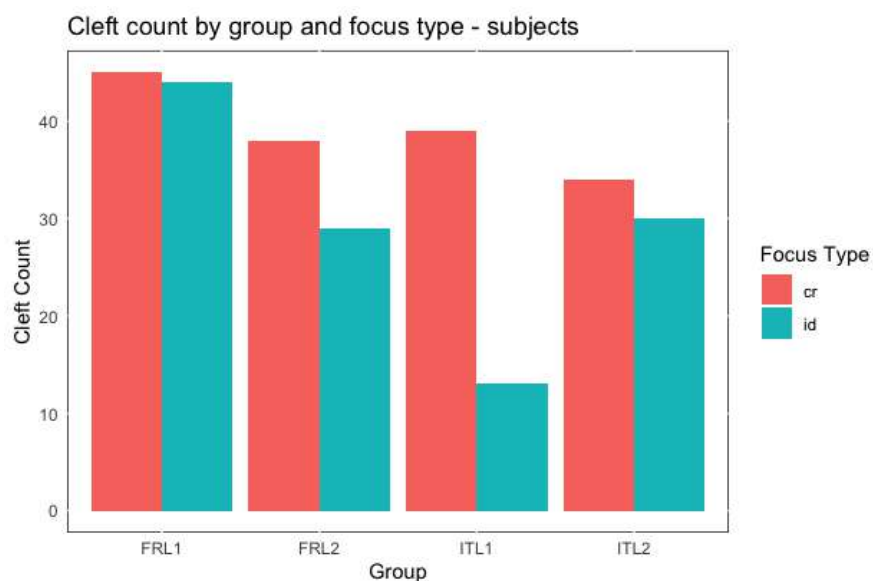


Figure 5.29: Count of it-cleft structures produced by the two L2 groups (target subjects).

We move to the observation of clefted direct and indirect objects (fig. 5.30). We decided to group the two categories together, as we did for L1s, since we have noticed that the behaviour of direct and indirect objects is similar, at least for what concerns it-clefts (see figures 5.19, 5.20, 5.24, and 5.25).

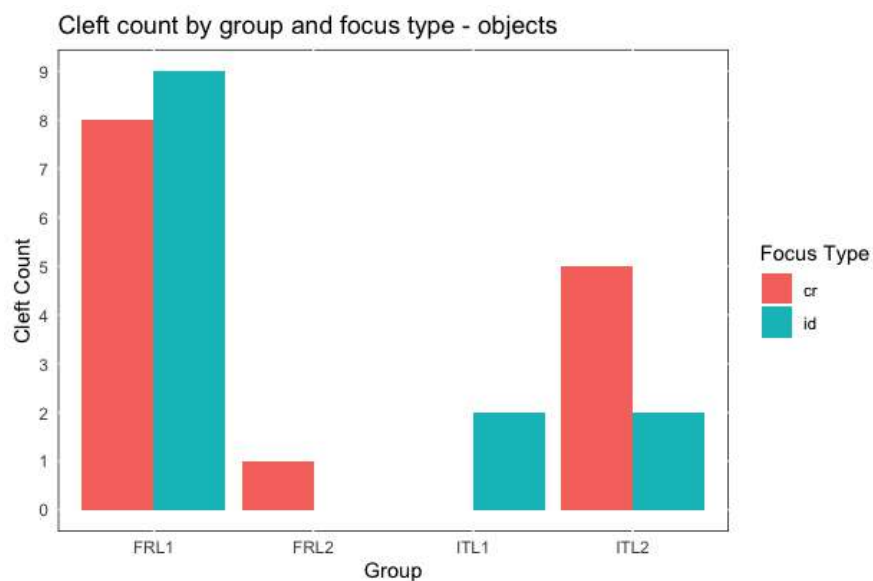


Figure 5.30: It-cleft structures produced by the two L2 groups for objects (direct and indirect).

In the case of this specific target constituent, notable differences emerge between the L2 groups. Specifically, only French learners of L2 Italian demonstrate a productive use of it-clefts. In the FRL2 group, on the other hand, there is only one occurrence of this construction, rendering any consideration on functional role impossible. However, insights can be gained from the ITL2 group. For this syntactic constituent, the speakers exhibit signs of L1 influence, evident in their use of clefts to mark narrow focus – a practice not typical for native Italian speakers. Notably, ITL2 speakers shows a partial approximation to the target, as they appear to distinguish between the two focus subtypes. Correction focus, in particular, prompts a higher frequency of it-cleft constructions; in fact, the difference between "id" and "cr" for Italian L2 nears statistical significance ($p = 0.07155$).

We close the survey with the observation of results for adverbial constituents (figure 5.31, in the next page).

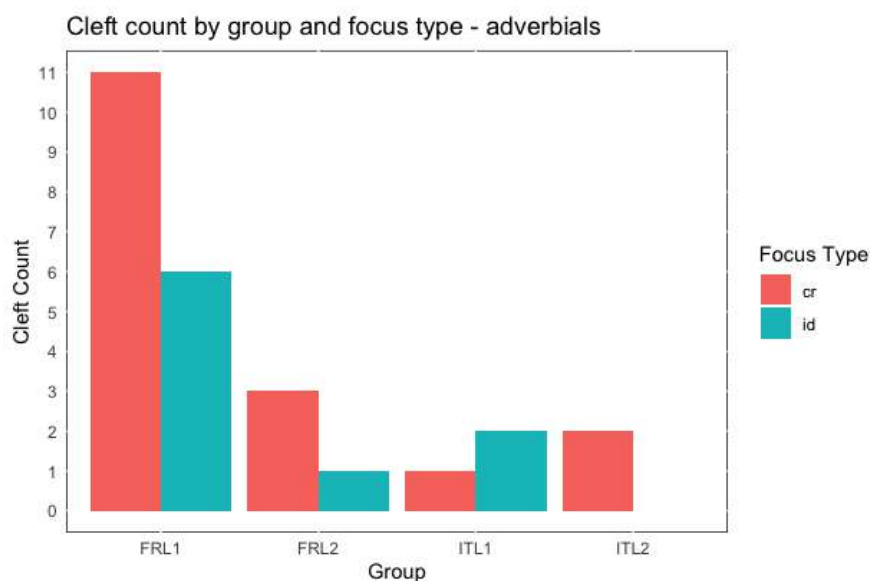


Figure 5.31: Proportion of it-cleft structures produced by the two L2 groups (subjects and objects).

For this syntactic role, we observe a limited number of occurrences of it-clefts in both L2 French and L2 Italian groups, notably fewer than in French L1. This pattern could suggest an approximation to the target for French-speaking learners of L2 Italian and, conversely, a closer adherence to the L1 model for Italian-speaking learners of French L2. However, we posit that this divergence in L1 effect and approximation to the target is actually a secondary effect, and not the primary interpretation of these results. Instead, we attribute the generally low frequency of it-clefts for adverbials to the inherent complexity of the construction within this syntactic role, regardless of the drive towards the target model or the influence of the source language. In fact, both groups of learners struggle

to master the construction, resulting in cross-group infrequent usage. The scarcity of occurrences in the L2 groups for this target constituent, however, limits our ability to draw further conclusions about the influence of L1 from the functional perspective (identification vs correction focus).

Examining the previously presented results across all target constituent types, we observe a partial approximation to the target language in terms of overall frequency in L2 productions. However, crucial asymmetries persist, closely aligning with the model of the mother tongue. French speakers of Italian L2, for instance, use clefted subjects in all pragmatic contexts, thereby retaining the syntactic role as the sole active parameter, consistent with their L1. In contrast, Italian speakers of French L2 increase the use of it-clefts specifically in those pragmatic contexts typical of their L1, namely corrective focus.

From a qualitative point of view, it seems also interesting to us to specify that in the group of FRL2 learners we find many utterances that start with a cleft, and are later auto-interrupted and reformulated into unmarked sentences, as in example 62:

- (62) a. Marie donne le journal au frère de Julie, n'est-ce pas?
 b. Non ce n'est pas le frère de Julie, c'est le frère de Marie... Marie est en train de donner le journal à son frère, pas au frère de Julie.

Such sentences were initially coded as *cleft-noVP*, i.e. cleft without verbal phrase, showing only copula and pivot. In figure 5.32, we show the overall proportion of clefts realised by the non-native groups, including clefts without relative clause. Cleft without relative clause will not be included in the further analysis.

For both groups, we fit the same linear model used for L1 speakers. The results are shown in tables 5.3 and 5.4.

Coefficient	Estimate	Std. Error	t value	Pr(> t)
foc type	0.03333	0.09148	0.364	0.717
synt role	0.63333	0.09148	6.923	4.64e-09 ***
foc type * synt role	0.16667	0.12937	1.288	0.203

Table 5.3: Regression results for group FRL2.

In both cases, the only significant predictor is the syntactic role of focus constituent, while the variation in focus type does not yield significant changes in the number of it-clefts. However, if we compare the two groups, we can see that the *p*-value for the t-test

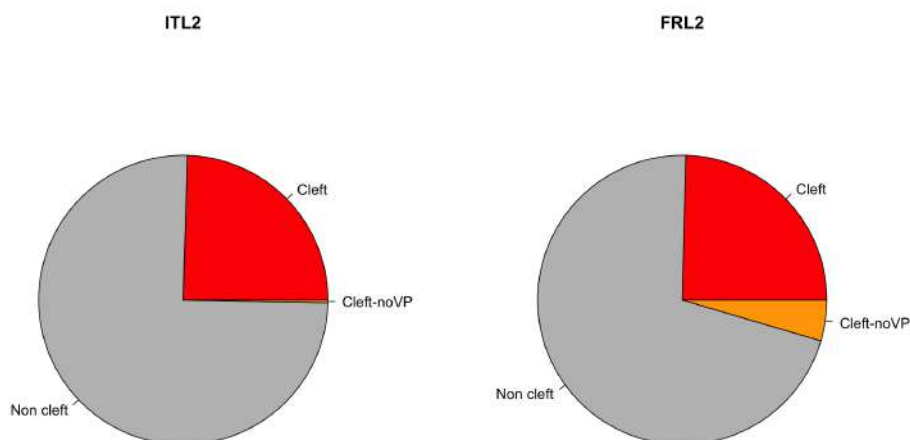


Figure 5.32: It-clefts produced by the two L2 groups (all target constituents, narrow-focus condition).

Coefficient	Estimate	Std. Error	t value	Pr(> t)
foc type	0.08889	0.10227	0.869	0.388
synt role	0.75556	0.10227	7.388	7.9e-10 ***
foc type * synt role	-0.11111	0.14463	-0.768	0.446

Table 5.4: Regression results for group ITL2.

is lower in the FRL2 group, meaning that there still is a tendency to differentiate the two conditions among Italian learners of French, even if the parameter is not significant⁴).

5.2.4 Role of proficiency level

Since one of our research questions focused on exploring the role of proficiency levels to try and trace a possible acquisitional path, an essential aspect of our work involved examining differences between beginner (A), intermediate (B), and advanced (C) sub-

⁴For group FRL2, we fit the same linear model to a database including it-cleft without relative clause. In this case, results are still not statistically significant, but with an even lower p -value for the interaction focus type * target constituent ($p=0.173$).

groups within our dataset. We've already highlighted the challenges associated with defining proficiency and L2 competence (see Section 4.1.3), and we won't revisit that topic here. Before we go into the presentation and discussion of the results, though, further specifications about the inclusion or exclusion of certain data are necessary. For instance, the results for the A-level group of French L2 are omitted here, due to the small size of the subgroup (two individuals) and the significant internal variation, which make it unsuitable for this specific analysis.

Moving forward, we present the results for Italian learners of L2 French in Figure 5.33.

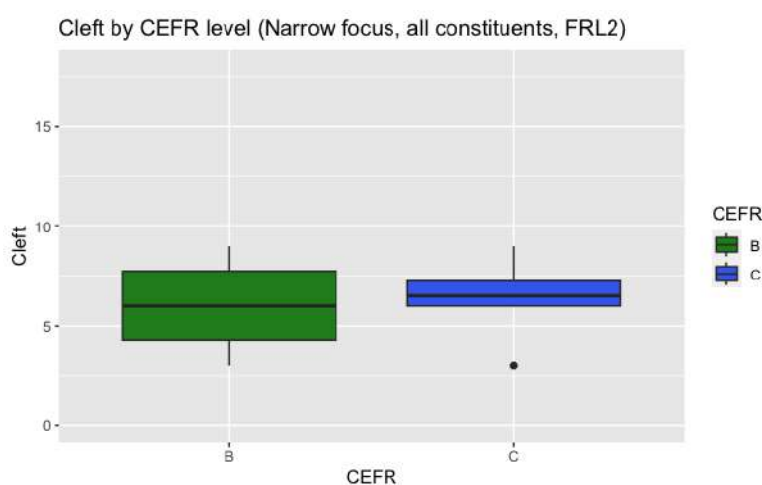


Figure 5.33: Number of cleft structures produced by each speaker of B- and C-level in all narrow-focus conditions.

The figure illustrates that the average for the C-level group is higher, and the speakers' behavior is more homogeneous and compact towards the top. However, the difference between the two groups, intermediate (B) and advanced (C), is not statistically significant (p -value: 0.9831).

Given that the differentiation between focus subtypes has emerged as a significant aspect influenced by L1, we also examined whether proficiency levels were linked to the use or non-use of this functional differentiation.

Figure 5.34 displays the results for groups B and C of French L2 (Italian learners). We can see that B-level speakers show an impression of the same behaviour adopted in their L1, namely a higher use of clefts for corrective contexts, but the difference is not significant ($p=0,2$). On the other hand, the difference is slightly significant for C-level speakers ($p=0.04342$): surprisingly (or not?), more advanced speakers behave in a less target-like manner.

We ran the same analysis for L2 Italian; results are shown in fig. 5.35.

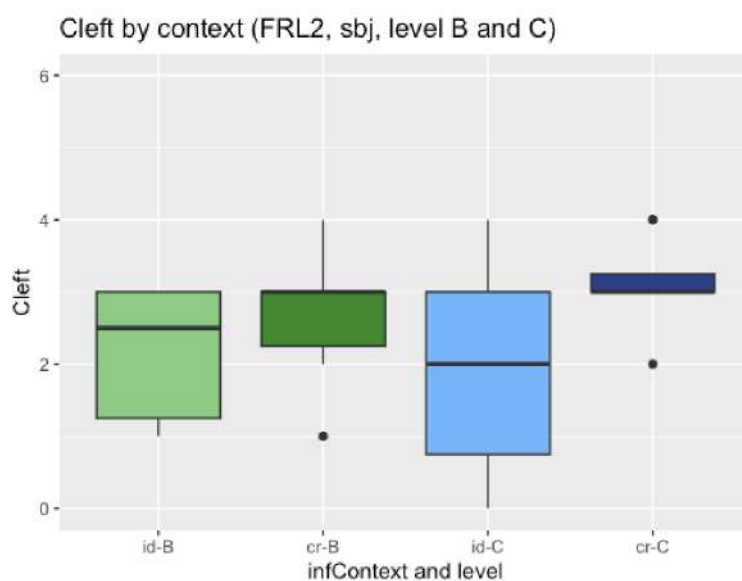


Figure 5.34: Cleft structures produced by of B- and C-level speakers of FRL2, in identification and correction condition.

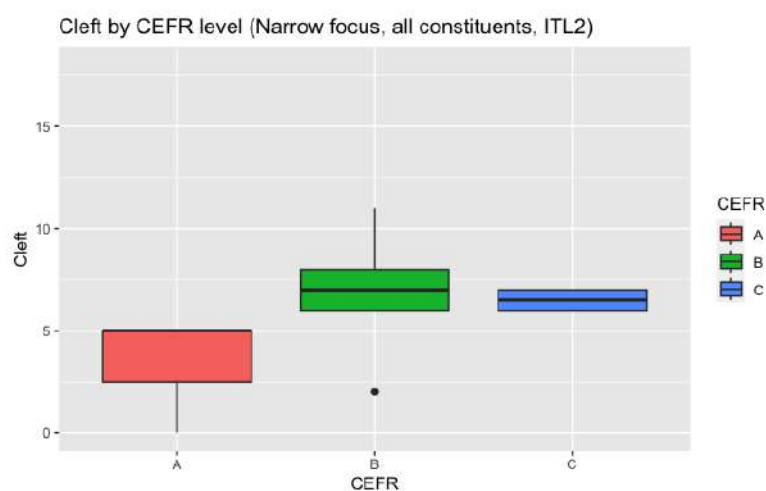


Figure 5.35: Cleft structures produced by A-, B- and C-level speakers of ITL2.

The output is similar, but with an opposite trend. The more advanced group realises fewer cleft sentences overall; although, the difference is not statistically significant ($p=0.1421$). Again, the results of speaker group B is more scattered, while the behaviour of speaker group C is more compact.

If we have a deeper look at the situation for different narrow-focus subtypes, we see

that the trajectory is similar to that observed for L2 French: A- and B-level speakers behave in a more target-like manner than C-level speakers. Interestingly, among the Italian L2 A-level speakers, the two conditions *id* and *cr* are at the most distinct; but the difference does not reach statistical significance ($p=0.5614$). As for the B-level group, the difference is again not statistically significant, and p is higher ($p=0.2707$). As for level C, we see that the pattern is even opposite than that of the target language: more clefts are produced in the identification condition than in the correction. The difference between the two conditions is, nonetheless, not statistically significant ($p=0.1449$); this is also due to the strong variation among different answers in the corrective condition. A comparison between the three groups is shown in figure 5.36.

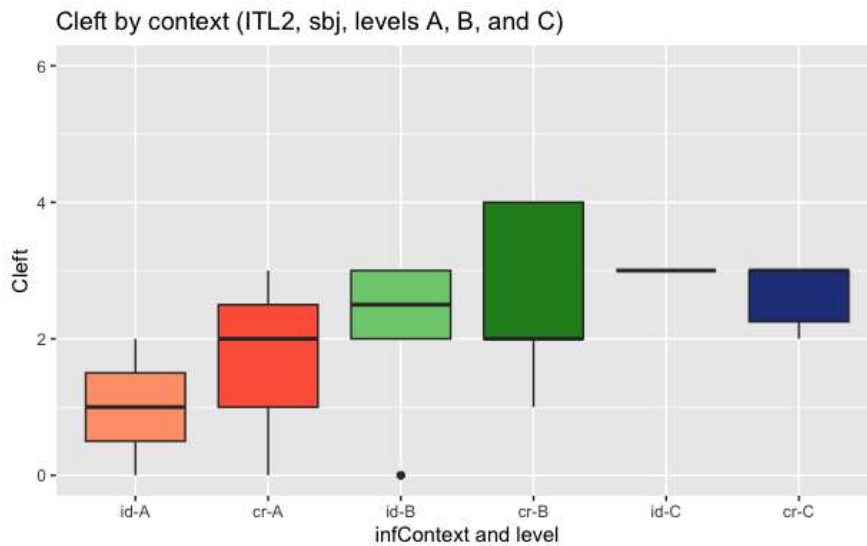


Figure 5.36: Cleft structures produced by A-, B- and C-level speakers of L2 Italian in identification and correction condition.

5.3 Discussion

Francophone learners of Italian L2 seem to have grasped that Italian speakers use *it*-clefts to a lower extent, and that there are other focus marking strategies through word order. We see, in fact, that the repertoire of marked orders is wider than that observed in the group of native French speakers: there are, for example, various occurrences of non-clitic displacements, subject inversion, focus fronting. We can see a comparison of the results for Italian L2 with both source language and target language strategies in figure 5.37.

With regard, however, to the differentiation between the two focus subtypes, identification and correction, ITL2 learners seem to retain the source language model rather than the target language model: contrastive *foci*, in fact, are not marked differently from

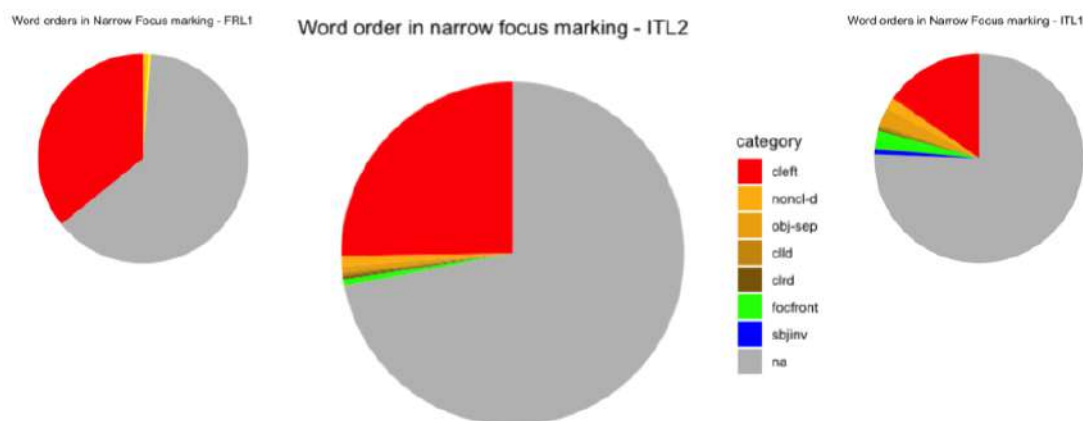


Figure 5.37: Non-canonical constructions produced by ITL2 speakers in narrow focus condition, with comparison to source language (left) and target language (right).

non-contrastive ones. As the analysis of it-clefts has showed, the counts for this specific syntactic construction are not statistically different for identification and correction; the situation is thus closer to that of French L1 than that of Italian L1. From a qualitative inspection, however, we notice that the variation is considerable within the group of learners. For this reason, and also in relation to our initial research questions, we have also investigated whether a possible diversification factor could be found in the proficiency levels. The analysis, illustrated in the dedicated section, has provided good insights and helped paint a more detailed picture; we will further comment on this in the following lines, building on the data from the other learner group as well.

As for Italian learners of French L2 (group FRL2), we see a comparative picture in figure 5.38.

Similar, and to some extent complementary, considerations can be made about this group. With regard to the overall count of the different non-canonical orders used for narrow focus, we see that Italian learners have increased the proportion of clefts and narrowed the inventory of possible solutions, adapting to the norm of the target language, which as we have seen provides for less flexibility in word order. Despite this, the overall proportion of clefts remains rather far from the level observed among native speakers of French. Crucially, the area where Italian learners struggle most to

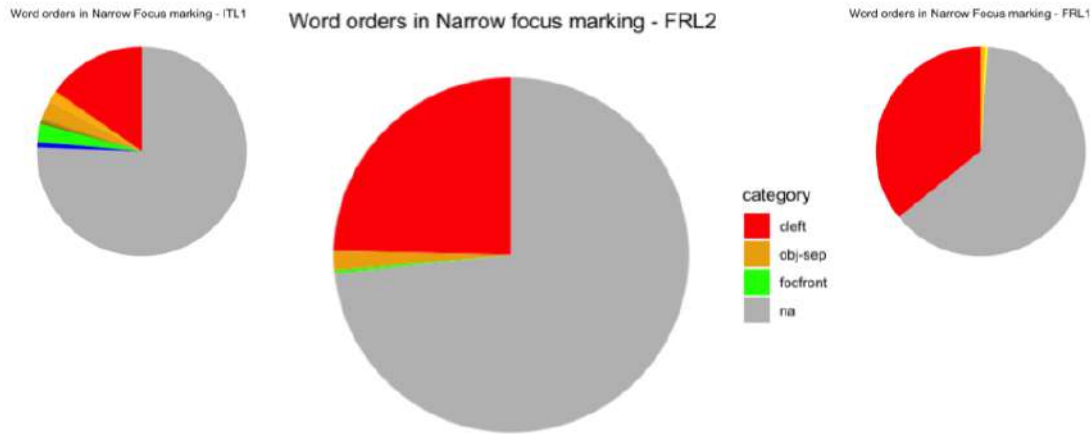


Figure 5.38: Non-canonical constructions produced by FRL2 speakers in narrow focus condition, with comparison to source language (left) and target language (right).

conform to the target seems to be the focus on the non-subject components. We think that the amount of *cleft-noVP* observed of objects and adverbials is a clue that leads us in this direction: Italian learners "understand" that they should use more clefts for these target constituents, but the operation is harder than for subjects. In addition to issues of accessibility and syntactic hierarchies, which we already mentioned for L1 groups, we think that an additional obstacle in the employment of this structure could be represented by the presence of two relative pronouns in French, *qui* et *que*, as other studies have already described (Helland et al., 2023).

As for the distinction between the identification and correction focus-type, which is very strong in the learners' source language. results for L2 learners fall "in between" those of the source and target languages. While FRL2 learners exhibit different behaviors from native speakers, particularly in distinguishing between the identification and correction conditions, the difference is not as pronounced as observed in Italian native speakers. Although the cleft count aligns with the target in the corrective condition, the substantial variation observed for id-focus in learners highlights a clear deviation from the target.

Considering these findings, we are prompted to explore an additional question: why do Italian learners seemingly fare better in approximating the target frequency of it-cleft usage compared to French learners, who deviate from the observed tendency in the target

language, exhibiting a less frequent use of it-cleft constructions? This inquiry aligns with an ongoing debate in the field of second language acquisition, particularly centered around concepts like "unlearning" or, more precisely (in our view), "learning a non-use".

Scholars argue that unlearning an L1 property or structure poses greater challenges than learning an L2 one (Schwartz and Goad, 2017; Gass and Mackey, 2002). Unlearning, in fact, involves inhibiting the activation of an L1 feature in L2 contexts where it may be erroneously triggered: to achieve this, learners must recognize that an L1 feature is not shared by the L2, relying on indirect negative evidence, while learning entails detecting the presence of new elements in the L2 input, with positive evidence playing the crucial role. Moreover, the similarity between the learner's L1 and the L2 can compound these challenges, which is very interesting in our case: assumptions of similarity between L1 and L2 may lead to attentional breakdowns, resulting in incorrect input analysis and fostering inappropriate and fossilized form/meaning mappings (Benazzo and Andorno, 2017; Kellerman, 1987; Ringbom and Jarvis, 2009). Nevertheless, we also observe that Italian learners of French adeptly avoid structures unacceptable in French, such as postverbal subjects or left-dislocations of objects and adverbials: this observation presents a counterpoint. To reconcile the two views, we could say that, in our case, "misuse" and "use" are easier to recognize and correctly categorize than "non-use". Despite differences between L1 and L2, in fact, Italian learners of French demonstrate proficiency in steering clear of structures deemed unacceptable in French. These outcomes align with considerations made in previous similar work (Sleeman, 2004) learners employ appropriate syntactic constructions to emphasize *foci*, but quantitatively, they do not use these syntactic constructions in a target-like fashion.

Additionally, a question persists: what implications might prosody hold? Will the outcomes of the intonation study yield substantial insights into its function and its interplay with syntactic structures? These issues will be addressed in the upcoming chapters (Chapter 6, Chapter 7, Chapter 8).

CHAPTER 6

Results: prosody

As noted in the introduction, the umbrella term "prosody" encompasses phenomena related to intonation, such as f_0 and pitch movements, as well as phenomena related to parsing, chunking, and rhythm, which include the placement and hierarchization of prominence patterns and boundaries between different prosodic constituents. All these elements interact with various linguistic processes, such as the management of discourse-level prominence and evolution of common ground, and are thus susceptible to variations linked to the articulation of information structure. As we have seen in paragraphs 1.3.1 and 1.3.2 of Chapter 1, in fact, every aspect of the phonic realisation of a sentence *can* carry indices of focus. The results that we will illustrate in this Chapter concern the analysis conducted on one of these aspects, namely intonation. This section will therefore be devoted to the part of the analysis conducted using the Polytonia automatic annotation tool (Mertens, 2014).

An attempt to account for other prosodic aspects, such as duration and insertion or strengthening of prosodic boundaries, is to be found in Chapter 8. The separation of other prosodic measures in Chapter 8 is not arbitrary or haphazard; rather, it is grounded in considerations related to the existing literature and the chosen methodology for our study. As articulated in the introduction (par. 1.3), the predominant, extensively studied, and widely acknowledged feature of focus is a distinct intonation pattern, primarily concerning pitch movements. Consequently, while there exist studies addressing other prosodic (or even segmental) cues to focus, they remain less established and more fragmented, particularly concerning the languages under scrutiny here, Italian and French. Hence, our decision to center our core analysis on what is more robust, broadly recognized, and thoroughly described.

The other prosodic cues that we will mention in Chapter 8, thus after the core discussion on intonation and syntax that we will address in Chapter 7, are approached with a more tentative and explorative stance. The idea to investigate them arose directly from our data, during the transcription and the analysis – thus, in a decidedly "bottom-up" perspective – rather than from pre-existing hypotheses, grounded in the literature. This

leads us to the second rationale: since our initial research questions were formulated based on descriptions from prior studies, our methodology is inherently geared towards investigating "classical" focus-related phenomena, namely syntax and intonation. To delve into the analysis of other prosodic cues, which often necessitate stricter phonetic measurements and are less readily detectable, a different methodology might have been more appropriate.

While we acknowledge the significance of these additional indices and their value in enhancing our understanding of the data, we believe it is more prudent to focus our core discussion on the measures initially considered, upon which our methodology was constructed. This emphasis does not diminish the importance of the supplementary measurements, to which we will dedicate a separate chapter. However, we refrain from drawing strong conclusions about them at this stage, as we believe it would be better to subject them to extensive scrutiny under a more controlled and tailored protocol.

6.1 Methodological clarifications

In this section of the Chapter we aim to provide methodological clarifications. Specifically, since this phase of the study involves a more restricted and filtered dataset compared to the syntactic one, we intend to elucidate the reasons behind the creation of this subset and offer a detailed explanation of the prosodic annotation and labeling rationale. This will be accompanied by comprehensive examples extracted from our corpus.

6.1.1 The dataset

The constituents taken into consideration for this analysis are part of the same data frame on which the syntactic analysis was conducted, as illustrated in the previous section (Chapter 5). Hence, some of the target phrases may be part of syntactically marked utterances or utterances with non-canonical word orders. It follows that the constituents analysed, even though they are always constituted by the same head-word (*Marie*, *Jules*, *journal*, *kiosque*, etc., and respective Italian correspondents), are subject to variation regarding their position within the utterance, and can be embedded in longer or shorter constructions, with potential impact on the prosodic aspect. For example, the position of the constituent within the utterance can impact the phonetic implementation of its prosodic profile: in fact, for linguistic reasons as well as purely physiological ones (f0 declination, decrease of airflow and consequently of subglottal pressure), constituents at the beginning and at the end of the utterance feature different f0 patterns (Cohen et al., 1982, Ladd, 1984, and more recently Gussenhoven, 2016; Poschmann and Wagner, 2016). Moreover, an initial position of the constituent, if analysed from the perspective of the general "focus last" and "given before new" principles (Givón, 1989; Neeleman and Van de

Koot, 2016), makes a prosodic marking more compelling than a final position. However, not all of these variation factors have the same impact, and not for all annotation and labelling systems. For this reason, we asked ourselves which of these factors could have such an impact as to justify, in our case and for the purpose of our analysis, the exclusion of tokens from the data frame, and which could not.

The first variation factor that we have taken into account are major displacement of constituents from their default position within the utterance, such as fronting of objects or adverbials, and movement of subjects to postverbal positions. These displacements substantially affect prosodic realization of target constituents, since initial and final positions in the utterances are by default characterized by differences on the phonetic level (see references above). As a result, tokens involving this type of "radical" displacement were excluded from the dataframe. Minor dislocations such as *obj-sep* or *clrd*, *clld*, instead, did not substantially differ in prosodic realization¹, and were thus kept as part of the data frame.

Another possible case was when participants used alternative phrases instead of expected target constituents, such as "une personne qui s'appelle Marie" or "una signora che si chiama Maria" instead of "Marie" and "Maria". Obviously, these formulations are significantly long in terms of syllables, and this has an impact over the prosodic realization of the single target word ("Maria" or "giornale"), primarily because it reduces their duration. This can of course influence perceived prominence, and, as a consequence, the nature of the labels assigned by Polytonia algorithm. For this reason, we decided to exclude this type of realisations from our data frame.

Another case we considered in this respect was that of it-cleft sentences. The use of this structure, in fact, also implies movements and changes of varying magnitude, depending on the nature of the constituent being clefted. The insertion of a subject within an it-cleft sentence, in fact, only entails the addition of a syllable before the target word ([ε], "è" in Italian or [se], "c'est" in French). This seemed to us intuitively a negligible change in terms of its impact on the intonation contour. In order to support this methodological choice, we consulted literature and found confirmation that it-cleft sentences and subject focus *in-situ* are not observed to exhibit dramatically different prosodic properties, at least in Italian and French (Mertens, 2012; Pinelli et al., 2020). Therefore, we decided to include them in the dataset for the analysis of subjects. However, for what concerns clefted objects and adverbials—which involve, conversely, a more significant displacement from the default position—we decided to adopt the same criterion we adopted for fronting

¹This affirmation is based on qualitative observations made by the author, and was not supported by the analysis of fine-grained phonetic parameters.

and postverbal subjects, leading to the exclusion from the dataset.

The results that we will show in the following paragraphs are conducted on a data frame of 1591 tokens (target constituents); their distribution is shown in table 6.1.

Token type	Italian	French	N. of tokens
<i>Subject</i>	Maria, Giulio	Marie, Jules	589
<i>Dir. objects</i>	giornale	journal	394
<i>Indir. objects</i>	suo fratello, Emilia	son frère, Émilie	325
<i>Adverbials</i>	in edicola, alle nove	au kiosque, à neuf heures	283

Table 6.1: Distribution of token types in the dataframe, including both L1 and L2 productions.

As the reader will see in the upcoming pages, we have organized the data into two sections for each group: first, presenting results for target subjects, and then, collectively, all other constituent types. This choice is primarily driven by the necessity to avoid fragmenting the data: as seen in the table just presented (see Table 6.1), the tokens belonging to the subject category outnumber those in the other three categories, especially adverbials. Predictably, this affected preliminary analyses, in which trends were more challenging to discern with fewer tokens. This lower number of non-subject tokens is not due to the protocol itself, but should be attributed to various factors. As mentioned earlier, for more than one reason we decided to exclude clefted/fronted adverbials and objects from the intonational analysis, and this lead to a more significant reduction if compared to subjects. Furthermore, even if the non-subject constituent was present in the baseline sentences of the task, speakers often omitted it in their responses when it was not the explicit target of the question. Both factors particularly affected adverbial constituents. In 63, we provide an example of an answer to a broad-focus question where the participant, a native French speaker, omits the adverbial "au kiosque":

- (63) a. Qu'est-ce qu'il se passe ici?
b. Marie achète un journal.

6.1.2 Prosodic annotation

As mentioned in the Methodology section (4), we used an automatic system of annotation, Polytonia, for the labelling of intonation. The algorithm, created by Mertens (2014), processes tonal labels from raw phonetic values, without phonological interpretation, in

relation to the individual characteristics of each speaker (pitch range, speech rate, etc.). The algorithm provides a series of symbols that represent tonal levels and the perceptible melodic movements of all syllables, based on the notion of the *seuil de glissando* (Rossi, 1971). For each syllable of the utterance, the system provides 5 symbols for the tonal level: L (low), M (mid), H (high), B (bottom) and T (top). It also provides 5 melodic movements: R (large rise), F (large fall), r (small rise), f (small fall), and – (level). Finally, the system can provide the combination of these symbols. As one can easily imagine, a range of 5 levels plus 5 movements can give rise to a large number of combinations. Moreover, the labels of each syllable combine sequentially to describe the profile of the entire focused constituent, which is made up of a number of syllables ranging from one to five: the result is that each constituent will easily show a combination of its own, making statistical processing, as well as the interpretation of trends, quite a hard task.

This is actually neither discouraging nor problematic, on the contrary: this wide range of possibilities accounts for the actual intra- and inter-speaker variability, and testifies to the extent to which the tool provides a phonetic output and not a phonological one. Nonetheless, it is evident that an interpretation leading to a slightly higher level of abstraction is required to navigate the data. For this reason, we decided to use the Polytonia labels to further elaborate a closed set of prototypical melodic profiles of constituents under the different informational conditions: broad focus, identification focus and corrective focus. In order to define our own taxonomy, we considered the extent to which Polytonia symbols capture : (i) the presence of an initial/final accent (in French) or a particular melodic accent associated with the lexical accent (Italian), (ii) the presence of a major melodic break at the end of the constituent, (iii) a tonal enhancement showing prosodic salience or (iv) no particular prosodic marking. Table 6.2 (in the next page) summarises the final prosodic annotation used in our study, accompanied by the labels obtained by Polytonia for the syllables contained in the Marie/Maria and journal/giornale constituents and the stylisations of f0. A more detailed interpretation of these types is provided in the list below.

- **falling**: for French, a melodic rise/high tone is perceived at the beginning of the first syllable Ma (initial accent) followed by a significant melodic fall on the last syllable, indicating a major break. For Italian, a melodic rise/high tone is perceived in the syllable carrying the lexical accent, followed by a significant melodic fall on the last syllable, indicating a major break.
- **flathigh**: for both French and Italian, the whole constituent is perceived in the high- or mid-range in the speaker's tonal range, indicating tonal enhancement.
- **rising**: a melodic rise of relative importance is perceived at the last syllable of the constituent, indicating the boundary of the canonical accentual group in the non-

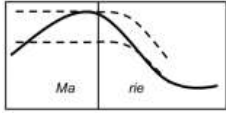
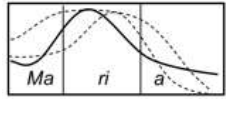
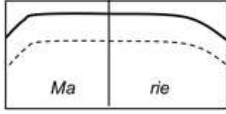
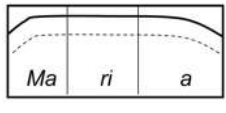
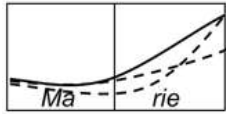
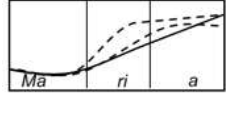
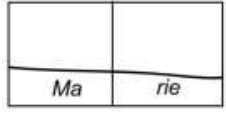
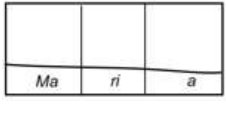
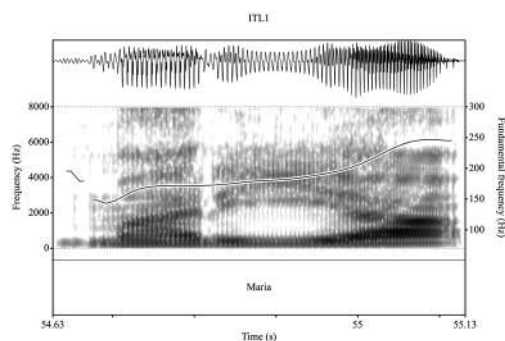
Category	Language	PT labels	Contour
falling	FR	MR-HF, M-Mf, r-f, r-HF	
	IT	Lr-HF-L, 0-LR-HF, M-H-L, 0-H-L	
flathigh	FR	M-M, H-H	
	IT	H-H-H, 0-H-H, 0-M-M, M-M-M	
rising	FR	L-LR, M-H, L-M, L-Mr, L-MR	
	IT	L-0-H, 0-L-M, L-Lr-M	
flatlow	FR	0-0, L-L, 0-L	
	IT	0-0-0, L-L-L, 0-0-L, 0-L-0	

Table 6.2: Prosodic types retained from Polytonia, with the example Marie/Maria.

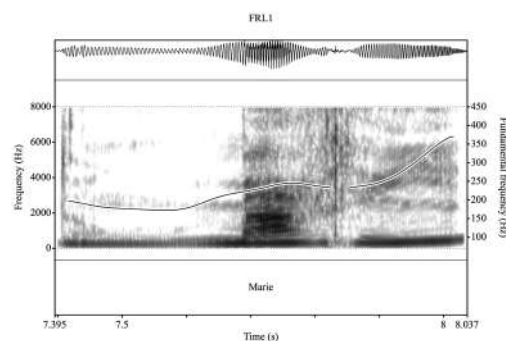
final position of the utterance (French) or a continuation rise (Italian). The profile corresponds to the one that, in several account, is referred to as a "continuation" contour (Delattre, 1966).

- **flatlow**: the entire constituent is perceived in the speaker's low tonal range, with no major melodic movement.

In the following figures we provide some examples of these intonational types as found in our corpus. Figure 6.1 and 6.2 show four cases of contours labeled as "rising", two from native speakers of Italian and French, and two from non-native. All examples show the contour uttered for a target subject in broad focus condition.

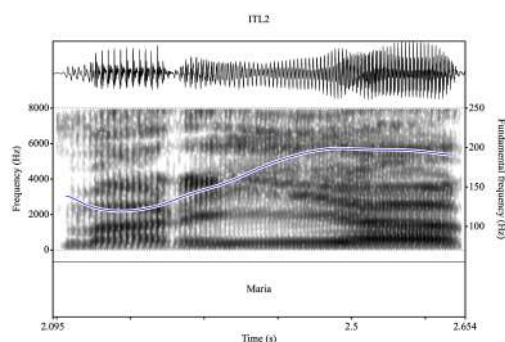


(a) Intonational type "rising" with the word "Maria" by a native Italian speaker

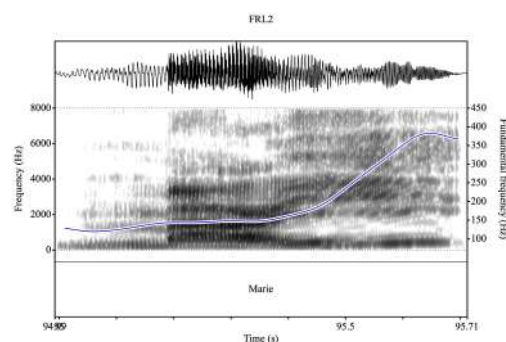


(b) Intonational type "rising" with the word "Marie" by a native French speaker

Figure 6.1: Two realisations of intonational type "rising" in broad focus condition by two female speakers of the L1 groups.



(a) Intonational type "rising" with the word "Maria" by a non-native Italian speaker



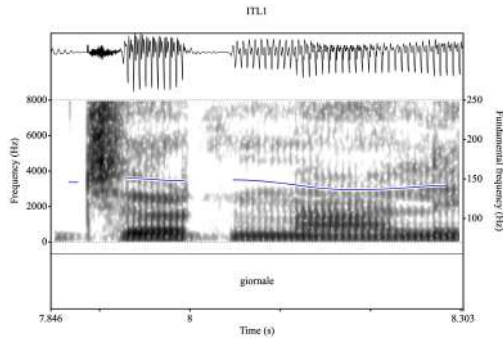
(b) Intonational type "rising" with the word "Marie" by a non-native French speaker

Figure 6.2: Two realisations of intonational type "rising" in broad focus condition by two male speakers of the L2 groups.

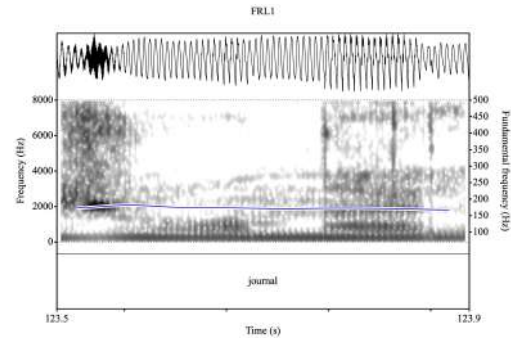
Figure 6.3 and 6.4 show four cases of contours labeled as "flatlow", two from native speakers of Italian and French, and two from non-native speakers. All examples show the contour uttered for a target object in identification focus condition.

Figure 6.5 and 6.6 show four cases of contours labeled as "flathigh", two from native speakers of Italian and French, and two from non-native speakers. All examples show the contour uttered for a target subject in identification focus condition.

Figure 6.7 and 6.8 show four cases of contours labeled as "falling", two from native

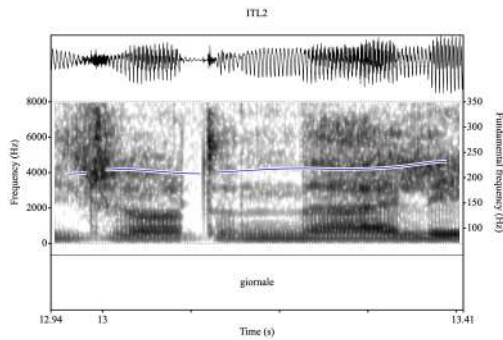


(a) Intonational type "flatlow" with the word "giornale" by a native Italian speaker

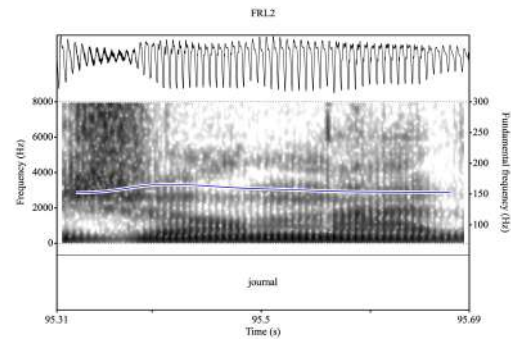


(b) Intonational type "flatlow" with the word "journal" by a native French speaker

Figure 6.3: Two realisations of type "flatlow" in identification focus condition by two female speakers of the L1 groups.



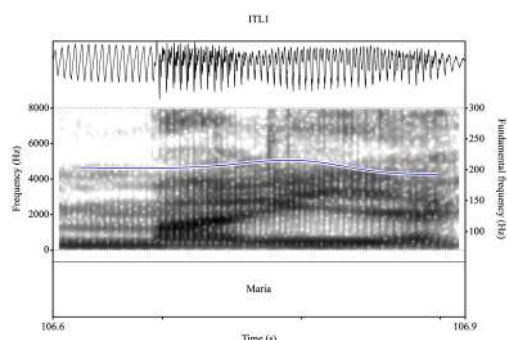
(a) Intonational type "flatlow" with the word "giornale" by a non-native Italian speaker



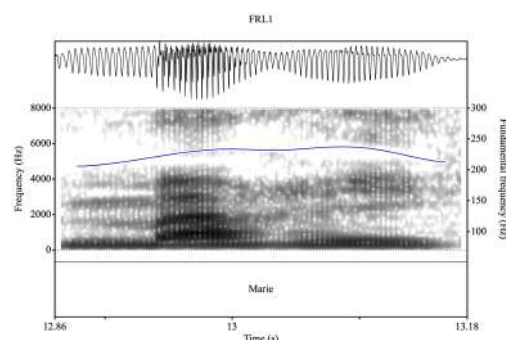
(b) Intonational type "flatlow" with the word "journal" by a non-native French speaker

Figure 6.4: Two realisations of intonational type "flatlow" in identification focus condition by two female speakers of the L2 groups.

speakers of Italian and French, and two from non-native speakers. All examples show the contour uttered for a target subject in correction focus condition.

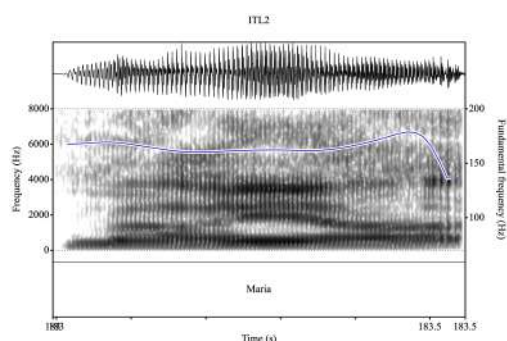


(a) Intonational type "flathigh" with the word "Maria" by a female native Italian speaker

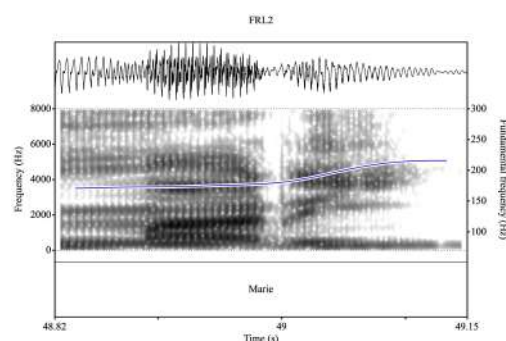


(b) Intonational type "flathigh" with the word "Marie" by a native French speaker

Figure 6.5: Two realisations of intonational type "flathigh" in identification focus condition by two speakers of the L1 groups.



(a) Intonational type "flathigh" with the word "Maria" by a non-native Italian speaker



(b) Intonational type "flathigh" with the word "Marie" by a non-native French speaker

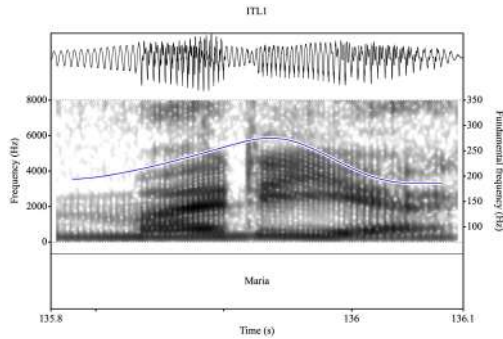
Figure 6.6: Two realisations of intonational type "flathigh" in identification focus condition by two male speakers of the L2 groups.

6.2 Prosody in the native groups

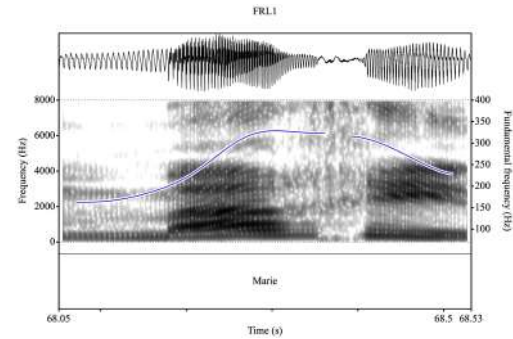
In this section we will show the results obtained from the two native groups, illustrating the output of the analysis conducted with Polytonia. Following the same sequence of Chapter 5, we will start with French and then move to Italian speakers.

6.2.1 L1 French

The following charts represent the distribution of different intonational types observed in the two groups in the three focus conditions: broad focus, information focus, correction focus. The first chart, figure 6.9, summarizes the distribution of intonational types

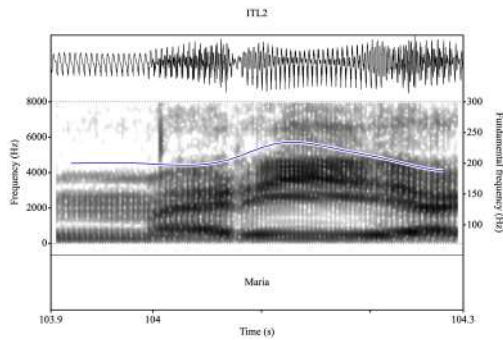


(a) Intonational type "falling" with the word "Maria" by a female native Italian speaker

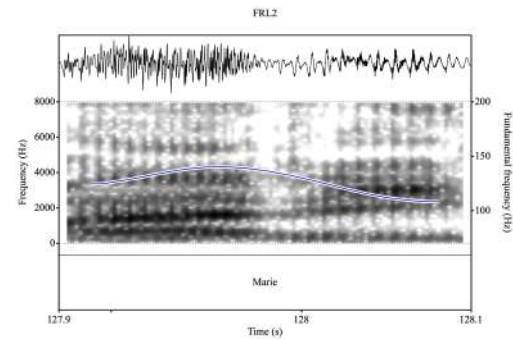


(b) Intonational type "falling" with the word "Marie" by a native French speaker

Figure 6.7: Two realisations of intonational type "falling" in correction focus condition by two female speakers of the L1 groups.



(a) Intonational type "falling" with the word "Maria" by a female non-native Italian speaker



(b) Intonational type "falling" with the word "Marie" by a male non-native French speaker

Figure 6.8: Two realisations of intonational type "falling" in correction focus condition by two speakers of the L2 groups.

realised by native French speakers for target subjects.

As the chart shows, in the broad focus (bf) condition the majority of constituents "Marie" and "Jules" are realised with a *rising* contour (dark blue, 57%). The remaining part of the tokens shows an overall tonal enhancement, which we have named the *flathigh* type (yellow, 40%). There is only one occurrence of type *flatlow* (grey, 2%), and no occurrence of *falling*. As we move to the identification-focus condition (id), the bar in the centre, we see that the proportion of *flathigh* and *flatlow* remains similar (38% and 4% respectively), but *falling* profiles increase (19%), at the expense of *rising* ones, that fall to 38%. The same trend is visible in the passage from the second to the third condition, the correction-focus one (cr). In this last case, in fact, the proportions of *flathigh* and

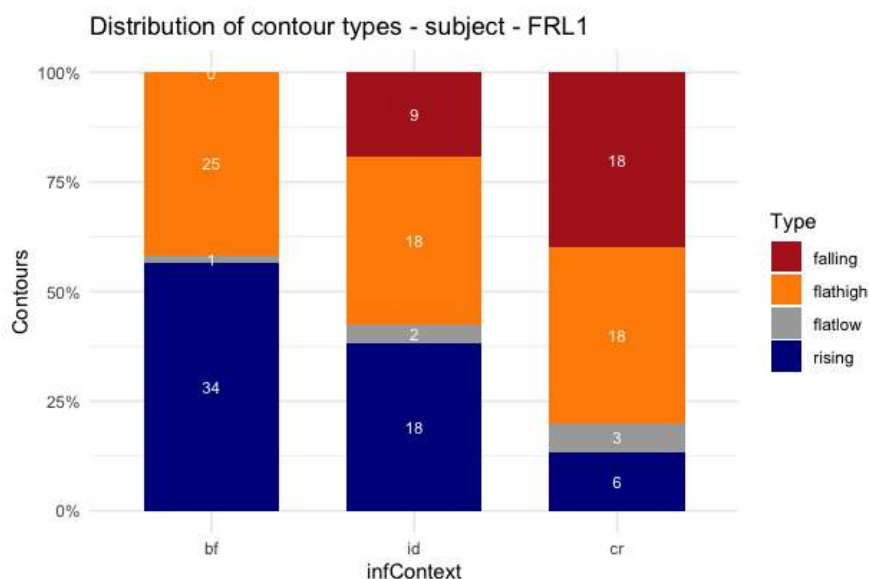


Figure 6.9: Distribution of contours in broad, identification, correction focus utterances for target subjects (group FRL1).

flatlow contours remain quite stable (40% and 6%), while that of *falling* further increases, reaching 40%; *rising* contours further decreases, dropping to 13%.

We performed a Pearson's Chi-squared test to investigate the association between the information condition and the distribution of contours; the test revealed a significant overall association between the variables (Pearson's Chi-squared test: $X^2 = 41.26$, $df = 6$, $p = 2.574e-07$). Further examination focused exclusively on the difference between the two narrow-focus subtypes, i.e. levels "id" and "cr": in this case, the effect is statistically significant, and medium ($\chi^2 = 9.16$, $p = 0.027$; Adjusted Cramer's $v = 0.26$, 95% CI [0.00, 1.00]).

We move now to the results obtained for the other types of target constituents: direct and indirect objects and adverbials, shown in figure 6.10 (next page).

In the first condition, broad focus, the biggest portion is represented by *flatlow* (38%) and *rising* contours (33%). It is interesting to notice that the first type, which represented a minor part for subjects, takes up a relatively large space for these constituent types. Another difference between subjects and non-subjects lies in the presence of *falling* contours in the broad focus condition: while they were absent in the realisation of target subjects, for target objects they represent 16% of the total. The remaining tokens (13%) belong to the *flathigh* type. As we move to the identification focus condition, we see that, despite the substantial difference we can still see for the *flatlow*/*flathigh* ratio, the

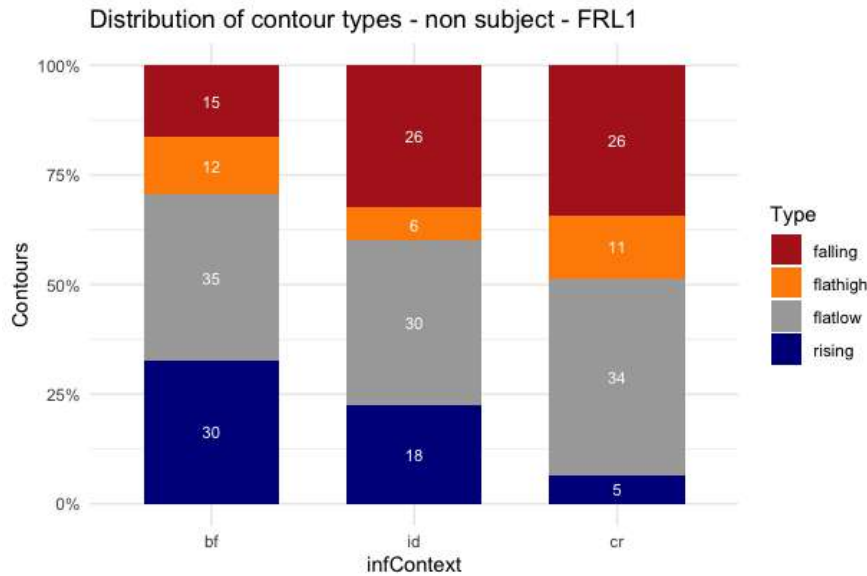


Figure 6.10: Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects and adverbials (group FRL1).

pattern is the same as observed for subjects: the proportion of *rising* contours falls (in this case, to 23%), and that of *falling* contours increases, reaching 32%. The proportion of *flatlow* remains similar to the bf condition (38%), and that *flathigh* decreases (7%). In the third condition, correction focus, we observe the same trend: the amount of *falling* contours keeps raising, reaching 34%; that of *rising* contours keeps falling, touching 7%. Both *flathigh* and *flatlow* contours increase; their proportion over total is 14% and 45%, respectively. It is interesting to notice that, together, *flatlow* and *flathigh* cover roughly the same space in subjects and in objects, and this over all three focus conditions; what changes throughout the different focus contexts is the ratio between the other two types, *rising* and *falling* contours, that seem to undergo a progressive trade-off, from broad to identification to corrective focus.

As we did for subjects, we conducted a Pearson's Chi-squared test of independence. The results suggest that the difference between identification and correction is statistically significant, and small² ($\chi^2 = 8.97$, $p = 0.030$; Adjusted Cramer's $v = 0.20$, 95% CI [0.00, 1.00]).

²Throughout this Chapter, effect sizes are labelled following recommendations in Funder and Ozer (2019).

6.2.2 L1 Italian

We now move to the analysis of the native Italian group. In the next figure, 6.11, we show the results for target subjects.

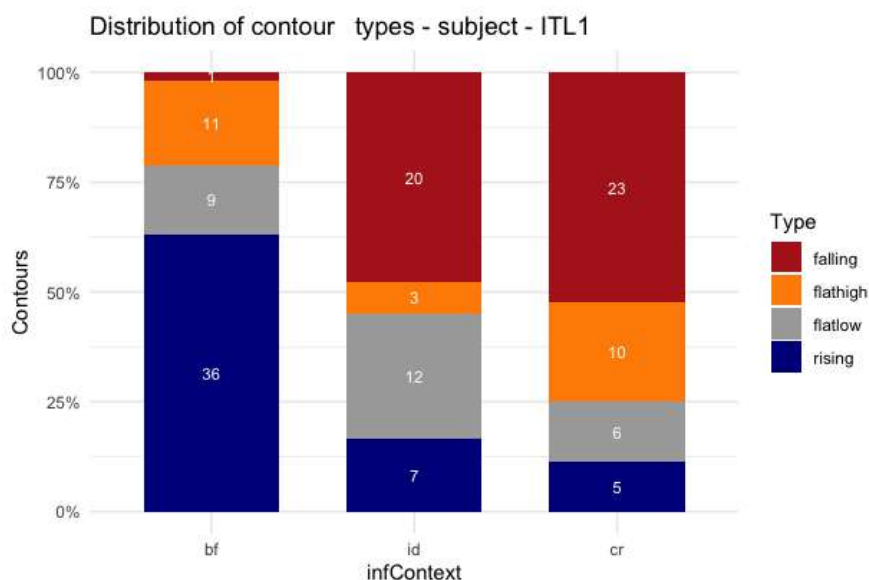


Figure 6.11: Distribution of contours in broad, identification, correction focus utterances for target subjects (group ITL1).

As the chart shows, in the broad focus condition the majority of subject phrases are realised with a *rising* contour (63%). Around a third of the target constituents are produced with a *flathigh* or *flatlow* contour, which take up respectively 19% and 16% of the total. The remaining 2%—which actually corresponds to one single case—shows a *falling* contour. If we move to the identification-focus condition, we can see that the situation changes quite considerably. In fact, while the proportion of both *flathigh* and *flatlow* remains constant (7% and 29%), the ratio between *falling* and *rising* is almost reversed: the first type takes up 48% of the target constituents, while the latter falls to 17%. When moving from identification to correction-focus condition, we observe a similar situation, albeit with a slight shift along the same trend. Once again, *flathigh* and *flatlow* constitute together around a third of the total (23% plus 14%), while the majority of target constituents features a *falling* contour (52%). The *rising* category further decreases, reaching 11%.

The Pearson’s Chi-squared test of independence suggests that the difference between identification and correction is statistically not significant, and small ($\chi^2 = 6.27$, $p = 0.099$; Adjusted Cramer’s $v = 0.20$, 95% CI [0.00, 1.00]).

We now move to the other categories of target constituents, namely objects (direct and indirect) and adverbials. The results of this analysis are shown in figure 6.12.

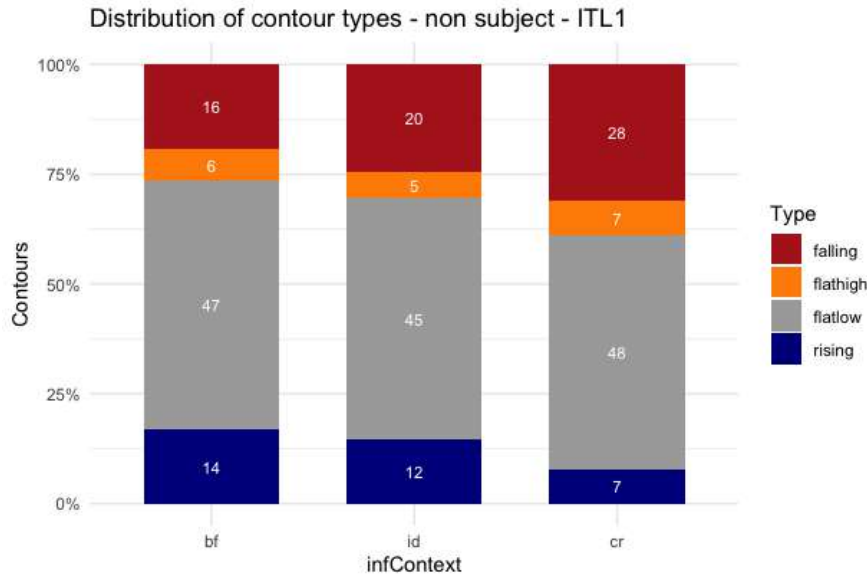


Figure 6.12: Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects (group ITL1).

In the broad focus condition, the *flatlow* contour covers an outright majority of the total (57%), while the other flat type, *flathigh*, is minority (7%); together, they account for roughly two thirds of the total. As for the other two types, *rising* and *falling*, they are almost even: the first recurs 14 times out of 83 tokens, thus accounting for 17% of the total; the latter accounts for 19%. For the second condition, identification focus, we see that the sum of the two "flat" types remains quite stable: 55% for *flatlow* and 6% for *flathigh*. As for the other two types, we see that the ratio between *rising* and *falling* slightly changes, in favor of the second type: *rising* contours fall to 15%, while *falling* contours rise to 24%. A similar trend is visible in the passage to the last condition, correction focus. In this context, *flatlow* and *flathigh* account respectively for 53% and 8% of the total. The proportion of *falling* contours further increases and reaches 31%, at the expense of *rising* ones, which fall to 8%. At an overall glance, it is immediately apparent that the pattern for objects is similar to that observed for subjects, except that the proportion of *flatlow* contours appears to be preponderant for this type of syntactic constituent.

The Pearson's Chi-squared test of independence between identification and correction suggests that the effect of focus subtype is statistically not significant, and tiny ($\chi^2 = 2.71$, $p = 0.438$; Adjusted Cramer's $v = 0.00$, 95% CI [0.00, 1.00]).

6.2.3 Interlinguistic comparison

Several considerations can be made, stemming from the observation of our data. For instance, it appears that focus marking is in some measure asymmetric in both French and Italian, depending on the syntactic role of the target constituent, or—and we lean towards this second interpretation—depending on its position within the utterance. The distribution of intonational profiles in different focus conditions, in fact, varies significantly depending on whether the focus constituent is a subject (see figures 6.9 and 6.11) or an object or adverbial phrase (see figures 6.10 and 6.12). As previously mentioned, we posit that the prominence of intonational marking is contingent on position rather than syntactic role. Specifically, when objects and adverbials are shifted towards the utterance-initial position, intonational marking becomes more systematic. This shift in word order may be linked to constraints of the phonology/syntax interface, but also be attributed to physiological reasons, as discussed in paragraph 6.1.1. Regardless, the reordering of elements likely serves a functional purpose in facilitating intonational marking: it would be interesting to study this aspect systematically, with a specific study on the same corpus, in which initial and final constituents of the same syntactic nature are explicitly compared. Anyway, this interplay between prosody and word order aligns with existing literature in this field, in both French and Italian (Frascarelli, 2000; Szendroi, 2001; Selkirk, 2011)³.

The observed distributions also suggest nuanced differences in how French and Italian respond to the +/- contrast parameter. In French, the ratio between *falling* and *rising* contours evolves gradually from the least contrastive (bf) to the most contrastive (cf) condition, evident in figures 6.9 and 6.10. This distinction is noticeable during transitions from broad focus to identification focus and from identification to correction. Chi square tests confirmed that the difference in distributions between identification and correction focus is statistically significant. In contrast, Italian exhibits only two distinct distributions, with the demarcation occurring between broad and narrow focus, without further differentiation between identification and correction. In fact, there is minimal disparity between the distributions of the two narrow-focus subtypes, as confirmed by the statistical test; this is particularly true in relation to target subjects (figure 6.11). This observation is particularly intriguing in our view, as it complements our findings on the frequency of it-cleft sentences (cf. section 5.1.4). Further exploration of this aspect

³It is not our intention here to enter into a discussion of the information mechanisms that finely regulate this interaction. We merely say that the combinations observed in our corpus belong to the inventory of possibilities described by existing studies, and we refrain from attempting to identify a one-to-one relationship with the various focus marking possibilities—not least because, in our corpus, it is already evident at first glance that the relationship is not one-to-one, and we think it is more useful to adopt a distributional approach to describing the phenomenon.

will be undertaken in the Chapter 7.

6.3 Prosody in L2

Maintaining a consistent structure with our previous section, we will now present findings from the L2 groups. The charts will depict the outcomes of the tonal analysis carried out using Polytonia, focusing on the variables examined thus far. As we did for the native groups, we will start with French and then move to Italian. We will address target subjects first, followed by direct and indirect objects and adverbials.

6.3.1 L2 French

In the first chart, figure 6.13, we show the results for target subjects, in this case "Marie" and "Jules", as uttered by Italian learners of L2 French.

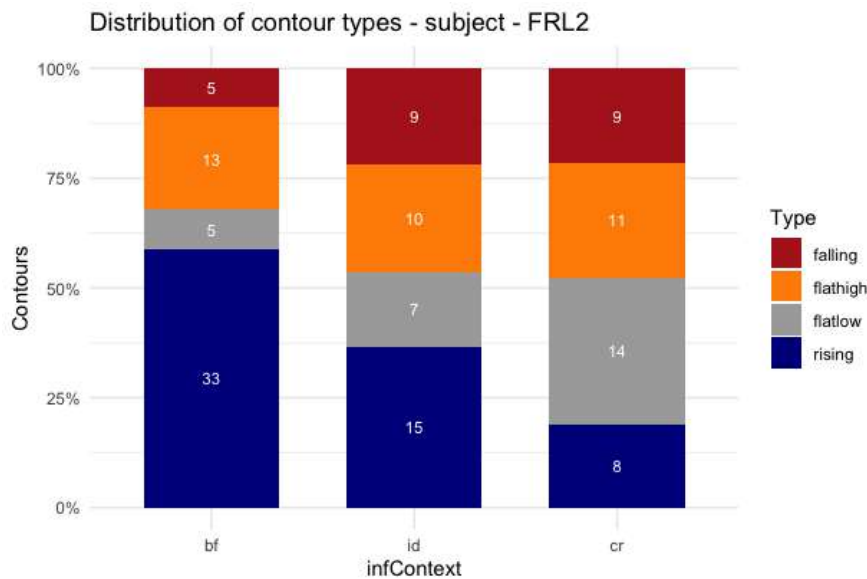


Figure 6.13: Distribution of contours in broad, identification, correction focus utterances for target subjects (group FRL2).

As the first bar shows, the majority of subjects phrases are produced by FRL2 speakers with a *rising* contour (59%). Another 23% is realised with a *flathigh* contour, while the remaining 18% is divided exactly in half between *flatlow* and *falling*. If we observe the second bar, the one representing identification focus condition, the first thing we notice is that *rising* types decrease to 37%, while *falling* ones go up to 22%. Interestingly, *flatlow* contours also become more frequent, going up 17% of the total. The amount of *flathigh* types, on the other hand, remains quite stable (24%). The last bar, the one that represents the correction condition, is for the first half identical to the second one:

falling and *flathigh* portions remain stable (21% and 24% respectively); the number of *flatlow* contours instead increases, reaching 33% of the total, to the expense of *rising*, that drops to 19%.

The Pearson's Chi-squared test of independence suggests that the difference between identification and correction is statistically not significant, and the effect is small ($\chi^2 = 4.50$, $p = 0.212$; Adjusted Cramer's $v = 0.13$, 95% CI [0.00, 1.00]).

We move now to figure 6.14, to comment the results for target objects (direct and indirect) and adverbials, involving the following target phrases: "journal", "son frère" and "Émilie", and "à neuf heures", "au kiosque".

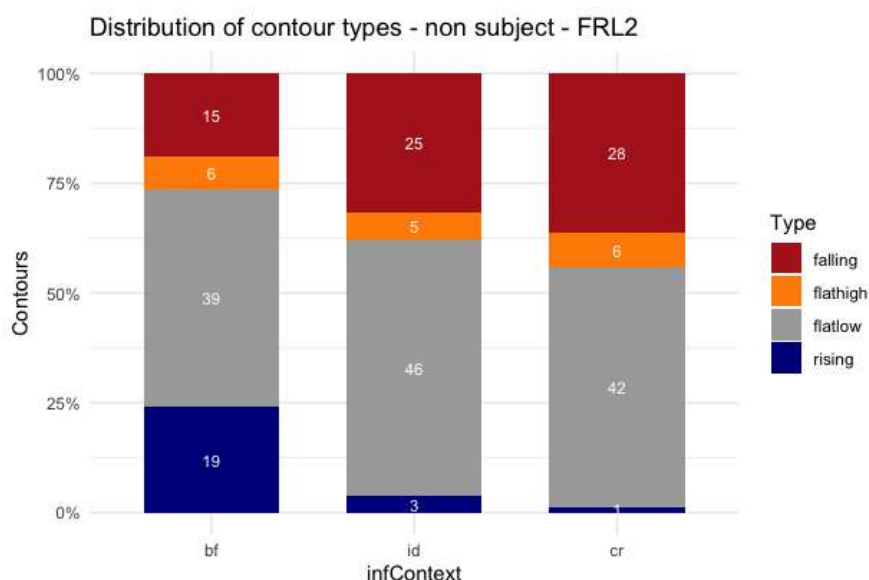


Figure 6.14: Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects (group FRL2).

As depicted in the first bar of the graph, the preminent share of object phrases is produced by FRL2 speakers with a *flatlow* contour, constituting 49%. Following closely behind, the *rising* contour comprises 24%, while *falling* and *flathigh* contours contribute 19% and 8%, respectively. Upon shifting to the second bar, corresponding to the identification focus condition, a different situation is visible. The *rising* type undergoes a decrease to 4%, and *flathigh* types also slightly decrease, dropping to 6%. On the other hand, *falling* types increase, reaching 32% of the total; the portion taken up by *flatlow* also rises, touching 58%. The final bar, representing the correction condition, is quite similar to the second one. The prevalence of *flatlow* and *falling* contours persists, with the first remaining around 54% and the second slightly increasing to 36%. The other two contours behave somewhat consequently: *rising* types diminish, dropping to 1%; *flathigh*, though reaching 8%, remains a minority.

The Pearson's Chi-squared test of independence applied to the identification and correction conditions suggests that the effect of the contrast variable is statistically not significant, and tiny ($\chi^2 = 1.42$, $p = 0.702$; Adjusted Cramer's $v = 0.00$, 95% CI [0.00, 1.00]).

6.3.2 L2 Italian

We conclude this survey with the analysis of productions by ITL2 group, French learners of L2 Italian. In figure 6.15, we see the results for target subjects, "Maria" and "Giulio", in the three focus conditions.

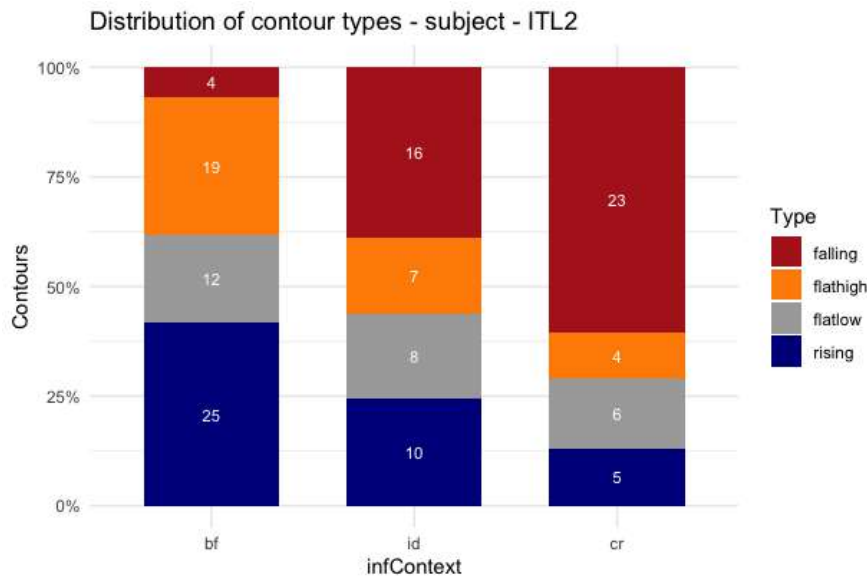


Figure 6.15: Distribution of contours in broad, identification, correction focus utterances for target subjects (group ITL2).

In examining the distribution of contours among the subject phrases, notable patterns emerge. The primary contributor in broad focus condition is the *rising* contour, constituting a relative majority at 42%. Following, the *flathigh* contour contributes 32%, while *flatlow* and *falling* contours account for 20% and 7%, respectively. Moving to the identification focus condition, a discernible shift is evident. *Rising* contours, that were prevalent in broad focus condition, decrease to 24%. *Flathigh* contours decrease as well, dropping to 19%. These two first types leave space to *falling* contours, which constitute in this condition 37%. On the other hand, *flatlow* contours remain stable: they represent 20% of the occurrences, as they did in the broad focus condition. As for the last bar, representing the correction-focus condition, the distribution continues the trend of the second bar. *Falling* contours increase further, and reach 60%; this, at the expense of all three other categories. In fact, *flathigh* contours drop to 10%, *flatlow* fall to 16%, and

rising to 13%.

Perhaps due to the not very large number of observations, however, the Pearson's Chi-squared test of independence indicates that the effect of contrast in the passage from identification and correction is statistically not significant, and small ($\chi^2 = 3.92$, $p = 0.270$; Adjusted Cramer's $v = 0.11$, 95% CI [0.00, 1.00]).

With figure 6.16, we move to target direct and indirect objects and adverbials, featuring constituents "il giornale", "a suo fratello", "a Emilia", "in edicola", "alle nove".

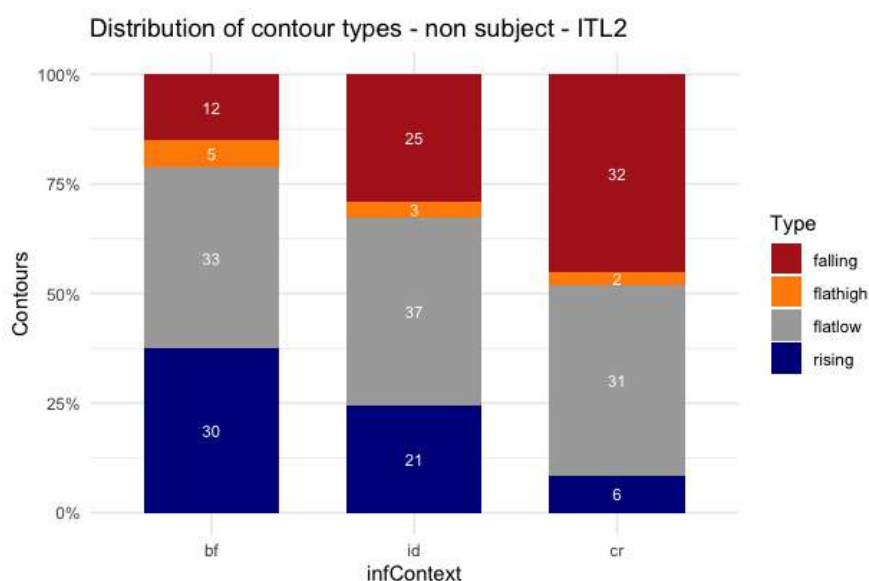


Figure 6.16: Distribution of contours in broad, identification, correction focus utterances for target direct and indirect objects (group ITL2).

In the first bar, corresponding to the broad focus condition, the majority of target constituents is realised by ITL2 speakers with a *flatlow* contour (41%) or a *rising* (38%). The two portions are quite balanced, and account for more than three-quarters of the total. The remaining part is made up of *falling* contour, 15%, or *flathigh*, 6%. The second bar, representing the identification focus condition, is partly different. The portion occupied by *flatlow* and *rising* contours slightly diminish: the former accounts for 43%, and the latter 24%. *Flathigh* contours have a moderate decrease, and drop to 3%; *falling*, on the other hand, increase and reach 29%. A similar shift is visible in the passage to the third column, representing corrective focus condition. In this case, in fact, *flatlow* and *rising* reduce their contribution, decreasing to 44% and 8% of the total, respectively; together, they cover around half of the total. This change happens in favour of the *falling* portion, that, conversely, increases to 45%. The last type, *flathigh*, remains stable at 3%.

The Pearson's Chi-squared test of independence indicates that the effect of the contrast

variable is statistically significant, and small ($\chi^2 = 8.57$, $p = 0.036$; Adjusted Cramer's $v = 0.19$, 95% CI [0.00, 1.00]).

6.3.3 Prosody in L2: inter-group comparison

Comparing the results of the two groups of learners reveals some similarities and some divergences; the latter seem to carry evidence of influence of the source language.

As for the commonalities, we see that in both learners' group there is an asymmetry between target subjects and the other syntactic components. This aspect mirrors a characteristic found in both groups of native speakers, as detailed in paragraph 6.2.3. For non-native speakers as well, the prominence of intonational marking could hinge on position rather than syntactic role: specifically, when focus constituents are found in utterance-initial position, intonational marking is more systematic. This mechanism, also potentially influenced by physiological factors (see 6.1.1), serves a functional purpose: as we have mentioned discussing the results of L1 speakers, stronger marking of utterance-initial focus constituents responds to the need of compensating the fact that initial focus violates functional principles such as "focus-last" and "given-before-new", and thus has to bear stronger marking and prominence.

As for the differences, we identify two lines of divergence that parallel distinct aspects in the behavior of French L2 learners and Italian L2 learners. The first one is that the role of contrast in the two narrow-focus types has different results in the learners' productions; it seems, in this regard, that the marking strategies of the two different focus types are affected by the influence of L1. In fact, the Italian learners' group FRL2 hypo-differentiates between the two conditions, which is then what happened for the ITL1 group. The French learners in the ITL2 group, on the other hand, seem to mark the contrast gradient in the transition from identification to correction, enhancing the use of *falling* contours; this behaviour reflects the pattern found in the native French group. A second aspect of divergence between the L2 groups is that French learners of Italian exhibit a heightened reliance on intonation compared to Italian learners of French as a second language (FRL2): in fact, the intonational analysis of ITL2 reveals an infrequent use of *flatlow* contours in narrow-focus conditions, particularly in relation to subject constituents. This divergent pattern sets ITL2 apart not only from FRL2, but also from the target language, Italian (ITL1), where major tonal movements are less prevalent. Conversely, the FRL2 group, comprising Italian learners of French, demonstrates a less extensive utilization of major tonal movements, identified in our classification as *flathigh* and *falling*. The frequency of *flatlow* tokens in the FRL2 group is higher than in the ITL2 group, and even in comparison to native speakers of the target language, French (FRL1). This symmetry in behavior across language pairs strongly suggests a link to the

source languages. In the next paragraph (6.4), we comment on these outcomes and try to account for them in terms of both learning universals and cross-linguistic influence.

6.4 Discussion

The observed outcomes prompt a nuanced consideration of both learning universals and L1 influence. A consistent feature across all four groups is the intonational marking of initial position, while final position often remains unmarked. The increase in *flatlow* contours for the more contrastive condition, which appears more in the L2 groups, is, however, a rather unexpected result. This trend may be attributed to two different reasons. The first is that there may be prosodic strategies other than intonation (phonetically, cued by f0 movements) to mark focus. As we have seen in the introduction, in fact, prosody can encompass other features: we will try and answer to this first hypothesis in Chapter 8. Another possible explanation could be the use of overexplicit negations: in corrective contexts, L2 learners often realise utterances with the explicit negation of the erroneous proposition in the first part, with the correct alternative presented subsequently. We provide an example of this in ex. 64:

- (64) a. Marie donne à son frère des mots croisés, n'est-ce pas ?
b. Non, Marie ne donne pas des mots croisés à son frère, Marie lui donne [un journal]_F.

In this structure, the corrective focus, "un journal", is positioned at the end of a lengthy utterance, and this already makes it less likely to be marked by major f0 movements. Moreover, its salience at the discourse level is diminished, given that the function of refuting the incorrect preposition has already been fulfilled in the initial part of the utterance, by the explicit negation of the proposed predicate.

Regarding the differences between the two L2 groups, we think they closely mirror the divergences noticed in the two L1 groups. In fact, Italian learners of L2 French do not mark the distinction between identification significantly through intonation. In contrast, in Italian L2, French learners keep marking this difference, increasing the use of *falling* contours in the more contrastive condition (i.e. correction focus), reflecting the behaviour of L1 French speakers.

Obviously, in order to have an overall view, it is first necessary to integrate the results illustrated in this chapter with those shown in the previous section, i.e. the one concerning constituent order and specific syntactic constructions. Once these two aspects have been put together, which we will do in the next section (Chapter 7), we will be able to better understand these results, trying to formulate an interpretation of the role of L1 influence

and universals of acquisition also in relation to models of L2 prosody acquisition. For this final step, we refer to the concluding section (Chapter 9).

CHAPTER 7

Integrating prosody and syntax

In this section we will present the results of syntax, word order and intonation, put together. As we did in the previous chapters, we will start with the results from the two native groups, and then move to those of the L2 speakers. In the subsequent analysis, we classify as marked word orders any instances of the structures previously identified and discussed in Chapter 5, such as it-cleft sentences, object separation, fronting, postverbal subjects, etc.

Regarding intonation, we define as marked any constituents realized with either a *flathigh* or *falling* contour type, as detailed in Chapter 6.

7.1 Syntax and intonation in the native groups

As we did in the previous chapters, we will first deal with the two native groups, and the analysis of L2 productions will follow. The aim of these sections is to integrate results from the two distinct analysis, in order to have a more comprehensive and realistic picture of speakers' behaviour in information-structure marking. As we have reminded in the very first lines of the work (see Chapter 1), in fact, the separation between syntax and prosody in this regards is an abstraction. Nonetheless, looking at the two aspects separately has allowed us to observe a very larger amount of phenomena in a clear and fine-grained perspective, which will be useful for the thorough discussion we are about to present.

7.1.1 L1 French

In Figure 7.1 (next page), we see the marking strategies employed by native French speaker to mark narrow focus (identification- and correction- conditions are mixed).

For this group, intonation alone accounts for 27% of the total (labeled "int", colored blue), while syntax¹ contributes 10% (labeled "syn", colored magenta). The combination of both

¹In this chapter, the label "syn" (standing for *syntax*) encompasses all phenomena related to both

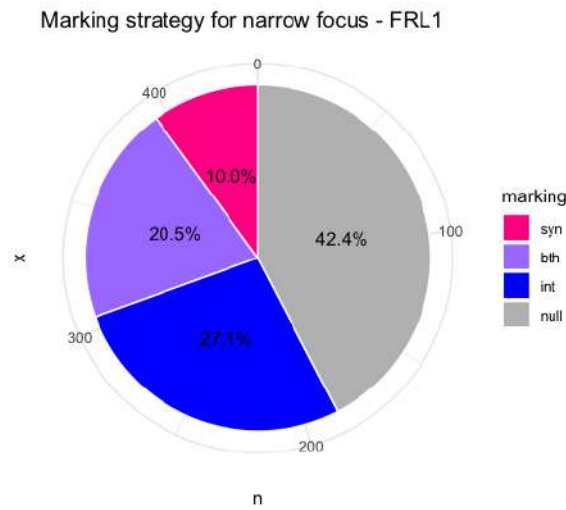


Figure 7.1: Marking strategies used in narrow-focus contexts by FRL1 speakers, all target constituents mixed.

syntax and intonation represents approximately 20% of the total (labeled "bth", violet). Notably, around 42% of target focus constituents remain unmarked, lacking specific word-order and/or intonation configurations² (designated as "null" and represented in grey).

Consistent with our approach in previous chapters, though, we find it more informative to examine results separately, on the basis of the syntactic nature of the target focus-constituent and of the focus type, i.e. distinguishing identification focus from correction focus and target subjects from target non-subjects. In figures 7.2 and 7.3 (next page), we present the results for the four possible combinations of syntactic role and focus subtype.

The four charts illustrate significant variations in outcomes under specific isolated conditions. In Figure 7.2, results for target subjects in both focus conditions, identification (Figure 7.2a) and correction (Figure 7.2b), are presented.

Comparing these findings to those in Figure 7.1, it becomes evident that the percentage of unmarked tokens for this syntactic role is substantially reduced. With only one exception, represented by a token in the identification condition, all target subjects are marked by syntax, and a significant portion is also marked by intonation.

syntax and word order, including all the non-canonical structures discussed in Chapter 5.

²In this and in the upcoming charts of this chapter, *falling* and *flathigh* cointours are considered as marked, while *rising* and *flatlow* are considered as unmarked.

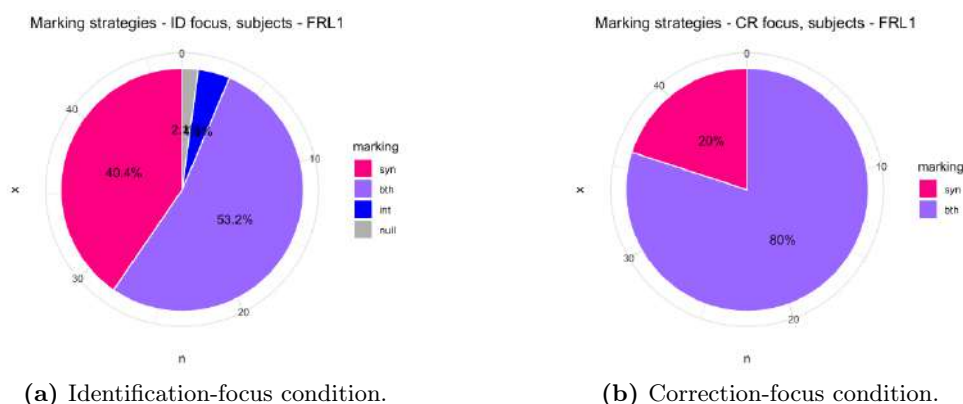


Figure 7.2: Marking strategies used by FRL1 speakers in narrow focus contexts for target subjects.

In the identification condition, intonation is used in approximately 60% of the cases, with just two occurrences exclusively relying on syntax. In the correction condition, there is a notable increase in the use of intonation to mark this focus subtype. Consequently, 80% of target constituents are marked by both intonation and syntax, while the remaining 20% is marked through syntax alone.

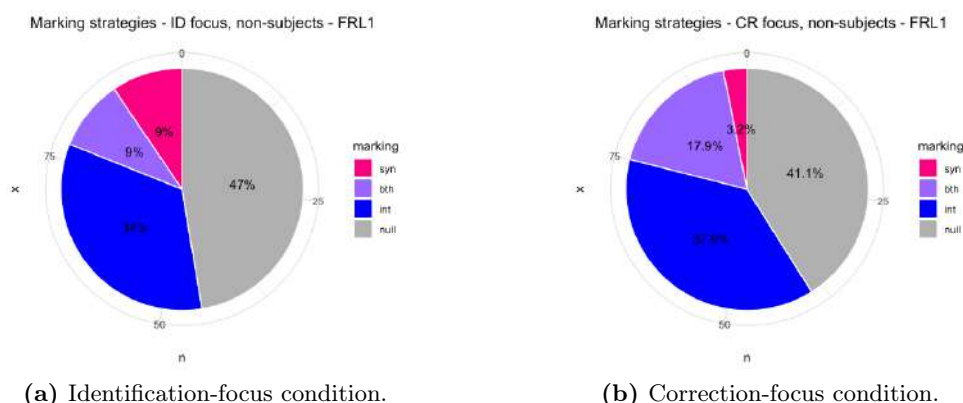


Figure 7.3: Marking strategies used by FRL1 speakers in narrow focus contexts for target non-subjects.

Proceeding to Figure 7.3, we present the results for all non-subject targets in the two focus conditions. In comparison to subjects, the first notable observation is the considerable portion of unmarked tokens, comprising almost half in the identification condition (47%) and slightly less in the correction condition (41%).

Additionally, we see that non-subjects are more frequently marked by intonation alone

than by both syntax and intonation. This finding echoes our earlier results in Chapter 5, in which we found that syntactically marked structures, primarily *it*-clefts for the French L1 group, are more prevalent for subjects and rarer for other types of syntactic constituents.

Turning to the comparison between the two focus conditions, we notice that the difference is not as pronounced as observed for subject constituents. Although to a lesser extent, however, the same trend is observed: in the transition from the less to the more contrastive condition, the percentage of unmarked constituents decreases, and this is mostly due to a rise in intonational marking.

7.1.2 L1 Italian

In this subsection we will illustrate the results obtained from the integration of syntax and intonation for the second native group, native Italian speakers (ITL1).

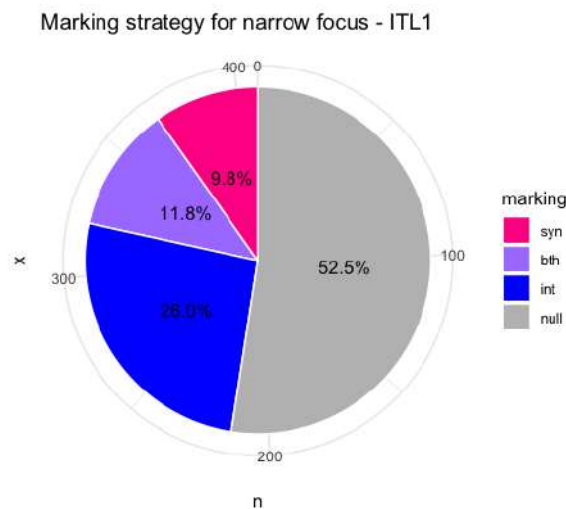


Figure 7.4: Marking strategies used in narrow-focus contexts by ITL1 speakers, all target constituents mixed.

For this group, unmarked tokens make up slightly more than half of the total, at 52%. As for marked tokens, intonation alone accounts for 26%, while syntax contributes to roughly 10%. The combination of both intonation and syntax, instead, occurs in 12% of cases. When comparing these results to those of the native French group (figure 7.1), it becomes apparent that there is a difference in both tonal and word-order marking in Italian, the contribution of both aspects being reduced, compared to the French counterpart. We will elaborate on this aspect, which may be somewhat unexpected or surprising, in section 7.1.3, after having examined the four conditions (roles of target constituent and focus types) separately.

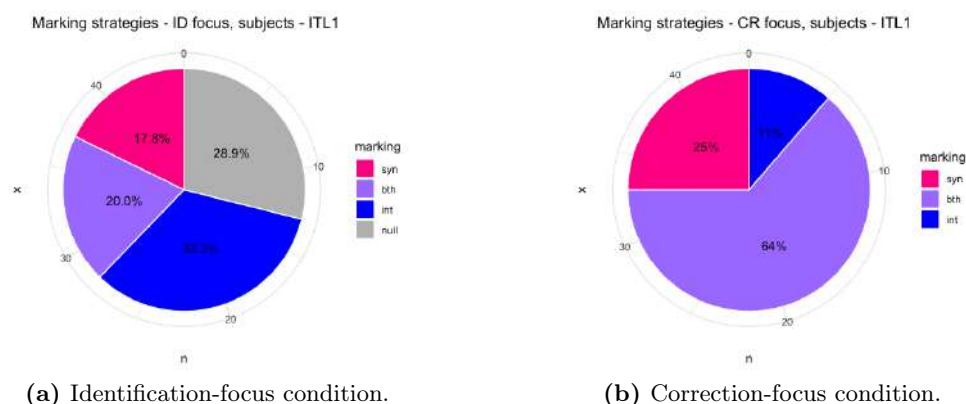


Figure 7.5: Marking strategies used by ITL1 speakers in narrow focus contexts for target subjects.

Figure 7.5 illustrates the results for target subjects. In the identification condition, a consistent portion (29%) remains unmarked. The remaining tokens show a relatively even distribution: one-third is marked through intonation alone, 18% through syntax alone, and 20% through a combination of syntax and intonation.

Moving from identification focus to correction focus, we observe a significant shift. In the corrective condition, 89% of target subjects are marked by syntactic means, often reinforced by intonation; the two together, in fact, cover 64% of the total. While tonal marking gains a larger share, the most notable increase is that of syntax. Importantly, unmarked tokens are entirely absent in the corrective condition.

In a quick comparison to the French group, we observe that in the correction-focus picture 11% of tokens are marked by intonation without alterations in word order or syntax: this combination is never attested in the French group in this condition.

Shifting our focus to target non-subjects, illustrated in figure 7.6, we observe a noteworthy difference between identification and correction. The primary driver of this differentiation seems to be an increase in the use of intonation, as depicted in the chart on the right. Remarkably, in the correction-focus condition, focus constituents are predominantly signalled through intonation alone. What adds a layer of intrigue to this results, however, is the unexpected outcome in the corrective condition: in this context, unmarked tokens are more numerous than in the identification-focus condition. This trend deviates from our expectations, and also from the situation observed in the French group. We will address this unexpected outcome in Chapter 8.

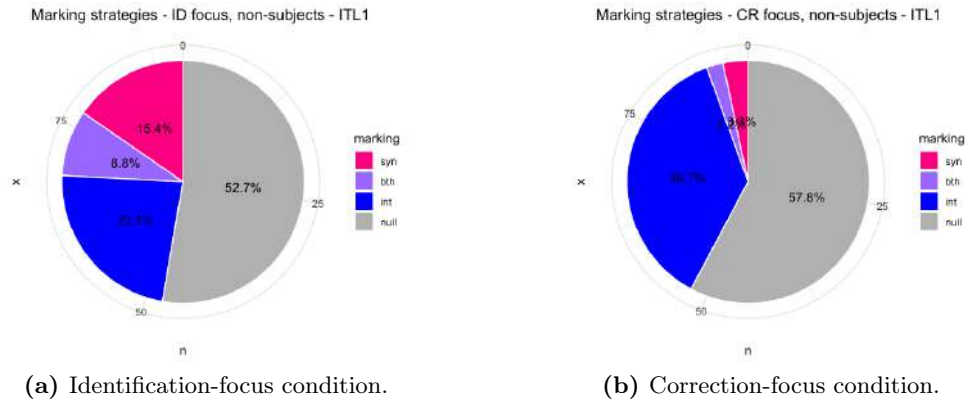


Figure 7.6: Marking strategies used by ITL1 speakers in narrow focus contexts for target non-subjects.

7.1.3 Interlinguistic comparison

A noteworthy observation stemming from our results pertains to the interplay between tonal and syntactic marking: these two mechanisms don't appear as mutually exclusive options, but rather as two strategies that increasingly overlap to mark higher degrees of contrast, in an additive relationship. While earlier studies (Arnold, 2021) have observed this phenomenon, its widespread acceptance in cross-linguistic descriptions of focus marking remains contentious. Many accounts still view syntax and prosody as either complementary or alternative strategies. This, of course, could be the result of the fact that many descriptions of the phenomenon in Italian and French have focused more on one of the two aspects than on the other, as we have already pointed out in the introduction (see par. 1.4). In fact, many cross-linguistic studies on focus have aimed to establish a typology of information-structure marking: rather than exploring the relationship between syntax and prosody in various informational contexts, these studies typically aim to categorize languages as either syntax-predominant or prosody-predominant.

Another crucial observation that can be done in light of our results concerns the substantial difference between the two languages, Italian and French, in balancing syntax and intonation in the two different focus-conditions, identification and correction. In both French and Italian, a clear distinction between focus subtypes is achieved by adjusting the balance between these two marking strategies based on the contrast condition. In Italian L1, intonation emerges as the primary and foundational strategy, with syntax coming into play when the informational context becomes more contrastive. Conversely, for French L1, we observe the inverse mechanism: syntax serves as the fundamental strategy, and tonal marking is introduced as the level of contrast increases. In such a

vision, the marking of focus through word order and specific syntactic constructions, or through intonation, is not a matter of two optional, freely alternated methods, nor redundant strategies. On the contrary, the combination of the two is influenced by the level of contrast conveyed by the focus, and this influence operates through a mechanism that is language-specific.

To conclude, we provide two examples of what seems to be the predominant marking strategy for correction focus in both Italian and French, i.e., a significant tonal movement realized on a constituent that is also clefted or dislocated. These examples are depicted in Figures 7.7 (French) and 7.8 (Italian), where readers can observe spectrograms with f0 tracks alongside transcriptions of the targeted constituents within an it-cleft structure.

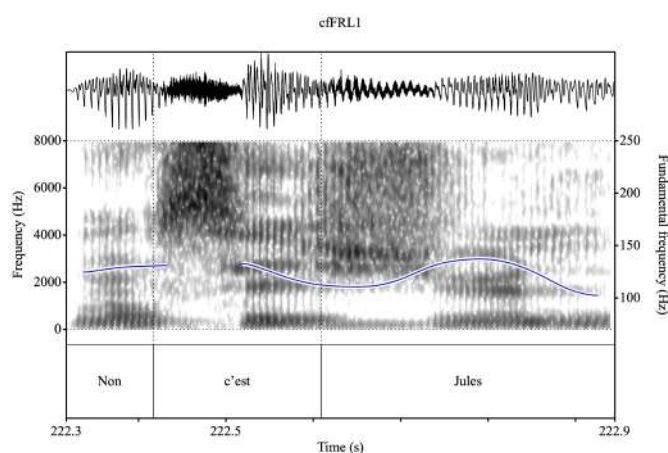


Figure 7.7: Acoustic representation and transcription of sentence "Non, c'est Jules" as uttered by a male native French speaker in corrective-focus context.

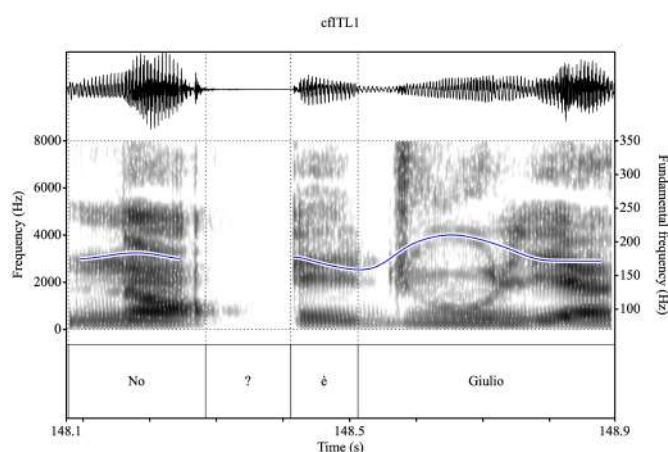


Figure 7.8: Acoustic representation and transcription of sentence "No, è Giulio" as uttered by a female native Italian speaker in corrective-focus context.

7.2 Syntax and intonation in non-native groups

As we transition into the analysis of non-native speakers, we are guided by the two key observations derived from our examination of native speakers. These observations pose fundamental questions about the strategies employed by non-native speakers in focus marking. Firstly, we inquire into how non-native speakers navigate these different strategies in focus marking; secondly, we explore how non-native speakers handle the additive relationship between tonal and syntactic marking, and whether this relationship manifests differently in their production. Our first aim is to examine whether the distinct mechanisms of interrelation between syntax and intonational movements that we identified in the native languages are mirrored, and to what extent, in the two groups of learners. The second one is, conversely, to look at potential divergences from both source and target languages, and try and account for them in terms of peculiar features of learners' varieties.

7.2.1 L2 French

We start from group FRL2, Italian learners of L2 French.

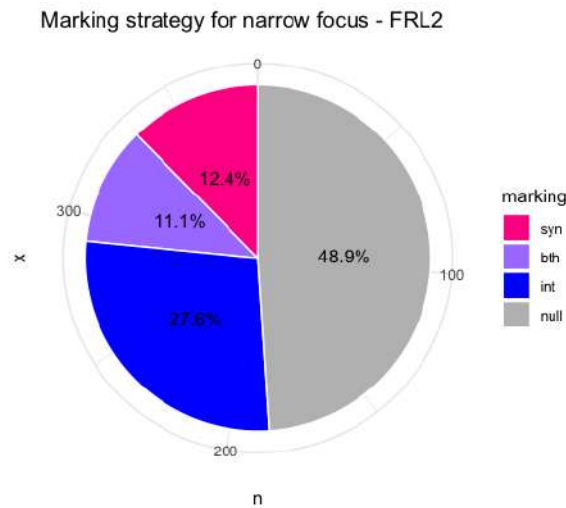


Figure 7.9: Marking strategies used in narrow-focus contexts by Italian speakers of L2 French, all target constituents mixed.

Figure 7.9 shows the results for the two narrow-focus conditions and all target constituents mixed. The outcome is very close to that of group ITL1; yet, this is not very informative, since we have already noticed that ITL1 is itself quite similar to FRL1. What we are interested in is the interaction of syntax and intonation depending on the informational context and syntactic role of the target constituent, which we will illustrate in the upcoming charts, 7.10 and 7.11.

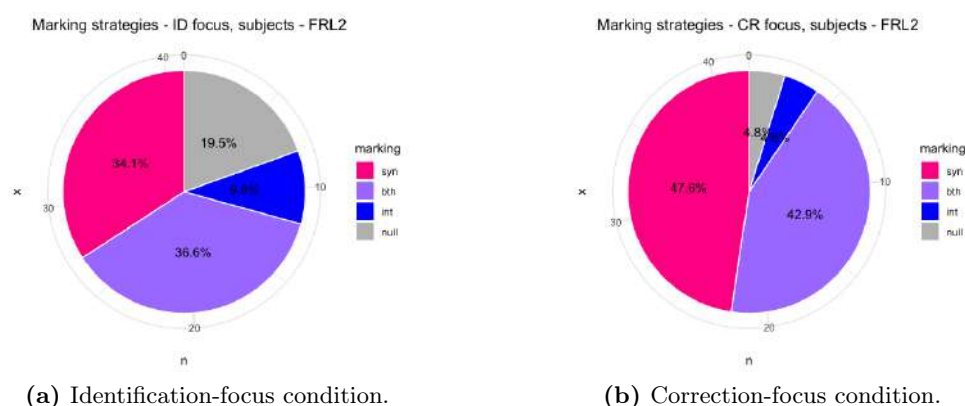


Figure 7.10: Marking strategies used by FRL2 speakers in narrow focus contexts for target subjects.

In the case of target subjects, we see that syntax is already a primary marking strategy in the identification condition. This result represents an approximation to the target by Italian learners: their performance lies exactly in-between the two outcomes of FRL1 group and ITL1 group in terms of frequency of marked syntactic structures (7.2 and 7.5, respectively). However, it's crucial to note that learners deviate from both their native language (L1) model and the target language (L2) when transitioning from identification to correction. While there's a significant uptick in the use of syntactic marking, L2 French speakers don't correspondingly increase intonational marking, which contrasts with the behavior of native speakers in this context.

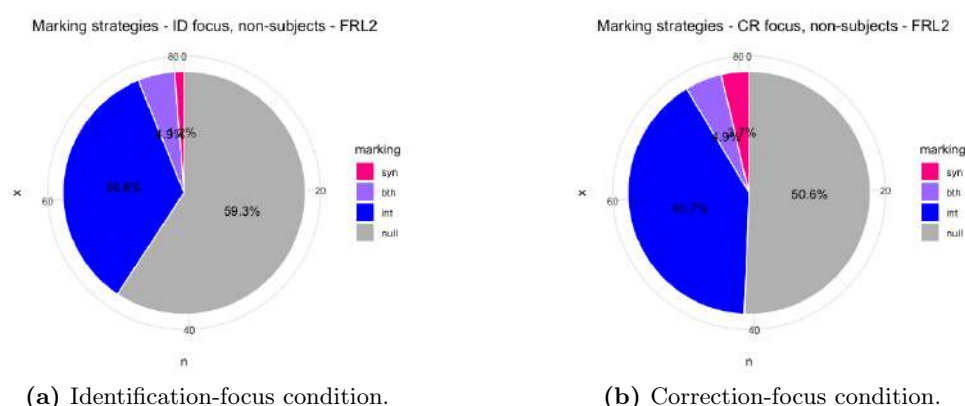


Figure 7.11: Marking strategies used by FRL2 speakers in narrow focus contexts for target non-subjects.

Figure 7.11 displays the findings concerning non-subject constituents. The charts offer a straightforward interpretation: the FRL2 group notably underuses syntax compared

to the target language, and does not compensate for this through intonation. Both in identification and correction tasks, there's a high percentage of unmarked tokens: 59% in the former and 50% in the latter. This observation might suggest either a negative impact of cross-linguistic influence or a language-independent effect stemming from the inherent complexity of it-clefts structures. Specifically, Italian learners of French demonstrate a reduced frequency of using it-clefts: taking a cross-linguistic perspective, this tendency can be attributed to the "habit" these speakers have in their L1, where this construction is not at all employed for non-subject constituents. As highlighted in Chapter 5, even learners who recognize the target use of it-clefts may struggle to produce them, particularly with constituents other than subjects. Notably, FRL2 speakers do not compensate with intonational marking: as a consequence, an overall higher proportion of unmarked tokens is observed compared to both the source and target languages.

7.2.2 L2 Italian

We will now move to the last of our four groups, French learners of L2 Italian.

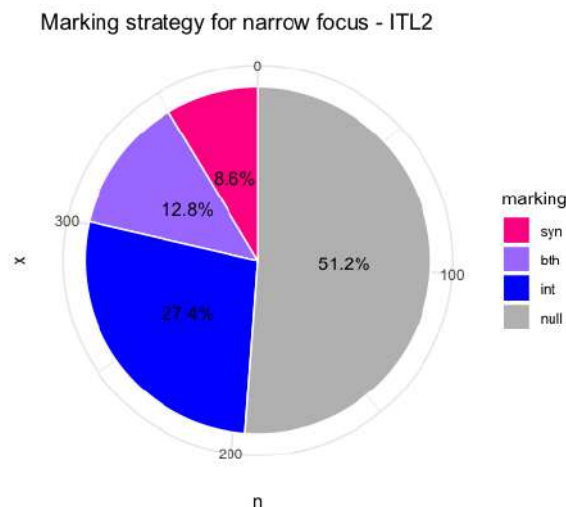


Figure 7.12: Marking strategies used in narrow-focus contexts by French speakers of L2 Italian, all target constituents mixed.

As with the other learner group, the overall output resembles that of both the target and source languages. However, for a more insightful analysis of the results, we will promptly shift our attention to examining individual conditions, since this approach has proven to be more informative in the case of the other groups of speakers.

The charts in 7.13 illustrate the results for target subjects. In the case of identification focus, French learners of Italian L2 demonstrate a partial approximation to the target, wherein they reduce the use of syntactic marking and increase the use of intonation

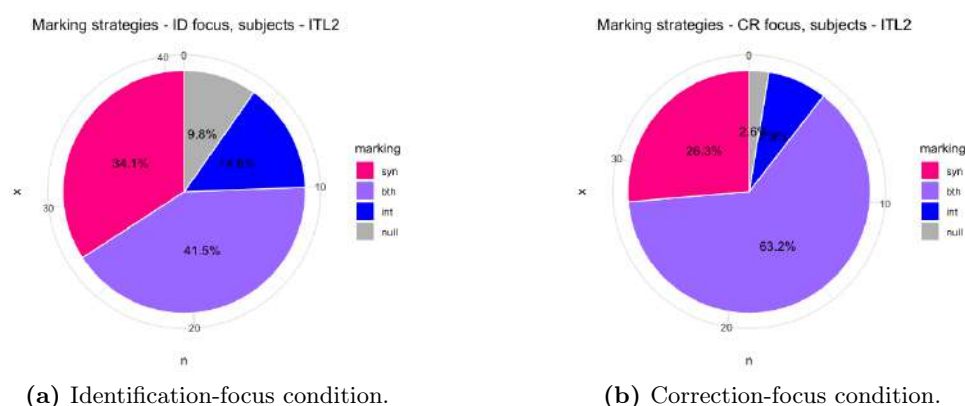


Figure 7.13: Marking strategies used by ITL2 speakers in narrow focus contexts for target subjects.

alone. The resulting situation is, as observed for the FRL2, a sort of intermediate stage between the behavior of the source and that of the target language. Regarding correction focus, we observe that the result is very close to that of the target language. With the exception of 2.6% of unmarked tokens, the learners' behavior closely mirrors that of ITL1 group. Almost two-thirds of tokens are marked by it-clefts and intonation together, a quarter by syntax alone, and a smaller portion by intonation on canonical word order.

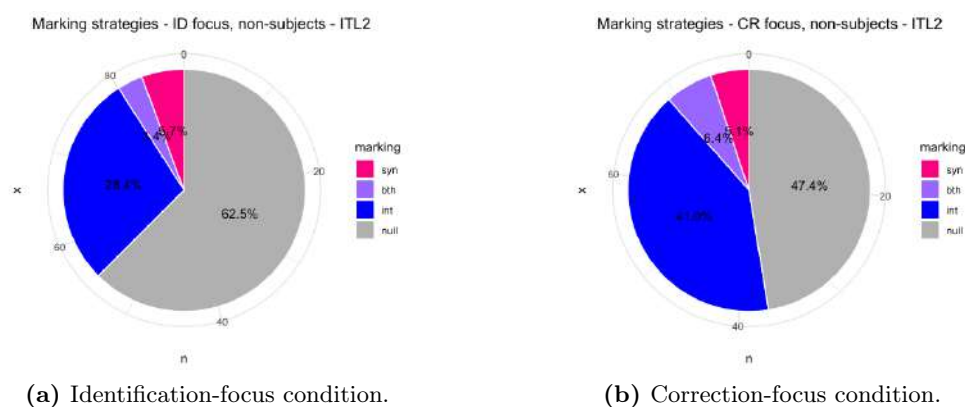


Figure 7.14: Marking strategies used by ITL2 speakers in narrow focus contexts for target non-subjects.

As for non-subjects, more significant deviations from both the source and target languages become apparent. In the identification condition, the ITL2 group's results exhibit less tonal marking than FRL1 and less syntactic marking than ITL1. In summary, there is an overall reduction of both means, favoring the remaining portion of unmarked tokens. In the correction focus condition, the results are more akin to the target language and

more distant from the source. Compared to the FRL1 group, tonal marking is notably reduced - although it remains the primary marking strategy.

7.2.3 Comparison and discussion

The charts (see Figures 7.9 and 7.12) presenting the combined results of the two focus conditions and all syntactic components exhibit a similar pattern for both L2 groups. However, a closer examination of subsequent representations, particularly those illustrating the interplay between syntactic role of target constituent and focus subtype, is crucial. The separate analysis has proved essential for discerning distinct behaviors within the two groups of learners, shedding light on both shared characteristics, likely stemming from non-native speech universals, and divergent elements, that may serve as indicators of L1 influence.

Predictions based on Basic Variety (as proposed by Klein and Perdue, 1992) would imply focus marking primarily through prosody or manipulations in word order, thus neglecting particles and *it*-clefts. However, our findings confirm that these L2 learners, even those classified as A-level (beginners), are already past this step. The close proximity between Italian and French, in fact, expedites learners' recognition of focus marking strategies in the target languages, allowing them to exploit similar constructions to those used in their respective L1s. In our case, we find it more interesting to focus on the effects of this real and/or perceived similarity, rather than on universal marking phenomena in very early acquisition phases.

Our post-basic learners are past "universal strategies", and must cope with target language preferences and/or constraints. In this context, the similarity between source and target language can be a much relevant factor (Benazzo and Andorno, 2017; Kellerman, 1987). Our data, in fact, shows that L2 Italian and L2 French learners have correctly identified the *it*-cleft sentence, formally similar in the two languages, as a legitimate and effective means to mark narrow focus. However, they have not fully grasped that, functionally, the structure serves different purposes in Italian and French: in this respect, a more significant sign of transfer is on the functional level, rather than the formal.

As for the underuse of intonational marking, more than one interpretation is plausible. The first is that, in L2 focus interpretation, *it*-clefts are perceived as more "salient" and "explicit" than prosody (Yan and Calhoun, 2022; Sleeman, 2004), leading learners to neglect intonational marking in favor of syntactic marking, even in production.

Another hypothesis posits that L2 speakers might have employed prosody, but our methods may not have accurately captured it. In other words, it's possible that either the phonetic cues we observed were not the right ones, or we misinterpreted the learners'

use of them. For instance, French speakers learning Italian as a second language might have signaled focus with final rises, driven more by a primary constraint on boundary insertion rather than specific pitch accent contours, as proposed by Féry (2001). So, even if we did not categorize rising contours as marked, they could still carry significance.

Moreover, an analysis dealing with tonal movements only, while informative, may offer a partial description of the prosodic dynamics. As discussed in the introductory chapter of this work (see Section 1.3 and subsequent discussions), there are other aspects that could bear a distinctive function and thus warrant consideration, even if they have been somewhat overlooked in the literature compared to intonation. This oversight may arise from a research bias, stemming from a predominant focus on West-Germanic languages, which use intonation to convey information structure. Exploring whether Romance languages, like French and Italian, use different prosodic cues—such as syllable or vowel duration, or manipulations of phrasing—could provide valuable insights. Also, looking into how typological differences, like the presence or absence of phonological lexical stress, might affect prosodic phenomena related to information structure can enhance our understanding.

Another aspect worth exploring is whether the underuse of tonal marking is compensated by means other than syntax. *Overexplicitness* could be one of these compensatory strategies. To illustrate this, consider the context of corrective focus: while native speakers typically employ a straightforward sentence structure with a negative particle and a correct description (see example 66), non-native speakers might explicitly express the negation of the incorrect option before providing the correct one. Examples of these two constructions, drawn from our corpus, are presented below. The first is from a native French speaker, while the second is from an Italian learner of L2 French.

- (65) a. Marie vole le journal au kiosque, non?
b. Non, Marie [achète]_F le journal au kiosque.
- (66) a. Marie vole le journal au kiosque, non?
b. Non, elle ne vole pas le journal, elle [achète]_F le journal au kiosque.

In this regard, L2 behavior often differs from that of native speakers. This phenomenon of overexplicitness has been described as characteristic of L2 speech, particularly in reference tracking (Hendriks, 2005; Ryan, 2015). Starting from this qualitative consideration, we think that a systematic analysis of this phenomenon could provide further interesting results on the behaviour of non-native speakers.

The upcoming chapter will explore alternative strategies of prosodic marking, aiming to address one of these uncertainties. Any remaining issues will be discussed in the concluding section, Chapter 9.

CHAPTER 8

Other prosodic marking strategies

In numerous instances where the Polytonia algorithm failed to detect significant f_0 movements, we were still able to discern the presence of emphasis by speakers in association with focal constituents. In order to pinpoint the cues responsible for creating this perceptual impression, we conducted additional phonetic analyses. The initial analysis focused on duration, specifically examining the lengthening of tonic vowels within focus subject constituents. The second analysis involved investigating the presence or absence of word-initial glottal stops or glottalisation¹ at the left boundaries of focus non-subject constituents, using a subset of adverbial and object phrases.

Exploration of these supplementary indices yielded significant and meaningful results; however, acknowledging potential limitations in methodology and analysis, we present these studies with a degree of caution. As stated at the beginning of Chapter 6, we believe it would be prudent to undertake a more meticulous examination of these phonetic cues through a dedicated task, employing a protocol that explicitly addresses the study of these features while more carefully controlling for other phonetic variables. Nonetheless, we find the results from this section useful for an integrated comprehension of prosodic marking, which would have been incomplete if solely focused on pitch-related phenomena.

We illustrate these results here because we believe they can provide a useful addition to what has been discussed so far, but also serve as a cue and incentive to continue the analysis in this direction after the thesis.

¹A glottal stop is a speech sound produced by briefly closing the vocal cords, causing a momentary interruption of airflow. Complete glottal stops, featuring a full closure of the glottis, can be consonant phonemes in some world's languages. Glottalisation, instead, refers to the process of modifying the airflow by partially closing the glottis during the production of speech sounds. This modification involves a brief constriction of the glottis, leading to a characteristic creaky or harsh quality in the sound. The phenomenon can affect both vowels or consonants (Ladefoged and Maddieson, 1996).

8.1 Duration

Duration, in the sense of segmental lengthening, can be a significant cue for focus. The influence of information-structural role on the duration of various prosodic units (from intermediate phrases to syllables and segments) has been the object of various studies (Maekawa, 1997; de Jong and Zawaydeh, 2002; de Jong, 2004; Vander Klok et al., 2018). Its role in French and Italian, though, has not been clearly established, since the majority of studies on prosodic focus in these two languages deals with its consequences on f_0 movements. In works such as Avesani et al. (2015); Féry (2001); D'imperio (2002); Avesani and Vayra (2003), vowel lengthening is described as a sort of side-effect. Results from these studies suggest that the same mechanism observed in other languages holds for French and Italian: as the salience or contrast of a constituent increases, the duration of its metrically strong vowel also increases. In simpler terms, background constituents in an utterance tend to have shorter tonic vowels, while focused constituents exhibit longer duration, with contrastive *foci* showing the most significant lengthening. However, due to phonological differences between Italian and French, particularly the presence or absence of lexical stress, the phenomenon of vowel lengthening is not anchored in the same way. In Italian, vowel lengthening is primarily associated with the nucleus of the syllable bearing lexical stress, while in French, lengthening typically affects the rightmost syllables of the focus units, i.e. those found in pre-boundary positions Michelas and German (2020). In fact, Italian is a stress language, in which stress is phonological and has a lexical distinctive function. In Italian, the distinction between stressed and non-stressed syllables is conveyed through different means, but the most important feature is carried by nucleus's length. French, on the other hand, is generally recognized to have a final accent, whose function is not lexical, but edge-marking on the right boundary of the accentual phrase (AP); the acoustic correlates of AP-level prominence can be linked to duration, but also, and maybe even more importantly, f_0 .

We expect these differences to play a role in the variation of stressed syllable duration across information-structural contexts, with potential impact on L2 acquisition. Studies, such as those conducted by Avesani et al. (2015) and Gabriel and Kireva (2014), have demonstrated that managing stress, tone, duration and syntax in the expression of information-structure poses a challenge for L2 speakers, and effects of L1 transfer are prone to surface in this domain. However, to the best of our knowledge, no study has explored the phenomenon with this same combination of languages, Italian L1 and French L2 and viceversa. The aim of this analysis is to shed light on these issues, integrating the results with the studies conducted on intonation, word order and syntax.

8.1.1 Methodological clarifications

In order to check our assumptions, we extracted values from a sub-corpus comprising only subjects (Maria / Marie), in four informative conditions: background, broad focus, identification focus, correction focus. We extracted the duration of vowel nuclei, namely of [i] sounds, over 12 tokens x speaker. Tokens affected by disfluencies (filled pauses, lengthening, self-corrections) were ruled out. For the analysis, we considered only 8 utterances per speaker, specifically those featuring target subjects in the four different focus conditions: 2 for background (bg), 2 for broad focus (bf), 2 for identification (id), and 2 for correction. During target utterance selection, we excluded instances from the dataset in which the target constituent was affected by disfluencies. Duration of the target vowel was extracted by hand. In the case of Italian, the target vowels are [i], the nucleus of the tonic syllable in "Maria". In the case of French, the target vowel is also [i], located at the right edge of the focus constituent "Marie". Our final dataset comprises 8 observations x 15 speakers x 4 groups, totaling 480 tokens. For the analysis, vowel duration was normalized to Z-scores using mean nuclei duration and standard deviation of each individual speaker (calculated for each speaker through Polytonia script, Mertens, 2022).. Statistics was run on R R Core Team (2022). Normality of distribution was assessed through Shapiro-Wilk's test Shapiro and Wilk (1965) and visual inspection of residuals plots. We fitted a linear mixed model (estimated using REML and nloptwrap optimizer) to predict target vowel duration with focus context (formula: $zDur \sim context$). Standardized parameters were obtained by fitting the model on a standardized version of the dataset. 95% Confidence Intervals (CIs) and p-values were computed using a Wald t-distribution approximation. The model included speaker as random effect (formula: $1|speaker$).

8.1.2 Duration in L1 groups

In this section we will outline the results, starting from the two native groups and then moving to the L2s.

Figure 8.1 shows the boxplot of normalized duration of vowel [i] in "Maria" in the four conditions: background, broad foc., identification, correction.

The chart indicates an increase in stressed vowel duration across the fourth conditions, especially when transitioning from background to broad focus and narrow focus. In the case of identification and correction, there appears to be no significant variation in duration. The statistical model confirms these trends: considering the [bg] context as the baseline level, the effect of [bf] is statistically significant and positive ($\beta = 0.36$, $p < .001$). Both [id] and [cr] effects are also significant and positive compared to the baseline ($\beta = 0.70$, $p < .001$ for identification, $\beta = 0.75$ and $p < .001$ for correction), and

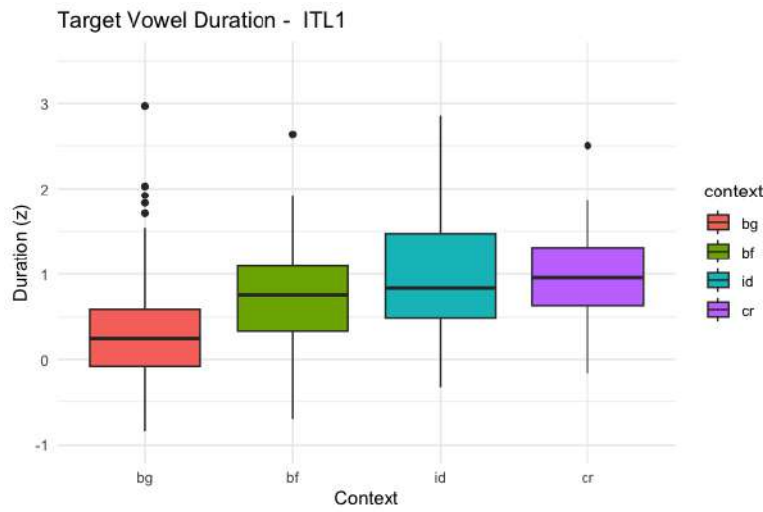


Figure 8.1: Boxplot of target vowel duration (ITL1 group).

they are also significant and positive compared to the [bf] conditions. However, they are not clearly distinguishable from each other.

Figure 8.2 shows the boxplot of normalized duration for vowels [i] in target constituents "Marie", in the same four conditions.

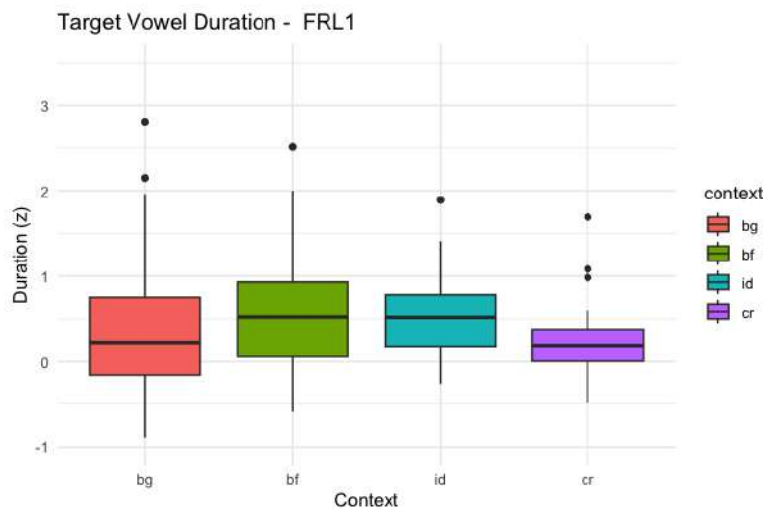


Figure 8.2: Boxplot of target vowel duration (FRL1 group).

The pattern observed for this group differs partially from that seen in native Italian speakers. Notably, in broad focus and identification contexts, the duration of the target vowel is significantly higher compared to the background. Unlike Italian speakers, however, the effect of the [bf] context is more pronounced than that of [id]. Specifically,

the broad focus context exhibits a positive beta score ($\beta = 0.42$, $p < .001$), which is higher than that of the identification focus ($\beta = 0.23$, $p = 0.038$). This tendency to reduce duration from broad to narrow-focus contexts becomes even more apparent in the case of [cr], where the effect is negative compared to the baseline, although statistically non-significant ($\beta = -0.04$, $p = 0.762$).

The comparison of these results suggests a different use of durational cues by the two groups. While both French and Italian speakers mark the distinction between background and broad focus through significant vowel lengthening, this mechanism does not hold uniformly for narrow-focus (id and cr) in both languages. As expected, in Italian the narrowing of focus scope results in longer vowels. In French, conversely, the tendency appears to be the opposite: this might be explained by positing a trade-off relation of duration with other marking strategies, such as syntax. We will try to integrate and account for this factor in the discussion paragraph. The absence of lengthening for contrastive contexts in French could also be explained by the shift of prosodic prominence from the right to the left edge of the focus constituent, realized as the so-called *accent initial* (see German and D'Imperio, 2016). The observed results stem from the inherent difference in the role of duration for distinguishing word-prominent² syllables in Italian and French. In Italian, the implementation of prosodic structure relies on duration as a crucial factor in differentiating between tonic and non-tonic syllables. This is consistent with the linguistic tradition acknowledging the presence of a phonological, lexical stress in Italian. On the other hand, the situation in French introduces a more complex dimension. The question of whether French possesses a true lexical stress remains a matter of debate, as highlighted in the works of Rossi (1980); Vaissière (1983); Féry (2001). Regardless of one's stance on this issue, a debate beyond the scope of our current study, it is undeniable that duration in French plays a less significant role in distinguishing word- or group-prominent syllables, when compared to Italian. In essence, we believe that this observation can be accepted and integrated into the prosodic descriptions of French and Italian, independently from the acknowledgment or denial of lexical stress in French, and justified by the inherent linguistic differences in the weight assigned to duration in the two languages.

8.1.3 Duration in L2 groups

We now discuss the results from L2 groups. Figure 8.3 represent the outcome of French learners of L2 Italian.

²The expression "word-prominent" is used in a neutral way, knowing that "word" is not *per se* a significant term to define prosodic units cross-linguistically. Specifically, we use it here to comprise what would be defined as "prosodic word" in Italian, and "accent phrase" or "phonological phrase" in French, see 1.4.3).

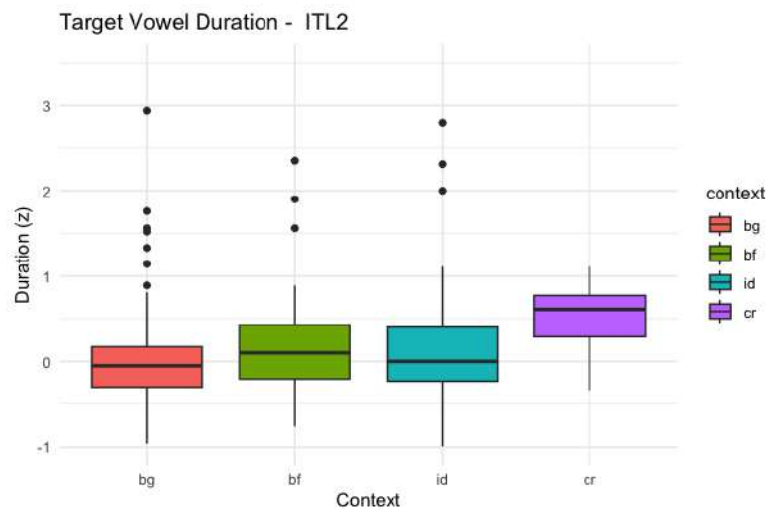


Figure 8.3: Boxplot of target vowel duration (ITL2 group).

Results from French learners of L2 Italian show overall good approximation to the target language. The analysis of their production suggests that all focus conditions are differentiated from the background baseline through vowel lengthening, even if not always with high significance. Specifically, the effect of context [bf] is positive but moderately significant (beta = 0.19, $p = 0.016$); the effect of context [id] is statistically significant and positive (beta = 0.22, $p = 0.006$), and the effect of context [cr] is again positive and statistically significant (beta = 0.44, $p = 0.002$).

Figure 8.4 shows the results for Italian learners of L2 French.

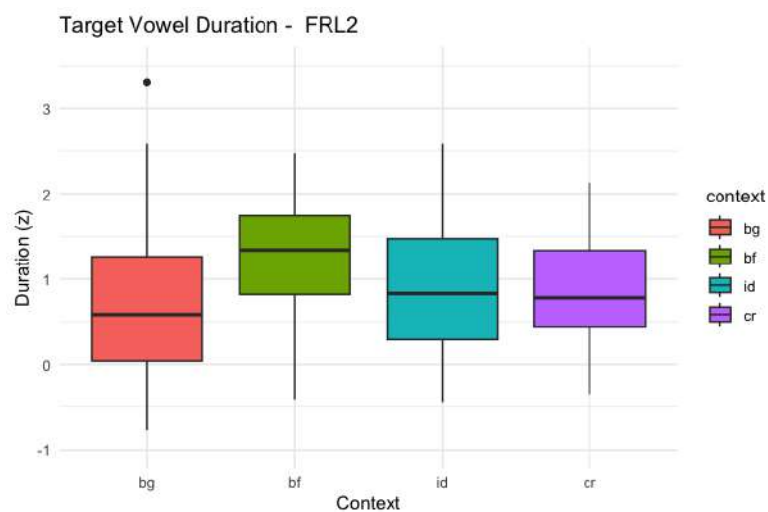


Figure 8.4: Boxplot of target vowel duration (FRL2 group).

In this case, the only focus condition with significant vowel lengthening compared to the background baseline is broad focus. The effect of context [bf] is statistically significant and positive ($\beta = 0.53$, $p < .001$). The effect of context [id] is slightly positive but statistically non-significant ($\beta = 0.20$, $p = 0.138$), and the effect of context [cr] is very similar to that of [id], positive but statistically non-significant ($\beta = 0.21$, $p = 0.240$). Comparing these results to those of the two L1 groups, we observe that the behavior of L2 French speakers deviates from both the target and source languages. Overall, the narrow-focus conditions do not exhibit a clear differentiation from the other two conditions—background and broad focus—either through a longer duration (as seen in L1 Italians) or a shorter duration (as observed in L1 French).

Results of the L2 groups reveal differences and similarities between them and also with respect to their source and target counterparts. On the one hand, they share a common feature: in both L2 French and L2 Italian, vowel duration does not seem to be systematically used as a cue for distinguishing among all conditions. However, we highlight that French learners of L2 Italian do differentiate one condition from the other three, e. g. correction focus: interestingly, though, they make it in the opposed way of the FRL1 group, which showed a significant but negative effect for the [cr] condition.

8.1.4 Discussion

In this section, we will summarize our main findings and compare them with the results from previous analyses on the same dataset, as well as with the existing literature.

Our results reveal that speakers from the native Italian group significantly use vowel lengthening to differentiate between non-focal and focal constituents in Italian, while native French speakers do not exhibit the same pattern. This finding is particularly intriguing when compared to results on intonation from the same corpus, which indicate that Italian speakers only moderately rely on intonation, especially when compared to their French counterparts. This may suggest a higher importance of durational cues in Italian compared to French, prompting interesting typological considerations. It is plausible that Italian speakers rely more on durational rather than f_0 cues because, in their language, word-level prominence (i.e., lexical stress) is encoded through duration rather than f_0 movements. In French, on the other hand, low-level prominence is also largely encoded by tonal movements at the prosodic boundaries. In any case, our results underscore the importance of considering both duration and intonation to capture nuances of prosodic marking, as perceived prominence can be linked to both—either together or individually.

The results from both L1 and L2 French speakers indicate less vowel lengthening in more contrastive conditions, such as correction focus. This outcome may be unexpected,

emphasizing the importance of maintaining a flexible protocol for data collection. This flexibility allowed us to gather information about syntactic marking as well. Relying on the results from the syntactic analysis, we know that syntactic marking through it-clefts is especially frequent in these groups. This observation could suggest a trade-off relationship between duration and clefting, with the latter being favored in more contrastive contexts.

Our data reveal that some characteristic features of the two source languages are manifested in the production of L2 speakers, albeit not uniformly across all aspects. In terms introduced by Mennen (2015), we assert that L1 transfer predominantly influences the semantic level (rather than the realizational one): L2 speakers tend to differentiate among the same conditions as in their native languages. However, this differentiation is less pronounced compared to their L1 counterparts, indicating an overall underuse of prosodic cues to mark information structure. We believe that integrating results from syntactic analysis is crucial for explaining this phenomenon. Specifically, we posit that prosodic marking of focus may pose more challenges for L2 speakers than syntactic marking due to the perceived higher syntactic similarity between French and Italian than their phonological resemblance. Consequently, French and Italian speakers lean more towards a strategy recognized as target-like, such as clefting; this tendency is demonstrated by our data. The high use of cleft sentences in narrow focus inhibits vowel lengthening, as if the durational cue becomes redundant in the presence of already significant syntactic marking. Moreover, the predominance of syntactic marking in L2 aligns with findings from studies on other language combinations (beyond perceived similarity). It has been observed that prosodic marking of focus is more challenging to acquire than syntactic marking Zerbian (2015), and focus marking through clefts has proven to be easier to process for L2 speakers compared to prosodic encoding Yan and Calhoun (2022).

The study yielded intriguing results, particularly when integrated with findings from prior research on the same material. However, we acknowledge encountering certain challenges that could be addressed to ensure improvements in future work. A notable difficulty arose during the analysis of L2 speech due to the presence of disfluencies, which made it challenging at times to differentiate hesitations from intentional vowel lengthening. The impact of hesitation in speech planning may also have influenced duration measures, such as the mean of nuclei duration and standard deviation. Another significant consideration is that, despite the acknowledged importance of ecological validity in the possibility of integrating syntax in focus studies, the use of non-scripted speech resulted in considerable variation in speakers' responses. We are thus contemplating collecting data from a more controlled protocol to enhance the integration of these results.

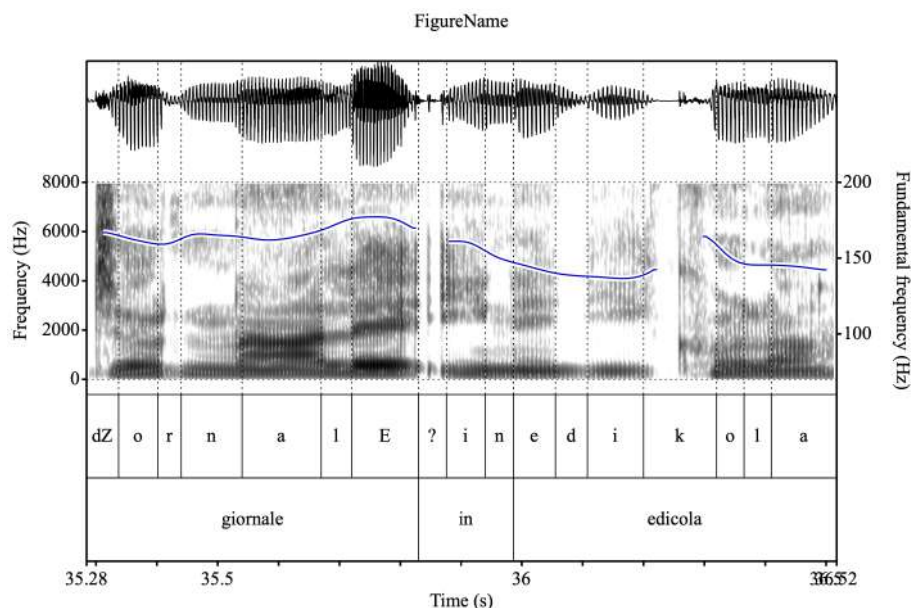


Figure 8.5: Glottal stop between phrases "il giornale" and "in edicola", uttered by a native Italian speaker.

8.2 Prosodic phrasing: the role of glottal stop

In previous sections (Chapters 6 and 7), we observed that focus constituents are sometimes not marked by specific tonal movements. The analysis on vowel duration indicates a partial compensation for this, especially in the case of group ITL1. Our goal with this second analysis is to understand if other cues can be responsible for this function. The following paragraphs take into account the analysis of objects and adverbial phrases, to integrate with results from vowel duration measured on subjects.

One notable observation, particularly for these two categories of constituents, is the presence of glottal stops at the left edges of focus phrases. To illustrate this phenomenon, we provide an example of a corrective-focus utterance in Figure 8.5. In the spectrogram representation, a glottal stop is noticeable at the left boundary of the object phrase “il giornale” (“the newspaper”), positioned between the segments [e] and [i].

Glottalisation of word-initial or word-final segments has been documented as a common marker of prosodic boundaries in several languages across the world (Gordon and Ladefoged, 2001). In Italian, glottalisation has been observed to occur predominantly at phrase boundaries, and with target vowels bearing stress. In this sense, the phenomenon can be interpreted as a marker of constituent edges, blocking cohesion processes such as *raddoppiamento fonosintattico* and vowel coalescence (Stevens and Hajek, 2006; Vayra,

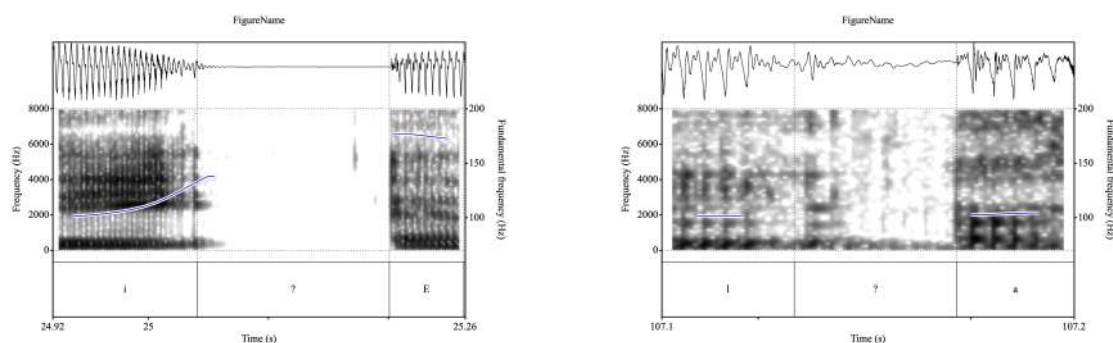
1994). As for French, Fougeron (2001) found that vowels are more frequently glottalised on boundaries of higher prosodic constituents. In addition to that, some authors have observed that vowels glottalise to a greater degree if the word is pitch-accented (see Cho and Keating, 2009; Pierrehumbert and Talkin, 1992 for English, Michelas and German, 2020 for French). In our corpus, however, glottalisation is a phenomenon that seems to occur separately from pitch movements, and indeed, often in their absence. Instead, its occurrence aligns with another mechanism: prosodic boundary strengthening and restructuring, which, as we have seen, can be counted as a reflex of focus (see par. 1.3.1). In this context, the insertion of a glottal stop may serve as a means for speakers to isolate the focus constituent into a self-contained prosodic unit, achieved through the insertion or strengthening of a prosodic boundary at its left edge. This boundary effectively isolates the focus constituent from the rest of the utterance, which is then processed as background. The goal of this sub-study is thus to disentangle these interactions between focus, intonation and glottalisation at boundaries. In the upcoming lines we will detail the rationale for the analysis, the methodological clarifications and the results obtained.

8.2.1 Methodological clarifications

The analysis is conducted on a total of 1800 utterances, 450 for each group. Identification of glottal stops and glottalization is not a straightforward task: several studies have reported high variability in their acoustic realization, in Romance as well as in other languages (Contini et al., 2005; Stevens and Hajek, 2006). In this study, we follow the coding of glottalization described by Stevens and Hajek (2006), taking into account every realization presenting at least two of the following acoustic cues: aperiodicity, diplophonia, creak, silent gap (full glottal closure)³. In Figure 8.6, we show two examples of realizations of glottalization; on the left, a full closure, on the right, a partial closure resulting in creaky phonation.

Within our subset, we identified a total of 2069 vowel clusters situated at possible phrase boundaries, potentially leading to the insertion of a glottal stop. Starting from these potential glottalisation points, we identified the segments where the speakers actually produced a glottal stop. Vowels located at the beginning of the utterance were excluded from the analysis because their position implied almost systematic initial glottalisation, regardless of their prosodic position and the informative role they had in the utterance. We also excluded cases of disfluency such as self-repairs or pauses, as they often presented traits of glottalisation that are in all probability not linked to the phenomena we are interested in.

³For an extensive description of these phenomena in phonetic and acoustic terms, we refer to Ladefoged and Maddieson (1996).



Full glottal closure between sounds [i] and [E] (native Italian).

Partial glottal closure between sounds [l] and [a] (native French).

Figure 8.6: Two examples of variability in the realization of glottal stops.

8.2.2 Glottalisation in L1 groups

We will briefly show the results obtained for L1 groups, Italian and French, and then move to a short comparison between the two languages. The Italian dataset is made up of 434 utterances, within which 1228 vowel clusters at phrase boundaries were observed and 167 glottal stop were detected. Out of these 167, 95 were produced in correspondence of boundaries of focus constituents. The remaining 72 were produced at the boundaries of all other constituents of the utterance. The raw number and the proportion of glottal stop produced by the speakers in the two contexts (focus vs. non focus) are shown in the table and figure below (8.7).

	Non-focus	Focus
No glottal stop	941	120
glottal stop	72	95

Table 8.1: Number of occurrences of glottal stop in the two contexts, focus vs non-focus, for the Italian group.

We performed a Pearson's Chi-squared test with Yates' continuity correction to compare the two situations, focus vs non-focus, and the resulting value is $p < .001$. In addition, Bayes' Theorem was applied to calculate prior odds, likelihood ratio and *a posteriori* probability. The results show a likelihood ratio of 6.28, meaning that we are approximately 6 times more likely to get a glottal stop in a focused environment than a non-focused one. The *a posteriori* probability is 89%.

The French dataset is made up of 430 utterances, within which 841 vowel clusters at phrase boundaries were observed and 209 glottal stop were detected. Out of these

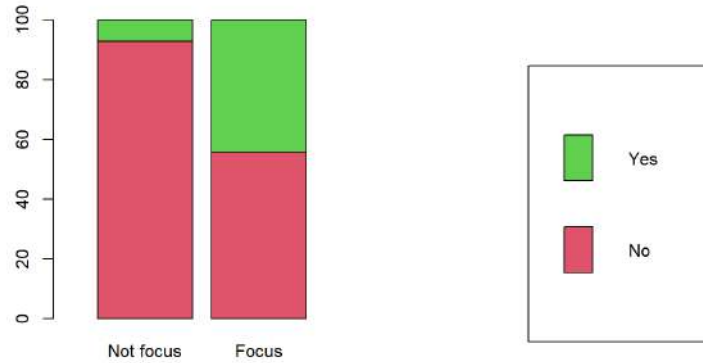


Figure 8.7: Proportion of occurrences of glottal stop in the two contexts, non-focus vs focus, for the Italian group.

209, 96 were produced in correspondence of boundaries of focussed constituents. The remaining 113 were produced at the boundaries of all other constituents (background) of the utterance. The raw number and the proportion of glottal stop produced by the speakers in the two contexts (focus vs. non focus) are shown in table 8.2 and figure 8.8 (in the next page).

	Non-focus	Focus
No glottal stop	517	115
glottal stop	113	96

Table 8.2: Number of occurrences of glottal stop in the two contexts, focus vs non-focus, for the French group.

The Pearson's Chi-squared test with Yates' continuity correction gives a resulting $p < .001$ for the two situations compared, focus vs non-focus. Application of Bayes' Theorem gives in this case a likelihood ratio of 2.68. The *a posteriori* probability of getting a glottal stop in a focus environment is therefore 69%.

There is a slight difference between the two languages, in which French shows a higher proportion of glottal stop in the non-focus condition than Italian. This is due to the fact that phenomena of vowel coalescence are generally rarer in French than Italian, and vowel clusters are often avoided through various forms of resyllabification like *enchaînement* or *liaison* (Mertens, 2019). Nonetheless, regarding our hypothesis, results are highly significant in both groups. Our impression is confirmed: when a prosodic



Figure 8.8: Proportion of occurrences of glottal stop in the two contexts, non-focus vs focus, for the French group.

phrase constitutes the focus, the probability of observing a glottal stop in correspondence with its left boundary increases considerably. The reason why we found interest in the presence of glottal stop in this particular context is that, in our data, it emerges quite strikingly that glottalisation does not necessarily occur in presence of pitch accents: on the contrary, it often surfaces as the only phonetic correlate of prosodic focalization, in absence of major f_0 movements. In our data, glottal stop often happens to be the only distinctive cue between focus and non-focus phrases in an identical environment. As shown in the examples 67 and 68 and their respective spectrograms, figure 8.9 and 8.10, the only difference between the non-focus "in edicola" ("at the newsstand") and the corrective focus "in edicola" is the presence of a glottal stop before the vowel [i] in the second one.

- (67) a. Che cosa succede qui?
 b. Maria compra il giornale in edicola.
- (68) a. Maria compra il giornale al supermercato, no?
 b. No, Maria compra il giornale [in edicola]_F.

In many cases, the presence of a glottal stop is not collateral to that of a pitch accent. Another explanation has to be found for its presence; one plausible interpretation could be that of physiological factors. For instance, a glottal stop might serve a functional role in maintaining subglottal pressure to sustain a louder voice at the end of an utterance, or act as a "signal of hard work" (Lennes et al., 2006). Our data supports

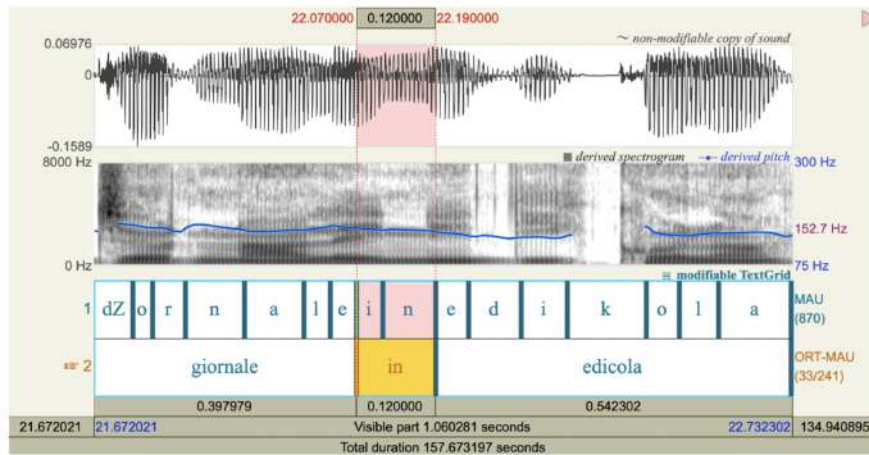


Figure 8.9: Spectrogram of the phrase "in edicola" ("at the newsstand") in a non-focus context as uttered by an Italian speaker (see example 67).

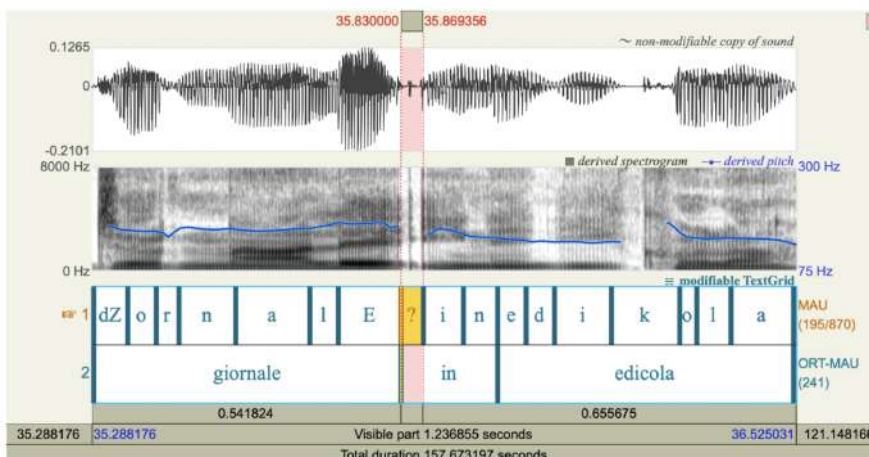


Figure 8.10: Spectrogram of the phrase "in edicola" ("at the newsstand") in a corrective focus context as uttered by an Italian speaker (see example 68).

this hypothesis, particularly highlighting the visibility of glottal stops in focus phrases situated in utterance-final positions (i.e., non-dislocated objects and adverbial phrases).

In any case, our findings align with the perspective presented by Féry (2001) and her definition of "focus as prosodic alignment." In this framework, the key feature shared by focus constituents across languages is prosodic alignment to the edge of a prosodic domain, rather than prominence defined as the placement of a nuclear or pitch accent. Glottal stops, through prosodic boundary strengthening, could serve as a means to achieve alignment and, consequently, mark focus.

8.2.3 L2 groups

For this subsection of the study, the analysis specifically targeted advanced learners, as a deliberate methodological choice. This decision was driven by the need to prioritize fluency in the data under examination, as disfluencies and pauses had the potential to introduce biases in the results of the boundary analysis, as we have stated in the previous paragraphs. The selection of advanced learners served as a strategic measure to mitigate such influences. However, it is essential to acknowledge that even within this advanced subgroup, variations in overall fluency persist; this becomes evident when comparing results between native language (L1) and second language (L2) groups.

In any case, even taking this variable into account, the results that emerged seem to us to be particularly significant, and this for both groups. In the next few lines we will illustrate what emerged from the analysis.

Table 8.3 and figure 8.11 show the results for group FRL2, i.e. Italian learners of L2 French.

	Non-focus	Focus
No glottal stop	68	27
glottal stop	32	73

Table 8.3: Occurrences in the two contexts, group FRL2.

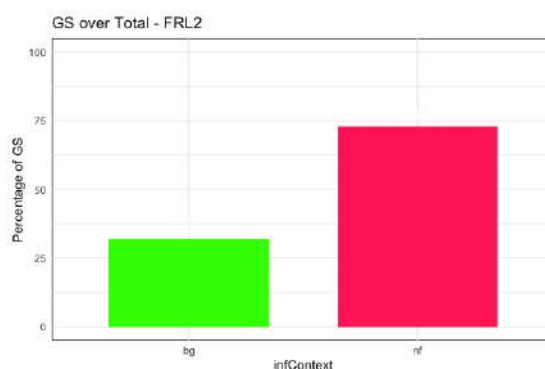


Figure 8.11: Glottal stops in FRL2 group.

The data account for a significant difference between the two conditions for the speakers of this group: the number of glottal stop realised in the narrow-focus condition (red bar, on the right) is considerably higher than that of the non-focus condition (green bar, on the left).

Table 8.4 and Figure 8.12 (next page) illustrate results from group ITL2, i.e. French learners of L2 Italian.

	non-focus	focus
No glottal stop	65	19
glottal stop	35	81

Table 8.4: Occurrences in the two contexts, group ITL2.

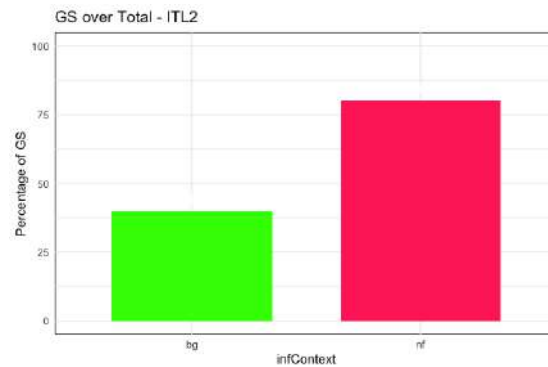


Figure 8.12: Glottal stops in ITL2 group.

For this group as well, results point to a strong differentiation between the two conditions. When the target constituent is uttered in the focus context (red bar), glottal stops occur much more frequently than in the background context (green bar).

8.2.4 Discussion

The results obtained are highly significant for all four groups: when a constituent is affected by *focus*, the probability of observing a glottal stop in correspondence of its left boundary increases significantly. However, a rather marked difference can be observed between the native and nonnative groups: as already found in the analysis of intonational movements, in the two groups of L2 speakers the two conditions (focus and non-focus) are under-differentiated compared to the native groups. We think that the higher overall frequency of glottal stops can be explained by attributing this phenomenon to a higher presence of disfluencies (false starts, pauses, self-corrections), often accompanied by glottalisation. In any case, our results go in the direction of Féry (2013) and her definition of "*focus as prosodic alignment*": from this perspective, the only feature shared by the focused constituents across languages is alignment at the frontier of a prosodic domain, and not prominence intended as a nuclear or pitch accent. From this perspective, glottalisation at the beginning or end of a phrase could be exploited as a boundary marker, with the task of separating the focused constituent from the rest of the utterance.

In the context of interlanguage, the presence of glottal stops can be intricately linked to the phenomena of pauses and chunking, contributing to heightened clarity in linguistic expression. Learners navigating a second language may strategically employ glottal stops as brief pauses, enhancing clarity by delineating linguistic units or structured chunks within their speech. According to our analysis, the presence of a glottal stop within interlanguage serves functional purposes related to breathing, pitch resetting, and the restoration of subglottal pressure. The proposed hypothesis suggests that speakers strategically employ a glottal stop to avoid realizing the final part of their utterance with breathy or creaky voice qualities. This is particularly relevant considering that such voice characteristics are nearly universal in post-focal and conclusive portions of assertive speech acts, as discussed by Hirst (2024).

CHAPTER 9

Discussion

In this concluding section, we aim to synthesize the primary and noteworthy findings from our study, providing commentary on their relationship to existing literature and emphasizing their contributions to the field.

9.1 Main findings: native groups

We will structure this section following the same order and ratio of the research questions (see Chapter 3). Following this approach, we will start with some considerations about the outcome of our analysis on native groups. To initiate our discussion, we will compare expectations with results regarding the analysis of two source languages, focusing on strategies for expressing information structure, specifically in terms of focus and contrast.

9.1.1 Information structure marking

In our introduction, we provided an overview of studies dealing with the characterization of Romance languages in this context, highlighting the specifics of French and Italian. While early characterizations of focus marking categorized Italian and French as "non-plastic" or "word-order" languages, as proposed by Vallduví (1991) and Ladd (2008), more recent studies, including works by Face and D'Imperio (2005), Sbranna et al. (2023), have painted a more detailed picture of Romance languages. These more flexible descriptions allow for exceptions and variations in Italian and French focal typology: if it's true that these two languages prefer focus marking through specific syntactic structures or dislocations of constituents, this does not necessarily mean that prosodic marking cannot play a role as well. And, crucially, prosodic marking does not only surface as a consequence of word re-ordering (as implied, for example, by Ladd, 2008); the use of prosodic cues exists as an autonomous strategy, and even alternative to operations at the syntactic or word-order level.

In addition, a distributional approach to prosodic and syntactic marking of information categories may be able to reveal nuances at the level of the information structure itself.

Indeed, observation of the variation in the interaction between syntactic and prosodic marking contributes to a fine-grained description of gradient levels of emphasis, contrast and illocutionary force, useful for delineating a *continuum* such as that described in section 1.1.3.

Our data strongly align with these recent studies, demonstrating that native French and Italian speakers can — and indeed, do — use both prosody and syntax for expressing information categories like focus and contrast. Furthermore, the interplay between these notions, focus and contrast, is achieved through the modulation of both means. Consequently, speakers adeptly differentiate categories of informational structure. Whether through syntax or prosody, utterances within diverse informational contexts exhibit distinct marking combinations. It is crucial to note that examining only one of these two marking strategies would have rendered the analysis incomplete.

Of course, besides these general considerations, divergences arise in the comparison of French and Italian native speakers' behavior. Among Italian speakers, word order is more flexible: the account of possible orders and syntactic combinations in focus marking showed that various solutions surface (see Figure 5.12). The range of possibilities observed in our data corresponds to existing descriptions in the literature: object or adverbial fronting, postverbal subjects, right dislocations, etc.

An unexpected result arises from the relatively low frequency of certain structures in our Italian data, especially when compared to the prevalence of canonical order in the majority of utterances. When we compare our findings with the observations and predictions of literature, such as in Leonetti (2017) and Cruschina and Remberger (2017), the overall frequency of structures like postverbal subjects and object fronting does not seem to align. As previously mentioned, there are two plausible interpretations for this discrepancy. The first points to a task-related effect: the instructions for the picture-story task prompted participants to generate "complete sentences". However, this expression might have been slightly misinterpreted by speakers, leading them to produce "canonical" utterances, rather than more broadly considering "utterances including a main verb". The second interpretation is that the distribution found in our data is not due to a task-related effect, but actually highlights a more significant role of *in-situ* (prosodic) marking than previously described for the Italian language. In this respect, anyway, we would like to underscore the importance of considering distributions, since it's not always the case that a single structure perfectly corresponds to a specific information or structural context. Categorical accounts, while informative, may not fully capture the complexity of both inter- and intra-speaker linguistic variation. To exclude, or at least mitigate, task-related effects, resorting to spontaneous and corpus data is essential — an avenue we plan to explore in the future. However, for the current work, our

primary objective is on comparing native data with non-native results: we acknowledge the observed phenomenon and its potential implications in non-native speech, finding reassurance in the fact that, with the same task, any bias introduced will be consistent in L2 productions.

In the case of French, our results are more in line with previous literature. As anticipated, the preferred structure in narrow focus contexts is the *it*-cleft, consistent with findings from earlier experimental and corpus studies (Dufter, 2009; Destruel, 2016 among others). The correlation between the role of the focal constituent and cleft frequency—higher frequency for subjects, lower for adverbials, and even lower for objects—is also consistent with the patterns described earlier. Moreover, as noted in other studies, this structure is often accompanied by prosodic emphasis and realized with specific tonal movements (Greif and Skopeteas, 2021; Mertens, 2019).

9.1.2 Focus and contrast marking strategies

On the other hand, what adds novelty and interest to our study is the mapping of the previously mentioned structures onto the notions of focus, contrast, and the various combinations of the two. In many existing accounts of focus marking in Italian and French, the distinction between focus and contrast is not clearly controlled for in the protocol. In our case, instead, we intentionally distinguished these two informational categories, to observe potential variations in the use of marked forms by our participants. The behavior of native speakers has proven to be particularly intriguing in this respect, as French and Italian do not appear to exhibit identical patterns; in our case, this is particularly interesting, since this divergence is likely to influence the production of L2 speakers — as indeed observed.

In Italian, prosody plays a default role in marking focal elements in both identification and correction contexts. On the other hand, Italian speakers selectively resort to *it*-cleft structures for syntactic marking, primarily in contexts of higher contrast, such as corrective focus. In contrast, French speakers default to *it*-cleft structures as their primary narrow-focus strategy, using prosody, especially on clefts, for more contrastive contexts.

These divergent tendencies indicate two key observations. First, syntax and prosody are not alternative means, and they do not engage in a trade-off relationship. Instead, they can reinforce each other, and the combined use of more than one marking mean crucially contributes to the delineation of a gradient of contrast in various types of focus.

9.1.3 Different components of prosodic marking

Another important aspect, when we narrow our perspective solely to the prosodic phenomena in native groups, is that considering intonation alone could not suffice to account for what is actually realized (and, in all probability, perceived) in terms of prosodic prominence. The descriptions given in Chapter 8 suggest that, besides pitch, other traits can perform the function of differentiating focus from the background, and shape the informational articulation of an utterance. The two supplementary features that we have analysed in our data are glottalisation at phrase boundaries and vowel lengthening. These are of course not exhaustive, as other cues could contribute to the overall prosodic profile; as already stated, the choice fell on these two since they appeared as particularly informative in our specific dataset. Our results show that all three elements — pitch, duration, boundary strengthening — are present as prosodic marking strategies in the two native groups. Yet, these cues are not equally exploited by speakers of Italian and French.

For what concerns pitch, we have seen that it plays an important role in both groups. Nonetheless, while the combination of different intonation patterns is systematically used by French speakers to mark contrast gradience (at least for subjects, see par. 6.2.1), it is not the case for Italian, for which speakers happen to realise flat, low contours even on focus constituents (see par. 6.2.2).

As for glottal stops, speakers of both languages share a common ground in marking boundaries of focus constituents through the insertion of a glottal stop. In fact, despite the slight difference that we have found between the two groups (which is probably linked to language-specific patterns of vowel coalescence), results significantly point to a strong correlation between the presence of focus and that of glottalisation at prosodic boundaries.

As for duration, our results reveal that Italian speakers use vowel lengthening to differentiate between non-focal and focal constituents in Italian. French speakers, instead, do not exhibit the same pattern, and favor intonational marking. This may suggest a higher importance of durational cues in Italian compared to French, prompting interesting typological considerations: it is plausible, in fact, that Italian speakers rely more on durational rather than f_0 cues because, in their language, word-level prominence (i.e., lexical stress) is encoded through duration rather than f_0 movements. In French, on the other hand, low-level prominence is also largely encoded by tonal movements at the prosodic boundaries.

While these outcomes align with insights proposed in other studies in the literature (Féry, 2001, 2013; Gagliardi et al., 2012), there is currently no consensus on the role

attributed to intonation alone versus other phonetic indices, and this question remains widely debated. In this sense, we believe that this work could contribute to the discussion, representing a small cue in the direction of the vision of prosodic prominence as prosodic alignment, not necessarily confined to pitch and pitch accents (Féry, 2013). Furthermore, we think that having identified other phonetic aspects in which the two native groups appear to behave differently has proven useful for making considerations about the behaviour of L2 groups, which we are about to discuss in the upcoming section.

9.2 Main Findings: L2

Shifting our focus to non-native productions, we will now explore our findings from this perspective. In this section, we will adhere to the order and ratio of the research questions outlined earlier (see Chapter 3).

9.2.1 Input and salience in L2 acquisition

The similarity between Italian and French does not uniformly influence language use: the varying salience of linguistic structures, in fact, contributes to a discrepancy in the acquisition of certain structures in relation to others. It-clefts, for example, have been found to be more salient than other dislocations in focus processing Yan and Calhoun (2022), and this is observable in our results: the option of using it-clefts to highlight focus constituents is the first resort for L2 speakers when articulating the information structure of utterances. By "first resort," we mean both in terms of frequency— it-clefts are by far the most frequent focus structure in the productions of both L2 Italian and L2 French speakers—and in terms of being used even by A-level speakers. This aligns well with the notion of this structure being particularly salient, easy to perceive, process, and appropriately use at a later stage. So, even if other (almost) equivalent tools are available to convey information-structural functions, it can be inferred that they are not as salient in the input as it-clefts are.

Another consideration that can be made in this regard pertains to the presence or absence of these structures in the input, and the impact this has on their acquisition by non-native speakers. Our results, especially those derived from the analyses on syntax and word order, suggest that learning a particular linguistic feature is easier than avoiding its use. In fact, as mentioned in Section 5.3, the presence of a structure in the input is easier to detect than the absence of that same structure: positive evidence is more easily processed than indirect, negative evidence in interlanguage development (Schwartz and Goad, 2017; Gass and Mackey, 2002).

9.2.2 Two faces of cross-linguistic influence

French and Italian, being cognate languages, share numerous similarities. One of our research questions aimed at exploring the implications of this (perceived and/or real) linguistic similarity on learners' productions (refer to section 2.2.3). Initially, we anticipated that the close relationship between the learners' native (L1) and target (L2) languages would facilitate the acquisition of complex structures, such as *it*-clefts, present in both languages. However, we also hypothesized that learners might exhibit non-target-like usage in terms of frequency, either overusing or underusing these structures, due to the less-easily perceivable distance between French and Italian in this regard. Moreover, we expected that cross-linguistic influence may initially be facilitating, but could turn negative at advanced levels, potentially due to attentional breakdowns and incorrect input analysis.

In line with these expectations, features perceived as similar, such as the form and structure of *it*-clefts, were easily acquired, at least in terms of their correct formation. However, regarding their frequency, which may not be readily perceived as different in the two languages, the behavior varies slightly. While the overall tendency of the groups leans towards approximation to the target, preferences and frequency of use reveal that advanced learners do not exhibit more target-like behavior. The lack of perceived distance between French and Italian preferences possibly leads to a non-target performance in terms of frequency of use, which is observable in both L2 groups.

On the other hand, a distinct trajectory is evident for linguistic aspects consistently perceived as distant in the two languages, such as the reduced flexibility of French compared to Italian and the different treatment of drop/pro-drop. Learners are well aware of the stronger unacceptability of certain structures (such as postverbal subjects or fronting in French, subject-drop in French, and subject non-drop in Italian) due to this perceived distance, resulting in the absence of such structures in their production. These findings support the notion that both real and perceived similarities and differences between Italian and French, rooted in their partial typological proximity, influence acquisitional patterns, as indicated by previous studies (Benazzo and Andorno, 2017; Della Putta, 2016).

9.2.3 Non-linearity in L2 acquisition

A categorization into sub-groups of proficiency levels is crucial for a pseudo-longitudinal study, since such design aims to trace a hypothetical path describing the development of focus marking strategies in L2 speakers. Nevertheless, the problem of proficiency assessment is well-known and felt in second language acquisition studies (Thomas, 2006), and we have ourselves experienced difficulties in categorizing non-native speakers into

sub-groups of proficiency levels. In fact, despite our attempts to accurately triangulate proficiency through multiple evaluation tests (see Chapter 4), uncertainties persist regarding whether these assessments have truly captured the complexity of speakers' competence. We will thus propose some consideration on this matter, keeping this caveat in mind. Assuming our assessment procedures reflect the speakers' competence accurately, our analysis revealed a non-linear path in the acquisition of focus and contrast markers. In fact, learners assessed as more lexically and morpho-syntactically competent did not necessarily adopt target-like behaviour in the marking of information structure. For example, in both L2 Italian and L2 French groups, speakers belonging to C-level sub-groups were the most prone to treat the distinction between identification and correction as they would do in their respective L1s (see section 5.2). This is not surprising, given that the non-linearity of second language acquisition is a well-known phenomenon in the field of research, largely observed for other linguistics levels, such as morphology and lexicon (see Granget et al., 2023 for a recent review). This, in a way, is both the reason for and the consequence of the complexity surrounding competence assessment.

9.2.4 Prosody and L2 learning models

The persistence of prosodic patterns inherent to learners' L1 suggests resistance to change at this level. These findings align with existing literature, which consistently suggests that learners tend to retain sensitivity to the constraints of their L1, especially for what concerns information structure and prosody (Colantoni and Mennen, 2023; Zubizarreta and Nava, 2011).

Upon closer examination of the specific level at which this influence is activated, it becomes apparent that the effect is not uniformly distributed. Consistent with Mennen's categorization, our research questions proposed that transfer in L2 prosody can occur on different dimensions: semantic, systemic, and realizational. Our results indicate a discernible influence of speakers' L1 in the semantic, frequency, and realizational dimensions, but not in the systemic dimension.

On the semantic front, our observations reveal that the mapping of prosodic marking onto different categories of contrast (identification and correction) closely mirrors L1 patterns. Notably, native French speakers prosodically distinguish between identification and correction, particularly for subject focus, whereas native Italian speakers do not. This distinction extends to L2 behavior, with French learners of L2 Italian maintaining this distinction, while Italian learners of L2 do not seem to acquire this feature of the target language.

Turning to the systemic dimension — which essentially aligns with the phonological level — we posit that transfer does not actively influence L2 productions, as mentioned earlier.

In fact, if we assume that both native French and native Italian speakers mark focus through prosodic alignment (Féry, 2013), we can state that L2 French and L2 Italian learners, when encoding contrast prosodically, correctly employ this marking strategy. In fact, if focus marking involves aligning the edge of the focus domain with the edge of a higher prosodic constituent (as discussed in Section 1.3.1), both L2 groups successfully achieve this goal. However, since the phonetic traits that indicate the presence of a prosodic boundary in Italian and French are distinct, the observed disparity in L2 speech lies in the phonetic implementation — and this is where transfer at the realizational level becomes evident. Specifically, native French speakers use glottalization and f_0 modulation for boundary insertion or strengthening, while native Italian speakers rely more on glottalization and segments' duration. Remarkably, these distinctive means are mirrored in the production of L2 speakers from both language backgrounds: as we have illustrated through Chapters 6 and 8, Italian learners of L2 French employ f_0 movements to a lesser extent than speakers of their target language, while French learners of L2 Italian fail to modulate vowel duration in such target-like manner. The management of glottalization and glottal stop, on the other hand, points to a positive influence of learners' L1.

9.2.5 Interplay of syntax and prosody in L2

The synthesis of results from various analyses on syntax, word order, and intonation in native speaker groups reveals an additive relationship between these different strategies of information-structure marking, contrary to a previously observed trade-off. In non-native speech, syntax consistently takes precedence over intonation, suggesting that non-native speakers exhibit a higher comfort level with syntactic marking rather than prosodic marking.

This preference could stem from two potential reasons. Firstly, learners may face inhibitions in the phonetic implementation of intonational marking due to phonological differences between their native and target languages. In simpler terms, non-native speakers might feel less confident in managing the phonological constraints of their target language when using intonation, while the perceived similarity on the syntactic level remains higher, fostering an easier—and consequently, more frequent—use of marked syntactic structures.

Alternatively, the markedness scale hypothesis, proposed by Zerbian (2015), provides another perspective (refer to Section 2.2.1). According to this hypothesis, the imbalance between prosodic and syntactic marking in non-native speech results from a universal, greater accessibility of syntax compared to prosody for learners. Consequently, word order emerges as more salient and easily processable than prosody in L2, leading to

a higher ease of use and implementation. Learners tend to successfully adopt certain syntactic structures while neglecting prosodic markings in their non-native speech.

9.3 Closing remarks

In conclusion, our study has delved into the intricate interplay of prosody, syntax, and their roles in marking information structure, particularly focus and contrast, in native Italian and French speakers as well as L2 learners. The examination of native speaker behavior has revealed the additive nature of the relationship between syntax and intonation, challenging previous assumptions of a trade-off. This finding also challenges binary distinctions in the focal typology of Italian and French, contributing to a more comprehensive understanding of how focus and contrast are realized in Romance. Additionally, our results have shed light on the nuanced relationship between notions such as focus and contrast, advocating for a more refined description of these two information-structural notions and their relationship.

The investigation into non-native productions also sheds light on the dynamics of L2 acquisition. The salience of certain linguistic features, such as *it*-clefts, plays an important role in shaping the stages of L2 acquisition: learners tend to rely on structures that are more perceptually salient in their input, emphasizing the importance of positive evidence in the learning process. The influence of cross-linguistic factors is also evident, with learners demonstrating both facilitative and inhibitory effects as they manage the similarities and differences between their L1 and L2.

Furthermore, the non-linearity of L2 acquisition is evident, as proficiency levels do not consistently correlate with target-like behavior in the marking of information structure. Learners at higher proficiency levels may still exhibit patterns reminiscent of their L1, emphasizing the complexity of competence assessment and the need for a fine-grained understanding of L2 development.

In the realm of prosody, our study reveals that transfer from L1 to L2 occurs in various dimensions, including semantic and phonetic aspects. While certain phonetic traits are successfully transferred, differences in the phonological constraints of the native and target languages lead to variations in the implementation of prosodic features.

The synthesis of these findings challenges some models and aligns with others, enriching the understanding of how information structure is marked in both native and non-native speech. The continuum of contrast, the non-linear nature of L2 acquisition, and the additive relationship between syntax and prosody underscore the intricate nature of language production: we hope this study contributes valuable insights that may inform future research in the domains of linguistics, second language acquisition, and prosody.

Conclusions and future perspectives

In this study, our primary objective was to investigate how both native and non-native speakers of Italian and French encode information structure, and in particular the categories of focus and contrast, with a specific interest in understanding the interplay between prosody and syntax. We adopted a methodology that combined both syntactic and prosodic perspectives, to gain a nuanced understanding of language acquisition dynamics in this linguistically distinct context. We consider the experiments successful, yielding rich and compelling outcomes that have the potential to make contributions to the field.

Throughout our investigation, we also identified additional perspectives and tasks essential for deepening our understanding and enhancing the robustness of our analyses. Firstly, the inclusion of results from our other two tasks, already recorded and transcribed, will add valuable layers to our analysis. The diversity of tasks, in fact, allows for a "triangulated" examination of speech, addressing potential task-related biases. For example, the analysis of the read-aloud task could provide a more objective assessment of prosodic profiles used for focalization, examining features such as duration and prosodic boundary strengthening. In contrast, spontaneous speech could be leveraged to explore a wider range of non-canonical constructions, which, as observed, did not occur as frequently as expected in the picture-story task. These steps are something we intend to pursue, given the available data.

Additionally, we propose that the prosodic description of focus-related phenomena could benefit from the analysis of more controlled, fine-grained data with purposeful design. While our set of tasks has provided insights into the interplay between syntax and prosody for focalization, the irregularity in the length, order, and position of target tokens within utterances poses challenges for a comprehensive phonetic analysis. Future experiments could involve more controlled protocols, for example incorporating insights from contour clustering analysis to support observations on L1 influence in peak alignment, as discussed in Chapter 6.

Lastly, recognizing the crucial yet ambiguous link between perception and production in L2 learning, we propose incorporating a perception study. This complementary perspective will enrich our analysis by providing valuable insights into how learners perceive and interpret prosodic and syntactic cues, enhancing our overall comprehension

of the complex dynamics of information-structure marking. Bridging the interplay between production and perception, particularly challenging in the context of L2 learning, could offer valuable insights into how learners comprehend and respond to different marking strategies, furthering our understanding of the factors influencing strategies of prominence marking in L2.

Declaration

I, Bianca Maria De Paolis, declare that this thesis and the work presented in it are my own. I confirm that:

- This work was done wholly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Some parts of this thesis include revised versions of the following papers or talks:

- De Paolis, B. M., Lo Iacono, F., De Iacovo, V. (2024). “Vowel lengthening in L2 Italian and L2 French: a cue for focus marking?”, *Speech Prosody 2024 (SP2024)*, Leiden, Netherlands, 2-5 July 2024.
- De Paolis, B. M. (2023). “Il contrasto come oggetto continuo: uno studio sulla realizzazione del focus da parte di parlanti nativi e non nativi di francese e italiano”, *LVI Congresso internazionale della Società di Linguistica Italiana*, Torino, September 2023.
- De Paolis, B. M., Abbà, B., Romano, A. (2023). “On the role of glottal stop: from boundary marker to correlate of focus. A study on Italian and French”, *Proc. of ICPHS 2023 - 20th Congress of Phonetic Sciences*, Prague, August 2023.
- De Paolis, B. M., Andorno, C., Benazzo, S. (2023). “Asymmetries in narrow-focus cleft sentences: a study on spoken L2 Italian and French”, *53rd Linguistic Symposium on Romance Languages*, Paris, June 2023.
- De Paolis, B. M., Andorno, C. (2022). “Constructions clivées en Français L1 et L2 (Italian L1). Premiers résultats d’une étude expérimentale”, *8ème Congrès mondial de linguistique française (Orléans)*, July 2022.

- De Paolis, B. M., Santiago, F., Andorno, C. (2022). “Syntaxe ou prosodie? Une étude préliminaire sur l’expression de la focalisation étroite par les apprenants italophones de français L2”, *Actes de la XXXIVe Journées d’Etudes sur la Parole (Île de Noirmoutier)*, June 2022.

Presented and defended by **Bianca Maria DE PAOLIS**
2024

References

- Anderson, A. H., Bader, M., Bard, E. G., Boyle, E., Doherty, G., Garrod, S., Isard, S., Kowtko, J., McAllister, J., Miller, J., Sotillo, C., Thompson, H. S., and Weinert, R. (1991). The Hcrc Map Task Corpus. *Language and Speech*, 34(4):351–366.
- Andorno, C. (2000). *Focalizzatori tra connessione e messa a fuoco: il punto di vista delle varietà di apprendimento*. Milano: Franco Angeli.
- Andorno, C. and Turco, G. (2015). Embedding additive particles in the sentence information structure: How L2 learners find their way through positional and prosodic patterns. *Linguistik Online*, 71:57–79.
- Arnold, A. (2021). Prosodic focus marking in clefts and syntactically unmarked equivalents: Prosody–syntax trade-off or additive effects? *Journal of the Acoustical Society of America*, 149 (3):1390–1399.
- Arvaniti, A. (2020). The phonetics of prosody. In Aronoff, M., editor, *Oxford Research Encyclopedia of Linguistics*. Oxford Research Encyclopedias.
- Arvaniti, A. (2022). The autosegmental-metrical model of intonational phonology. In Barnes, J. and Shattuck-Hufnagel, S., editors, *Prosodic Theory and Practice*. The MIT Press.
- Avesani, C., Bocci, G., Vayra, M., and Zappoli, A. (2015). Prosody and information status in Italian and German L2 intonation. In Chini, M., editor, *Il parlato in italiano L2: aspetti pragmatici e prosodici*, pages 93–116. Milano: Franco Angeli.
- Avesani, C. and Vayra, M. (2003). Broad, narrow and contrastive focus in florentine Italian. In *ICPhS-15*, pages 1803–1806.
- Bally, C. (1932). *Linguistique générale et linguistique française*. Leroux, Paris.
- Bartning, I. and Hammarberg, B. (2007). The functions of a high-frequency collocation in native and learner discourse: The case of French *c’est* and Swedish *det är*. *International Review of Applied Linguistics in Language Teaching*, 45,1:1–43.
- Belletti, A. (2001). “Inversion” as focalization. In Hulk, A. and Pollock, J., editors, *Subject Inversion in Romance and the Theory of Universal Grammar*, pages 60–90. Oxford: Oxford University Press.

- Belletti, A. (2009). *Structures and Strategies*. Routledge, New York.
- Belletti, A. and Leonini, C. (2004). Subject inversion in L2 Italian. In Foster Cohen, S., Sharwood, M., Sorace, A., and Ota, M., editors, *Eurosla Yearbook*, pages 95–118. J.Benamins, Amsterdam.
- Benazzo, S. and Andorno, C. (2017). Is it really easier to acquire a closely-related language? A study on the expression of iteration and continuation in L2 French. In Howard, M. and Leclercq, P., editors, *Tense-Aspect-Modality in a Second Language: Contemporary perspectives*, pages 105–143. Amsterdam: John Benjamins.
- Benazzo, S., Andorno, C., Interlandi, G., and Patin, C. (2012). Perspective discursive et influence translinguistique: Exprimer le contraste d’entité en français et en italien L2. *LIA*, 3-2:173–201.
- Benazzo, S., Dimroth, C., and Santiago, F. (2021a). Additive Linking in L2 French Discourse by German Learners: Syntactic Embedding and Intonation Patterns. *Languages*, 6 (1):1–22.
- Benazzo, S., Dimroth, C., and Santiago, F. (2021b). Additive Linking in L2 French Discourse by German Learners: Syntactic Embedding and Intonation Patterns. *Languages*, 6, 1:20.
- Benazzo, S. and Giuliano, P. (1998). Marqueurs de négation et particules de portée en français L2: où les placer? *Acquisition et Interaction en Langue Etrangère*, 11:35–61.
- Birdsong, D. (1999). *Second language acquisition and the critical period hypothesis*. Routledge.
- Bley-Vroman, R. (1983). The comparative fallacy in interlanguage studies: the case of systematicity. *Language Learning*, 33(1):1–17.
- Bley-Vroman, R. (1989). What is the logical problem of foreign language learning? In Gass, S. M. and Schachter, J., editors, *Linguistic perspectives on second language acquisition*, page 41–68. New York: Cambridge University Press.
- Bocci, G. and Avesani, C. (2006). Focus Contrastivo nella periferia sinistra della frase un solo accento, ma non solo un accento. In Savy, R. and Crocco, C., editors, *Analisi Prosodica. Teorie. Modelli e sistemi di annotazione. Atti del secondo convegno AISV-Associazione Italiana di Scienze della Voce*, pages 111–141. Rimini: EDK Editore.
- Bocci, G. and Avesani, C. (2011). Phrasal prominences do not need pitch movements: Postfocal phrasal heads in italian. In *Proceedings of the 12th Annual Conference of*

- the International Speech Communication Association (Interspeech), Florence, Italy*, page 1357–1360.
- Boersma, P. and Weenink, D. (2023). Praat: doing phonetics by computer [computer program].
- Bolinger, D. (1964). Around the edge of language: Intonation. *Harvard Educational Review*, 34 (2):282–296.
- Bolinger, D. L. (1961). Contrastive accent and contrastive stress. *Language*, 37.
- Bolinger, D. L. (1978). Intonation across languages. In Greenberg, J., editor, *Universals of Human Language, Volume 2 (Phonology)*, page 471–524. Stanford: Stanford University Press.
- Boula de Mareüil, P. and Vieru-Dimulescu, B. (2006). The contribution of prosody to the perception of foreign accent. *Phonetica*, 63(4):247–267.
- Brunetti, L., Bott, S., Costa, J., and Vallduví, E. (2011). A multilingual annotated corpus for the study of information structure. In Konopka, M., Kubczak, J., Mair, C., Sticha, F., and Wassner, U., editors, *Proceedings of Grammar and Corpora 2009, Third international Conference, Mannheim, Allemagne*. Gunter Narr Verlag, Tübingen.
- Busà, M. G. and Stella, A. (2012). Intonational variations in focus marking in the English spoken in by the North-East Italian speakers. In Busà, M. G. and Stella, A., editors, *Methodological Perspectives on Second Language Prosody: Papers from ML2P 2012*. Padova: Cleup.
- Büiring, D. (2010). Towards a typology of focus realization. In Zimmermann, M. and Féry, C., editors, *Information Structure.*, page 177– 205. Oxford University Press, Oxford.
- Carroll, M. and Lambert, M. (2006). Reorganizing principles of information structure in advanced L2s: a study of French and German learners of English. In Byrnes, H., Weger-Guntharp, H., and Sprang, K., editors, *Educating for advanced foreign language capacities: Constructs, curriculum, instruction, assessment*, page 54–73. Washington, DC: Georgetown University Press.
- Carroll, M. and von Stutterheim, C. (2003). Typology and information organisation: Perspective taking and language specific effects in the construal of events. In Giacalone Ramat, A., editor, *Typology and second language acquisition*, page 365–402. Berlin: Mouton de Gruyter.

- Carroll, S. and Meisel, J. (1990). Universals and second language acquisition: Some comments on the state of current theory. *Studies in Second Language Acquisition*, 12:201–208.
- CEFR (2020). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment—Companion Volume*. Council of Europe Publishing.
- Chafe, W. (1976). Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In Li, C. N., editor, *Subject and topic*, pages 27–55. Academic Press, New York.
- Cho, T. and Keating, P. (2009). Effects of initial position versus prominence in English. *Journal of Phonetics*, 37:466–485.
- Clark, H. and Haviland, S. (1977). Comprehension and the given-new contrast. In Freedle, R. O., editor, *Discourse Production and Comprehension*, pages 1–40. Lawrence Erlbaum Associates, Hillsdale, NJ.
- Cohen, A., Collier, R., and 't Hart, J. (1982). Declination: construct or intrinsic feature of speech pitch? *Phonetica*, 39:254–273.
- Colantoni, L. and Mennen, I. (2023). The Effects of Cross-Language Differences on Bilingual Production and/or Perception of Sentence-Level Intonation. *Languages*, 8, 108.
- Contini, M., Carpitelli, E., and Romano, A. (2005). Des occlusives glottales dans l'espace roman. *Estudios Ofrecidos a A. Quilis*, page 127–145.
- Cook, V. J. (1992). Evidence for Multicompetence. *Language Learning*, 42,4:557–591.
- Corder, S. P. (1967). The Significance of Learner's Errors. *International Review of Applied Linguistics in Language Teaching*, 5,4:161–170.
- Corder, S. P. (1975). Error analysis, interlanguage and Second Language Acquisition. *Language Teaching*, 8:201–218.
- Cruschina, S. (2021). The greater the contrast, the greater the potential: On the effects of focus in syntax. *Glossa: A Journal of General Linguistics*, 6 (1):1–30.
- Cruschina, S. (2022). Focus and focus structures in the Romance languages. In Aronoff, M., editor, *Oxford Research Encyclopedias : Linguistics*. Oxford University Press, Oxford.
- Cruschina, S. and Remberger, E. M. (2017). Focus Fronting. In Dufter, A. and Stark, E., editors, *Manual of Romance Morphosyntax and Syntax*, pages 502–535. Berlin, Boston: De Gruyter.

- Cruttenden, A. (1986). *Intonation*. Cambridge: Cambridge University Press.
- De Cesare, A. M. (2014). *Frequency, Forms and Functions of Cleft Constructions in Romance and Germanic*. De Gruyter.
- De Cesare, A. M. (2017). Cleft Constructions in Romance: definition, types, and parameters of variation. In Dufter, A. and Stark, E., editors, *Manual of Romance Morphosyntax and Syntax*, pages 536–568. De Gruyter, Berlin; Boston.
- De Cesare, A. M., Garassino, D., Marco, R. A., Albom, A., and Cimmino, D. (2016). *Sintassi marcata dell'italiano dell'uso medio in prospettiva contrastiva con il francese, lo spagnolo, il tedesco e l'inglese*. Bern-Frankfurt: Peter Lang.
- de Jong, K. (2004). Stress, lexical focus, and segmental focus in English: patterns of variation in vowel duration. *Journal of Phonetics*, 32, 4:493–516.
- de Jong, K. and Zawaydeh, B. (2002). Comparing stress, lexical focus, and segmental focus: Patterns of variation in Arabic vowel duration. *Journal of Phonetics*, 30:53–75.
- Dekydtspotter, L., Schwartz, B., and Sprouse, R. (2006). The comparative fallacy in L2 processing research. In Grantham O'Brien, M., Shea, C., and Archibald, J., editors, *Proceedings of the 8th generative approaches to second language acquisition conference (GASLA 2006)*, page 33–40. Somerville, MA: Cascadilla Press.
- Delais-Roussarie, E., Post, B., Avanzi, M., Buthke, C., Cristo, A. D., Feldhausen, I., Jun, S. A., Martin, P., Meisenburg, T., Rialland, A., Sichel-Bazin, R., and Yoo, H. Y. (2015). Intonational phonology of French: Developing a ToBI system for French. In Frola, S. and Prieto, P., editors, *Intonation in Romance*. Oxford University Press, Oxford.
- Delattre, P. (1966). Les dix intonations de base du français. *The French Review*, 40 (1):1–14.
- Della Putta, P. (2016). Do we also need to unlearn constructions? The case of constructional negative transfer from Spanish to Italian and its pedagogical implications. In De Knop, S. and Gilquin, G., editors, *Applied Construction Grammar*, pages 237–268. Berlin, Boston: De Gruyter Mouton.
- Destruel, E. (2016). Focus marking asymmetries in Colloquial and Standard French: A stochastic optimality-theoretic account. *Journal of French Language Studies*, 26:299–326.
- Destruel, E. and DeVeugh-Geiss, J. (2018). On the interpretation and processing of exhaustivity: evidence of variation in English and French clefts. *Journal of Pragmatics*, 138:1–16.

- Di Cristo, A. and Hirst, D. (1998). Intonation in french. In *Intonation Systems: A Survey of Twenty Languages*, pages 195–218. Cambridge University Press.
- D'imperio, M. (2002). Italian intonation: An overview and some questions. *Probus*, 14(1):37–69.
- D'Imperio, M., Michelas, A., and German, J. S. (2012). A multi-level approach to focus, phrasing and intonation in french. In Elordieta, G. and Prieto, P., editors, *Prosody and Meaning*, pages 11–34. De Gruyter, Berlin, Boston.
- Dimroth, C. (1998). Indiquer la portée en allemand L2 : une étude longitudinale de l'acquisition des particules de portée. *Acquisition et Interaction en Langue Etrangère*, pages 11–34.
- Dimroth, C. and Narasimhan, B. (2012). The acquisition of information structure. In Krifka, M. and Musan, R., editors, *The Expression of Information Structure*, pages 319–362. Berlin, Boston: De Gruyter Mouton.
- Donaldson, B. (2011a). Left dislocations in near-native French. *Studies in Second Language Acquisition*, 33:399–432.
- Donaldson, B. (2011b). Nativelike right-dislocation in near-native French. *Second Language Research*, 27, 3:361–390.
- Doughty, C. J. (2003). Instructed SLA: Constraints, compensation, and enhancement. In Doughty, C. J. and Long, M. H., editors, *The handbook of second language acquisition*, pages 256–310. New York: Blackwell Publishing.
- Dufter, A. (2009). Clefting and discourse organization: comparing Germanic and Romance. In Dufter, A. and Jacob, D., editors, *Focus and Background in Romance Languages*, page 83–121. John Benjamins Publishing Company, Amsterdam.
- Dufter, A. and Gabriel, C. (2016). Information structure, prosody, and word order. In Fischer, S. and Gabriel, C., editors, *Manual of Grammatical Interfaces in Romance*, pages 419–455. de Gruyter, Berlin.
- Eckman, F. R. (1977). Markedness and the contrastive analysis hypothesis. *Language Learning*, 27,2:315–330.
- Ellis, N. C. (2006). Selective Attention and Transfer Phenomena in L2 Acquisition: Contingency, Cue Competition, Salience, Interference, Overshadowing, Blocking, and Perceptual Learning. *Applied Linguistics*, 27,2:164–194.
- Ellis, R. (1991). Grammaticality judgments and second language acquisition. *Studies in Second Language Acquisition*, 13(2):161–186.

- Face, T. L. and D’Imperio, M. (2005). Reconsidering a focal typology: evidence from Spanish and Italian. *The Italian Journal of Linguistics*, 17:271–289.
- Farnetani, E. and Zmarich, C. (1997). Prominence patterns in Italian: An analysis of f0 and durations. In *Intonation: Theory, Models and Applications. Proceedings of an ESCA Workshop*, pages 115–118, Athens.
- Feldhausen, I. and Del Mar Vanrell, M. (2016). Prosody, Focus and Word Order in Catalan and Spanish: An Optimality Theoretic Approach. *10th International Seminar on Speech Production*.
- Flege, J. E. (1995). Second Language Speech Learning Theory, Findings, and Problems. In Strange, W., editor, *Speech Perception and Linguistic Experience: Issues in Cross-Language Research*, pages 233–277. Timonium, MD: York Press.
- Fougeron, C. (2001). Articulatory properties of initial segments in several prosodic constituents in French. *Journal of Phonetics*, 29:109–135.
- Français à Turin (n.d.). Facebook group.
- Frascarelli, M. (2000). *The syntax-phonology interface in focus and topic constructions in Italian*. Kluwer, Dordrecht.
- Friedmann, N., Belletti, A., and Rizzi, L. (2009). Relativized relatives: Types of intervention in the acquisition of A-bar dependencies. *Lingua*, 119(1):67 – 88.
- Funder, D. C. and Ozer, D. J. (2019). Evaluating Effect Size in Psychological Research: Sense and Nonsense. *Advances in Methods and Practices in Psychological Science*, 2(2):156–168.
- Féry, C. (2001). Focus and phrasing in French. In Féry, C. and Sternefeld, W., editors, *Audiatur Vox Sapientiae: A Festschrift for Arnim von Stechow*, pages 153–181. Akademie Verlag, Berlin, Boston.
- Féry, C. (2013). Focus as prosodic alignment. *Natural Language and Linguistic Theory*, (3),1:683–734.
- Féry, C. and Ishihara, S. (2016). *The Oxford Handbook of Information Structure*. Oxford University Press UK, Oxford.
- Féry, C. and Kügler, F. (2008). Pitch accent scaling on given, new and focused constituents in German. *Journal of Phonetics*, 36:680–703.

- Gabriel, C. (2010). 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.
- Gabriel, C. and Grünke, J. (2018). Focus, prosody, and subject positions in L3 Spanish: analyzing data from German learners with Italian and Portuguese as heritage languages. In García, M. G. and Uth, M., editors, *Focus realization in Romance and beyond*, pages 358–386. John Benjamins, Amsterdam.
- Gabriel, C. and Kireva, E. (2014). Prosodic transfer in learner and contact variety: Speech Rhythm and Intonation of Buenos Aires Spanish and L2 Castilian Spanish Produced by Italian Native Speakers. *Studies in Second Language Acquisition*, 36(2):257–281.
- Gagliardi, G., Lombardi Vallauri, E., and Tamburini, F. (2012). La prominenzia in italiano: demarcazione più che culminazione? *La voce nelle applicazioni: Atti dell'VIII Convegno Nazionale dell'Associazione Italiana di Scienze della Voce (AISV2012)*, pages 255–270.
- Gass, S. (1994). The reliability of second-language grammaticality judgments. In E. Tarone, S. G. and Cohen, A., editors, *Research methodology in second language acquisition*, pages 303–322. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gass, S. (1997). *Input, interaction and the second language learner*. Lawrence Erlbaum Associates, Inc.
- Gass, S. and Mackey, A. (2002). Frequency effects and second language acquisition. *Studies in Second Language Acquisition*, 24:249–260.
- Gass, S. and Selinker, L. (2001). *Second language acquisition: An introductory course*. Mahwah, NJ: Erlbaum.
- German, J. S. and D’Imperio, M. (2016). The Status of the Initial Rise as a Marker of Focus in French. *Language and Speech*, 59(2):165–195.
- Gili Fivela, B., Avesani, C., Barone, M., Bocci, G., Crocco, C., D’Imperio, M., Giordano, R., Marotta, G., Savino, M., and Soriano, P. (2015). Varieties of Italian and their intonational phonology. In Frota, S. and Prieto, P., editors, *Intonation in Romance*, pages 140–197. Oxford University Press, Oxford.
- Givón, T. (1989). The pragmatics of word order: predictability, importance and attention. In Hammond, M., editor, *Studies in Syntactic Typology (Typological Studies in Language 17)*, pages 243–284. Amsterdam and Philadelphia: John Benjamins.

- Goldman, J. P. (2011). Easyalign: an automatic phonetic alignment tool under praat. *Proceedings of InterSpeech, September 2011*.
- Goldschneider, J. and DeKeyser, R. (2005). Explaining the “Natural Order of L2 Morpheme Acquisition” in English: A Meta-analysis of Multiple Determinants. *Language Learning*, 55:27–77.
- Gordon, M. and Ladefoged, P. (2001). Phonation types: a cross-linguistic overview. *Journal of Phonetics*, 29:383–406.
- Granger, S. (2012). How to use Foreign and Second Language Learner Corpora. In *Research Methods in Second Language Acquisition: A Practical Guide*. Oxford: Wiley-Blackwell.
- Granget, C., Repiso, I., and Fon Sing, G. (2023). *Language, creoles, varieties: From emergence to transmission. EuroSLA Studies 7*. Berlin: Language Science Press.
- Greif, M. and Skopeteas, S. (2021). Correction by Focus: Cleft Constructions and the Cross-Linguistic Variation in Phonological Form. *Frontiers in Psychology*.
- Grice, P. (1989). *Studies in the Way of Words*. Harvard University Press, Cambridge MA.
- Grosjean, F. (1989). Neurolinguists, Beware! The Bilingual Is Not Two Monolinguals in One Person. *Brain and Language*, 36:3–15.
- Grosjean, F. (2010). *Bilingual: Life and reality*. Harvard University Press, Cambridge, MA.
- Guess Who (2021). [Board game].
- Gussenhoven, C. (2004). *The Phonology of Tone and Intonation*. Research Surveys in Linguistics. Cambridge University Press.
- Gussenhoven, C. (2016). Foundations of Intonational Meaning: Anatomical and Physiological Factors. *Topics in Cognitive Science*, 8:425–434.
- Halliday, M. A. K. (1967). Notes on Transitivity and Theme in English: Part 2. *Journal of Linguistics*, 3,2:199–244.
- Helland, H. P., Larrivée, P., and Foucher Stenkløv, N. (2023). Les Subordonnants Relatifs Qui Et Que En français Langue étrangère. *Bergen Language and Linguistics Studies*, pages 1–12.
- Hendriks, H. (2005). *The structure of learner varieties*. Berlin: De Gruyter Mouton.

- Hirschberg, J. and Avesani, C. (1997). The role of prosody in disambiguating potentially ambiguous utterances in English and Italian. In *Intonation: Theory, Models, and Applications*. Athens, Greece, September 1997, pages 189–192.
- Hirst, D. (2024). *Speech Prosody: from acoustics to interpretation*. Springer Berlin, Heidelberg.
- Hulstijn, J. H. and Ellis, R. (2005). Implicit and explicit second-language learning. *Studies in Second Language Acquisition*, 27.
- Italiani a Parigi (n.d.). Facebook group.
- Jackendoff, R. (1972). *Semantic interpretation in generative grammar*. MIT Press, Cambridge.
- Jarvis, S. and Pavlenko, A. (2010). *Crosslinguistic influence in language and cognition*. London: Routledge.
- Jun, S. A. and Fougeron, C. (2000). A phonological model of french intonation. In Botinis, A., editor, *Intonation. Text, Speech and Language Technology*, volume 15, page 209–242. Springer, Dordrecht.
- Kellerman, E. (1987). *Aspects of transferability in second language acquisition*. Doctoral dissertation.
- Kisler, T., Reichel, U. D., and Schiel, F. (2017). Multilingual processing of speech via web services. *Computer Speech and Language*, 45:326–347.
- Kiss, K. E. (1998). Identificational focus versus information focus. *Language*, (74)2:245–273.
- Klein, W. (1998). The Contribution of Second Language Acquisition Research. *Language Learning*, 48:527–550.
- Klein, W. and Dimroth, C. (2009). Untutored second language acquisition. In Ritchie, W. C. and Bhatia, T. K., editors, *The new handbook of second language acquisition*, pages 503–522. Bingley: Emerald.
- Klein, W. and Perdue, C. (1992). *Utterance Structure*. John Benjamins Publishing Company, Amsterdam/Philadelphia.
- Klein, W. and Perdue, C. (1997). The Basic Variety (or: Couldn’t natural languages be much simpler? *Second Language Research*, 13(4):301–347.
- Krifka, M. (2008). Basic notions of information structure. *Acta Linguistica Hungarica*, 55(3-4):243–276.

- Ladd, D. R. (1984). Declination: a review and some hypotheses. *Phonology Yearbook*, 1:53–74.
- Ladd, D. R. (2008). *Intonational phonology*. Cambridge University Press, Cambridge.
- Ladefoged, P. (1995). *Elements of acoustic phonetics*. Chicago, London: University of Chicago Press.
- Ladefoged, P. and Maddieson, I. (1996). *The Sounds of the World's Languages*. Blackwell.
- Lado, R. (1957). *Linguistics across culture: Applied linguistics for language teachers*. University of Michigan press.
- Lakshmanan, U. and Selinker, L. (2001). Analysing interlanguage: how do we know what learners know? *Second Language Research*, 17:393–420.
- Lambrecht, K. (1994). *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge Studies in Linguistics. Cambridge University Press.
- Lambrecht, K. (2001). A framework for the analysis of cleft constructions. *Linguistics*, 39:463–516.
- Larrivée, P. (2022). The curious case of the rare focus movement in French. In Garassino, D. and Jacob, D., editors, *When Data Challenges Theory: Unexpected and paradoxical evidence in information structure*, pages 183–202. Amsterdam: John Benjamins.
- Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied Linguistics*, 27(4):590–619.
- Larsen-Freeman, D. and Cameron, L. (2008). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.
- Lenneberg, E. H. (1967). *Biological Foundations of Language*. New York: Wiley.
- Lennes, M., Aho, E., Toivola, M., and Wahlberg, L. (2006). On the use of glottal stop in Finnish conversational speech. In Aulanko, R., Wahlberg, L., and Vainio, M., editors, *Fonetiikan päivät - The Phonetics Symposium 2006*, page 93–102. University of Helsinki, Helsinki, Finland.
- Leonetti, M. (2017). Basic constituent orders. In Dufter, A. and Stark, E., editors, *Manual of Romance Morphosyntax and Syntax.*, pages 887–932. Berlin, Boston: De Gruyter.

- Leow, R. (1995). Modality and Intake in Second Language Acquisition. *Studies in Second Language Acquisition*, 17(1):79–89.
- Levis, J. M. and LeVelle, K. (2016). The complexity of fluency: L2 speakers’ rate-pause profiles within and across tasks. *TESOL Quarterly*, 50(4):810–834.
- Lombardi Vallauri, E. (2009). *La struttura informativa. Forma e funzione negli enunciati linguistici*. Carocci, Roma.
- López, L. (2016). Dislocations and information structure. In Féry, C. and Ishihara, S., editors, *The Oxford Handbook of Information Structure*. Oxford Academic, Oxford.
- Mackey, A. and Gass, S. M. (2015). *Second language research: Methodology and design*. Routledge.
- Maekawa, K. (1997). Effects of focus on duration and vowel formant frequency in japanese. In Sagisaka, Y. and Campbell, N. and Higuchi, N., editors, *Computing Prosody*, page 129–153. Springer, New York.
- Marotta, G. (2008). Phonology or non phonology? That is the question (in intonation). *Estudios de Fonética Experimental*, XVII:177–206.
- Marsden, E., Morgan-Short, K., Thompson, S., and Abugaber, D. (2018). Replication in Second Language Research: Narrative and Systematic Reviews and Recommendations for the Field. *Language learning*, 68,2:321–391.
- Martin, P. (2001). ToBI: l’illusion scientifique. In Aubergé, V., Lacheret-Dujour, A., and Loevenbruck, H., editors, *Journées Prosodie 2001, Grenoble*, pages 109–113.
- Mathesius, V. (1928). On linguistic characterology with illustrations from modern english. In *Actes du Premier Congrès International de linguistes à la Haye*, volume 1928, pages 56–63.
- Matić, D. and Wedgwood, D. (2003). The meanings of focus: The significance of an interpretationbased category in cross-linguistic analysis. *Journal of Linguistics*, 49:127–63.
- Mennen, I. (2004). Bi-directional interference in the intonation of dutch speakers of greek. *Journal of Phonetics*, 32:543–563.
- Mennen, I. (2015). Beyond Segments: Towards a L2 Intonation Learning Theory. In Delais-Roussarie, E., Avanzi, M., and Herment, S., editors, *Prosody and Language in Contact. Prosody, Phonology and Phonetics.*, page 171–188. Springer, Berlin, Heidelberg.

- Mennen, I. and De Leeuw, E. (2014). Beyond Segments: Prosody in SLA. *Studies in Second Language Acquisition*, 36(2):183–194.
- Mertens, P. (2004). Le prosogramme : une transcription semi-automatique de la prosodie. *Cahiers de l'Institut de Linguistique de Louvain*, 30, 1-3:7–25.
- Mertens, P. (2012). La prosodie des clivées. In Caddeso, S., Roubaud, M. N., Rouquier, M., and Sabio, F., editors, *Penser les langues avec Claire Blanche Benveniste*. Aix-en-Provence: Presses Universitaires de Provence.
- Mertens, P. (2014). Polytonia : a system for the automatic transcription of tonal aspects in speech corpora. *Journal of Speech Sciences*, 4(2):17–57.
- Mertens, P. (2019). *Phonétique, phonologie et prosodie du français*. Leuven: Acco.
- Mertens, P. (2022). Polytonia. <https://sites.google.com/site/prosogram/polytonia>, Retrieved July 28th, 2023.
- Michelas, A. and German, J. (2020). Focus marking and prosodic boundary strength in French. *Phonetica*, 77:244–267.
- Molnár, V. (2002). Contrast from a contrastive perspective. *Language and Computers*, 39:147–162.
- Neeleman, A. and Van de Koot, H. (2016). Word order and information structure. In Féry, C. and Ishihara, S., editors, *The Oxford Handbook of Information Structure*. Oxford Academic, Oxford.
- Nemser, W. (1971). Approximate systems of foreign language learners. *International Review of Applied Linguistics*, 9:115–123.
- Nespor, M. and Vogel, I. (1986). *Prosodic phonology*. Foris, Dordrecht.
- Norris, J. and Ortega, L. (2003). Defining and measuring SLA. In Doughty, C. and Long, M., editors, *The Handbook of Second Language Acquisition*. Oxford: Blackwell.
- Norris, J. M. and Ortega, L. (2009). Towards an organic approach to investigating CAF in instructed SLA: The case of complexity. *Applied Linguistics*, 30(4):555–578.
- Noyau, C. (1988). Recherches sur l'acquisition spontanée d'une langue étrangère par des adultes dans le milieu social. *Dialogues et cultures*, pages 208–218.
- Ohala, J. J. (1984). An ethological perspective on common cross-language utilization of f0 of voice. *Phonetica*, 41(1):1–16.

- Pallotti, G. (2009). CAF: defining, refining and differentiating constructs. *Applied Linguistics*, 30/4:590–601.
- Pierrehumbert, J. and Talkin, D. (1992). Lenition of /h/ and glottal stop. In Docherty, G. and Ladd, D. R., editors, *Gesture, segment, prosody*, page 90–117. Cambridge, UK: Cambridge University Press.
- Pierrehumbert, J. B. (1980). *The phonology and phonetics of English intonation*. Massachusetts Institute of Technology, Dept. of Linguistics and Philosophy.
- Pinelli, M. C., Avesani, C., and Poletto, C. (2018). Is it prosody that settles the syntactic issue? an analysis of italian cleft sentences. In Vietti, A., Spreafico, L., Mereu, D., and Galatà, V., editors, *Il parlato nel contesto naturale*. Officinaventuno.
- Pinelli, M. C., Poletto, C., and Avesani, C. (2020). Does prosody meet syntax? A case study on standard Italian cleft sentences and left peripheral focus. *The Linguistic Review*, 37:309–330.
- Poletto, C. and Bocci, G. (2016). Syntactic and prosodic effects of information structure in Romance. In Féry, C. and Ishihara, S., editors, *The Oxford Handbook of Information Structure*. Oxford Academic, Oxford.
- Poschmann, C. and Wagner, M. (2016). Relative clause extraposition and prosody in German. *Natural Language and Linguistic Theory*, 34(3):1021–1066.
- Post, B. (2000). *Tonal and Phrasal Structures in French Intonation*. The Hague, Holland Academic Graphics.
- R Core Team (2022). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria.
- Rasier, L. and Hilgsmann, P. (2007). Prosodic transfer from L1 to L2. Theoretical and methodological issues. *Nouveaux cahiers de linguistique française*, 28:41–66.
- Repp, S. (2010). Defining ‘contrast’ as an information-structural notion in grammar. *Lingua*, 120(6):1333–1345.
- Repp, S. (2016). Contrast : Dissecting an Elusive Information-Structural Notion and Its Role in Grammar. In Féry, C. and Ishihara, S., editors, *The Oxford Handbook of Information Structure*, page 1–23. Oxford: Oxford University Press.
- Ringbom, H. (2006). *Cross-linguistic Similarity in Foreign Language Learning*. Bristol, Blue Ridge Summit: Multilingual Matters.

- Ringbom, H. and Jarvis, S. (2009). The importance of cross-linguistic similarity in foreign language learning. In Long, M. H. and Doughty, C. J., editors, *The Handbook of Language Teaching*, pages 106–118. London: Blackwell.
- Rizzi, L. (1997). The Fine Structure of the Left Periphery. In Haegeman, L., editor, *Elements of Grammar: Handbook in Generative Syntax*, page 281–337. Dordrecht: Kluwer.
- Rizzi, L. (2004). Locality and the left periphery. In Belletti, A., editor, *Structures and Beyond: The Cartography of Syntactic Structures*, page 223–251. Oxford University Press, Oxford.
- Roggia, C. E. (2008). Frasi scisse in italiano e in francese orale: evidenze dal c-oral-rom. *Cuadernos de Filología Italiana*, 15:9–29.
- Romano, A. and Mattana, P. (2008). Comparaison des corpus d’AMPER-ITA : l’incidence diatopique de la variable focus dans les données salentines et de l’aire centrale. In A. Pamies, M. A. and Pazos, J., editors, *Experimental Prosody (IV Congreso Int. de Fonética Experimental, Granada, Spagna)*, pages 293–301. Language Design.
- Romero, M. (2020). Form and Function of Negative, Tag, and Rhetorical Questions. In Déprez, V. and Espinal, M. T., editors, *The Oxford Handbook of Negation*, page 235–254. Oxford: Oxford University Press.
- Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics*, 1:75–116.
- Rossi, M. (1971). Le seuil de glissando ou seuil de perception des variations tonales pour les sons de la parole. *Phonetica*, 23:1–33.
- Rossi, M. (1980). Le français, langue sans accent? In Fonagy, I. and Leon, P. P., editors, *L’accent en français contemporain*, pages 13–51. Montréal: Didier.
- Ryan, J. (2015). Overexplicit referent tracking in L2 English: Strategy, avoidance, or myth?: Overexplicit referent tracking in L2 English. *Language Learning*, 65:824–59.
- Samek-Lodovici, V. (2005). Prosody–syntax interaction in the expression of focus. *Natural Language and Linguistic Theory*, 23 (3):687–755.
- Samo, G. and Merlo, P. (2021). Intervention effects in clefts: a study in quantitative computational syntax. *Glossa: a journal of general linguistics*, 6(1):145.
- Santiago, F., Mairano, P., and De Paolis, B. M. (2022). The effects of prosodic prominence on the acquisition of L2 phonological features. In *Proceedings of Speech Prosody 2022*, pages 377–381. ISCA.

- Sbranna, S., Ventura, C., Albert, A., and Grice, M. (2023). Prosodic marking of information status in Italian. *Journal of Phonetics*, 97:1–13.
- Schwartz, M. and Goad, H. (2017). Indirect positive evidence in the acquisition of a subset grammar. *Language Acquisition*, 24:234–264.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics*, 10:209–231.
- Selkirk, E. (1984). *Phonology and syntax: The relation between sound and structure*. The MIT Press, Cambridge, MA.
- Selkirk, E. (2011). The syntax-phonology interface. In *The handbook of phonological theory*, page 435–483. Oxford University Press.
- Sgall, P., Hajičová, E., and Panevova, J. (1986). *The meaning of the sentence in its semantic and pragmatic aspects*. Reidel, Dordrecht.
- Shapiro, S. S. and Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, page 591–611.
- Sieloff Magnan, S. and Lafford, B. A. (2018). Learning through immersion during study abroad. In Herschensohn, J. and Young-Scholten, M., editors, *The Cambridge handbook of second language acquisition*, pages 525–540. Cambridge University Press.
- Skopeteas, S. and Fanselow, G. (2009). Effects of givenness and constraints on free word order. In Zimmermann, M. and Féry, C., editors, *Information Structure: Theoretical, Typological, and Experimental Perspectives*, pages 307–331. Oxford University Press, Oxford.
- Sleeman, P. (2004). Guided learners of French and the acquisition of emphatic constructions. *International Review of Applied Linguistics in Language Teaching*, pages 129–151.
- Sorace, A. (2005). Syntactic optionality at interfaces. In Cornips, L. and Corrigan, K., editors, *Syntax and variation: Reconciling the biological and the social*, page 46–111. Amsterdam: John Benjamins.
- Sorace, A. (2011). Pinning down the concept of “interface” in bilingualism. *Linguistic Approaches to Bilingualism*, 1:1:1–33.
- Sorace, A. and Keller, F. (2005). Gradience in linguistic data. *Lingua*, 115:1497–1524.
- Stalnaker, R. (1974). Pragmatic presuppositions. In Stalnaker, R., editor, *Context and Content*, pages 47–62. Oxford University Press.

- Stalnaker, R. (2002). Common ground. *Linguistics and Philosophy*, 25(5/6):701–721.
- Stevens, M. and Hajek, J. (2006). Blocking of word-boundary consonant lengthening in sienese italian: some auditory and acoustic evidence. In Warren, P. and Watson, C., editors, *11th Australasian International Conference on Speech Science and Technology, Proceedings*, page 176–181. University of Auckland, Auckland.
- Szendroi, K. (2001). *Focus and the syntax-phonology interface*. University of London, University College London.
- Thomas, M. (2006). Research synthesis and historiography: The case of assessment of second language proficiency. In Norris, J. and Ortega, L., editors, *Synthesizing research on language learning and teaching*, page 279–298. Amsterdam: John Benjamins.
- Thörle, B. (2020). «Et le chien aussi i’ regarde» particule additive aussi et structure informationnelle en français L2. *Language Interaction Acquisition*, 11:298–324.
- Tremblay, A. and Garrison, M. (2010). Cloze tests: A tool for proficiency assessment in research on l2 french. In Prior, M. T., editor, *Selected Proceedings of the 2008 Second Language Research Forum*, pages 73–88. Cascadilla Proceedings Project, MA.
- Trubeckoj, N. S. (1939). *Grundzüge der Phonologie*. Harrassowitz.
- Truckenbrodt, H. (2016). Focus, intonation, and tonal height. In Féry, C. and Ishihara, S., editors, *The Oxford Handbook of Information Structure*. Oxford Academic, Oxford.
- Turco, G., Dimroth, C., and Braun, B. (2015). Prosodic and Lexical Marking of Contrast in L2 Italian. *Second Language Research*, 31 (4):465–91.
- Vaissière, J. (1983). Language-independent prosodic features. In *Prosody: Models and Measurements*, pages 53–66. Berlin: Springer Verlag.
- Vallduví, E. (1991). The role of plasticity in the association of focus and prominence. In *Eastern States Conference in Linguistics*, volume 7, pages 295–306. Garland.
- Vallduví, E. and Vilkuna, M. (1998). On rheme and kontrast. In Peter Culicover, L. M., editor, *The Limits of Syntax*, pages 79–108. Academic Press, New York.
- Van den Steen, K. (2005). Cleft constructions in french and spanish. In *Perspectives on Variation*, pages 275–290. Berlin, New York: De Gruyter Mouton.
- Vander Klok, J., Goad, H., and Wagner, M. (2018). Prosodic focus in English vs. French: A scope account. *Glossa: a journal of general linguistics*, 3 (1): 71.

- Vayra, M. (1994). Phonetic explanations in phonology: laryngealization as the case for glottal stops in Italian word-final stressed syllables. In Dressler, W. U., Prinzhorn, M., and Rennison, J. R., editors, *7th International Phonology Meeting, Proceedings*, page 275–293. Torino: Rosenberg and Sellier.
- Vedder, I. (2008). Competenza pragmatica e complessità sintattica in italiano l2: l'uso dei modificatori nelle richieste. *Linguistica e Filologia*, 25(1):99–123.
- von Stutterheim, C. (2003). Linguistic structure and information organization: The case of very advanced learners. In Foster-Cohen, S. H. and Pekarek Doehler, S., editors, *EUROSLA Yearbook: Volume 3*, page 183–206. Amsterdam: John Benjamins.
- von Stutterheim, C. and Carroll, M. (2005). Subjektwahl und Topikkontinuität im Deutschen und Englischen. *Zeitschrift für Literaturwissenschaft und Linguistik*, 139:7–28.
- Véronique, D. (1994). Il y a et c'est dans l'interlangue d'apprenants de français. *Cahiers du français contemporain*, 1:55–75.
- Watorek, M. and Perdue, C. (1999). Additive particles and focus: observations from learner and native-speaker production. *Linguistics*, 37-2:297–323.
- Weinreich, U. (1953). *Languages in Contact: Findings and Problems*. The Hague, Paris: Mouton.
- Welby, P. (2006). French intonational structure: Evidence from tonal alignment. *Journal of Phonetics*, 34(3):343–371.
- Wightman, C. W. (2002). ToBI or not ToBI? In Bel, B. and Marlien, I., editors, *Speech Prosody 2002, Aix-en-Provence (France)*, Université de Provence, pages 25–29.
- Yan, M. and Calhoun, S. (2022). Prosodic prominence and clefting in L2 focus interpretation. In *Proc. Speech Prosody*, pages 901–905.
- Zerbian, S. (2015). Markedness considerations in L2 prosodic focus and givenness marking. In Delais-Roussarie, E., Avanzi, M., and Herment, S., editors, *Prosody and Language in Contact. Prosody, Phonology and Phonetics*, pages 7–27. Springer, Berlin, Heidelberg.
- Zimmermann, M. (2008). Contrastive focus and emphasis. *Acta Linguistica Hungarica*, 55(3-4):347–360.
- Zubizarreta, M. (1998). *Prosody, Focus, and Word Order*. MIT Press, Cambridge.
- Zubizarreta, M. L. and Nava, E. (2011). Encoding discourse-based meaning: Prosody vs. syntax: Implications for second language acquisition. *Lingua*, pages 652–659.

Appendix

Consent forms

Italian version



Università degli Studi di Torino
Dipartimento di Studi Umanistici

Informazioni sul trattamento dei dati personali ai sensi dell'art. 13 del Regolamento 2016/679/UE

Versione n. 1 del 13/09/2019

a) Identità e dati di contatto del Titolare

Il "Titolare" del trattamento è l'Università degli Studi di Torino, via Verdi 8, 10124 Torino, Centralino +39 011 6706111, casella di Posta elettronica certificata (Pec): segreteria.rettore@unito.it, Legale rappresentante: il Rettore *pro tempore*.

b) Dati di contatto del Responsabile della protezione dei dati personali

Il Responsabile della protezione dei dati personali – RPD (nella versione anglosassone *Data Protection Officer* DPO), può essere contattato al seguente indirizzo mail rpdp@unito.it.

c) Finalità del trattamento e base giuridica

L'Università degli Studi di Torino è un'istituzione pubblica di alta cultura che effettua, ai sensi dell'art. 6, primo capoverso, lett. e) del Regolamento europeo 679 del 2016 in materia di protezione dei dati, trattamenti di dati per **finalità istituzionali di istruzione superiore e di ricerca** (art. 1 dello Statuto dell'Università degli Studi di Torino), in attuazione dell'art. 33 della Costituzione.

La base giuridica è costituita dalla legge n. 168/1989 e s.m.i.

Il progetto *Langacross and beyond. Struttura dell'informazione nell'interazione parlata: confermare, smentire, ratificare* intende costituire un primo *corpus* di dati in italiano su cui effettuare analisi e studi relativi all'organizzazione del testo e della struttura informativa in prospettiva di comparazione interlinguistica, sviluppando la componente interazionale e dialogica finora trascurata.

Il progetto contribuirà a una maggiore conoscenza della relazione tra linguaggio e cognizione, soprattutto in merito ai processi di acquisizione della lingua madre, di una seconda lingua e nelle situazioni di bilinguismo.

I dati personali (inclusa la voce durante le registrazioni) da Lei forniti sono necessari a consentire le attività di ricerca e gli adempimenti conseguenti. I dati saranno trattati nel rispetto delle disposizioni contenute nelle regole deontologiche - "Regole deontologiche per trattamenti a fini statistici o di ricerca scientifica" (G.U. del 14 gennaio 2019, n. 11).

d) Destinatari ed eventuali categorie di destinatari dei dati personali

I dati sono trattati all'interno dell'Ente da soggetti autorizzati al trattamento sotto la responsabilità del Titolare per le finalità sopra riportate nel rispetto delle regole deontologiche e del codice etico.

Informiamo inoltre che i dati raccolti mediante la somministrazione del questionario e durante l'intervista saranno utilizzati in forma anonima; l'audioregistrazione sarà utilizzata in forma anonima e cifrata (in archivio protetto).

Il trattamento avverrà in forma digitale secondo le procedure tipiche delle discipline linguistiche per poter condurre un'adeguata analisi sulla struttura delle informazioni nell'interazione parlata.

Ai dati anonimi e cifrati potranno accedere ricercatori afferenti ad altre Università al fine di poter procedere con un raffronto con analoghi *corpora* linguistici raccolti in altre lingue.

I dati di categorie particolari saranno trattati nel rispetto del D.Lgs. 101 del 2018 e nel rispetto dei provvedimenti generali del Garante per la protezione dei dati personali.



Università degli Studi di Torino
Dipartimento di Studi Umanistici

e) Trasferimento dati a paese terzo

L'Università si avvale dei servizi di Google per il settore Educational per i quali sono state adottate adeguate misure di garanzia (per approfondimenti vedasi la sezione *Privacy and Security* consultabile sul portale di Ateneo alla voce *Privacy*); tali servizi implicano il trasferimento dei dati personali in un paese terzo extra-europeo (trattasi delle c.d. soluzioni *in cloud* di Google). Google aderisce al Privacy shield.

f) Periodo di conservazione dei dati

I dati anonimizzati e cifrati saranno conservati oltre la chiusura del progetto e potranno essere riutilizzati per finalità di ricerca nell'ambito delle scienze linguistiche.

g) Diritti sui dati

In riferimento ai propri dati personali, è possibile esercitare gratuitamente i diritti sui dati previsti dagli artt. 15-22 del Regolamento protezione dati personali europeo 2016/679 ove applicabili, attraverso l'invio di una specifica istanza ad oggetto: "*Diritti privacy*" al Dipartimento di Studi Umanistici all'indirizzo studium@pec.unito.it e p.c. al direttore scientifico del progetto ceciliamaria.andorno@unito.it.

h) Reclamo

L'interessato ha diritto di proporre reclamo all'autorità di controllo e può rivolgersi all'Autorità Garante per la protezione dei dati personali: <https://www.garanteprivacy.it/>.

i) Conferimento dei dati

L'interessato è obbligato a fornire i dati. Il mancato conferimento dei dati non consentirà all'interessato di partecipare al progetto.

L'adesione alla ricerca è libera e volontaria, la mancata partecipazione non comporta alcuna conseguenza per l'interessato.

l) Profilazione

Il Titolare non utilizza processi automatizzati finalizzati alla profilazione.

Il/la sottoscritto/a _____, nato a _____, il ____/____/_____,
residente in _____ (C.F.: _____), acquisite le informazioni
di cui sopra:

☐ **ha preso visione e compreso l'informativa al trattamento dei dati personali e aderisco in modo libero e volontario alla ricerca.**

Data _____

Firma _____

French version

Informations sur l'expérience

Qu'est-ce qu'il se passe pendant l'expérience ?

Notre recherche vise à étudier les productions orales de natifs français. L'expérience se déroule en français: nous vous demandons de lire des textes, de décrire une image, de raconter film ou un livre, et nous vous enregistrerons pendant que vous lirez/ parlerez. Ces enregistrements correspondent à des données audio. Vous aurez aussi un questionnaire à remplir. L'expérience dure environ une demi-heure.

Est-ce que je reçois une rémunération?

Non, vous n'allez recevoir aucune rémunération pour participer à cette expérience.

Est-ce qu'il y a des risques?

Cette expérience ne pose aucun risque prévisible.

Qu'est-ce que vous allez faire avec mes données?

Les données seront d'abord transcrites, ce qui consistera à associer le contenu de ce que vous dites avec vos propos (comme des sous-titres dans les films). Nous analyserons ensuite les données enregistrées à l'écoute et avec des mesures acoustiques, et en nous appuyant sur la transcription. Les résultats des analyses seront présentés dans des rencontres et des publications scientifiques. Les données enregistrées et leurs transcriptions textuelles seront associées à un code alphanumérique pour les rendre anonymes : elles ne seront absolument pas associées à votre nom et/ou prénom. Nous pourrions les publier de manière anonyme dans des ressources scientifiques en ligne ou sur support digital : les données audio et les annotations seront publiques et cela permettra à toute la communauté scientifique d'en profiter.

Que se passe-t-il si je change mon avis?

Si vous désirez vous retirer de l'étude pendant l'expérience, vous n'avez qu'à prévenir le chercheur. Vous avez également le droit de vous retirer de l'étude dans les 15 jours suivants en écrivant aux chercheurs par mail (v. ci-dessous). Si vous décidez de vous retirer, nous détruirons vos données.

Nous contacter

Bianca Maria De Paolis, Université Paris de Paris 8 (France) : biancadepaolis@gmail.com

Si vous souhaitez participer à cette expérience, signez la feuille de consentement ci-dessous.

Feuille de consentement

Lisez avec attention cette feuille avant de commencer l'expérience. Si quelques points ne sont pas clairs, ou si vous souhaitez plus d'informations, n'hésitez pas à demander des renseignements !

J'ai lu et compris les informations qui se trouvent en recto de cette feuille.

☐

Je comprends que je peux me retirer de l'étude dans les 15 prochains jours en écrivant à un des chercheurs par mail. Dans ce cas, mes données seront détruites.

☐

Je comprends que les données enregistrées contenant mes productions orales et la transcription textuelle de ces données seront associées au code alphanumérique reporté en bas de cette page. Les données comme les transcriptions seront conservées et publiées de manière anonyme.

☐

Je choisis librement de participer à cette étude et je permets l'utilisation de mes données et des transcriptions selon les indications reportées en recto de cette feuille.

☐

Je comprends que les données et les transcriptions pourront être publiées de manière anonyme dans des publications, dans des ressources en ligne ou sur support digital et je renonce à demander des droits d'auteurs. Des extraits de mes enregistrements (toujours anonymes) pourront être présentés à titre illustratif à l'occasion de rencontres scientifiques ou dans des publications.

☐

Prénom: _____ Nom: _____

Date: _____ Signature: _____

Adresse mail : _____

(Optionnel : votre adresse mail sera utilisée exclusivement dans le cas où une partie des données ou des informations dans le questionnaire ne soit pas claire)

Code : _____

Linguistic questionnaires

Native speakers: Italian version

Codice: _____ Data: _____ Ricercatore: _____

Questionario sul background linguistico

A. Informazioni generali

Data di nascita: _____

Sesso: F [] M []

Eta': _____ Luogo di nascita: _____

Luogo di residenza/domicilio: _____

Titolo di studio: _____

Settore di studio/lavoro: _____

Problemi di vista o udito? In passato: _____, adesso: _____

B. Conoscenze linguistiche generali

Madrelingua/e, dialetto/i: _____

Lingua della madre: _____ Regione di origine della madre: _____

Lingua del padre: _____ Regione di origine del padre: _____

Lingua/e parlata/e in casa fino a 6 anni: _____

Lingua/e parlata/e in casa dopo i 6 anni: _____

Lingua/e in cui sei stato/a scolarizzato/a:

	Inglese	Altro: _____	Altro: _____
Scuola elementare			
Scuola media			
Scuola superiore			
Università			

Lingue conosciute: (1 = elementare A1; 6 = nativo C2)

	Compr. scritta	Compr. orale	Prod. scritta	Prod. orale
Italiano	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
Inglese	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
_____	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
_____	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
_____	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6

Native speakers: French version

L2 speakers: Italian version

Codice: _____ Data: _____ Ricercatore: _____

Questionario sul background linguistico

A. Informazioni generali

Anno di nascita: _____

Sesso: F ☐ M ☐

Eta': _____ Luogo di nascita: _____

Settore di studio/lavoro: _____

Problemi di vista o udito? In passato: _____, adesso: _____

B. Conoscenze linguistiche generali

Madrelingua/e, dialetto/i: _____

Lingua della madre: _____ Regione di origine della madre: _____

Lingua del padre: _____ Regione di origine del padre: _____

Lingua/e parlata/e in casa fino a 6 anni: _____

Lingua/e parlata/e in casa dopo i 6 anni: _____

Lingua/e in cui sei stato/a scolarizzato/a: _____

	Materie generali	Inglese	Italiano	Altro: _____
Scuola elementare				
Scuola media				
Scuola superiore				

Lingue conosciute: (1 = *elementare A1*; 6 = *nativo C2*)

	Compr. scritta	Compr. orale	Prod. scritta	Prod. orale
Italiano	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
Inglese	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
Francese	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
_____	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
_____	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6

C. Italiano

Hai avuto il primo contatto intensivo con l'italiano quando avevi _____ anni.

Contesto del primo contatto:

☐ scuola ☐ lezioni private ☐ università ☐ altro: _____
ore di lezione a settimana: _____

In totale hai studiato italiano per _____ anni.

Segui attualmente un corso di italiano? Si ☐ No ☐

Da quanti anni frequenti l'università? ☐ 1-3 ☐ 4-6 ☐ 7-9

C'è stata una pausa nello studio dell'italiano da quando hai iniziato fino a oggi? Si ☐ No ☐

Puoi specificare la ragione? _____

Per quanto tempo? _____

Stima il tuo livello: A1 A2 B1 B2 C1 C2

D. Soggiorni in Italia

La prima volta che sei andato/a in Italia avevi _____ anni.

Hai fatto il soggiorno piu' lungo (senza interruzione) in Italia quando avevi _____ anni.

Durata: _____

Regione: _____

Motivo: _____

Quante volte sei stato/a in Italia negli ultimi 5 anni? _____.

Motivi principali:

Visite ad amici/famiglia (specifica la regione): _____

Vacanze: _____ Corso di lingua: _____

Studio: _____ Altro: _____

E. Utilizzo dell'italiano

In che occasioni utilizzi l'italiano?

[] parlando (es. telefonate/incontri con amici o familiari)

[] leggendo (es. libri, giornali, internet)

[] scrivendo (es. mail ad amici, documenti di studio o lavoro)

[] ascoltando (es. film, TV, musica)

Come hai imparato l'italiano?

o All'estero o A scuola o Con amici o All'universita' o In viaggio o Con i media

In che contesto utilizzi l'italiano?

o All'estero o A scuola o Con amici o All'universita' o In viaggio o Con i media

F. Italiano vs. altra lingua straniera (inglese, oppure specificare: _____)

Come giudichi il tuo italiano rispetto all'altra lingua?

Prod. orale: [] uguale [] meglio in italiano [] meglio nell'altra lingua

Compr. scritta: [] uguale [] meglio in italiano [] meglio nell'altra lingua

Prod. scritta: [] uguale [] meglio in italiano [] meglio nell'altra lingua

Compr. orale: [] uguale [] meglio in italiano [] meglio nell'altra lingua

Conoscenze e uso dell'altra lingua

A che eta' hai cominciato a imparare l'altra lingua? _____

Come hai imparato l'inglese?

o All'estero o A scuola o Con amici o All'universita' o In viaggio o Con i media

In che contesto utilizzi l'inglese?

o All'estero o A scuola o Con amici o All'universita' o In viaggio o Con i media

L2 speakers: French version

Assessment tests

Italian

Leggete il testo e completate, inserendo la parola mancante.

In carcere per Lara

Un padre deciso a rivedere la sua bambina è pronto a tutto. Anche a farsi arrestare.

Lara, una bambina italiana di 9 anni, vive in Norvegia, ... paese di sua madre. Da due anni e mezzo non ... il padre, l'italiano Silvio Berlino. Gliel'hanno portata via ... gendarmi, proprio come nelle favole tristi, per riconsegnarla alla mamma.

... genitori di Lara hanno divorziato. Nell'agosto 1997, il padre, ... oggi ha 39 anni, portò la figlia per una vacanza ... un mese in Italia, perché era deperita, la madre aveva ... problemi psicologici e rendeva sempre più difficili gli incontri con ... bambina. Di fatto Berlino 'rapi' Lara e la moglie ... per sottrazione di minore. Sino all'agosto del 2001 l' ... sparì con la bambina, protetto dalla comunità del paesino alle ... di Bologna in cui si ... era nascosto. Un atto d' ... che nelle pagine dei codici è però un reato.

... Così ... 4 agosto del 2001 le forze dell'ordine ... strapparono letteralmente ... bambina al padre ... e la madre riuscì a riportarla in Però, in questi anni, Berlino ha convinto la magistratura ... italiana ... aver ragione. Ha dimostrato che ... l'ex moglie Lisbeth F., ... anni, rifiuta ... di far curare Lara, alla quale i medici ... hanno prescritto alcune medicine salvavita per un deficit immunitario.

... Non ...: la donna ha chiesto ingenti somme per ... consentire a Berlino ... incontrare la bambina, ... (800 mila corone norvegesi, circa 100 mila ...), negandogli anche il permesso di sentire al telefono la ... figlia. ... il 28 marzo di quest'anno, il tribunale ... affidato Lara in via esclusiva al padre. ... Ma la sentenza ... è stata neanche considerata dalla madre e dalle autorità norvegesi.

... , per poter avviare una causa ... confronti ... della moglie per ... Lara, Silvio Berlino deve ... presentarsi a una udienza di mediazione ... Norvegia, dove nei suoi confronti è stato emesso un ... ordine ... cattura. 'Appena scendo dall'aereo sarò arrestato', spiega Silvio Berlino, ... così non potrò presentarmi all'udienza.'

... 'Riteniamo inaccettabile che Lara ... privata del ... contatto con il papà', spiegano dall'ambasciata ... italiana ... Oslo, 'e purtroppo non possiamo ... spiegare quello che adesso stiamo' Parole impeccabili. Che però non bastano a un uomo ... disperato ... da più di due anni non vede la sua bambina.

Damiano Iovino

Cloze test for Italian proficiency assessment.

French

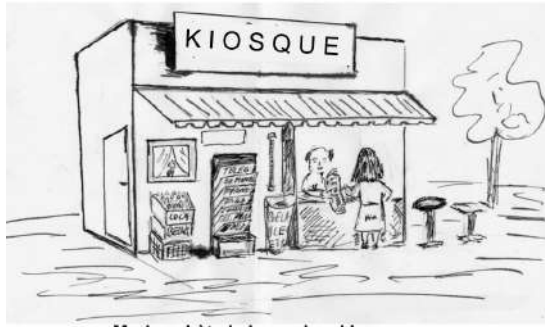
"Le taux de CO₂ dans l'atmosphère augmente plus vite que prévu"

La croissance économique mondiale _____ provoqué un accroissement de _____ teneur en dioxyde de _____ (CO₂) dans l'atmosphère beaucoup _____ rapidement que prévu, selon une étude _____ lundi dans les comptes rendus de l'Académie _____ des sciences des États-Unis. Cette étude _____ que la concentration des émissions _____ gaz carbonique dans l'atmosphère a _____ de 35 % en 2006, entre le début _____ années 1990 et les _____ 2000-2006, passant de 7 à 10 milliards de tonnes _____ an, alors que le protocole de Kyoto prévoyait _____ en 2012, ces émissions responsables _____ réchauffement climatique devaient _____ baissé de 5 % par _____ à 1990. « Les améliorations dans l'intensité carbonique de l'économie _____ stagnent depuis 2000, après trente _____ de progrès, ce qui a provoqué cette _____ inattendue de la concentration de CO₂ _____ l'atmosphère », indique dans _____ communiqué le British Antarctic Survey, _____ a participé à cette étude. _____ les chercheurs, les carburants polluants _____ responsables de 17 % de cette augmentation, _____ que les 18 % restant sont _____ à un déclin de la capacité des « puits » naturels comme _____ forêts ou les océans _____ absorber le gaz carbonique. « _____ y a cinquante ans, pour chaque tonne de CO₂ émise, 600 kg _____ absorbés par les puits naturels. _____ 2006, seulement 550 kg par tonne ont été _____, et cette quantité continue à baisser », explique _____ auteur principal de l'étude, Pep Canadell, du Global Carbon Project. « La baisse de l'efficacité _____ puits mondiaux laisse _____ que la stabilisation de cette _____ sera encore plus _____ à obtenir que ce que l'on pensait jusqu'à _____ », indique pour sa _____ le British Antarctic Survey. Ces _____ obligent à une révision à la hausse _____ prévisions du Groupe intergouvernemental d'experts _____ l'évolution du climat qui, dans son _____ de février, tablait sur l'augmentation de la température _____ de la terre de 1,8 °C à 4 °C _____ l'horizon 2100.

Cloze test for French proficiency assessment.

Tasks 1. Picture story

French version



Marie achète le journal au kiosque.

(a) Baseline picture 1a



Après, elle le donne à son frère.

(b) Baseline picture 1b

Baseline-picture slides for story n.1 (French version).

Stimulus 1a.

Qu'est-ce qu'il se passe ici? *Broad focus*

Qu'est-ce que Marie achète au kiosque? *Identification focus; object*

Qui achète le journal au kiosque? *Identification focus; subject*

Marie achète des mots croisés au kiosque, non? *Correction focus; object*

Où est-ce que Marie achète le journal? *Identification focus; adverbial*

C'est Marie qui achète le journal, n'est-ce pas? *Confirmation*

Que fait Marie avec le journal? *Identification focus; verb*

Marie achète le journal au supermarché, non? *Correction focus; adverbial*

Que fait Marie au kiosque? *Identification focus; verbal phrase*

Marie vole le journal au kiosque, non? *Correction focus; verb*

Stimulus 1b.

Qu'est-ce qu'il se passe ici? *Broad focus*

Que fait Marie? *Identification focus; verbal phrase*

Qui est en train de donner le journal à son frère? *Identification focus; subject*

À qui Marie donne-t-elle le journal? *Identification focus, indirect object*

Julie donne le journal à son frère, n'est-ce pas? *Correction focus; subject*

Qu'est-ce que Marie donne à son frère? *Identification focus; object*

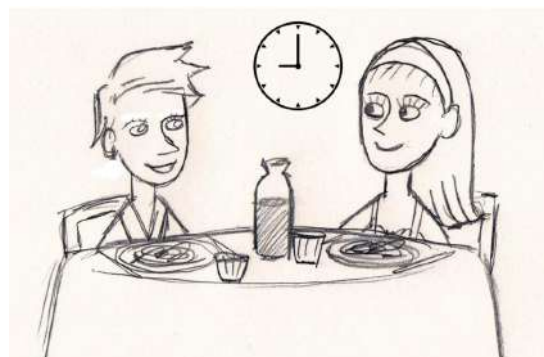
Marie donne à son frère des mots croisés, non? *Correction focus; object*

Marie donne le journal au frère de Julie, n'est-ce pas? *Correction focus; indirect object*



Jules a téléphoné à Émilie...

(a) Baseline picture 2a



... et il l'a invitée à dîner à 9 heures.

(b) Baseline picture 2b

Baseline-picture slides for story n.2 (French version).

Stimulus 2a.

Qu'est-ce qu'il s'est passé ici? *Broad focus*

À qui a téléphoné Jules? *Identification focus, indirect object*

Jules a téléphoné à Christine, non? *Correction focus, indirect object*

Qui a téléphoné à Émilie? *Identification focus, subject*

Qu'est-ce que Jules a fait avec Émilie? *Identification focus, verb*

Marc a téléphoné à Émilie, n'est-ce pas? *Correction focus, subject*

Jules a envoyé un message à Émilie, non? *Correction focus, verb*

Stimulus 2b.

Qu'est-ce qu'il s'est passé ici? *Broad focus*

À quelle heure Jules a invité à dîner Émilie ? *Identification focus, adverbial*

Jules a invité à dîner Émilie à 7 heures, n'est-ce pas? *Correction focus, adverbial*

Stéphane a invité à dîner Émilie à 9 heures, non? *Correction focus, subject*

Italian version



Maria compra il giornale in edicola.

(a) Baseline picture 1a



Poi lo dà a suo fratello.

(b) Baseline picture 1b

Baseline-picture slides for story n.1 (Italian version).

Stimulus 1a.

Che cosa succede qui? *Broad focus*

Che cosa compra Maria in edicola? *Identification focus; object*

Chi compra il giornale in edicola? *Identification focus; subject*

Maria compra una rivista di cruciverba in edicola, giusto? *Correction focus; object*

Dove compra il giornale Maria? *Identification focus; adverbial*

È Maria che compra il giornale, giusto? *Confirmation*

Che cosa fa Maria con il giornale? *Identification focus; verb*

Maria compra il giornale al supermercato, no? *Correction focus; adverbial*

Che cosa fa Maria in edicola? *Identification focus; verbal phrase*

Maria ruba il giornale in edicola, giusto? *Correction focus; verb*

Stimulus 1b.

Che cosa succede qui? *Broad focus*

Che cosa fa Maria? *Identification focus; verbal phrase*

Chi sta dando il giornale a suo fratello? *Identification focus; subject*

A chi dà il giornale Maria? *Identification focus, indirect object*

Giulia dà il giornale a suo fratello, vero? *Correction focus; subject*

Che cosa dà Maria a suo fratello? *Identification focus; object*

Maria dà a suo fratello una rivista di cruciverba, giusto? *Correction focus; object*

Dà il giornale al fratello di Giulia, no? *Correction focus; indirect object*



Giulio ha telefonato a Emilia...

(a) Baseline picture 2a



... e l'ha invitata a cena alle 9.

(b) Baseline picture 2b

Baseline-picture slides for story n.2 (Italian version).

Stimulus 2a.

Che cosa è successo qui? *Broad focus*

A chi ha telefonato Giulio? *Identification focus, indirect object*

Giulio ha telefonato a Cristina, giusto? *Correction focus, indirect object*

Chi ha telefonato ad Emilia? *Identification focus, subject*

Che cosa ha fatto Giulio con Emilia? *Identification focus, verb*

È Marco che ha telefonato ad Emilia, vero? *Correction focus, subject*

Giulio ha mandato un messaggio a Emilia, no? *Correction focus, verb*

Stimulus 2b.

Che cosa è successo qui? *Broad focus*

A che ora Giulio ha invitato a cena Emilia? *Identification focus, adverbial*

Giulio ha invitato Emilia a cena alle sette, giusto? *Correction focus, adverbial*

Stefano ha invitato Emilia a cena al ristorante, no? *Correction focus, subject*

Task 2: Read aloud

Italian version

Dialogo 1. Leggi la parte di Giulio!

Giulio è a casa sua e sta cucinando il pranzo per lui e la sua amica Nina. Nina arriva e Giulio le apre la porta.

Giulio: Ciao Nina! Benvenuta.
Nina: Ciao Giulio! Che profumino! Hai cucinato le lasagne?
Giulio: No, ho cucinato la parmigiana.
Nina: Davvero? L'hai fatta tu?
Giulio: Sì, la parmigiana l'ho fatta io. È Giovanna che ha fatto il dolce, invece.
Nina: Chi ha fatto il dolce, scusa?
Giulio: Giovanna ha fatto il dolce.
Nina: Mi ricordo di lei. La settimana scorsa ha preparato la torta al limone. E oggi che cosa ha fatto?
Giulio: Oggi ha fatto la torta caprese.
Nina: Peccato! La fa benissimo la torta al limone.
Giulio: Ma no, è la torta caprese che fa benissimo. Vedrai che non mi sbaglio.
Nina: Allora non vedo l'ora di mangiarla!

Dialogo 2. Leggi la parte di B!

A e B sono in macchina, A sta guidando.

A: Dobbiamo avvertire del nostro ritardo. Preferisci telefonare a Giulia o a Elena?
B: Preferisco telefonare a Giulia.
A: D'accordo. Fallo subito.
B: L'ultima volta, però, è a Giulia che ho telefonato. Magari è meglio cambiare.
A: Fai come vuoi, basta che avverti.
B: Ecco fatto.
A: Ma come? Hai già mandato il messaggio a Elena?
B: No, ho telefonato a Elena.
A: Sei stato rapido. Non è che mi dici una bugia?
B: Che ho telefonato è vero. Ma alla fine ho richiamato Giulia!

Dialogo 3. Leggi la parte di B!

Dal fruttivendolo.

A: Buongiorno! Le è piaciuta la frutta che ha comprato ieri?
B: Sì, mi è piaciuta molto. I mandarini li ho mangiati già tutti.
A: Benissimo. Ne vuole ancora?
B: No, oggi vorrei prendere dei limoni.
A: Preferisce il cedro o proprio il limone?
B: Non il cedro, grazie. Sono i limoni che mi servono oggi.
A: Eccoli qui. Vuole altro? Delle arance, visto che le ha mangiate tutte?
B: Ho ancora molte arance: i mandarini sono finiti.
A: È vero, che sciocca, me lo ha appena detto. A lei capita che la memoria non funzioni?
B: La memoria, quella funziona sempre.
A: Forse dovrei mangiare più spinaci. Gli spinaci aiutano la vista o la memoria?
B: Gli spinaci aiutano la memoria.
A: Ha ragione! Ecco qui la sua frutta. Arrivederci!
B: Arrivederci!

Confederate speaker's and participant's script for the read-aloud task (Italian version).

French version

Dialogue 1. Lisez la partie de Jules !

Jules est chez lui et prépare le déjeuner pour lui et son amie Nina. Nina arrive et Jules lui ouvre la porte.

Jules: Salut Nina ! Bienvenue.
Nina: Salut Jules! Ça sent bon ! Tu as préparé un gâteau ?
Jules: Non, j'ai préparé de la marmelade.
Nina: Vraiment ? C'est toi qui l'as faite ?
Jules: Oui, la marmelade, je l'ai faite moi-même. C'est Jean-Marie qui a fait le dessert, par contre.
Nina: Pardon, qui a fait le dessert ?
Jules: Jean-Marie a fait le dessert.
Nina: Je me souviens de lui. La semaine dernière, il a fait une tarte au citron. Et aujourd'hui, qu'est-ce qu'il a fait ?
Jules: Aujourd'hui, il a fait un gâteau meringué.
Nina: Dommage ! Il l'a fait très bien, la tarte au citron.
Jules: Mais non, c'est le gâteau meringué qu'il fait très bien. Tu vas voir, je ne me trompe pas.
Nina: Alors j'ai hâte de le manger !

Dialogue 2. Interprétez B !

A et B sont dans la voiture. A conduit.

A: Nous devons prévenir de notre retard. Tu préfères appeler Julie ou Hélène ?
B: Je préfère appeler Julie.
A: D'accord. Fais-le de suite.
B: La dernière fois, par contre, c'est à Julie que j'ai téléphoné. Peut-être qu'il serait mieux de changer.
A: Tu peux faire ce que tu veux, pourvu que tu les préviennes.
B: C'est fait.
A: Comment ça ? Tu as déjà envoyé le message à Hélène ?
B: Non, j'ai téléphoné à Hélène.
A: Tu as été rapide. Tu ne me dis pas un mensonge ?
B: Que j'ai téléphoné, c'est vrai. Mais au final j'ai rappelé Julie !

Dialogue 3. Interprétez B !

A l'épicerie.

A: Bonjour ! Avez-vous aimé les fruits que vous avez achetés hier ?
B: Oui, j'ai beaucoup aimé. Les mandarines, je les ai déjà toutes mangées.
A: Très bien. Vous en voulez encore ?
B: Non, aujourd'hui je voudrais acheter des melons.
A: Préférez-vous la pastèque ou les melons ?
B: Je ne veux pas de pastèque, merci. Ce sont les melons que je veux aujourd'hui.
A: Les voici. Ce sera tout ? Voulez-vous des oranges, puisque vous les avez toutes mangées ?
B: J'ai encore beaucoup d'oranges : les mandarines sont terminées.
A: C'est vrai, je suis bête, vous venez de le dire. Cela vous arrive-t-il que votre mémoire ne fonctionne pas ?
B: Ma mémoire, elle marche toujours bien.
A: Peut-être que je devrais manger plus d'épinards. Les épinards aident-ils à la vue ou à la mémoire ?
B: Les épinards aident à la mémoire.
A: Vous avez raison ! Voici vos fruits. Au revoir !
B: Au revoir !

Confederate speaker's and participant's script for the read-aloud task (French version).

Task 3: Picture comparison



Confederate speaker's picture.



Participant's picture.

Confederate speaker's script

Script de l'expérimentateur, tâche de comparaison d'images (PC)

Mon image représente une petite classe d'enfants en plein air, dans un pré. Tu l'as aussi ?

D'accord. En haut à gauche il y a une vache. La vache mange.

A côté de la vache, à droite, il y a un chat. Mon chat est orange.

Plus bas, il y a un enfant blond, assis sur une chaise.

A côté de l'enfant j'ai une petite fille habillée en vert. La fille est en train d'écrire.

D'accord et il a deux bonbons et une pomme sur sa table, non ?

A côté de ces deux enfants sur la droite se trouve un bureau vide.

A la table de gauche, un enfant est en train de couper un sandwich.

Ci-dessous, il y a une poule avec deux poussins.

A côté de la poule, j'ai un chat, et le chat poursuit un oiseau.

D'accord. A droite, deux petites filles jouent aux cartes.

La petite fille de gauche rit.

Et l'un est vêtu d'orange et l'autre de rose.

Juste au-dessus, un garçon écrit au tableau.

Combien d'arbres vois-tu derrière ?

Confederate speaker's script for the picture comparison task.