

Imperatives as Radically Reduced Clauses: Morphosyntax, Acquisition, and the Syntax-Semantics Interface

by

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ABSTRACT

This dissertation investigates the morphosyntax and acquisition of imperative clauses in Italian, arguing for a low structural analysis in which imperatives are radically reduced structures which do not comprise the CP layer, but only vP and a few other projections in the vP periphery in the sense of Belletti (2004). This proposal resolves a tension coming directly from acquisition data: traditionally, imperatives are assumed to target the CP layer, yet positive second person singular imperatives emerge as among the first verbal forms in child development, while CP becomes available only in later acquisitional stages, captured under the Growing Trees framework (Friedmann et al., 2021).

This work is organized in four chapters. Chapter 1 offers a review of the state of the art on imperative clauses. It comprises the typological, morphosyntactic, and theoretical dimensions, focusing on the main lines of research in the generative literature and identifying their empirical and theoretical gaps. Chapter 2 presents two corpus studies on Early Italian and a series of experiments on Language Models. It emerges that positive second person singular imperatives are first-stage structures in the Growing Trees sense and that infinitival imperatives (Negative Imperatives, Generic Imperatives, and *a*-Imperatives) are virtually absent from early spontaneous production. This developmental asymmetry calls for a structural explanation: the proposal is that *realis* vs. *irrealis* constitutes the default aspectual opposition, instantiated in early child language through structurally reduced forms (past participle and imperative respectively), while other aspectual specifications emerge later. Chapter 3 formalizes a low analysis of core imperatives (second person singular forms), deriving the full cluster of their morphosyntactic properties under a mechanism of radical structural reduction *à la* Cecchetto and Donati (2022), and extends the analysis to suppletive forms and to a range of other languages, namely Spanish, Catalan, French, English, Danish, Swedish, and Norwegian. Chapter 4 provides a structural analysis of the three infinitival imperative types, arguing that each instantiates the same low architecture with a different aspectual specification, *AspIrrealis*, *AspGeneric/Progressive*, and *AspInchoative/Ingressive* respectively, and that their interaction with two types of arbitrary pronouns in the sense of Cinque (1988) and Roberts (2019) derives their subject interpretation, sentential force, and syntactic restrictions without further stipulations. The analysis motivates the postulation of a *clause-type squish*, inspired from Ross's (1972) *category squish* and Lowe's (2019) notion of prototype: a structural continuum along which imperative forms are ordered from a prototypical core to increasingly peripheral instantiations, with direct consequences for learnability and for the theory of clause types.

ABSTRACT IN ITALIANO

In questa tesi viene indagata la morfosintassi e l'acquisizione delle frasi imperative in italiano. Viene proposta un'analisi strutturale "bassa", secondo cui gli imperativi sono strutture radicalmente ridotte che non comprendono il CP, ma soltanto il vP e alcune proiezioni nella periferia del vP come proposta da Belletti (2004). Questa proposta risolve una tensione che emerge direttamente dai dati di acquisizione: tradizionalmente, si assume infatti che gli imperativi coinvolgano il CP; tuttavia, gli imperativi positivi di seconda persona singolare compaiono tra le prime forme verbali nello sviluppo infantile, mentre il CP diventa disponibile solo in fasi successive, come descritto nell'approccio *Growing Trees* (Friedmann et al., 2021). Il Capitolo 1 offre una rassegna dello stato dell'arte sulle frasi imperative, esaminandone la dimensione tipologica, morfosintattica, e teorica all'interno della letteratura generativa, e individuandone le lacune empiriche e teoriche. Il Capitolo 2 presenta due studi basati su corpora di italiano infantile e una serie di esperimenti condotti su modelli linguistici. Dai risultati emerge che gli imperativi positivi di seconda persona singolare costituiscono strutture di primo stadio (*à la* Growing Trees) e che gli imperativi infinitivali (negativi, generici e *a*-Imperativi) sono virtualmente assenti nella produzione spontanea precoce. Tale asimmetria acquisizionale richiede una spiegazione strutturale: si propone infatti che la contrapposizione *realis* vs. *irrealis* costituisca l'aspetto di default, realizzato nelle prime fasi attraverso forme strutturalmente ridotte (il participio passato e l'imperativo), mentre le altre specificazioni aspettuali emergono solo successivamente. Il Capitolo 3 sviluppa l'analisi formale bassa degli imperativi *core* (forme di seconda persona singolare) e deriva le loro proprietà morfosintattiche attraverso un meccanismo di riduzione strutturale radicale *à la* Cecchetto e Donati (2022), combinato con la testa iussiva di Zanuttini et al. (2012) che restringe il soggetto alla seconda persona, cioè all'interlocutore. L'analisi viene poi estesa alle forme suppletive e a una serie di altre lingue, in particolare lo spagnolo, il catalano, il francese, l'inglese, il danese, lo svedese e il norvegese. Infine, il Capitolo 4 propone un'analisi strutturale dei tre tipi di imperativi infinitivali, sostenendo che ciascuno realizzi la stessa architettura bassa dell'imperativo *core*, ma con una diversa specificazione aspettuale (*AspIrrealis*, *AspGeneric/Progressive* e *AspInchoative/Ingressive*). La loro interazione con due tipi di pronomi arbitrari (nel senso di Cinque, 1988 e Roberts, 2019) permette di derivare le asimmetrie nell'interpretazione del soggetto, la forza frasale e le restrizioni sintattiche senza ulteriori stipulazioni. L'analisi motiva infine uno *squish* dei tipi di frase (*clause-type squish*), ispirato al *category squish* di Ross (1972) e alla nozione di prototipo di Lowe (2019): un continuum strutturale lungo il quale le forme imperative sono ordinate da un nucleo prototipico verso realizzazioni progressivamente più periferiche, con ricadute dirette sulla *learnability* e sulla teoria dei tipi di frase.

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This PhD journey has been such a stimulating one. I will always be extremely grateful for it. This thesis is only a part of what I have learned and experienced. So many people helped me and made it memorable. I wish to begin with one of my favorite things: an anecdote. As my closest people know, I love anecdotes, and this is an important one.

It is February 3rd, 2020, and I am at the University of Siena to take my very first syntax exam, with Professor Adriana Belletti. While waiting, chatting with other students, I notice a poster outside her office about the Growing Trees approach. We had not covered it in the syllabus yet (we would in later courses), and so it catches my attention immediately. I have always had the bad habit of skipping what I am actually supposed to study in order to read ahead. This thesis owes an enormous debt to Adriana, to her research, and to that poster. After that, it so happened that during a computational linguistics course, also in Siena, Professor Cristiano Chesi told me: “well, you know, imperatives traditionally go to C, but they are acquired very early, and that is potentially a point of tension with the Growing Trees view...” (I know, this is already very specific... to understand, you actually need to read a bit of this dissertation, sorry not sorry).

Since I had written my BA thesis on speech acts, the connection between the syntax of imperatives and the Growing Trees approach tied together all my favorite topics. I will always be grateful to Adriana and Cristiano, who not only supervised me throughout the PhD with great care and patience, but were also the spark of scientific inspiration for me, which made me think about the rather unorthodox idea of the “reduced imperative” as worth exploring. All errors and Mortal Kombat fatalities are mine alone, of course.

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*È vero che la teoria cambia e il dato resta,
ma cos'è la scienza senza cercare una spiegazione?*

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LIST OF ABBREVIATIONS

ACC	accusative
AgrO	agreement object
AgrS	agreement subject
AgrSP	agreement subject phrase
AUX	auxiliary
COMP	complementizer
DLD	developmental language disorder
EA	external argument
ERG	ergative
FinP	finiteness phrase
fn.	footnote
FocP	focus phrase
ForceP	force phrase
GER	gerund
HMC	head movement constraint
HON	honorific
IMP	imperative
ImpNP	imperative noun phrase
IND	indicative
INF	infinitive
IntP	interrogative phrase
JussP	jussive phrase
Lit.	literal
LLM	large language model
LM	language model
ModP	modifier phrase
PF	phonological form
PL	plural
PRES	present
PTCP	participle
Q/FocP	question/focus phrase
REFL	reflexive
RI	root infinitive
RRC	reduced relative clause
SBJV	subjunctive
SG	singular
SLI	specific language impairment
TD	typically developing
TopP	topicalized phrase
WALS	world atlas of language structures

Introduction

0 INTRODUCTION

0.1 A TENSION: THEORY VS. ACQUISITION

Nearly every language in the world has grammaticalized means of expressing commands and directives. In the grammatical tradition, this form is called the imperative. What is striking is that approximately one third of the world's languages display imperative verbal forms that are morphologically impoverished: they lack tense, person, and agreement specifications, and consist essentially of the verbal root alone (Aikhenvald, 2010). In this sense, the imperative is the simplest verbal form a language makes available, the default, most of the time the form of the here and now.

This has a clear correlate in (first) language acquisition. Across typologically unrelated languages, positive second person singular imperatives are among the very first verbal forms children produce, at the onset of the two-word stage. This pattern is attested from Italian (Belletti and Guasti, 2015), to Ku Waru (Rumsey, 2003); from Arabic (Omar, 1975), to Tagalog (Garcia et al., 2021); the list continues. The child knows that imperatives are simple, and exploits them accordingly.

Indeed, in several languages among which also Italian, imperatives are not only early but they are also produced at a very high rate compared to child-directed speech. Children employ imperatives in non-target contexts in place of finite, inflected forms that would be the target adult output (Salustri and Hyams, 2003, 2006). There belong to the family of the so-called *non-random errors* documented in language acquisition (Guasti, 2017); the child is reaching for the simplest available verbal form and extending it beyond its adult range. The imperative, in this light, functions as a default, computationally light form in the early grammar. The connection between morphological simplicity, early acquisition, and overproduction is intuitively clear: an impoverished form is less demanding for the developing child.

And yet, the dominant tradition in formal syntactic theory has located imperatives at the very top of the clausal spine, in the CP domain (Rizzi, 1997), a layer of the clause with usually encodes the grammar of much richer structures, shown to be mastered by children only in later acquisitional stages.

Therefore, the tension between formal theory and acquisition data is the starting point of the present dissertation.

0.2 WHY IMPERATIVES?

The tension is not the only reason why investigating the morphosyntax and syntax-semantics interface in of imperative clauses is worth pursuing; imperatives are special in many ways. The second person singular imperative is the most diachronically stable form compared to other verbal forms (Aikhenvald, 2010). Kurylowicz (1964) already argued that it should be regarded as the fundamental form of the verbal paradigm, the one from which others are derived rather than the opposite.

At the same time, imperative syntax is constrained in ways that are both systematic and unusual when comparing them to other clause-types. In Italian, for instance, true imperatives are incompatible with preverbal negation, with auxiliaries and modals, with embedding, and with *wh*-elements; they require clitics to follow the verb; their null subject is invariably interpreted as the addressee.

Imperatives have nonetheless received comparatively less attention in syntactic theory than declaratives and interrogatives. Such disparity has been noted at least since Davies (1986), but highlighted also in later work (Floridic & Molinu, 2012; Potsdam & Edmiston, 2015, inter alia). Part of the reason is likely related to the special syntactic properties of imperatives mentioned above, which make them resist well-known

syntactic tests and diagnostics, such as islands constraints, and their incompatibility with embedding makes it impossible to observe properties of clausal architecture which would unveil themselves with a richer structural configuration. It will be argued that these limitations do not make imperative clauses uninteresting for syntactic theory, but quite the opposite: these are part of the data, and have to be taken seriously, also in light of acquisition data, to account for the morphosyntax and interface properties of imperative clauses in a comprehensive way.

Summarizing, imperative clauses offer a vantage point to inquire what the human grammar minimally requires in generating a well-formed, verbal construction.

0.3 TRUE AND SUPPLETIVE IMPERATIVES IN ITALIAN

The primary empirical focus of this dissertation is Italian, although many other languages from the Romance family and beyond will be discussed in a comparative perspective.

Italian distinguishes between *true* imperatives, which display dedicated morphology, and *suppletive* imperatives, which borrow morphology from elsewhere in the verbal paradigm (Zanuttini, 1997). True imperatives in the second person singular consist of the verbal root and a thematic vowel, with no further morphological specification: *mangia!* ('eat!'), *scrivi!* ('write!'). This is the morphologically minimal form, the one that is most frequent, most robust cross-linguistically, and earliest acquired.

Alongside true imperatives, Italian also displays three distinct constructions built on infinitival morphology, each with its own interpretive and syntactic profile. *Negative Imperatives* in the second person singular combine the infinitive with the preverbal negative marker *non*: *non mangiare* ('don't eat'), expressing a prohibition directed at a singular addressee. *Generic Imperatives* use the bare infinitive to express instructions directed generically at any potential addressee, as in *rispettare l'ambiente* ('respect the environment'). This form is found on signs, recipes, and written guides, but also produced in oral speech. *A-Imperatives* combine the element *a* with the infinitive to express immediate, peremptory directives which command to start doing something right away, and are addressed to a singular or plural addressee alike: *a mangiare!* ('start eating, now!').

These three constructions share infinitival morphology but differ systematically from each other, and from true imperatives, in their sentential force and their subject interpretation, as mentioned, and their syntax varies in unexpected ways. Accounting for both their shared properties and their differences is one of the central goals of this dissertation.

0.4 THE ACQUISITION PATTERNS

The acquisitional data examined in Chapter 2 deal with all the imperative forms described above. Core second person singular imperatives appear consistently at the earliest stages of Italian child production and their emergence precedes that of left-peripheral structures, such as *wh*-questions, why questions, and relatives. Infinitival imperatives, by contrast, are virtually absent: Generic Imperatives and *a*-Imperatives are not attested in the spontaneous production data, and Negative Imperatives are rare and appear later than core imperatives, often also without the infinitival suffix and the anaphoric negation 'no' instead of the target sentential negation *non*.

Among other contextual factors, this asymmetry is argued to follow also from structural asymmetries between core imperatives and infinitival imperatives: children's spontaneous production is often creative in

unexpected ways (Belletti, 2017) and defies the adult expectations and what the child hears in the input, going beyond what the child hears in their exploration of the hypothesis space under the pressure of the constraints of the language faculty and their cognitive development.

0.5 THE THEORETICAL LANDSCAPE

The generative literature on imperatives has produced three broad families of formal analysis.

Traditional analyses locate the imperative verb in the CP domain, for example in Force (Belletti 1999; Platzack and Rosengren 1998; Rivero 1994, among many others) or in Top (Di Domenico 2004), on the grounds that this derives the root character of imperatives, their resistance to embedding, and their association with a directive illocutionary force. A smaller set of analyses places the imperative verb in the TP domain (Rivero and Terzi 1995), primarily to account for verb-second effects in certain languages such as Serbo-Croatian, or Ancient Greek. A third and minority line locates imperatives in the lower vP periphery (Di Domenico, 2004 for Belfast English; Rupp, 1999 and Jensen, 2007 for English; Shlonsky, 2004 for French).

Each family captures some properties of imperatives while leaving others unexplained, and none has engaged systematically with evidence from first language acquisition. The CP analyses face the most direct challenge: if the imperative verb moves to the highest layer of the functional spine, it is difficult to explain why imperatives appear so early, before that layer is available to the learner. Moreover, the set of empirical restrictions found in imperative clauses converges independently with this view. The present dissertation argues that a low vP analysis, developed here in a more explicit and comprehensive form than previous proposals, is an account that simultaneously captures the morphosyntax, the acquisition patterns, and the interpretive properties of both true and suppletive imperatives.

One theoretical distinction is worth foregrounding immediately. The structural reduction proposed here is not *truncation* in the sense of Rizzi (1993/1994), that is, it is not the optional cutting off of projections from an otherwise fully available structure. Rather, CP and TP are never projected in the derivation of core imperatives in the first place. This is a strong claim, and it has both theoretical and acquisitional consequences that will be developed throughout the dissertation. Several recent and independent lines of research converge on a similar move: Cecchetto and Donati (2022) argue for radical structural reduction in bare participial constructions; Pak et al. (2024) attribute a deficient clausal structure to Generic Imperatives. The contribution of the present work is to develop the grammatical and acquisitional arguments for radical reduction together, showing that they point in the same direction, and explicitly formalizing the longstanding intuition that imperatives are deficient structures, noted at least since Leibnitz (1737).

0.6 RESEARCH QUESTIONS

On these grounds, the present dissertation addresses four interrelated research questions. First: How can the tension between the dominant theoretical analysis and the acquisitional evidence be resolved? The proposed solution is that imperatives are not CP structures, and their early emergence in acquisition is direct evidence of their structural simplicity.

Second: What do first language acquisition data tell us about the syntax of imperatives? What is the developmental profile of different imperative types in Italian, and what does the asymmetry between core and infinitival imperatives reveal about their underlying structural difference?

Third: Where is the imperative verb located in the functional spine, and how much of that spine does an imperative clause project? What single structural property can derive the full cluster of morphosyntactic restrictions that characterize Italian imperatives?

Fourth: How should the three types of infinitival imperatives be analyzed, and what derives their systematic interpretive and syntactic differences? And more broadly: what do the morphosyntax and acquisition of imperatives tell us about how clause types are organized within the grammar?

0.7 THE PROPOSAL IN A NUTSHELL

The analysis developed in this dissertation rests on three structural ingredients, each independently motivated in the literature and here combined and relocated to derive a comprehensive account.

The first ingredient is the Jussive head (JussP), following Zanuttini et al. (2012), here relocated from the CP domain to the vP periphery in the sense of Belletti (2004). The Jussive head is understood as a feature bundle in the sense of Zanuttini et al. (2012): through roll-up movement in the spirit of Roberts (2019) and Schifano (2018), it accumulates the person and aspect features of the projections it passes through, yielding the characteristic subject restriction and directive force of imperative clauses without recourse to a dedicated [imp] feature in C.

The second ingredient is radical reduction: the absence of both CP and TP from the derivation of true imperatives, in the technical sense of Cecchetto and Donati (2022). This is not truncation in the sense of Rizzi (1993/1994), a reduction of an otherwise available structure, but a grammatical property of the imperative clause type itself: the CP and TP layers are not projected in the first place. Morphological impoverishment, incompatibility with embedding, incompatibility with auxiliaries and modals, and the behavior of negation all follow from this single architectural property.

The third ingredient is aspectual specification: the interaction between the Jussive head and a small inventory of aspectual projections, *AspIrrealis*, *AspGeneric/Progressive*, and *AspInchoative/Ingressive*, that derives the variation among core and infinitival imperative types. The latter two aspectual heads license a different type of arbitrary pronoun in the sense of Cinque (1988) and Roberts (2019), and their combination with the Jussive head derives the subject interpretations, illocutionary forces, and syntactic restrictions of each imperative type without further stipulation.

The proposal is cartographic in its architecture, building on Belletti (2004), Cinque (1999), and Rizzi (1997), and compatible with minimalist concerns about economy and derivational simplicity (Chomsky 1995, 2001; Ramchand and Svenonius 2014; Roberts 2019).

0.8 CHAPTER-BY-CHAPTER OVERVIEW

The dissertation is organized as follows. **Chapter 1** provides the empirical and theoretical background. It defines the imperative as a clause type whose morphosyntax is conventionally and robustly associated with directive sentential force, surveys the cross-linguistic typological evidence, and establishes the morphosyntactic properties that characterize Italian imperatives and distinguish true from suppletive forms. The second part of the chapter reviews the available analyses in the generative grammar framework and identifies their empirical and theoretical gaps, concluding with a benchmark table comparing the coverage of competing analyses.

Chapter 2 presents evidence from acquisition. Two corpus studies examine the spontaneous production of Italian-acquiring children. The first, building on and extending Rossi (2023), establishes the

Guttman scale that motivates the low analysis: every child in the sample produces core imperatives before left-peripheral structures are attested. The second constitutes the first systematic acquisitional investigation of infinitival imperatives, documenting their systematic absence from child production. The chapter also presents a series of experiments on Italian language models of different sizes, comparing human and model developmental profiles (Rossi et al., 2025; Chesi 2025a, 2025b). It concludes with a proposal about the overproduction stage in early Italian child language: core imperatives and bare participles are argued to constitute the two default forms of early child grammar, encoding a basic unrealized vs. realized aspectual contrast.

Chapter 3 develops the formal structural analysis of core true imperatives and extends it to suppletive forms and a range of other languages, including Spanish, Catalan, Slovenian, Hungarian, English, and the Scandinavian languages. The chapter motivates the ingredients of the proposal, derives the morphosyntactic properties established in Chapter 1, addresses the question of sentential force, and examines the relationship between child and adult imperatives under a Continuity Hypothesis.

Chapter 4 extends the analysis to the three types of infinitival imperatives. It documents in detail their morphosyntactic and interpretive profiles, for the first time for Generic and *a*-Imperatives. It then develops their structural analyses: it is proposed that infinitival imperatives have all different aspectual specifications which, together with arbitrary pronouns of different types, derive their interpretive and syntactic shape. It is also discussed that there seems to be a clause-type squish, instead of a list major and minor sentence types in Sadock and Zwicky's (1985) sense.

0.9 METHODOLOGY AND SCOPE

The dissertation adopts a cartographic and minimalist framework (Belletti 2004; Chomsky 1995, 2001; Cinque 1999; Rizzi 1997). The cartographic approach provides the structural vocabulary necessary to distinguish among imperative types with precision; the minimalist approach provides the derivational mechanisms that derive those distinctions from general principles without construction-specific stipulations. The two commitments are treated as complementary.

The integration of acquisition data is a distinctive methodological commitment of this dissertation. The view adopted here is that a theory of imperative syntax, to be explanatorily adequate in the sense of Chomsky (1965) and Chesi (2025, 2026), must be compatible with what is known about how imperatives are learned. A developmental trajectory that is unexpected under a given analysis constitutes evidence against that analysis.

The analysis also opens a broader research program. A structural account in which imperatives are radically reduced configurations generates specific predictions for acquisition in atypical populations; extensions to the present work are outlined in the concluding chapter.

**Chapter 1 – Literature Review:
Imperatives in Generative
Grammar and Beyond**

1 LITERATURE REVIEW: IMPERATIVE CLAUSES IN GENERATIVE GRAMMAR AND BEYOND

“In many languages imperatives stand clearly apart from other clause types in their grammatical properties. As Jakobson (1971, p. 91) put it, ‘the lonely imperative’ stands apart from declaratives and from interrogatives.”
(Aikhenvald, 2017, p. 4)

This chapter provides a review of how imperatives have been defined and analyzed across different traditions, with a focus on their morphosyntax.

First, the major approaches to the definition of imperatives are surveyed (§1.1), starting with relevant notions such as clause-type, illocutionary force and mood, continuing with typological approaches, highlighting the cross-linguistic spread of morphologically impoverished imperatives. Then, the empirical domain of imperatives will be illustrated in detail in §1.2. The chapter then turns to formal analyses in §1.3, which constitute the core of this review, with particular attention to proposals articulated within the Generative tradition. §1.3 is organized around three major families of syntactic proposals: analyses that place the imperative in the CP domain, ‘hybrid’ accounts that do not commit to a precise structural position, imperatives in the TP layer and proposals that treat imperatives as targeting the vP periphery without including the CP layer. A table with the main references sorted by chronological order, approach, as well as empirical and theoretical coverage, is provided in §1.3.7.

Despite the depth and importance of the available literature on imperatives, several issues remain unaddressed. These points will be discussed in §1.4:

- (i) A clear imbalance exists in the literature. Declaratives and interrogatives have received extensive attention, particularly with respect to their syntax, whereas imperative clauses have been comparatively less studied. As a result, the syntactic properties of imperatives remain less systematically explored;
- (ii) Many CP analyses of imperatives were developed before the articulation of the extended left periphery. This chronological factor has consequences for their empirical and theoretical coverage, in light of contemporary syntactic theory;
- (iii) There is no unified formal treatment of the morphologically impoverished morphology of second-person singular imperatives characteristic of one third of the world’s languages;
- (iv) Cross linguistically, the tendency toward morphological impoverishment in imperative forms is remarkably robust. Moreover, from a diachronic perspective, imperatives appear to be more resistant to change compared to other parts of the verbal paradigm;
- (v) Finally, empirical evidence from language acquisition raises further difficulties for existing analyses. As will be discussed in the next chapter, acquisition data from Italian do not support CP analyses of imperatives.

Section §1.4.6 will then outline the main open questions emerging from this discussion, which will conclude the chapter.

1.1 WHAT’S IN AN IMPERATIVE?

Just as a rose retains its essence regardless of its name, imperative constructions have inspired a variety of terminological approaches in the linguistic literature. While most scholars agree on the core definition of an imperative clause with a second person addressee, there is considerable variation in how the illocutionary force of imperatives is defined, as well as in what counts as canonical or non-canonical imperative. For

instance, some authors focusing on person distinctions and morphosyntactic properties, others on interpretation. These are only some of the distinctions which will be discussed here.

Therefore, any study of imperatives must begin by addressing this definitional challenge and by explicitly adopting, or at least situating itself with respect to, the various definitions available in prior research.

The first subsection (§1.1.1) addresses definitions and approaches, following relevant oppositions: *clause-types vs. speech acts*, and *sentential force vs. illocutionary force*. This is followed by a discussion of typological approaches (§1.1.2), highlighting two main patterns: (i) the special status of the second person singular imperative as the core imperative form; (ii) the robust cross-linguistic tendency for these forms to have meagre, if any, morphology. §1.1.3 provides the definition of imperatives adopted in this thesis.

1.1.1 Towards a Definition of Imperatives

Everyone has an intuitive idea of what an imperative is: stereotypically, a clause used to issue orders, commands, or strong requests. However, its formal definition is not as straightforward. The challenge lies in establishing clear boundaries: which structures qualify as imperatives, and which do not? Should only second person forms be regarded as imperatives, or should first and third person forms also be included? What about impersonal or periphrastic constructions with directive force? Are those imperative clauses too? This is a crucial aspect to clarify, in order to provide imperatives with a proper formal analysis.

At its core, **an imperative is a clause whose morphosyntax is conventionally associated with a directive illocutionary force, in that the speaker seeks to bring about a particular action by the addressee.**

In (1), a caregiver issues a command for a child to finish their broccoli. A plausible context for such an utterance could be that the child is repeatedly refusing to eat the broccoli, which prompts the caregiver to make a strong command via an imperative clause:

- (1) Finisci tutti i broccoli!
 finish.IMP.2SG all the broccoli
 ‘Finish all your broccoli!’

The above definition, although not incorrect in itself, cannot be more than an operational one at this point of the discussion; it will be unpacked and refined progressively. In this endeavor, it is first necessary to decouple grammatical form from the speech acts it can perform.

1.1.1.1 *Clause-types vs. Speech Acts*

A first crucial distinction to be made is between clause-types and speech acts, and specifically here imperatives and commands (Aikhenvald, 2010, *inter alia*).

The imperative is a grammatical category, or better, a CLAUSE-TYPE (Portner, 2004; Sadock & Zwicky, 1985), whereas commands are SPEECH ACTS, namely linguistic devices pertaining to the realm of *How to do things with words*, to quote Austin’s (1962) seminal work. As discussed in Chapman (2011), Austin was the first to point out that describing the world is not the only thing we do with language, let alone the most interesting. We can declare a meeting open, christen a newborn baby, advise someone, give orders, pleas, request something to someone. This framework was further refined by Searle (1969, 1976, and subsequent work) who classified such acts into specific categories. Within that taxonomy, an imperative clause is stereotypically used to perform a DIRECTIVE SPEECH ACT, that is, an attempt to get the hearer to do something, such as ordering, commanding, or requesting. An imperative clause, then, is stereotypically used

as a directive speech act to issue some sort of command, which can be more or less peremptory (e.g., strong command vs. gentle request or invitation).

For Aikhenvald (2010), the relationship between imperatives and commands is analogous to the relationship between Tense and time in the real world. Real-world time is mapped onto the grammatical category of Tense: while time is continuous and potentially infinite, Tense represents a limited and conventionalized set of grammatical distinctions. In other words, not all temporal distinctions are encoded linguistically. In her view, the same applies to imperatives. Languages provide only a restricted set of grammatical devices, namely various kinds imperative clauses with various ingredients, to express a range of possible speech acts of commanding, requesting, and the like, in a real world that is vast and unconstrained.

Some of these grammatical devices pertain to inflection, hence the association of imperatives with a grammatical category or grammatical mood; other languages, by contrast, retain the inflectional morphology of other verb forms and instead add a particle or omit the subject. These typological strategies will be explored in more detail in §1.1.2. In this sense, imperative grammatical mood is not a sufficient condition for identifying an imperative clause. For this reason, this work will continue to refer to imperatives as *imperative clauses*, understood as clauses belonging to the imperative clause type in line with Zanuttini et al. (2012), Portner (2004b), and much related work.

This thesis focuses on the formal, grammatical dimension, though without disregarding the interpretative dimension. It will be of relevance in Chapter 2, when children's way of dealing with imperative clauses in acquisition will be addressed, and Chapter 4, when discussing the force of infinitival imperatives.

As discussed above, the imperative clause is stereotypically associated with the performance of directive speech acts, such as the issuing of commands. This correspondence is a cornerstone of Aikhenvald's extensive typological research on imperatives, where she argues that: "*Directive speech acts are the prototypical domain of the imperative mood, in the same way as the declarative is the domain for assertive speech acts, stating something.* (Aikhenvald, 2010, p. 14) ".

Imperative clauses may also be employed to perform a range of speech acts extending beyond directives proper, such as permissions or invitations (Condoravdi & Lauer, 2012). Other possible cases, such as well-wishes (e.g., '*Get well soon!*'), are argued to remain within the semantic domain of imperatives by Condoravdi and Lauer (2012), whereas other approaches exclude wishes from the semantic core (a point further illustrated in the next subsection, §1.1.1.2).

According to Condoravdi and Lauer's taxonomy of imperative clauses, imperatives may have a wide range of uses extending beyond directives in their narrow sense, encompassing also permissions and invitations. While in Searle's (1976) speech-act taxonomy invitations and permissions are subsumed under the general class of directives, Condoravdi and Lauer propose a more fine-grained semantic classification that motivates distinguishing these uses on semantic grounds. In particular, permissions and invitations do not express a speaker's desire for the prejacent to come about; rather, they convey that, in response to a manifest or potential desire on the part of the addressee, the speaker does not object to the relevant action taking place. This is illustrated by examples such as *OK, go to Paris then since you want it so much!*, where continuations explicitly denying the speaker's desire (e.g. *#But don't forget, I don't want you to*, ex. by Condoravdi and Lauer, p. 43) are infelicitous, even though a weaker sense in which the speaker's preference against the prejacent persists appears to be available. To capture this tension, Condoravdi and Lauer develop a formal semantic account in which the speaker is taken to have an effective preference for the realization of the imperative content, modeled via a preference structure (see more in the next subsection).

In other instances, instead, directive force is maintained, but the command is not issued via an imperative clause. (2) displays the syntax of a question, and (3) of a declarative:

- (2) Can you get out of my way??

Interpretation: get out of my way!

- (3) You go NOW.

Interpretation: go now!

Yet, both (2) and (3) are commands, interpretatively speaking. As noted by Salvi and Borgato (1991), a declarative clause may issue an order that admits no refusal, effectively performing a directive act without imperative morphology nor syntax. Their discussion concerns Italian, but the same pattern is observed in English and many other languages (Aikhenvald, 2010, Chapter 8, “*Imperatives in Disguise*”, pp. 256-295). Utterances like (3) imply a high degree of epistemic certainty, in that the speaker does not admit other courses of action. Declaratives used in this way often carry a more peremptory tone than their imperative counterparts. Their peremptory flavor is highlighted in Salvi and Borgato (1991) via the following minimal pair in (4), see also (5):

- (4) a. Per le cinque tu hai finito, capito?
by the five you.2SG have.2SG finish.PTCP understand.PTCP
‘By five you [will] have finished, got it?’
b. *Per le cinque tu hai finito, te ne prego.
by the five you.2SG have.2SG finish.PTCP 2SG.OBJ of.it
beg.1SG
‘By five you [will] have finished, I beg of you.’
[Ex. by Salvi & Borgato 1991, p. 154]

- (5) Adesso tu vai a letto!
Now you go.PRES.IND.2SG¹ to bed
‘You are going to bed now!’

It was shown how other clause-types may carry directive force. Also the opposite is, of course, possible: an imperative clause may well express an assertion, or attitude of the speaker, adopting the prototypical force of a declarative or an exclamative (Giurgea & Remberger, 2016; Zanuttini & Portner, 2003). This

¹Since the second-person singular of the indicative (*vai*) is homophonous with the full imperative form, one might argue that (5) is actually an imperative, with an overt subject. However, morphosyntactic evidence suggests otherwise. In standard Italian, certain irregular verbs allow for truncated imperative forms (e.g., *va'*, *sta'*, *fa'* – *go.IMP.2SG*, *stay.IMP.2SG*, *do.IMP.2SG*). If one attempts to substitute the indicative with the truncated imperative in a PEREMPTORY DECLARATIVE structure, the sentence becomes ungrammatical:

- (i) *Adesso tu va' a letto!
Now you go.IMP.2SG to bed

The ungrammaticality of (3) confirms that the peremptory declarative requires the indicative mood. Furthermore, this formal distinction is reinforced by prosodic cues. Impressionistically, the intonation contour of a peremptory declarative is distinct from that of a canonical (directive) imperative; while the latter often exhibits a sharp terminal fall, the former carries a sustained, almost monotonous high-pitch stress that signals the inevitability of the action. While some regional varieties (notably Tuscan) might exhibit different distributions of truncated forms, in Standard Italian, the contrast between *vai* (indicative + imperative) and *va'* (only imperative) is relevant. See more on this matter in §1.2.1.

occurs notably through some flouting of Gricean maxims (Grice, 1975), thereby shifting the analysis from semantics into the domain of pragmatics. As it is known, the boundaries between these two domains may be porous at times. For the time being, it will be sufficient to assume that when a maxim is violated and the canonical directive function is abandoned, the imperative clause-type rather conveys what would be usually conveyed by an assertion, a question, or an exclamation:

- (6) Please tell me when the plane is leaving. (imperative with the force of asking)

[Ex. by Zanuttini et al. 2005, p. 2]

Despite the undoubted productivity of the previous structures, imperatives remain robustly, conventionally, and prototypically directive at their core. This is because the first, unmarked, and directly accessible interpretation of an imperative clause is inherently directive. The consensus is wide in the literature (among many others, see Aikhenvald, 2010; Belletti, 1999; Condoravdi & Lauer, 2012; Portner, 2004; Sadock & Zwicky, 1985; Salvi & Borgato, 1991; Zanuttini, 1997; Zanuttini et al., 2012).

Given this robust association of imperative clauses with directive uses, Sadock and Zwicky's (1985) foundational definition of a SENTENCE TYPE becomes of great relevance here. It is a term synonymous with the CLAUSE TYPE of later frameworks (e.g., Portner, 2004b). For the sake of consistency, the latter term will be adopted throughout this thesis, as anticipated. As Sadock and Zwicky (1985, p. 155) write: "*Such a coincidence of grammatical structure and conventional conversational use is called a SENTENCE TYPE (emphasis in original)*". An example they provide for this mapping is the specific word order, characterized by subject-auxiliary inversion, and the distinct prosody systematically associated with English yes-no questions:

- (7) Have they finished installing the furnace?

[Ex. by Sadock & Zwicky 1985, p. 155]

In a parallel fashion, for imperatives, this *coincidence* is manifested through a variety of specific (morpho)syntactic markers, such as the systematic lack of overt morphology and/or lack of overt subjects in most languages of the world (see §1.2.3). Crucially, this occurs even in languages where subjects are otherwise mandatory in declarative contexts, indicating that it is indeed a specific property of the imperative clause-type.

- (8) You eat the cake. (Declarative)

- (9) Eat the cake! (Imperative)

The status of the imperative as a distinct clause type in its own right is relatively uncontroversial. Sadock and Zwicky (1985) put forward a classic distinction between MAJOR and MINOR SENTENCE TYPES, the latter including categories such as optatives, which may not be formally realized in every language via a dedicated construction. Instead, major sentence types are considered to be universal. Major sentence types form a closed system: "*There are sets of corresponding sentences, the members of which differ only in belonging to different types [...] The types are mutually exclusive, no sentence being simultaneously of two different types.*" (Sadock & Zwicky, 1985, p. 158; as quoted in Zanuttini et al., 2005, p.1). While some of the world's languages lack a dedicated imperative construction as such, it remains a major sentence type within the cross-linguistic sample provided by Sadock and Zwicky (1985); this finding is further corroborated by the rich typological work of Aikhenvald (2010)², discussed later in this dissertation (§1.1.2).

² See Aikhenvald (2010) for some exceptions to be treated carefully. See also Portner (2004b) for a discussion on why the imperative is universal but the same does not apply to promissives, another jussive clause in Zanuttini et al.'s (2012) sense.

However, the criteria for distinction among different major sentence types, between minor and major are not always clear-cut. Intermediate cases exist where it is difficult to determine whether a structure constitutes a minor sentence type in its own right. This is exemplified by Generic Imperatives in Chapter 4 of this thesis. As a first anticipation, this study concurs with Sadock and Zwicky's view that a comprehensive linguistic description must not overlook these minor categories³.

Work in logic, notably Hamblin (1987), Moutafakis (1975) and more recently Fox (2012, *inter alia*) adopt a more inclusive classification of imperatives: any directive speech act may be categorized as an imperative, regardless of its grammatical form. Hence, all of the structures (2)-(5) would be envisaged as imperatives. This reflects a focus on philosophy of language and logic, of course, rather than grammatical form.

It is worth mentioning here that the directive illocutionary force typically associated with the imperative clause-type can be expressed through a variety of linguistic structures, such as declaratives and interrogatives, see (2) and (3). There are further cases in which directive force is conveyed by linguistic forms with lack a verb altogether, as noted by Salvi and Borgato (1991) for Italian:

(10) A tavola!

To table!

'Come to the table! / Dinner's ready!'

(11) Fermo!

still.M.SG

'(Stay) still! / Don't move!'

Whether such verbless imperatives involve a silent verbal head remains a matter of debate; for a recent analysis of some of these structures, the reader is referred to Donovan (2022).

Finally, since this thesis addresses verbal imperatives, a further distinction may not even come to mind to the linguistics-focused reader, but is worth making for the sake of clarity and completeness. There is an inherent ambiguity in the very term *imperative*. In both commons speech and philosophical discourse, the term is often used as an adjective or a moral descriptor, in sentences like *It is imperative that you stay*, or even in book titles such as "*The Longevity Imperative*", a book encompassing a range of good practices individuals and society at large must put into place to live a long and environmentally sustainable life (Scott, 2024). Jary and Kissine (Davies, 1986, p. 1; as quoted and further discussed in Jary & Kissine, 2014, p. 13) distinguish between this kind of uses, which they dub as philosophical/moral imperatives, describing a state of obligation or a moral necessity (e.g., *Protect the weak* or *One must protect the weak*). These may or may not employ the imperative mood. Their second example rather employs a deontic modal encoding necessity (Portner, 2007). As mentioned above, periphrastic construction denoting a strong obligation as in as *It is imperative that you stay* are also possible⁴.

³ This dissertation also suggests, in a spirit similar to Radford (2018), that this principle be extended beyond description into explanatory analysis. This perspective is central to Chapter 4, which investigates whether infinitival imperatives should be classified as a minor sentence type. It will be argued that such forms occupy a position along a clause-type squish. This concept inspired by Ross' (1972) category squish and Lowe's (2019) notion of linguistic prototype, representing a continuum rather than a rigid, discrete classification. The reader is referred to Chapter 4.

⁴ See also Jary and Kissine (2014, pp. 13, fn. 2) for similar form-function ambiguities of the terms interrogative and declarative.

1.1.1.2 *Sentential Force vs. Illocutionary Force*

Up to this point, this work has employed the term illocutionary force. A more articulated distinction has been put forward in the literature. What is often subsumed under illocutionary force can in fact be fruitfully separated into two notions, namely sentential force and illocutionary force. The former belongs to the compositional semantics dimension, while the latter pertains to the pragmatic domain of use.

This perspective is explicitly articulated in Chierchia and McConnell-Ginet (1990) and subsequently taken up in several influential works, including Zanuttini and Portner (2003) in their analysis of exclamatives, Zanuttini (2008), Zanuttini et al. (2005), Zanuttini et al. (2012), Portner (2004b) on imperatives, and in Giurgea and Remberger's (2016) overview, among others.

SENTENTIAL FORCE is understood as the component of force encoded in the linguistic form itself, independently of any particular context of utterance. It corresponds to what may be called the literal or conventional meaning of the sentence, insofar as it is the compositional result of the interaction of the meaning of all the elements in the sentence.

ILLOCUTIONARY FORCE, by contrast, is the pragmatic force actually realized in a given situation, corresponding to the speech act performed by the speaker in context, conveyed via an utterance.

In this thesis, imperatives will be examined primarily in terms of their morphosyntax and partly on their sentential force. It would indeed be conceptually peculiar to deny any role to force at the level of semantics altogether, relegating it entirely to pragmatic inference. At the same time, it is clear that pragmatic enrichment and various forms of conventional or contextual marking may modulate or refine the force associated with a given sentence type.

Accordingly, this work adopts the definition of clause type proposed in Zanuttini et al. (2005), namely **as a pairing of sentence form and meaning, where meaning is understood specifically as the sentential force associated with the sentence.**

What, then, is the meaning of an imperative? The literature is extensive, diverse and stimulating. For current purposes, only a non-exhaustive overview will be provided, referring the reader to Portner (2016) for a comprehensive overview of the main problems, theories, and open questions in the semantics of imperatives.

As seen above, there is a literal, conventional meaning associated with the imperative clause type, hence a directive sentential force. Yet the matter is not as straightforward as one might initially suppose. Beyond their most salient and prototypical association with commands, imperatives are productively employed in a variety of uses that are less immediately prominent but no less systematic, including permissions and invitations, well-wishes, curses, and disinterested advice (Condoravdi & Lauer, 2012). One problem noted by Aikhenvald (2010, p. 229, fn. 1, and the cited references) is that providing a general picture of the meanings of imperatives is tricky because there is no shared terminology. In the literature the same speech act may be named differently, e.g., demands vs. commands, petitions vs. requests.

This heterogeneity is one of the reasons that led some formal semanticists to seek a unified semantic core: Condoravdi and Lauer (2012), for instance, explicitly argue that without taking into account the entire spectrum of imperative uses, one cannot meaningfully speak of a semantics of imperative clauses as such. While theoretical articulations diverge in important respects for example as to whether well-wishes (e.g., *Get well soon!*, ex. by Condoravdi & Lauer 2012, p. 39) belong to the core semantics of imperatives, as argued by Condoravdi and Lauer, or should instead be treated differently, as suggested by Krifka (2018), a broad convergence nevertheless emerges around the idea that imperatives encode a positive stance of the speaker toward the realization of the imperative content, that is, what Condoravdi and Lauer term the imperative

counterpart of propositional content. In Kaufmann’s (2012) account, a similar notion, dubbed ‘speaker endorsement’, is employed.

However, imperatives are treated as modalized sentences by Kaufmann (2012), in particular as presuppositional necessity modals, capitalizing on the connection between imperatives such as *Close the door!* and deontic modal declaratives such as *You must close the door!*. She argues that, semantically, the two are equivalent. In other words, in Kaufmann’s analysis imperatives denote propositions in the same way as assertions do. However, imperatives differ from declaratives in that their presuppositional component is different. It allows imperatives to be performative rather than assertive: the presuppositional component of an imperative is such that its truth value is blocked, or not accessible, and the imperative thus becomes performative⁵.

There are a variety of approaches on what imperatives denote: for Portner (2004), they are properties. These properties update the so-called To-Do List, a pragmatic component similar to Stalnaker’s (2002) Common Ground. The hearer updates progressively their To-do List as the speaker utters imperatives. Instead, in Mastop (2011), imperatives are not propositions, but semantic primitives. For Barker (2012), they denote actions. See also von Stechow and Iatridou (2017).

Summing up, as succinctly put by Sadock and Zwicky (1985, p. 160), “*the imperative indicates the speaker’s desire to influence future events*”. In this respect, Sadock and Zwicky, like Condoravdi and Lauer, locate the kernel of imperative meaning in the speaker’s preferential attitude toward a course of action, whether framed in terms of preference, desire, or endorsement.

In this work, Portner (2007) and Zanuttini et al.’s (2012) view will be adopted. This an account to which this work will return in detail in §1.3.3.1, given its relevance for the syntactic analysis of imperatives. These proposals derive the force of imperatives compositionally, given the interaction of the jussive head and the remaining elements in the structure, as the same authors propose also for exclamative clauses (2003). As it will be shown in Chapter 3, this is a more parsimonious proposal concerning both the semantics and the syntax of imperatives and is therefore more apt to capture the empirical data from acquisition of Chapter 2.

1.1.2 Typological Approaches

1.1.2.1 WALS Data

The discussion of typological approaches begins with data from the World Atlas of Language Structures (WALS, Dryer & Haspelmath, 2024). Positive imperatives are examined first, followed by negative ones, before turning to the extensive work of Aikhenvald (2010) Aikhenvald and Dixon (2017), which significantly expands on the WALS data.

1.1.2.1.1 Positive imperatives

Value	Number of languages	Percentage
The language has morphologically dedicated second singular and second plural imperatives	292	53.3%

⁵ For the sake of readability, the Performative Hypothesis is set aside here. Under this hypothesis, all utterances, including assertions, are analyzed as performative speech acts (Austin, 1962; Searle, 1976), in the sense that even assertions involve the performance of an illocutionary act (e.g., describing or reporting something to the addressee). As argued by Liao and Wang ((2022), fn. 2), this does not affect the substance of Kaufmann’s (2012) analysis.

Value	Number of languages	Percentage
The language has morphologically dedicated second singular imperatives but no morphologically dedicated second plural imperatives	43	7.8%
The language has morphologically dedicated second plural imperatives but no morphologically dedicated second singular imperatives	2	0.4%
The language has morphologically dedicated second-person imperatives that do not distinguish between singular and plural	89	16.2%
The language has no morphologically dedicated second-person imperatives at all	122	22.3%
Total	548	100%

Table 1: The five imperative types identified by Van der Auwera et al. (2013) in their typological sample. These refer to positive imperatives and canonical forms, that is, the most unmarked variants. Non-canonical forms, such as future-oriented, distal, or polite imperatives, are not included in this typological overview.

As shown in Table 1, the most frequent typological type of imperative is one that has distinctive morphology for second person singular and second person plural forms (292 languages in the relevant sample). Even zero morphology, namely when there is only the root of the verb, is counted as distinctive morphology.

The second type is one that has distinctive morphology only in the second person singular. Italian falls into this pattern, displaying suppletive imperatives in the second person plural in Zanuttini's (1997) sense: second person plural forms may be indicative, as in Italian, or subjunctive, as in Lingala (Bantu Language, spoken in Democratic Republic of Congo).

The third type requires no specific morphology on second person singular, but specific morphology on second person plural. An example is Latvian, which shows indicative morphology on second person singular. Only two languages fall into this pattern.

The forth type displays no morphological distinction between second person singular and plural, like Paiwan (Austronesian language, spoken in Taiwan).

The fifth type has no morphological marking for imperatives at all. In the languages of Europe, French falls into this category (without considering orthography, which is more conservative than oral languages and still retains distinctive morphological endings which are not pronounced anymore). In Nunggubuyu (Australian language, Gunwinyguan, spoken in Northern Territory, Australia) the forms that are typically used for expressing orders display the morphological shape of future indicatives.

In some languages there are classes of verbs which behave differently from one another. Generally, a language may have no morphological marking on imperatives, but a restricted class of verbs may do. When that is the case, as in Georgian, where the verb *to go* has specialized morphology, van der Auwera et al. (2013) assume that that language belongs to the fifth type (all imperative forms without dedicated morphology). Notice also, as discussed in suppletive imperatives in Aikhenvald's (2010) or Veselinova's (2006) sense (namely when the whole root of the verb is subject to change compared to other forms of the same verb) are often such for motion class verbs such as *to go*.

It is important to underline that **many languages have imperative forms that are made up of bare verb stems only**. In the WALS Database (van der Auwera et al., 2013), this is counted as distinctive morphology if elsewhere in the verbal paradigm that same verb stem does not constitute a verbal form by

itself in 2nd person forms. The same is assumed in other typological work (Aikhenvald, 2010, 2017) and in work on imperatives in the generative tradition (Belletti, 1999; Zanuttini, 1997, *inter alia*). For example, in Dutch, the bare verb stem is present in the 1st person singular present indicative, but the authors count that as not linked to the 2nd person singular imperative. This is because the bare stem appears in the Dutch paradigm outside imperative forms only in 1st person verbs. Therefore, it is assumed in the literature that imperatives have distinctive morphology in Dutch. The same applies to other languages behaving similarly.

There are languages that employ infinitival forms to convey a 2nd person imperative, like Ingush (Nakh-Daghestanian language, spoken in the northern Caucasus). Van der Auwera et al. (2013) say that it is uncontroversial in that many languages do that. Observe Dutch:

(12) Zingen!

sing.INF

Sing!

(13) Zing!

Sing.IMP.2

[Ex. from van der Auwera et al. 2013]

The authors do not elaborate further and do not provide syntactic nor interpretational references between (12) and (13). This is a topic which will be explored in Chapter 4 of this thesis. Moreover, the authors divided languages among these 5 types taking into account the more unmarked imperative form, usually the present imperative. In fact some languages have more than one morphological paradigm in an imperative form, which can vary according to tense (present vs. future, e.g. Latin, see Ernout & Thomas, 1964), aspect (perfective vs. imperfective, e.g. Russian, see Dickey 2020) politeness, movement towards the speaker or the oppositive, voice or transitivity.

1.1.2.1.2 Negative imperatives

Turning now to negative imperatives, the following discussion is based data is taken from the chapter “*The Prohibitive*” from the WALS Database (Matthew Dryer et al., 2024).

Prohibitives formed by:	Number of languages	Percentage
Second singular imperative + sentential negative strategy found in (indicative) declaratives	113	22.8%
Second singular imperative + sentential negative strategy not found in (indicative) declaratives	182	36.7%
Verbal construction other than the second singular imperative + sentential negative strategy found in (indicative) declaratives	55	11.1%
Verbal construction other than the second singular imperative + sentential negative strategy not found in (indicative) declaratives	146	29.4%
Total	496	100%

Table 2: Adapted from the table in “The Prohibitive” (WALS Database, Dryer et al., 2024). Four major types of prohibitive constructions are attested in the sample.

As summarized in Table 2, typological research on negative imperatives (defined as Prohibitives in WALS, Matthew Dryer et al., 2024) shows four major patterns, based on how languages combine imperative morphology with negation. Some languages (e.g., Turkish, English) form Prohibitives by applying the ordinary declarative negator to the second-person singular imperative. Others retain the imperative form but use a dedicated prohibitive negator, as in Vietnamese. A third group employs the standard declarative negator but replaces the imperative with another verbal form, such as the subjunctive in Romance languages. This is the typologically rarer pattern, with 11% of languages in the sample. A fourth pattern, found for example in Zulu, uses both a special prohibitive negator and a non-imperative verb form.

Complications arise where languages have overlapping declarative and prohibitive negators, multiple imperative paradigms, or more than one prohibitive strategy. Geographically, the “imperative + declarative negator” pattern is common in Eurasia and parts of Africa and the Americas, while specialized prohibitive negation is especially frequent in Southeast Asia, the Far East, and India.

Despite the centrality of negation in both typological and formal theory, prohibitives have received surprisingly limited attention. Dryer et al. (2024) acknowledge that existing typological studies, most notably Xrakovskij (2001), offer broad coverage, but lack the a more in depth-approach. Crucially, among the formal literature, Zanuttini (1997) is cited as a key reference. Coverage of both positive and negative imperatives in WALS remains sparse, reflecting a general scarcity of research in this domain. It should be noted that the dates on the WALS site appear more recent than the actual content: the database makes no mention of Aikhenvald’s extensive work on imperatives, suggesting that while the sample was updated over time, the underlying text and bibliographic references likely are antecedent to Aikhenvald (2010). Her rich typological contribution to the study of imperatives is summarized in the following section.

1.1.2.2 *Aikhenvald (2010)*

Aikhenvald’s (2010) work delves deeper into these topics. Her approach is primarily typological, but it also engages with discourse-related issues and diachrony.

According to the available literature, Aikhenvald’s (2010) monograph is the most comprehensive typological study of imperatives and commands, based on a sample of approximately 600 languages. Aikhenvald and Dixon (2017) present a collection of studies on fourteen languages from diverse families and areas, most of which are spoken by minority communities. Previous work, of course, comes from WALS, which was already illustrated above, as well as from other authors, such as Xrakovskij (2001), Mauck (2005). See Aikhenvald (2010, p. 15, fn. 11) for further references prior to 2010. Aikhenvald’s work is extremely rich, and the focus here will be on those aspects most relevant for the purposes of the present study.

Aikhenvald (2010) adopts the following definition of imperatives: canonical imperatives correspond to the second person forms, whereas non-canonical imperatives include other persons, such as first-person hortatives (e.g., *Let’s go!* in English or *Andiamo! go.PRES.IND.1PL* in Italian).

1.1.2.2.1 *Imperatives with a singular addressee*

Starting from imperatives with a second person singular addressee, Aikhenvald (2010) shows that canonical **imperatives are morphologically impoverished in about one third of the languages of the world** (2010, p. 18; see pp. 484–495 for her large language sample). This has long been noted, also by classical grammarians, on the basis of smaller samples (De Brosses, 1765; De La Grasserie, 1896; Ernout & Thomas, 1964; Leibniz, 1737; Meillet & Vendryes, 1927, *inter alia*). In approximately one third of the world’s

languages, the second person singular imperative coincides either with the verb root or with the stem. As a result, it is the shortest and simplest verbal form in the language. This pattern is discussed under languages of type (A). She distinguishes between three major types, labeled A, B, and C. Many languages of type (B), instead, have an overt indicator of imperative: this may take the form of a segmental affix, a special set of pronominal markers, a tone contour, or a particle. Finally, languages of type (C) express imperatives via analytic constructions. Moreover, if a language lacks a special set of forms for canonical imperatives, another verbal form is recruited to convey prototypical commands.

Type	Defining properties	Form of the imperative	Remarks
A	Morphologically impoverished imperatives	Identical to the verb root or verbal stem	Typically the shortest and simplest verbal form
B	Overt imperative marking	Segmental affix, special pronominal markers, tone contour, or particle	Imperative formally distinguished from other verbal categories
C	Analytic expression of imperatives	Periphrastic or multi-word constructions	No dedicated imperative verb form
—	No canonical imperative forms	Another verbal form recruited for commands	E.g. indicative, subjunctive, infinitive

Table 3: Types of imperative constructions (after Aikhenvald 2010).

The different types summarized in Table 3: Types of imperative constructions (after Aikhenvald 2010). will now be discussed in more detail, starting from Type (A). Type (A) comprises 2nd person imperatives that employ the root (or stem) of the verb only, hence canonical imperatives in Aikhenvald’s terminology. This strategy is found in a wide variety of languages, Classical Latin among them. One of the shortest words in Latin is the canonical imperative, *il* ‘go!’, from the verb *ire* ‘to go’. The second person singular imperative regularly coincides with the stem of the verb. Thus, from *amare* ‘to love’ one forms the second person singular imperative *ama!* ‘love!’. For a handful of frequently used verbs, the second person imperative is even shorter than the stem itself: *dicere* ‘to say’ has the second person imperative *dīc!*; *facere* ‘to do, make’ forms *fac!* ‘do, make!; *ducere* ‘to lead’ forms *dūc!*; and *ferre* ‘to bear’ forms *fer!*.

This way of forming and imperative is frequently found outside European languages too. Tinrin, an Austronesian language spoken in New Caledonia, employs a verb bearing no marking for person, tense, or aspect, and there is no overt subject:

(14) Tinrin (Osumi, 1995, p. 236)

tôˆbwerriˆ	nrî fò-nrũ
shut	mouth-2sg
‘Shut your mouth!’	

Khalkha Mongolian (Poppe, 1951, p. 76) behaves likewise: e.g. *bas* ‘stand up!’ (singular and plural), and *bitsĩ* ‘write!’ are both the root of their respective verbs. See also Floricic (2000, pp. 251–252) for a compact list of 2nd person singular imperatives in 29 languages of the world, all having a smaller imperative form compared to the corresponding infinitive.

While imperatives are frequently characterized by the use of the bare verbal stem, they may also be derived through **subtraction**, as Aikhenvald defines it, resulting in a verbal form that is phonologically “shorter” than the underlying stem. This phenomenon mirrors the classical Latin examples just discussed,

and applies to Italian as well. As it will be discussed more in detail in (§1.2.1), of particular relevance to the present study is the presence of subtractive imperatives within the Italian verbal system. It is not discussed in Aikhenvald (2010), but it is worth anticipating here that in some Italian irregular verbs, the 2nd person singular imperative is formed via apocope of the final glide or syllable (Belletti 1999; Salvi & Borgato 1991). This results in truncated forms such as:

(15) *da'*

give.IMP.2SG

(from the full form *dai*, 'give')

(16) *fa'*

do.IMP.2SG

(from the full form *fai*, 'do/make')

(17) *sta'*

(from the full form *stai*, 'stay')

stay.IMP.2SG

As for the data indeed discussed in Aikhenvald (2010), a salient example of subtractive morphology is found in Dyirbal (Pama-Nyungan), where imperative formation entails the deletion of the stem-final consonant. The stems *baniy-* ('to come') and *balgal-* ('to hit') are reduced to *bani* and *balga*, respectively. Similar subtractive strategies are attested in Dumi (Tibeto-Burman; eastern Nepal), where the imperative is derived by eliding the second-person prefix *a-* from preterite forms, and in Modern Hebrew, where the imperative paradigm is obtained via the omission of person-marking prefixes.

It is worth noting that Icelandic also shows an imperative form created through subtraction, known as the *clipped form* (Platzack & Rosengren, 1998).

There are three main ways to express the imperative in Icelandic, and all of them reflect agreement. The first is the short form (see example 14), which today appears mostly in poetry and biblical language. The second is the standard form, as in *komdu* (come.IMP.SG) and *komði* (come.IMP.PL). This form can be analyzed as the verbal stem followed by a clitic pronoun. The third option is the clipped form, illustrated by *komd* (come.IMP.SG) and *komdi* (come.IMP.PL). In this case, the imperative is derived by subtracting material from the standard form.

Type (B) are languages employ some kind of overt marker for imperatives. Such marker may be: a special suffix (18), a clitic (19), or a prosodically independent particle (20). (18) is the case in Australian languages, such as Yidiñ, where the verb appears marked with -n:

(18) Yidiñ (R. M. W. Dixon, 1977, p. 370)

ɲanda wiwi-n waŋal

I.DAT give.IMP boomerang.ABS

'(You) give me (your) boomerang!

[Ex. quoted in Aikhenvald 2010, p. 20]

(19) applies to Semelai, an Aslian language from Malaysia, while (20) is common in isolating languages, such as Lao:

(19) Semelai (Kruspe, 2004, pp. 331–333)

ʔot=cəʔ! bapaʔ khləŋ

Return=IMP father QUOTE

‘‘Come (home)!’’, the father said’

[Ex. quoted in Aikhenvald 2010, p. 20]

(20) Lao (Enfield, 2007, p. 67, tones expressed in numbers)

peet5 patuu3 haj5 dèèl

open door give IMP.SOFT⁶

‘Please open the door’

[Ex. quoted in Aikhenvald 2010, p. 20]

An imperative form may contain an overt indicator of second person. In Tauya, from the Brahman family in Papua New Guinea, imperative is formed by a future verb and an additional *-e* suffix which marks second person:

(21) Tauya (MacDonald, 1990, p. 212)

ni-a-e

eat-2SG.FUT-IMP

‘Eat!’

[Ex. quoted in Aikhenvald (2010, p. 21)]

In certain languages, a specific **tonal pattern** identifies an imperative clause. A notable case is found in Mina (a Chadic language), where the imperative is marked exclusively through tonal lowering on the verbal root. In Kisi, an Atlantic language (Childs 1995: 229), imperatives are signaled solely by a high tone on the verb, as in *yó* ‘dance!’. In Kiowa, spoken in Oklahoma, imperative forms are instead marked by a falling tone when the verbal root ends in a nasal or in the liquid *l*.

In other languages, imperative clauses require a special set of **pronominal cross-referencing affixes** distinct from those used in declarative statements. This pattern is widespread across Indo-European, and is particularly well attested in the Slavic and Romance. It is also found in Balto-Finnic and Samoyedic languages, as well as in a small number of languages from the New Guinea area (e.g. Anamuxra, a Papuan language; Ingram, 2005).

In Modern Greek, for instance, the morphological contrast between imperatives and non-imperatives is encoded in the inflectional person ending on the verb. Compare the indicative *gráf-is* ‘you (sg) are writing’ with the imperative *gráf-e* ‘write!’ (Joseph & Philippaki-Warbuton, 1987, p. 183).

In the Quechua languages of Peru, a dedicated second-person suffix appears exclusively in imperatives, as in Ayacucho Quechua *wata-y* (2SG) ‘tie!’. This form stands in paradigmatic opposition to declarative verb forms, as well as to other person–number combinations within the imperative paradigm itself.

Imperative formation may also involve **vowel alternation**. In German, for example, the second-person singular imperative of a number of strong verbs is marked by a vowel change and the absence of any person

⁶ The gloss IMP.SOFT in (20) refers to the soft imperative in Lao, a mitigated and more polite form (Enfield, 2007).

inflection, as in *sprechen* ‘to speak’ versus *sprich!* (speak.2SG). Notably, no such vowel alternation occurs in the plural forms (2pl familiar *sprecht*; 2pl polite *sprechen*).

Turning now to language type (C), the use of a special **analytic construction** to express a canonical imperative is a relatively rare strategy cross-linguistically. In Ika, a Chibchan language spoken in Colombia, imperatives are formed through a combination of a verb root and an auxiliary. An example of the immediate imperative is given in (22):

(22) Ika

amase ú

get.up AUX

‘Get up!’ / ‘Stand up!’

[Ex. from Aikhenvald 2010, p. 23]

Ika has three distinct imperative forms, all of which are marked by an auxiliary; the choice among them depends on temporal distance. Different auxiliaries are employed depending on whether the action is to be performed immediately, at a short distance from the place of speech act or further away.

Instead, Boumaa Fijian (R. M. W. Dixon, 1988, pp. 286–294) makes use of a set of clause relators, one of which, *me*, introduces complement clauses in a way comparable to English *that ... should* in *I told Nana Maa that Eroni should go to Vidava*, and also expresses purpose, as in *I eat a lot in order to be healthy*. This same relator is also employed in imperatives. The internal structure of the Boumaa Fijian imperative construction is summarized in (23), adapted from Aikhenvald (2010, p. 24, scheme 2.1):

(23) a. Relator *me*

b. Subject pronoun

c. Optional tense–aspect markers

d. Optional discourse markers

e. Verb

f. Optional adverbs, post-head modifiers, etc.

In (24), the imperative clause (or command) comprises the relator, fused with the subject pronoun, and the transitive verb ‘look’:

(24) mo rai-ca

rel.2SG look-tr

‘Look!’

Remarkably, the relator-second person singular pronoun combination can also be omitted. In that case, the imperative consists of the verb root alone, with the meaning ‘look!’, as in (25):

(25) rai-ca

look-tr

‘Look!’

This pattern aligns with the widespread tendency for second-person imperatives to coincide with the bare verb root (see (A) above). Notably, the **possibility of omitting the relator–pronoun complex is restricted to imperatives with a singular addressee**.

1.1.2.2.2 Imperatives with more than one addressee

Now, moving onto imperatives with more than one addressee, three main strategies are individuated by Aikhenvald (2010), as summarized in the table below:

Strategy	Defining properties	Form of the imperative
I	No formal distinction between singular and plural addressees	Same imperative form for 2SG and 2PL
II	Dedicated marking for plural addressees	Imperative form marked for plural number
III	Segmental marking distinguishes singular vs plural imperatives	Singular and plural forms differ via suffixes

The first strategy regards languages which employ the same form for both singular and plural addressees, with often optional ways to disambiguate between the two, often adding some sort of marking or overt pronoun for plural cases. Australian languages, such as Dyirbal and Mbarbaram, fall into this type, with the frequent use of a strong pronoun for plural addressees. Observe how the dual and the plural pronouns are present in the example below:

(26) ñubala bani

you.DUAL come.IMP

‘You two come!’

(27) ñura bani

you.PL come.IMP

‘You (three or more) come!’

[Ex. from Aikhenvald 2010, p. 26]

The second strategy is adding a segmental marker only to imperative forms dedicated to plural addressees. This applies to Latin. The suffix *-te* is used exclusively for plural addressees in the imperative: *amā!* ‘(you one person) love!’, *amā-te!* ‘(you many) love!’, *audi!* ‘(you one person) listen!’, *audi-te!* ‘(you many) listen!’. A comparable asymmetry is found in Arapaho, an Algonquian language spoken in Oklahoma and Wyoming. There, the imperative marker for a plural addressee is a glottal stop, whereas the singular imperative is formally unmarked: it lacks subject person markers on the verb and shows no initial change in the verb stem (Cowell, 2007, pp. 45–46).

Comanche, an Uto-Aztecan language from Oklahoma, further illustrates this pattern. It distinguishes three numbers: singular, dual, and plural. The second person singular imperative consists of the bare verb stem, as in:

(28) Comanche

ihka buni tu-i-h
 this see friend-VOC
 ‘Look at this, friend!’

[Ex quoted in Aikhenvald 2010, p. 27, from Robinson and Armagost 1990, pp. 261–263]

When the command is addressed to two people, a special dual marker is used:

(29) u-hkooi bu-hu-
 sleep coref.DUAL
 ‘You two sleep!’

If the command is directed at more than two addressees, the verb takes a plural marker *-ka*. This is a clitic that must attach to the first word in the sentence:

(30) ohka-ka kwasinaboo?a wu-hkupa
 that-IMP.PL snake kill
 ‘All of you, kill that snake!’

These data exemplify a general cross-linguistic trend noted by Aikhenvald once again: a **canonical imperative addressed to a single addressee is shorter and often morphologically simpler than the corresponding form used with multiple addressees**. This observation is particularly important for the purposes of the present thesis. Notably, the same asymmetry holds in the Romance languages, and in Italian in particular, where second person plural imperatives display additional morphological material when compared to their singular counterparts.

Modern Welsh exemplifies the third strategy. Imperatives addressed to singular and plural addressees are distinguished by dedicated segmental markers. The singular imperative is formed by attaching the suffix *-a* to the verb stem, whereas the plural imperative is marked by the suffix *-wch* (King, 1993, p. 224, quoted in Aikhenvald, 2010, p. 28). For instance, the verb stems *tafl-* ‘throw’ and *arhos-* ‘wait’ yield the singular imperatives *tafl-a* and *arhos-a*, and the corresponding plural forms *tafl-wch* and *arhos-wch*.

Overlapping of imperative forms with other declarative forms may happen. Aikhenvald explicitly mentions Italian as an illustrative example of how markers of a canonical imperative can partially overlap with declarative forms. In Italian, the regular imperative addressed to a singular addressee coincides with the third person indicative for first-conjugation verbs, as in *canta* ‘Sing!’ (sing.IMP.2SG)/‘he/she sings’ (sing.PRES.IND.3SG). For verbs belonging to other conjugations, the imperative form is identical to the second person singular present indicative, as in *temi* ‘fear! / you fear’. When the imperative is addressed to more than one person, regardless of conjugation class, it corresponds to the second person plural indicative, for example *cantate* ‘(you pl) sing! / you sing’ (2007, pp. 246–248 quoted in Aikhenvald 2010, p.28).

The superficial identity between imperative forms and other morphosyntactic categories should not be taken to imply that Italian lacks real imperatives. Rather, the observed patterns seem to be systematic syncretism and imperative forms, even if sometimes homophonous with indicative forms, display a different syntax (e.g., they are always root) and prosody. The same applies to German, for example, where the 2nd person plural imperative is the same as the present tense of the verb, both in formal and polite registers. This does not mean that German lacks imperative forms, as once again the syntax differs.

In addition to syntactic properties that further differentiate these forms, such as their root nature, a property cross-linguistically attested for imperatives, further evidence for treating them as genuine

imperatives comes from language acquisition. Concerning Italian, as will be discussed and shown via novel empirical data in Chapter 2, children systematically overproduce imperative morphology across all conjugation classes, extending the first-conjugation pattern to second- and third-conjugation verbs (Rossi, 2023; Salustri & Hyams, 2003, 2006). This generalization indicates that children treat these forms uniformly as imperatives, despite their superficial overlap with indicative paradigms.

Comparable patterns are attested in languages typologically and genealogically distant from Italian and German. For instance, Paumari, an Arawá language spoken in Brazil, employs a set of dedicated person prefixes for imperatives, (see (Aikhenvald 2010, Table 2.1, p. 29). The selection of the appropriate prefix is conditioned by the verb's transitivity. Notably, the second-person imperative of transitive verbs is formally indistinguishable from the corresponding declarative form, yielding strings that can be interpreted either as statements or as commands, with intonation serving as the disambiguating cue. Once again, the imperative emerges as morphologically less specified than the declarative (*va-/vi* in imperatives vs. *ava-/avi-* in declaratives, in the 2nd person plural case).

To summarize, Aikhenvald observes that canonical imperatives addressed to non-singular addressees are consistently more formally marked than those addressed to a single addressee. This asymmetry reflects the broader typological tendency for non-singular categories to be morphologically more marked than singular ones. Singular categories are often expressed via zero morphology, but the same does not apply to plural forms (Corbett, 2000, 2007; Greenberg, 1963, universal 36, quoted in Aikhenvald 2010, p. 83, fn.50): *“There is no language in which the plural does not have some non-zero allomorphs, whereas there are languages in which the singular is expressed only by zero. The dual and the trial are almost never expressed only by zero.”* In other words, singular number tends to be less formally marked than any non-singular number, which typically carries overt marking.

As anticipated, this typological generalization finds a direct parallel in language acquisition. The early stage of imperative overproduction is restricted to second-person singular forms, with no corresponding extension to non-singular imperatives (Rossi, 2023; Salustri & Hyams, 2003, 2006, see Chapter 2).

Commands and directive speech acts are a universal feature of human language: every language provides a means to prompt someone to perform an action. However, not all languages possess dedicated imperative forms. In such cases, an alternative verbal category may be co-opted to convey a command. When a single form carries both imperative and non-imperative meanings, the intended interpretation must be inferred from context or disambiguated through additional strategies, such as intonation. In languages lacking canonical imperatives, commands are typically expressed through (i) present-tense or otherwise tense-unmarked verb forms, (ii) future-tense forms (which aligns with the semantic association of commands with future projection), (iii) potential or intentional modal constructions, or (iv) irrealis forms.

In languages without a dedicated canonical imperative paradigm, verbal forms from other grammatical categories can be recruited to convey commands. These forms often carry additional pragmatic nuances, such as politeness, familiarity, authority, or forcefulness, and may function as optional strategies alongside other means of issuing directives. Over time, such strategies can be reanalyzed and eventually develop into a de facto imperative paradigm.

From these observations, Aikhenvald proposes two key (tentative, as she puts it) generalizations:

If a language uses a non-imperative form to mark a canonical imperative with a non-singular addressee, it may or may not also use one for singular imperatives. However, no language is known to employ a non-imperative form for singular imperatives while maintaining a separate imperative paradigm only for non-singular addressees. This reflects the fundamental status of the second-person singular imperative: if a language has a dedicated imperative form, it must at least exist for the singular addressee.

No language is attested that employs different paradigms for singular and non-singular canonical imperatives—for example, using a subjunctive form for the singular and a declarative form for the plural.

These generalizations highlight the typological constraints on how languages can create or repurpose forms for canonical imperatives, emphasizing the **privileged status of singular imperatives as the core imperative form**.

Canonical imperatives exhibit systematic patterns of formal and functional markedness. Formal markedness refers to overt morphological complexity or presence of special markers, whereas functional markedness relates to the contexts in which a form is used; the two do not necessarily align. In many languages, the singular canonical imperative addressed to a single addressee tends to be the shortest and least formally marked form, often realized as the bare verb root. However, brevity does not always imply morphological simplicity: some forms, though segmentally short, involve complex formation rules (e.g., Modern Hebrew).

Singular imperatives may optionally lose overt marking, as in Boumaa Fijian (*me* + pronoun can be omitted) or Nigerian Pidgin (bare verb root), while plural or non-singular imperatives are typically formally marked. This pattern is widespread: in Kwami, singular imperatives frequently drop the final vowel (móy from móy-ú, conveying abruptness or impoliteness. In Lango (Uganda), singular and plural imperatives differ in suffixes, vowel changes, and tonal contours, with singular forms often allowing vowel reduction (dàcí → dǎc). Historical Slavic languages show a similar tendency in diachrony, toward reducing singular imperatives to the stem (Jakobson 1965 37–8, Ervin-Tripp 1976 and references therein, quoted in Aikhenvald 2010).

A general typological tendency emerges: imperatives to a singular addressee are shorter and less marked than those to multiple addressees, reflecting the privileged status of the second-person singular imperative. Non-singular imperatives are usually derived from singular ones, never the reverse. Likewise, suppletive non-singular imperatives appear only in languages that also have suppletive singular forms (e.g., Modern Welsh).

Summarizing, second-person singular imperatives are the most basic, morphologically meagre, and core form of imperative also from a typological perspective.

1.1.2.2.3 1st and 3rd person Imperatives + Impersonal Imperatives

Aikhenvald discusses also 1st person and 3rd person imperative forms, which she calls non-canonical imperatives, stating that the Indo-European linguistic tradition distinguishes these from canonical imperatives directed at a second-person addressee.

These forms are attested in a variety of languages worldwide, often forming full paradigms across person and number, though with systematic gaps or restrictions.

For instance, in Kobon (Karam, New Guinea), imperative forms exist for all person–number combinations, similar to the declarative paradigm. As expected, second-person singular imperatives are the least formally marked:

(31) Ark-

leave-IMP.2SG

‘Leave it! (2SG)’

(32) Kale mab ud ar-laN

3PL tree take go.IMP.3PL

‘They must take the timber and go.’

[Ex. from Aikhenvald 2010, p. 49]

In other languages, the paradigm may lack first-person singular forms (e.g., Finnish; Karlsson 1999), reflecting a general preference for including the addressee in imperatives. Conversely, some languages do not have specialized third-person imperative forms. For example, Passamaquoddy (Algonquian) has an imperative paradigm for second-person and first-person inclusive subjects, while third-person commands are expressed through a distinct injunctive form.

No languages have been found that possess a first-person singular imperative without also having non-singular or inclusive first-person forms, reflecting the typological tendency to include the addressee in imperative constructions. Similarly, in Gahuku (Gorokan, Deibler, 1976), second- and third-person imperatives form a single paradigm, with the same form used for singular, dual, and plural third persons.

Aikhenvald also discusses **impersonal or generic imperatives**, which are examined in this dissertation in Chapter 2 through acquisition data, and in Chapter 4, where a structural analysis is proposed. Some languages mark impersonal referents, roughly corresponding to German *man*, French *on*, or English *one/impersonal you*. These forms often appear in prescriptive statements (“what to do and what not to do”) but do not have dedicated imperative forms in many languages (e.g., Arawak). In Italian, the infinitival form functions as a generic imperative, widely used in public notices, recipes, and instructions (Maiden & Robustelli 2007, p. 248):

(33) Spingere (sign on a door)

push.INF

‘Push’

(34) Tirare (sign on a door)

pull.INF

‘Pull’

(35) Lavare prima di tagliare

wash.INF before of cut.INF

‘Wash before cutting’

Aikhenvald (2010) proposes a typological generalization concerning the distribution of person distinctions in imperatives, showing that these are not random but obey an **implicational hierarchy**. In particular, she argues that non-canonical imperative values, such as first-person exclusive or third-person imperatives, systematically imply the availability of more canonical forms. More precisely, the presence of first-person exclusive imperatives (singular or plural) entails the existence of third-person imperatives (singular or plural), which in turn imply first-person inclusive non-singular imperatives, and finally second-person imperatives, which she envisages as the core of the category. This hierarchy can be summarized as follows (Aikhenvald, 2010, p. 76, discussed also in Jary and Kissine 2014):

(A) first-person exclusive > third-person > first-person inclusive (non-singular) > second-person.

1.1.3 Interim Conclusions: A Definition

On the basis of the discussion so far, now it is possible to provide a refined definition of the imperative. The starting point was, as illustrated at the beginning of §1.1.1, the following: an imperative is a clause whose morphosyntax is conventionally associated with a directive illocutionary force, in that the speaker seeks to bring about a particular action by the addressee.

Of course, the definition adopted here will reflect the morphosyntactic and semantic focus of this thesis, with particular attention to the first dimension, without neglecting the latter. As seen on the discussion on sentence/clause-types, imperatives are so conventionally and robustly associated with a special semantics that neither syntactic, nor semantic inquiry is possible without taking into account one another, to the extent possible to one's analysis goals.

Two modifications have been introduced with respect to the initial formulation: clause has been replaced by clause-type (Sadock & Zwicky, 1985 and subsequent work), and illocutionary force has been replaced by sentential force in the sense of Zanuttini et al. (2005). Therefore, this is the definition adopted in this thesis:

- (36) **an imperative is a clause-type whose morphosyntax is conventionally and robustly associated with a directive sentential force, in that the speaker seeks to bring about a particular action by the addressee.**

The term directive is retained here as an operational convenience, but it is understood in a broader sense. Following Condoravdi and Lauer (2012), imperative clauses cover a wider range of uses than strictly directive ones (orders, requests...), including permissions, invitations, well-wishes, and disinterested advice. These uses nonetheless remain part of the core semantics of the imperative according to the authors. This is because they are not assertions, questions, or other clause types, and they are to be distinguished from cases where the imperative acquires a clear pragmatic import that overrides its basic meaning, such as conditional imperatives and rhetorical imperatives (see Holvoet, 2020). What unifies the uses considered here is a shared preference for the realization of the imperative content. Among others, this view is consistent with Sadock and Zwicky (1985), who assign a central role to speaker desire in the semantics of imperative clauses.

As for the range of forms that count as imperatives, the approach adopted here is based on the notion of prototype (Lowe, 2019) rather than on fixed, rigid categories. This will be further discussed from Chapter 3 onwards, as the discussion will have taken up all the necessary ingredients. For the time being, note that the second person singular constitutes the prototypical imperative, in the sense that it is the form about which there is least controversy. It is indeed an imperative form and broad consensus was found in the literature discussed so far. As Belletti (2009, p. 154) notes, “*the second person can be the only real person of the imperative*”.

This does not mean that other imperative forms are not possible, and indeed in Belletti's analysis (see 1.3.3) she derives also imperative forms that move away from this ‘second person core’. Such forms are first and second person plural imperatives and impersonal imperatives. They represent progressively more peripheral instantiations of the same construction. These are imperatives: excluding them would amount to an overly rigid categorization that would somehow leave syntactic properties of these *peripheral imperatives* unexplained. A first person plural imperative in Italian, for instance, retains syntactic properties that set it apart from declaratives, most notably its incompatibility with embedding, yet it can be regularly negated, differently from a second person form (see next section). It is precisely this hybrid syntax of suppletive forms, alongside the unique properties of core second person imperatives, that makes the morphosyntax of

imperatives both a challenging and a stimulating area of investigation. Here is the notion of prototype (Lowe, 2019) useful: a second person singular imperative form at the core, from which other forms progressively diverge.

1.2 THE MORPHOSYNTAX OF IMPERATIVES: THE EMPIRICAL LANDSCAPE

This section provides an overview of the morphosyntax of imperatives and serves as descriptive background preceding the analytical discussion developed in the following section, where families of formal analyses are illustrated. Some properties of imperative constructions have already emerged in the typological discussion above. Here, they are taken up again and discussed in greater detail from a focused morphosyntactic perspective.

The data considered in this section are drawn exclusively from the available literature. Novel empirical evidence will be introduced in the following chapters, including acquisition data in Chapter 2 and data from adult speakers in Chapter 4, with particular reference to infinitival imperatives in Italian.

The discussion in this section focuses primarily on Italian, Romance languages, and other Indo-European languages. This choice is motivated by the linguistic background of the author and by data accessibility. The languages taken into account display a number of robust cross-linguistic properties of imperative constructions, making them suitable for the purposes of this work, which presents novel empirical data on the acquisition of imperatives in Italian, discussed in Chapter 2, as well as novel data on infinitival imperatives in adult Italian, discussed in Chapter 4.

The microvariation observed across Romance languages is particularly revealing, as it allows for the isolation of properties that remain stable while other parameters vary. This makes Romance a valuable testing ground for the analysis developed in this dissertation. At the same time, it is crucial to draw on a wider dataset that includes typologically distant languages. Without this broader perspective, properties that are in fact language-family-specific risk being misidentified as universals. Therefore, wherever possible, relevant, or necessary, reference will also be made to data from non-Indo-European languages⁷.

Imperative clauses, or the ‘*lonely imperative*’, as defined by Jakobson (2010, p. 91 first appeared in 1971, quoted in Aikhenvald 2010), stand apart from declaratives and interrogatives. The present chapter was opened by a quotation on this matter. How does the syntax of imperatives differ from that of other clause types? And is this difference consistent across languages?

As noted by Platzack and Rosengren (1998, p. 178), “*the imperative clause has universally and language-specifically certain properties which are not immediately compatible with the descriptions assumed for finite clauses*”. In this section such properties will be discussed in detail, showing that indeed imperatives are somewhat ‘lonely’, and special.

Rivero and Terzi (1995) divide languages into two types based on their syntactic properties. Languages of Type I have distinctive syntax for imperatives; languages of Type II encompass imperative clauses with

⁷ This focus does not imply that non-Indo-European languages are any less relevant for a formal analysis of imperatives. On the contrary, recent work highlights the necessity of extending generative and formal approaches to imperatives to a wider range of languages, including in acquisition studies (Kidd & Garcia, 2022). While typological studies are abundant, formal analyses primarily dedicated to imperatives in non-European languages remain scarce. A recent exception is Lett’s (2023) work on Chu, an understudied Mayan language. Further research in this direction is necessary for the development of a theory that can adequately capture the functioning of the human language faculty, without leaving significant empirical domains unexplored. In this respect, acquisition studies are crucial. It has been observed that children, in the course of development, make use of structures that are attested in other languages despite never having been exposed to them. Studying acquisition therefore amounts, in an important sense, to studying comparative syntax (Belletti, p.c.). Notable work in this area includes Belletti (2023) and Guasti (2017), among others.

the same syntax as non-imperative ones. Those would be the ‘less lonely’ imperative forms. Spanish and Modern Greek belong to the former group, while Ancient Greek belongs to the latter. In their analysis, this contrast is attributed to the nature of C: in Type I languages, C bears a strong feature that attracts movement, whereas in Type II languages it does not (see §1.3.3 for a discussion of their analysis and other traditional proposals of CP imperatives).

1.2.1 Imperative Morphology, or lack thereof: true vs. suppletive imperatives

As seen in the section on typological approaches to imperative clauses (§1.1.2), one third of the world’s languages have morphologically impoverished imperatives, especially 2nd person singular forms (Aikhenvald, 2010; Aikhenvald & Dixon, 2017; see also Floricic, Franck, 2000; Mauck, 2005; Zhang, 1990). Sadock and Zwicky (1985) state that the lack of overt marking mirrors the inherent semantics of imperatives: the subject is by default interpreted as the addressee, which renders explicit second-person inflection superfluous. While this is not intuitively unreasonable, it is worth noting however that roughly two thirds of the world’s languages instead employ dedicated imperative endings or specialized particles for imperative formation, as again discussed in §1.1.2. See Maiden (2007) specifically for a detailed discussion of the morphology of Italo-Romance imperatives. This contrast suggests that the unmarked pattern calls for a deeper explanation, to be formalized in explicit terms in Chapter 3. A related observation is formulated by Belletti (1999, reprinted 2009: 154):

“Indeed, the second person can be the only real person of the imperative. If we consider singular to be the default number, second person singular can be taken to constitute the only real imperative form. Interestingly, while first and second person plural, usually quoted in the imperative paradigm, correspond to the indicative morphology (facciamo ‘let’s do’, fate ‘do-PL’), a special imperative morphology only exists for the second person singular.”

The above pattern in imperative syntax has been analyzed in seminal work by Zanuttini (1997) on Sentential Negation in Romance languages, where imperatives have a whole chapter dedicated. Zanuttini (1997) names TRUE IMPERATIVES those imperative forms which display distinctive morphology. Distinctive refers to morphology that is unique, i.e. not found in other forms of the verbal paradigm. In other words, a true imperative is an imperative which does not borrow its morphological shape from other tenses and forms in the paradigm. Instead, SUPPLETIVE IMPERATIVES in Zanuttini’s (1997) sense display morphological properties borrowed from other tenses within the verbal paradigm (Rivero 1994b; Zanuttini 1997; Belletti 2009; Di Domenico 2004).

The distribution of these two types of imperative varies across languages. The present study adopts the notion of suppletion as formulated in the generative literature by Zanuttini (1997) for consistency with the theoretical framework within which this thesis is situated and for the purposes of the analysis developed in it. The same notion in imperatives was employed by Rivero, first circulated in 1988 and subsequently published in 1994, under the label ‘surrogate’ imperatives (first appeared in 1988, published in 1994). This notion of suppletion is central to the present work, since true and suppletive imperatives share a cluster of syntactic properties, including incompatibility with embedding. At the same time, other properties, such as compatibility or incompatibility with negation, often distinguish true imperatives from suppletive ones, as discussed in §1.1.2.1.2. In the sake of clarity and completeness, note that the term suppletion has been used in the typological literature in another way: namely when the whole verb stem changes in imperatives, compared to declaratives and questions (Aikhenvald, 2010).

The above pattern in imperative syntax has been analyzed in the seminal work by Zanuttini (1997), “*Negation and Clausal Structure*”, where a full chapter is devoted to imperatives. Zanuttini (1997) uses the label TRUE IMPERATIVES to refer to imperatives with distinctive morphology. By *distinctive morphology* it is meant

morphology that does not occur elsewhere in the verbal paradigm; in other words, an imperative qualifies as a true imperative if it does not borrow its morphology from other verbal forms. By contrast, SUPPLETIVE IMPERATIVES in Zanuttini's (1997) sense belong precisely to this second type: they display morphological properties borrowed from other tenses within the verbal paradigm (Rivero 1994b; Zanuttini 1997; Belletti 2009; Di Domenico 2004).⁸

The distribution of these two types of imperatives varies across languages. The present study adopts the notion of suppletion as formulated in the generative literature by Zanuttini (1997), both for consistency with the theoretical framework adopted in this dissertation. The same notion in imperatives was employed by Rivero, first circulated in 1988 and subsequently published in 1994, under the label *surrogate imperatives*. This notion of suppletion is central to the present work, since true and suppletive imperatives share a cluster of syntactic properties, including incompatibility with embedding. At the same time, other properties, such as compatibility or incompatibility with negation, often distinguish true imperatives from suppletive ones, as discussed in §1.1.2.1.2.

A set of illustrative examples is presented below. The discussion begins with Italian and then turns to Spanish, Serbo-Croatian, Bulgarian, and finally French. These languages are examined because they display four distinct patterns with respect to suppletivism in Zanuttini's sense.

First, consider Italian and other closely related Romance languages such as Catalan. In Italian, and similarly in Catalan, true imperatives correspond to second person singular forms (37)(39) whereas second person plural imperatives are suppletive forms (37)(39) homophonous with the second person plural present indicative (38) for Italian).

(37) Imperative (Italian)

a. Parla!

speak.IMP.2SG

'Speak!'

b. Parlate!

speak.IMP.2PL

'Speak!' (suppletive form)

(38) Indicative (Italian)

a. Tu parli.

you.2SG speak.IND.PRES.2SG

'You speak.'

b. Voi parlate.

you.2PL speak.IND.PRES.2PL

'You speak.'

(39) Imperative (Catalan)

⁸ For the sake of clarity and completeness, note that the term *suppletion* has been used differently in the typological literature. In that tradition, it refers to cases in which the entire verbal stem changes with respect to the corresponding declarative or interrogative forms (Aikhenvald 2010).

a. Parla!

speak.IMP.2SG

‘Speak!’

b. Parleu!

speak.IMP.2PL

‘Speak!’ (suppletive form)

[Examples from Zanuttini 1997, pp. 107-108]

With respect to the three conjugation classes in Italian, only the first conjugation, comprising infinitive verbs ending in -are, displays a distinct imperative form in the second person singular. Some irregular verbs behave in a similar way (Salvi & Borgato, 1991), as illustrated below.

(40) Imperative (Italian)

a. Va’!

go.IMP.2SG

‘Go!’

b. Da’!

give.IMP.2SG

‘Give!’

c. Fa’!

do.IMP.2SG

‘Do!’

d. Di’ che ho ragione!

say.IMP.2SG that have.IND.PRES.1SG reason

‘Say that I am right!’

e. Sta’ fermo!

stay.IMP.2SG still

‘Stay still!’

Notice that the forms in (40)a–e can also appear in a non-truncated variant (*vai, dai, fai, dici, stai*). However, evidence that the truncated form constitutes the core imperative form becomes apparent when clitics are involved (Belletti, 1999; Floricic, Franck, 2000). In fact, the full form yields ungrammaticality, as illustrated in (41).

(41) Imperative (Italian)

a. *Fai-lo!

do.IMP.2SG-it.CL.M.3SG.ACC

'Do it!'

b. Dammelo!

give.imp.2sg-it.cl.m.3sg.acc

'Give it to me!'

Some Italian verbs such as *essere* (be), *avere* (have), and *sapere* (know) show interesting behavior with respect to their suppletive imperative forms. While they exhibit distinctive morphology in the second person singular imperatives (42) (Floritic, 2000), a form of the present subjunctive is used for the second person plural (43). This differs from the usual pattern of suppletive imperatives in Italian, which typically resort to the present indicative.

(42) a. Abbi fedel!

have.IMP.2SG faith

'Have faith!'

b. Sii felice!

be.IMP.2SG happy

'Be happy!'

c. Sappi che devo studiare!

know.IMP.2SG that pro.1SG must.IND.PRES.1SG study.INF

'Be aware that I must study!'

(43) a. Abbiate fedel!

have.SBJV.PRES.2PL faith

'Have faith!'

b. Siate felici!

be.SBJV.PRES.2PL happy

'Be happy!'

c. Sappiate che devo studiare!

know.SBJV.PRES.2PL that must.IND.PRES.1SG study.INF

'Be aware that I have to study!'

With verbs ending in *-ere* and *-ire* (second and third conjugation), imperative forms are completely homophonous with the present indicative (Salvi & Borgato, 1991). Consider the examples with *correre* (run) and *dormire* (sleep):

(44) Imperative and Indicative (Italian, homophonous forms)

a. Corri!

run.IMP.2SG

'Run!'

b. Correte!

run.IMP.2PL

‘Run!’

c. Tu corri.

you.2SG run.IND.PRES.2SG

‘You run.’

d. Voi correte.

you.2PL run.IND.PRES.2PL

‘You run.’

e. Dormi!

sleep.IMP.2SG

‘Sleep!’

f. Dormite!

sleep.IMP.2PL

‘Sleep!’

g. Tu dormi.

you.2SG sleep.IND.PRES.2SG

‘You sleep.’

h. Voi dormite.

you.2PL sleep.IND.PRES.2PL

‘You sleep.’

Although the imperatives in (44) do not display overt distinctive morphology, they behave in the same way as first conjugation imperatives with respect to negation. In particular, second person singular imperatives from all conjugation classes cannot be negated. For this reason, all second person singular imperatives in Italian can be treated as true imperatives. Acquisition data appear to support this conclusion, as the stage of overproduction of imperatives in Italian children’s spontaneous speech includes verbs from all conjugation classes (Salustri and Hyams 2003, 2006, p. 172; see Chapters 2 and 3).

Another suppletive form available in Italian is the first person plural imperative, or hortative. This form is not morphologically distinguishable from the corresponding indicative or subjunctive form in the Italian verbal paradigm, except for clitic placement. In such cases, the speaker includes herself in the group being addressed.

(45) a. Cantiamo, ragazze!

sing.IMP.1PL girls.VOC

‘Let’s sing, girls!’

b. Cantiamo tutti i martedì.
sing.IND.PRES.1PL all the.PL Tuesdays

‘We sing every Tuesday.’

c. Penso che noi cantiamo meglio.
think.IND.PRES.1SG that we sing.SBJV.PRES.1PL better

‘I think that we sing better.’

Italian also employs a particular form of polite or formal imperative (Salvi & Borgato, 1991). This construction consists of a suppletive form homophonous with the third person singular and third person plural subjunctive, used respectively as polite second person singular (46) and second person plural imperatives (46).

(46) Polite imperative (Italian)

a. Lo dica pure!
it.CL.M.SG.ACC say.SBJV.PRES.3SG please

‘Please say it!’

b. Corrano a casa, signori!
run.SBJV.PRES.3PL to home gentlemen.VOC

‘Gentlemen, please go home!’

[Ex. from Salvi and Borgato 1991, p. 153]

Another construction available in Italian involves a positive imperative with an infinitival form, which receives a generic interpretation addressing any potential interlocutor. This special kind of infinitival imperatives will be the topic of Chapter 4 of this dissertation, where novel empirical data and a structural analysis of these constructions will be offered.

(47) Generic imperative (Italian)

a. Allacciare le cinture!
fasten.INF the seatbelts

‘Fasten your seatbelts!’

[Salvi and Borgato 1991]

b. Muoversi!

move.INF.REFL

‘Move!’

[Di Domenico 2004, p. 80]

Subjunctive mood is instead used with imperatives that take a third person subject:

(48) Third person subject imperative (Italian)

- a. Nessuno si muova!
nobody CL.REFL move.SBVJ.PRES.3SG

‘Nobody move!’

[Zanuttini 1997, p.174]

- b. Tutti tornino a casa immediatamente!
everyone return.SBVJ.PRES.3PL to home immediately
‘Everyone return home immediately!’

Such imperatives appear to be comparable to English constructions with third person subjects, such as *Everybody please be quiet!* or *Nobody move!*. Zanuttini (1991) suggests that these structures in English are in fact subjunctive forms, as appears to be the case in Italian as well.

Now, the discussion turns to another set of languages behaving differently: languages whose imperatives display ad hoc morphology for both second person singular and second person plural fall into this category.

Starting with Spanish itself, both second person singular (49)a and second person plural (49)b imperatives are endowed with a distinctive form, hence are true imperatives:

(49) Imperative (Spanish)

- a. Habla! (true imperative)
speak.IMP.2SG
‘Speak!’
b. Hablad! (true imperative)
speak.IMP.2PL
‘Speak!’

[Examples from Zanuttini 1997, p. 108]

The same applies to Sardinian (Di Domenico 2004):

(50) Imperative (Sardinian)

- a. Kánta! (true imperative)
sing.IMP.2SG
‘Sing!’
b. Kantáte! (true imperative)
sing.IMP.2PL
‘Sing!’

[Examples from Jones 1988, quoted in Zanuttini 1997, p. 110]

Now, a third type of languages comprises Bulgarian and Serbo-Croatian, following Rivero (1994b):

(51) Imperative (Bulgarian)

a. Četi! (true imperative)

read.IMP.2SG

‘Read!’

b. Četete! (suppletive form)

read.IMP.2PL

‘Read!’

[For these above-mentioned languages, all examples are from Rivero 1994b, p. 92]

Indicative (Bulgarian)

a. Četes

read.IND.PRES.2SG

‘You read.’

b. Četete

read.IND.PRES.2PL

‘You read.’

Bulgarian shows true imperative forms only with respect to second person singular when it comes to the stem class that includes verbs of the kind in (51) (Scatton 1984). For other verbs, like in those in the following examples, also second person plural imperative morphology is distinctive:

(52) Imperative (Bulgarian)

a. Igroaj! (true imperative)

play.IMP.2SG

‘Play!’

b. Igrajte! (true imperative)

play.IMP.2PL

‘Play!’

(53) Indicative (Bulgarian)

a. Igraes

play.IND.PRES.2SG

‘You play.’

b. Igraete

play.IND.PRES.2PL

‘You read.’

Serbo-Croatian employs true imperative forms for 2nd person singular and plural, but not only. Interestingly, it also has a dedicated 1st person plural imperative form, as in (54):

(54) Imperative (Serbo-Croatian)

a. Čitaj!

read.IMP.2SG

‘Read!’

b. Čitajm!

read.IMP.1PL

‘Let us read!’

c. Čitajte!

read.IMP.2PL

‘Read!’

(55) Indicative (Serbo-Croatian)

a. Čitas

read.IND.PRES.2SG

‘You read.’

b. Čitamo

read.IND.PRES.1PL

‘We read.’

c. Čitate

read.IND.PRES.2PL

‘You read.’

Rivero (1994b) mentions ‘surrogate’ imperative forms, to use her terminology, formed by a present indicative verb preceded by the element *da*:

(56) Da četes!

‘da’ read.PRES.2SG

‘You (Sg) should read!’

[Ex. from Scatton, 1984, pp. 338–339, cited in Rivero 1994]

Another language displaying suppletive imperatives is **French**. It represents an interesting case because it lacks imperative morphology altogether, therefore in French all imperatives are suppletive (Kayne, 1992; M. L. Rivero, 1994b; Zanuttini, 1997). Although there seems to be a discrepancy between (57) and (58), which would suggest that (57) is a true imperative, the difference between these two forms is strictly

orthographic: the *-s* in *tu parles* is silent. Hence, indicative and imperative forms in French are homophonous, i.e. imperatives are suppletive in all forms.

(57) Imperative (French)

a. Parle!

Speak.IMP.2SG

‘Speak!’

b. Parlons!

Speak.IMP.1PL

‘Let us speak!’

c. Parlez!

Speak.IMP.2PL

‘Speak!’

(58) Indicative (French)

a. Tu parles

Speak.IND.PRES.2SG

‘You speak.’

b. Nous parlons

Speak.IND.PRES.1PL

‘We speak.’

c. Vous parlez

Speak.IND.PRES.2PL

‘You speak.’

Having examined the morphological patterns of the languages discussed above, we can now address a property that has often been noted in the literature: **imperatives are morphologically impoverished**. This already emerges from the examples seen so far, but it is worth discussing in more detail on the basis of the existing literature.

Di Domenico (2004) and Belletti (2009, p. 155) notice that true imperatives in Italian do not display properties tied to Tense or overt subject agreement morphology. This is peculiar, as the Italian morphological paradigm is usually rich. In the same vein, Zanuttini (1997, p. 110) writes that true imperatives in Romance consist only in the verbal root and the thematic vowel⁹, differently from other verbal forms,

⁹ Napoli and Vogel (1990) analyze the Italian conjugation classes and their respective thematic vowels: only in the case of the first conjugation (verbs ending in *-are*) the thematic vowel *-a* is the same thematic vowel that we find in imperatives: *parlare* (infinitive, to speak) and *parla!* (imperative, speak!). In regular verbs of the second (*-ere* infinitives) and third (*-ire* infinitives) conjugation classes, the thematic vowels are *-e* and *-i* respectively. However, imperatives in both these classes display the thematic vowel *-i*: *battere* (to put) vs *batti!*, and *partire* (to leave) vs *parti!*. The above-mentioned authors and Zanuttini (1997) take this difference

which display further morphemes, such as Agreement and Tense. Suppletive imperative forms have some additional suffix as well (Zanuttini 1997, p. 110), other than the root and thematic vowel. She proposes that these suffixes (*-te* and *-iamo* for Italian 2nd and 1st person plural respectively) are agreement morphemes. Di Domenico (2004), instead, assumes they are number morphemes and that Agreement is not present in the imperative clause structure (see §1.3.3.1 for her full structural analysis).

(59) Imperative (Italian)

a. Parl - a

root - thematic vowel

speak-IMP.2SG

‘Speak!’

b. Parl - a - te

root - thematic vowel - agreement / number morpheme

speak.-IMP.2PL

‘Speak!’

(60) Indicative (Italian)

a. Parl - a – te

root - thematic vowel - agreement morpheme

speak-IND.PRES.2PL

‘You speak.’

[Examples from Zanuttini 1997]

1.2.2 Auxiliaries and Modals

The morphological impoverishment discussed in the previous section is arguably related to another property of imperatives: the incompatibility with auxiliaries and modals. Given the impoverished morphology of imperatives, it comes as no surprise that auxiliaries and modals cannot appear in imperative clauses. This is illustrated by Di Domenico (2004, p. 83) with the following examples:

(61) a. *Will it!

b. *Must it!

(62) c. *Vuo-mmi/Voglia-mi aiutare!

want.SUBJ.PRES.2SG-CL.1SG help.INF

‘*Want help me!’

to be in line with other vowel oscillations available in the second and third conjugation class (e.g. *battere* (to put) vs *battuto* (put, past participle). For this reason, the variability of the nature of the thematic vowel between infinitives and imperatives exhibited by the second conjugation class does not hinge on the view these authors have w.r.t. true imperatives. True imperatives are dedicated morphological forms irrespectively of the possible oscillation of the thematic vowel.

[Ex. from Di Domenico 2004, p. 83]

1.2.3 Imperative Subjects

Imperatives lack a prototypical subject (Aikhenvald, 2010; Belletti, 1999, p. 199; Di Domenico, 2004; Platzack & Rosengren, 1998; Zanuttini, 2008; Zanuttini et al., 2012). It is cross-linguistically robust that in imperatives subjects need not be overt, unless some pragmatic marking triggers its overtness (Di Domenico, 2004; Platzack & Rosengren, 1998). A crucial point is that imperative subjects are robustly omitted (superficially) also in languages where the subjects is otherwise always mandatory, such as English:

(63) You eat the mushrooms.

(64) Eat the mushrooms!

Imperative subjects, although they need not be overt, are indeed **syntactically active**. When a canonical imperative is not overtly marked for person, as in English or Italian, the question arises of how its subject is interpreted as the second-person addressee. Syntactic tests can clarify that the subject is interpreted as the addressee and is syntactically active even if non-overt: for example, in Koyra Chini, an imperative with a zero-marked subject controls a second-person reflexive (Aikhenvald, 2010). As noted by Beukema and Coopmans (1989), among others, subject-less imperatives differ fundamentally from passive constructions with respect to the syntactic status of the external argument (EA). While passives do not have an EA, imperatives retain a syntactically active, albeit phonologically null, subject position. This distinction is evidenced by two diagnostics: anaphor binding and control into adjunct infinitivals. In the examples below, the grammaticality of (65) and (65) demonstrates that an implicit NP is syntactically projected in the imperative, capable of binding the anaphor *yourself* and controlling *PRO* in the adjunct clause respectively. The corresponding passive constructions in (65) and (65), by contrast, are ungrammatical precisely because no such syntactically active external argument is available to license these dependencies.

(65) a. Tell a story about yourself!

b. *A story was written about themselves.

c. Leave London [without PRO going to BM]!

d. *London was visited [without PRO going to the BM].

[Ex. by Beukema and Coopmans 1989, p.419]

Platzack and Rosengren (1998) extend this line of argumentation to the broader Germanic domain. Particularly compelling evidence comes from Swedish, where the null subject of imperative clauses demonstrably participates in agreement relations with predicatively used adjectives and participles. As illustrated in (66), the adjectival predicate surfaces in singular form when a single addressee is implied, and in plural form when multiple addressees are intended, thereby providing morphological evidence for the syntactic activity of the implicit subject.

(66) a. Var försiktig!

‘Be careful (singular)’

b. Var försiktiga!

‘Be careful (plural)’

[Ex. by Platzack and Rosengren 1998]

Platzack and Rosengren (1998) further address the status of subjects in imperative clauses. They observe that an overt subject referring to the addressee is never obligatory in imperatives. In some languages, a subject-like pronoun or quantifier may appear, but only optionally. When it does, it shows properties that set it apart from subjects in regular finite clauses. They envisage imperative subjects as subjects internal to the clause. These must be distinguished from elements that fall outside the prosodic contour of the clause. A clear example comes from English vocative *you*, as in *You, open the door!* or *Open the door, you!* (examples by Platzack & Rosengren, 1998, p. 178). In such cases, *you* functions as a vocative and the authors argue it is not part of the clause structure proper (see further details in the next subsection on Vocatives).

When the subject is expressed it has some kind of pragmatic marking (Di Domenico, 2004):

- (67) *Tu porta la valigia*
TOP you take.IMP.2SG the suitcase
- (68) a. *Porta-la TU*
take.IMP.2SG-it.CL.ACC.3SG.F you
b. **TU porta-la*
you.FOC take.IMP-MP.2SG-it.CL.ACC.3SG.F

A crucial aspect on imperative subjects is that they are restricted to second person. In other words, first person subject are not licit in imperatives; unless one considers hortative or polite forms (§1.1.2), which have some (but not all) overlapping syntactic properties with second person imperatives. Observe the following examples by Zanuttini (2008, p. 189). With the relevant imperative interpretation and prosody, only second person subject are licit:

- (69) *You do it!*
(70) *I do it!*
(71) *He do it!*

As discussed in Zanuttini et. al (2012), building on Bolinger (1967), imperative subjects in English systematically exhibit second-person features. Empirical evidence comes from two main observations. First, imperatives co-occur with second-person pronouns in tag questions, as in example (72):

- (72) *Wash yourself, won't you!*

Second, imperatives license second-person reflexives in object position in a variety of contexts, not only when the subject is an overt second-person pronoun, but also when the subject is null (72), a proper name (73), or a quantificational NP (74):

- (73) *Kids, Mary wash yourself, John take the dog for a walk!*
(74) *Everyone wash yourself!*

Consider also the following examples; as discussed in Zanuttini et al. (2012), a third-person quantifier behaves differently depending on whether it appears in an imperative or in a tensed clause. In tensed clauses, the quantifier receives a deictic reading, whereas in imperatives 'somebody' is intended as 'somebody' in the relevant set of addressees:

- (75) *Somebody open the window!*
(76) *Somebody opened the window.*

[Ex. by Platzack and Rosengren 1998, p. 200]

These patterns lead to two conclusions. One is that imperative clauses contain an element with inherent second-person features that can bind the reflexive in (72)–(74). The second is that these features are unique to the imperative clause type: proper names or quantificational subjects do not license second-person reflexives in declaratives, as shown in (77):

- (77) a. Mary washed *yourself.
b. Everyone washed *yourself.

As discussed above, in English, the subject of a canonical imperative is implicitly second person, the prototypical addressee, as in *Close the window!*. An overt subject (*You close the window!*) can be added, but it is not required. English also allows subject omission in declaratives (*Have to go now*, *Looks like not a very good idea*) and in interrogatives (*Fancy a drink?*), though these uses are highly colloquial, often idiomatic, and rarely occur in formal or written registers. Importantly, adding an overt subject in these contexts does not parallel its effect in imperatives: as Davies (1986: 131) observes, imperatives with an explicit subject are perceived as more specified, while those without are not felt as incomplete.

Aikhenvald (2010) discusses these patterns, noting the optionality and supplementary nature of overt subjects in imperatives. From a generative perspective, the cases she describes can be analyzed as topic drop constructions, as in Rizzi's work on the privilege of the root, where the root verb can appear without an overt subject when the discourse referent is pragmatically salient.

Another property to consider is the **agentivity requirement** on imperative subjects. Chierchia (1997) observes that imperatives cannot be stative. Indeed, placing a verb in the imperative mood serves as a diagnostic to distinguish stative from non-stative eventualities. This follows from the nature of imperative subjects: subjects of stative predicates are experiencers, not agents, and imperatives require an agentive subject (Asano & Ihara, 2019 and references therein; Chierchia, 1997).

Even in **ergative languages**, the subject of an imperative clause is invariably the addressee. Sadock and Zwicky (1985) examine imperative constructions in ergative languages organized according to an ergative–absolutive alignment. In such languages, the objects of transitive verbs and the subjects of intransitive verbs are treated alike in carrying absolutive case, while the subject of a transitive verb is treated differently, displaying ergative case. The authors discuss that this typology opens up the theoretical possibility of an imperative system built along ergative lines. In a language with an ergative-oriented imperative, the absolutive argument would be expected to correspond to the addressee, regardless of whether the verb is transitive or intransitive. Under this scenario, the imperative of an intransitive verb such as *go* would instruct the addressee to leave, whereas the imperative of a transitive verb like *convince* would instruct the addressee to undergo being convinced, that is, to come to believe something.

The dataset in Sadock and Zwicky (1985) includes two languages often described as maximally ergative, Dyirbal (R. M. Dixon, 1972) and Eskimo. Nevertheless, in both languages transitive imperatives are interpreted in exactly the same way as in English. Consider, for instance, the Greenlandic verb *igu* 'to cook', which has both transitive and intransitive uses. With the intransitive form, the noun phrase referring to the person who does the cooking appears in the absolutive case, whereas in the transitive construction it is the entity being cooked that bears absolutive case, while the cook is marked as ergative:

- (78) palasi igavoq
priest.AAS cook.INDIC.3SG
'The priest is cooking (something)'

- (79) angutip palasi igavaa

man.ERG priest.AAS cook.INDIC.3SG/3SG

‘The man is cooking the priest’

Despite this morphosyntactic ergativity, the imperatives of both forms express a request to perform a cooking action:

(80) isasit

cook.IMP.2SG

‘Cook (something)!’

(81) igaguk

cook.IMP.2SG/3SG

‘Cook it!’

Therefore, even though Eskimo is morphologically and to some extent syntactically ergative, its imperative system conforms to the pattern whereby the addressee of an imperative is always the subject, independently of whether the verb is transitive or intransitive. Sadock and Zwicky (1985) note that this generalization holds across languages. They argue that the most plausible explanation appears to be semantic in nature: cross-linguistically, subjects are typically associated with agentive roles. Since imperatives involve directing someone to carry out an action, it would be infelicitous to issue a request to an individual who lacks direct control over the relevant event. Consequently, imperative addressees must be subjects, but not just any subjects. Verbal predicates that do not normally take agentive subjects are disfavored in imperatives, and languages tend to resist forms such as *Be convinced!* or *Weigh 200 lb!* (examples by Sadock & Zwicky 1985, p. 172). When such imperatives do occur, they are perceived as marked and require special pragmatic accommodation.

Aikhenvald (2010) discusses that imperative forms tend to resist linguistic change over time. **Imperatives are diachronically conservative structures:** they change more slowly than other verbal forms and frequently preserve ergative case distinctions that have otherwise disappeared from the language¹⁰. Moreover, in Sanskrit, the imperative is the verbal mode that remained most unchanged throughout the entire history of the language. More broadly, imperative constructions often preserve archaic patterns of grammatical marking that have disappeared elsewhere in the grammar.

1.2.4 Clitic Placement

“[...] the postverbal ordering of clitics with positive imperatives is likely to involve a very general principle of the grammar.”

(Rooryck, 1992, p. 221)

A well-known property of cliticization is that the clitic and the verb do not always appear in the same position. The clitic may precede the verb (proclisis) or follow it (enclisis). For Romance, this clitic placement is discussed in Belletti (1999; reprinted 2009), Shlonsky (2004), Rooryck (1992), among others. In Italian, the generalization appears to be straightforward, at first glance. Proclisis occurs with finite verbal

¹⁰ There appears to be a link between radically reduced imperative structures, i.e. the hypothesis pursued in this dissertation, and recent proposals that identify reduced participial VPs as the ergative core of grammar (Bhatt et al., 2025), even in languages that otherwise display mostly a nominative–accusative alignment. See chapter 5 for further discussion.

morphology, while enclisis is found with non-finite forms. The examples below are drawn from Belletti (1999), reprinted in Belletti (2009: 145). With finite verbs (*vedo*, *ho*), the clitic precedes the verb:

- (82) Le vedo
le ved-o
3PL.F.ACC.CL see-1SG
'I see them.'
- (83) Le ho viste
le ho vist-e
3PL.F.ACC.CL have.1SG see-PTCP.F.PL
'I have seen them.'

In the non-finite forms, namely, infinitives, gerunds, and participles, the clitic surfaces post-verbally:

- (84) Vederle
ved-er-le
see-INF-3PL.F.ACC.CL
'To see them.'
- (85) Averle viste
av-er-le vist-e
have-INF-3PL.F.ACC.CL see-PTCP.F.PL
'To have seen them.'
- (86) Vedendole
ved-endo-le
see-GER-3PL.F.ACC.CL
'Seeing them.'
- (87) Vistele
vist-e-le
see-PTCP.F.PL-3PL.F.ACC.CL
'Seen them.'

The same applies to positive imperatives: Belletti (1999) notes the systematicity of enclisis in Romance imperatives, focusing on Italian and French in her analysis (see 1.3.3).

- (88) Italian / French
Fa-llo / Fais-le
do-it.CL.3SG.ACC

(89) Facciamo-lo / Faisons-le

let.us.do-it.CL.3SG.ACC

(90) Fate-lo / Faites-le

do.IMP.2PL-it.CL.3SG.ACC

In his study of Romance enclitic ordering, Rooryck (1992) observes the striking systematicity of enclisis in positive imperatives all Romance languages.¹¹ Clitic pronouns must follow a non-negated imperative verb, as illustrated by forms such as *Fais-le!* ‘Do it!’ (French), *Fallo!* (Italian), *¡Hazlo!* (Spanish), and *Fá-lo!* (European Portuguese), while the corresponding preverbal orders are ungrammatical. This generalization extends well beyond the major Romance languages to Catalan, Romanian, Sardinian, Rhaeto-Romance, Corsican, and a wide range of Romance dialects (Rooryck, 1992 and references therein). He focuses on the systematicity of this pattern and does not discuss the French reordering of clitics instead discussed in Emonds (1976).

Crucially, Rooryck (1992) discusses this enclisis pattern is not restricted to Romance. Comparable enclitic orders in positive imperatives are attested in genetically and typologically distant languages such as Albanian, Modern Greek, and Macedonian. Even more strikingly, the effect persists in languages that otherwise categorically prohibit postverbal clitics. French, for instance, never allows clitics to follow the verb except in positive imperatives, unlike Italian and Spanish, where enclisis is also found with infinitives (Shlonsky, 2004). Thus, the imperative context uniquely licenses a word order that is otherwise unavailable in the grammar.

The fact that enclisis in positive imperatives is found not only in the major Romance languages (French, Italian, Spanish, European Portuguese) but also in a wide range of Romance varieties (Catalan, Romanian, Sardinian, Corsican, Rhaeto-Romance, Occitan, Gascon, Walloon, Vendean) and even in non-Romance languages such as Albanian, Modern Greek and Macedonian strongly suggests that this pattern cannot be attributed to a Romance-specific syntactic rule, but must instead reflect a deeper property of the grammar (hence the quote by Rooryck at the beginning of this subsection), plausibly the same principle that also derives enclisis in infinitival constructions in languages such as Italian and Spanish, as suggested by Rooryck (1992). This high degree of crosslinguistic stability poses a serious challenge for any analysis that treats enclisis in imperatives as the result of a construction-specific rule. If postverbal clitic placement were governed by a language-specific rule, much greater variation would be expected. Instead, the convergence of Romance and non-Romance languages strongly suggests that enclisis in imperatives reflects a deeper architectural property of grammar.

Imperative verbs with distinctive morphology either have a distinctive syntax (Modern Greek, Spanish), or distribute like others verbs (Serbo-Croatian, Ancient Greek). The contrast follows from properties of the root C. The first type has a strong Imperative V-feature in C, and under Chomsky’s Greed Principle, Imperative verbs raise overtly to check this feature. The second type is the Wackernagel language, whose C hosts no features, but V-features are in I. If no phrase fronts, V moves to C to support second position items. V-to-C affects all verbs, is last resort operation. Observe enclisis in Modern Greek:

(91) Diavase to!

read.IMP.2SG it.CL

(92) To diavases

¹¹ A notable exception is found in the Fex Platta variety, as discussed in Pescarini (2021), where clitic reduplication is productive. See Chapter 2, example 0.

it.CL read.PRES.IND.2SG

(93) *Diavases to

read.PRES.IND.2SG it.CL

[Ex. adapted from Rivero and Terzi 1995, p. 304]

Contrary to the generalized enclitic placement observed in positive imperatives, Romance languages display substantial variation in the ordering of clitics in negated imperatives. As noted by Kayne (1991b), Northern Italian strongly favors enclitic placement in negative imperatives, as in (94)-(95), while central Italian dialects typically exhibit proclisis (96)-(97):

(94) Non farlo!

NEG do.INF.IT.CL

'Don't do it!'

(95) Non fatelo!

NEG do.PRES.IND.2PL.it.CL

'Don't do it'

(96) Non lo fare!

NEG it.CL do.INF

'Don't do it!'

(97) Non lo fate!

NEG it.CL do.PRES.IND.2PL

'Don't do it!'

[Ex. from Kayne 1991b, quoted in Rooryck 1992, p. 222]

As discussed in Heiman (1988, p. 377, quoted in Rooryck, 1992) similar optionality between proclisis and enclisis is reported for Rhaeto-Romance.

By contrast, in Spanish, Catalan, and Portuguese negated imperatives formed with subjunctive morphology categorically exclude enclitic placement.

(98) a. Hazlo! / Hägalo! / Hagámoslo!

do.2SG:IMP it.CL / do.2SC.HON.SBJV it.CL (honorific you) / do.PL it.CL (exhortative)

b. No lo hagas! / *No lo haz!

NEG it.CL do.2SG.SBJV (not honorific)

c. *No hägaslo! / *No hägalo

NEG do.2SC.SBJV it.CL / NEG do.3SG.SBJV it.CL (honorific you)

[Ex. from Rooryck 1992, p. 222]

In Spanish, enclisis is permitted only in affirmative imperatives, whereas negation enforces proclisis. Infinitival imperatives in Spanish likewise uniformly require enclisis, with no dialectal evidence for preverbal clitics.

More generally, outside the imperative domain, Romance languages do not consistently require proclitic placement. While proclisis represents the unmarked pattern in tensed clauses, significant cross-

linguistic and intra-linguistic variation persists. Portuguese is a particularly revealing case: in European Portuguese, enclisis is obligatory in root clauses, but proclisis emerges in embedded contexts and is triggered in root clauses by negation or quantified subjects. Further variation arises in infinitival contexts, where clitic placement depends on the selecting preposition. Brazilian Portuguese, in turn, shows a diachronic drift toward generalized proclisis.

While such variability in non-imperative contexts plausibly reflects language-specific factors, this explanation is unlikely to extend to imperative clauses. Enclitic ordering in positive imperatives appears to be remarkably exceptionless, even across unrelated language families, at least for the (small) sample of languages discussed so far.

1.2.5 Negation

The interaction of negation and imperatives has already been touched upon in the typological section above, where the major cross-linguistic strategies for negating an imperative (called Prohibitives in WALS, Dryer et al. 2024) were surveyed. As summarized in Table 2, four major patterns emerge: some languages apply the ordinary declarative negator directly to the imperative form (e.g. Turkish, English); others retain the imperative but use a dedicated prohibitive negator (e.g. Vietnamese); a third group uses the standard negator but replaces the imperative with another verbal form, such as the subjunctive in Romance languages. This constitutes a typologically rarer pattern, attested in approximately 11% of the sample. Such pattern has also been called **NEGATIVE INEFFABILITY**: a fascinating phenomenon, not least because exceptions continue to emerge in the literature (see Poletto, 2016). Finally, the fourth typological pattern, found for example in Zulu, combines both a special prohibitive negator and a non-imperative verb form.

In this section, we provide an overview of the negation strategies available in the languages discussed earlier in this section, which will also be examined in section 1.4 when discussing structural analyses in detail.

When it comes to negative imperatives in **Romance**, the crucial opposition between true vs suppletive imperatives (§1.2.1) plays a pivotal role. Zanuttini (1997) notices the following pattern: while postverbal negative markers may appear with both true and suppletive imperatives, preverbal negative markers are only compatible with suppletive forms. In other words, a true imperative cannot be negated.

As showed in (36), the preverbal negative marker *non* followed by a true imperative yields ungrammaticality in Italian. The same happens in Catalan with the marker *no* (37):

(99) Negative imperative (Italian)

*Non telefona!

NEG call.IMP.2SG

‘Don’t call!’

(100) Negative imperative (Catalan)

*No parla!

NEG speak.IMP.2SG

‘Don’t speak!’

[Examples from Zanuttini 1997]

Zanuttini (1997) identifies four main strategies Romance languages employ to negate a true imperative:

- I. Preverbal negative marker + indicative verbal form
- II. Preverbal negative marker + subjunctive verbal form
- III. Preverbal negative marker + overt or covert auxiliary + infinitive
- IV. Preverbal negative marker + overt or covert auxiliary + gerund

Italian (101) resorts to the use of a negated infinitive (strategy III), whereas Catalan (102) chooses a subjunctive form (strategy II):

(101) Negative imperative (Italian)

a. Non telefonare!

NEG call.INF

'Don't call!'

b. Non telefonar-le!

NEG call.INF-CL.F.3SG

Don't call her!

(102) Negative imperative (Catalan)

*No parlis!

NEG speak.SBJV.PRES.2SG

'Don't speak!'

[Examples from Zanuttini 1997]

As expected, other Italian suppletive forms (second person plural and first person plural) are equally able to cooccur with *non* (strategy I):

(103) Negative imperative (Italian)

a. Non telefona-te!

NEG call.IND.PRES.2PL

'Don't call!'

b. Non telefon-iamo-le!

NEG call-IND.PRES.1PL-CL.F.3SG

'Let's not call her!'

Negative imperative (Catalan)

b. No parleu!

NEG speak-IND.PRES.2PL

'Don't speak!'

[Examples from Zanuttini 1997]

As seen in §1.2.1, in Spanish both second person singular and second person plural imperatives have a dedicated morphological form. The preverbal negative marker *no* is ungrammatical with both forms:

- (104) Spanish
- a. *No abla!
- NEG speak.IMP.2SG
- ‘Don’t call!’
- b. *No ablad!
- NEG speak.IMP.2PL
- Let’s not call her!

Like Catalan, Spanish employs a subjunctive suppletive form to negate a 2nd person singular and plural imperative:

- (105) Negative imperative (Spanish)
- a. No ables!
- NEG speak.SBJV.PRES.2SG
- ‘Don’t speak!’
- b. No abléis!
- NEG speak.SBJV.PRES.2PL
- [Examples from Zanuttini 1997]

This is regarded by Zanuttini (1997) as being evidence for the relevance of the true vs suppletive imperative distinction, to which preverbal negative markers seem to be sensitive. Moreover, it is confirmed that what makes a true imperative true is not the sole presence of the root and thematic vowel, but as shown by Spanish 2nd person plural forms, a true imperative may also display another morpheme (agreement/number). Therefore, the difference between a true and a suppletive imperative cannot hinge on the sole presence or absence of the above-mentioned morpheme, suggesting that this divide must be a result of other factors at play.

Different syntactic behavior is observed when postverbal negative markers are taken into consideration. They are compatible with true imperative forms: Zanuttini (1997, p.111 and references cited therein) offers examples from Northern Italian varieties, i.e. Piedmontese, Valdostan and Milanese, where their true imperative forms, which are only second person singular, are all compatible with the respective postverbal negative marker:

- (106) Piedmontese
- Parla nen
- speak.IMP.2SG NEG
- ‘Don’t speak!’
- [Ex. from Zanuttini 1997]

Following Zanuttini (1996), Piedmontese *nen* is an adverbial element, found low in the structure below TP.

French and Walloon, instead, seem to allow true imperative with preverbal negative markers. However, these markers are envisaged by Zanuttini (1997) as being different from the ones referable to the above-mentioned varieties: they are not able to negate a clause by themselves (e.g. French *ne*). Hence, the incompatibility of preverbal negative markers and IMPs is restricted to markers able to negate a clause by themselves.

- (107) French
- | | | |
|--------------|---------|------|
| Ne | mange | pas! |
| NEG | eat.IMP | NEG |
| 'Don't eat!' | | |

[Examples from Zanuttini 1997]

Concerning Italian, it is peculiar that as a strategy to negate a true imperative, an infinitival form is chosen, given that infinitives do not usually appear in matrix contexts (Kayne, 1992). However, imperative and infinitival forms share many similarities: i. optional subjects, ii. incompatibility with past tense adverbs, iii. lack of Tense/Person indication in Di Domenico's (2004, p. 92) sense.

Moreover, something peculiar can be noticed when clitics are involved. The following examples are acceptable in Italian:

- (108) Negative imperative (Italian)
- | | | |
|----------------------------------|----------------------------|----------|
| a. Non | ti | muovere! |
| NEG | yourself.REFL.2SG | move.INF |
| 'Don't move!' | | |
| b. Non | muover-ti! | |
| NEG | move.INF-yourself.REFL.2SG | |
| Don't move! | | |
| c. *Si | muovere! | |
| REFL | move.INF | |
| 'Move' | | |
| d. Muover-si! | | |
| move.INF-yourself.REFL | | |
| 'Move!' (generic interpretation) | | |

As seen in §1.2.4, enclisis is usually expected with imperatives (Belletti 1999, Rooryck 1992, *inter alia*), hence the peculiarity of (108). Kayne (1992) takes (108) as an instance of **clitic climbing**: the clitic raises and attaches to a covert modal selected by the negative marker. Zanuttini (1997, p. 120) adds that in some Northern Italian dialects this silent element (that she takes to be a “*semantically empty element, akin to an auxiliary, which can embed other verbal forms*”) seems to be phonetically realized. See the following examples from Paduan (strategy III):

(109) Negative imperative (Paduan)

- a. No stá parlare!
NEG stay.AUX.2SG speak.INF
'Don't talk!'
- b. *stá parlare!
stay.AUX.2SG speak.INF
- c. No sté parlare!
NEG AUX.2PL speak.INF
'Don't talk!'
- d. *sté parlare!
stay.AUX.2PL speak.INF

Stá is a unique form of the verb *stare* (stay), hence not found elsewhere in the verbal paradigm. The difference between Italian and Paduan lies in the overttness of the element preceding the infinitive, which is covert in Italian and pronounced in Paduan. The same happens in Friulan, but with a peculiarity. Differently from Italian and Paduan, Friulan has true imperatives for both second person singular and second person plural. The auxiliary 'stay', used in the same way as in Paduan, has a distinctive form for each person, *sta* and *stait*:

(110) Negative imperative (Friulan)

- a. No sta (a) crodi!
NEG stayAUX.2SG believe
'Don't believe that!'
- a. No stait (a) crodi!
NEG stay.AUX.2PL believe
'Don't believe that!'

Paduan and Friulan present unique verbal forms, considered auxiliaries by Zanuttini. According to her working definition of true imperatives, they fall into that category. Emiliano, on the other hand, displays a pronounced auxiliary, but it is an infinitive form:

(111) Negative imperative (Friulan)

- En te star movar
NEG you.CL.ACC.2SG stay.AUX.2SG move.INF
'Don't move!'

In §1.2.1, the impoverished nature of imperative was introduced. Here, one is now able to appreciate a further argument in favor of the incompatibility of imperative and Tense: Zanuttini (1991, 1996) notices that preverbal negative markers cannot cooccur with true imperatives; the same applies to past participles, which have a specification of Aspect, but not Tense. The negative markers are envisaged as heads which

need to select TP as complement. When TP is missing, NegP cannot satisfy its selectional requirements. Ungrammaticality follows. In light of the previous discussion of these Northern Italian varieties, in particular what happens in Friulan, Zanuttini (1997) concludes that preverbal negative markers are compatible with true imperative forms of auxiliaries, but incompatible with true imperatives of main verbs. The above-mentioned auxiliaries are mood markers, and the preverbal negative markers are actually sensitive to the presence or absence of these mood elements, overt in the case of Friulan, covert in Italian. Main verbs in their true IMP form are impoverished, and do not have a specification for mood. For this reason, a preverbal neg. marker cannot satisfy its need for such a specification, and ungrammaticality ensues, with the need to resort to other strategies of the kind we have seen. Remember no problem arises with respect to postverbal negative markers, which allow any kind of imperative to be negated.

In the literature it has also been proposed by Rivero (1988) that the reason languages like Spanish, but also Modern Greek and Rumanian cannot have negated imperatives is due to the following: C in these languages is envisaged as having a strong imperative feature. The verb needs to move to C to check it, but it is impossible to do so when an imperative is negated, as negation is considered to be a barrier.

Not all languages disallow the cooccurrence of negation and true imperative forms. After discussing Romance, let us look into four other cases.

As seen in §1.2.1, **Serbo-Croatian and Bulgarian** have morphologically distinctive imperative forms. Differently from Romance, they can be negated (examples from Rivero 1994b, p. 92, see her analysis in detail in §1.3.3 and §1.3.3.1:

(112) Imperative (Bulgarian)

a. Četi!

read.IMP.2SG

‘Read!’

a. Ne četi!

NEG read.IMP.2SG

‘Don’t read!’

Imperative (Serbo-Croatian)

a. Čitaj!

read.IMP.2SG

‘Read!’

a. Ne čitaj!

NEG read.IMP.2SG

‘Don’t read!’

The discussion now turns to **English and German** imperatives. In English, they are formed by the bare verb stem, while in German, a further morpheme is present. It is considered as a number morpheme by Di Domenico (2004) and as an agreement morpheme by Platzack and Rosengren (1997). However, Di Domenico (2004) states that the division between true imperatives and suppletive forms in German and English these languages is not explicitly discussed in the relevant literature.

(113) Imperative (German)

- a. Hilf (du) mihr!
help.IMP.2SG you.NOM.2SG me.ACC.1SG
'(You) read!'
- a. Helft (ihr) ihm!
help.IMP.2PL you.NOM.2PL him.ACC.M.3SG
'(You) read!'

German imperatives comprise also a first person plural imperatives (114) and a 'polite' second person (114). This form is suppletive, in that it is the homophonous to an infinitive and indicative form:

(114) Imperative (German)

- a. Gehen wir!
go.IMP.1PL we.NOM.1PL
'Let's go!'
- b. Gehen Sie! (polite imperative)
help.IMP.2PL you.NOM.2PL
'Go!' (polite)

In English, no further morpheme is required other than the verb stem, for both persons:

(115) Imperative (English)

- a. Go!
go.IMP.2SG/2SG

English imperative also include a periphrastic form, used to deal with other persons in the paradigm:

- (116) a. Let us go!
b. Let him go!

Another possibility is the emphatic imperative, formed by 'do' + verb stem, as in:

- (117) a. Do be more careful!
b. Do sit down!
c. Do forgive me!
[Ex. from Swan 2005]

Interestingly, Di Domenico underlines how an *do*-imperatives are not compatible with an overt subject, e.g. *you*, while grammaticality is restored when *you* is exchanged with someone:

- (118) a. ??/* Do you help him!
b. Do someone help him!
c. Do forgive me!

[Ex. from Di Domenico 2004]

Turning now to negative imperatives, English employs ‘do’ + negation + main verb:

- (119) Don’t call!
 do.AUX.NEG call.IMP

German, instead, does not need an auxiliary and is able to negate an imperative directly:

- (120) Imperative (German)
 Arbeite nicht!
 work.IMP.2SG NEG
 ‘Don’t work!’

- (121) Arbeitet nicht!
 work.IMP.2PL NEG
 Don’t work!’

To summarize, imperatives have different distribution in different languages when negation is concerned. True imperatives in Romance cannot be negated by a preverbal negative marker that can negate a clause by itself (Zanuttini, 1997), while no ungrammaticality arises in varieties with postverbal negative markers. Other languages taken into account here, i.e. Serbo-Croatian, Bulgarian, German and English all admit their imperatives to be negated, both true and suppletive forms.

1.2.6 Embedding and Questioning

The final property on this list is by no means the least significant for the present discussion. It has been addressed by virtually every author who, at some point in their work, discussed imperatives, that **imperatives robustly resist embedding** (Aikhenvald, 2010; Belletti, 1999; Davies, 1986; den Besten, 1983; Di Domenico, 2004; Emonds, 1976; Jensen, 2007; Platzack & Rosengren, 1998; M. L. Rivero & Terzi, 1995; Rupp, 2003; Sadock & Zwicky, 1985; Shlonsky, 2004; Zanuttini, 1997; Zanuttini et al., 2012).

A related property, also worth noting, is the **incompatibility of imperatives with questioning and *wh*-elements**. As observed by Aikhenvald (2010), imperatives are rarely used in questions cross-linguistically, although occasional exceptions exist, such as in Sanskrit (Whitney 1891, p. 215). Cross-linguistically, non-embeddability does not hold without exception. Within Romance itself there are varieties that allow embedding of suppletive imperative forms, as discussed below. However, in true imperatives in Romance non-embeddability is a robust property. The following examples illustrate this:

- (122) a. *I ask you that sit quiet on the chair.
 b. *Ich bitte dich, daß sitz still auf dem Stuhl.
 I ask you sit.IMP quiet on the chair.

[Ex. by Platzack and Rosengren 1998]

Embedding under certain verbs of saying seems to be allowed, as in (71a), but as argued by Di Domenico (2004) it constitutes a different kind of embedding altogether. In structures like (123) and (124), the matrix verb introduces a speech event, and the embedded imperative is interpretatively tied to it. The ungrammaticality of (125) confirms this:

- (123) Ho detto siedi-ti!
have.AUX.IND.PRES.1SG said.PTCP.PST sit.IMP.2SG-you.REFL
'I (have) said sit down!'
- (124) Ho detto: "Siediti!"
have.AUX.IND.PRES.1SG said.PTCP.PST sit.IMP.2SG-you.REFL
'I (have) said: "Sit down!"'
- (125) *Ho detto che siedi-ti!
have.AUX.IND.PRES.1SG said.PTCP.PST that sit.IMP.2SG-you.REFL

It is also worth noting that, while imperatives cannot be embedded, nothing prevents them from embedding any kind of sentence, as shown by Di Domenico (2004):

- (126) Di-gli che può andare
tell.IMP.2SG-him.CL.M.3SG that can go.INF
b. Di-gli che vada
tell.IMP.2SG-him.CL.M.3SG that go.SBJV.PRES.3SG
'Tell him to go.'
- (127) Di-gli che sono uscita
tell.IMP.2SG-him.CL.M.3SG that am.AUX.1SG go.out-PART.PST
'Tell him that I went out.'

[Examples from Di Domenico 2004]

The morphological properties of suppletive imperatives are significant also because they reflect deeper structural differences. This is evident from the examples below, and in particular from the contrast between Italian and Spanish: while Spanish embeds suppletive imperative forms as subjunctives, Italian resorts to infinitives instead (Zanuttini, 1997).

Rivero presents data on Castilian Spanish:

- (128) *Pido que dad-me el libro
ask.IND.PRES.1SG that give.IMP.2PL-me.CL.1SG the book
'*I ask that give me the book'
- (129) Ordeno que me deis el libro
order.IND.PRES.1SG that me.CL.1SG give.IND.PRES/SUBJ.2PL the book
'I order you to give me the book.'

[Examples from Rivero 1994b]

However, Italian displays different behavior, despite also having distinctive imperative morphology only for the 2nd person singular, exactly like Castilian Spanish. The Italian suppletive form for 2nd person plural is a present indicative form, yet it is not compatible with embedding under a verb of command, Italian

resorts to an infinitive instead (74b). This may be due to the fact that 2nd person plural suppletive imperatives in Italian do not share the syntax of the corresponding indicative form, at least with respect to clitic placement, since they systematically require enclisis:

- (130)
- | | | | | |
|----------------------------|--------------------|----|---------------------------|--------------|
| a. *Ti | ordino | di | mangia | |
| you.CL.2SG | order.IND.PRES.1SG | to | eat.IMP.2SG | |
| 'I order you to eat' | | | | |
| b. Ti | ordino | di | mangiare | |
| you.CL.2SG | order.IND.PRES.1SG | to | eat.INF | |
| 'I order you to eat.' | | | | |
| c. *Ti | ordino | di | telefonate-le | |
| you.CL.2SG | order.IND.PRES.1SG | to | call.IMP.2PL-her.CL.F.3SG | |
| 'I order you to call her.' | | | | |
| d. *Ti | ordino | di | le | telefonate |
| you.CL.2SG | order.IND.PRES.1SG | to | her.CL.F.3SG | call.IMP.2PL |
| 'I order you to call her.' | | | | |
| e. Ti | ordino | di | telefonarle | |
| you.CL.2SG | order.IND.PRES.1SG | to | call.INF-her.CL.F.3SG | |
| 'I order you to call her.' | | | | |

1.2.7 Interim summary

The empirical landscape surveyed in this section is rich in nuances and cross-linguistic variation. Nevertheless, the following generalizations hold robustly for Italian:

- (B) Romance Imperatives, and imperatives in one third of the languages of the world are morphologically impoverished. True imperatives are the most meagre form, while suppletive imperatives, which borrow forms from elsewhere in the verbal paradigm, display additional morphological endings;
- (C) Imperatives cannot cooccur with auxiliaries and modals;
- (D) Imperatives are null-subject parameter exempts, i.e. they do not impose a requirement on the subject to be overt, and in fact usually it is not, crucially both in null-subject and non-null-subject languages. The subject is always restricted to the addressee;
- (E) In languages that have clitics, enclisis is robustly found with imperatives;

- (F) Imperatives with distinctive morphology cannot be negated in Romance, whence the mandatory use of a suppletive form compatible with preverbal negative markers (no problem arises with postverbal ones);
- (G) Imperatives cannot be embedded (despite their impoverished morphology). They are incompatible with questioning and wh elements.

Morphosyntactic properties of imperatives are summarized above focusing on Italian and Romance. Exceptions and cross-linguistic differences apply in the ways discussed in this section and in the subsection on Typological Approaches (§1.1.2).

1.3 FORMAL ANALYSES: HIGH VS LOW IMPERATIVES

The discussion now turns to formal analyses, after having established a definition, as well as an overview of their typological background and a more in depth-discussion of the morphosyntax of imperatives. First, the discussion opens in the next subsection with remarks on why locating imperatives within the functional spine is far from a trivial task. Then, the first proposals in the generative tradition are introduced in §1.3.2. The succeeding analyses, which constitute the core background of this dissertation, are organized as follows: high-structure proposals that locate the imperative in the CP domain (§1.3.3), agnostic or hybrid approaches that do not commit to a precise structural position (§1.3.3.1), imperatives that remain in the TP layer (§1.3.4), and finally accounts that analyze imperatives as targeting the vP periphery, hence lacking the CP layer (§1.3.5).

1.3.1 Locating Imperatives in the Functional Spine: Why It Matters

Determining the locus of a linguistic element in the functional spine is no easy task, and yet a non-negligible one. Since the advent of Syntactic Cartography (Belletti, 2004; Cinque, 1999; Cinque & Rizzi, 2012; Rizzi, 1997; Shlonsky & Bocci, 2019, and much related work), the hierarchical order of functional projections and their locus compared to one another has taken an important descriptive and explanatory role. The aim of this dissertation is not to get lost in the locus only, neglecting other core ingredients of a proper structural analysis, such as what elements precisely enter into the derivation, of course. However, it is important to make sure one is putting forward descriptively (and hopefully explanatorily) adequate predictions, without falling into generalizations that are “*too vague to be useful*”, to cite Prof. Luigi Rizzi’s words, used in his 2022 course in Theory of Grammar at the University of Siena. The following sections are ordered on the basis of where authors have placed imperatives in the functional spine, but also address which ingredients they propose to be present in imperative clauses.

Another reason not to neglect the locus of an element in the spine lies in a growing body of literature suggesting that syntactic and interpretive properties of different constructions may be accounted for on the basis the realization of the same element, but simply in different positions. A part from the obvious and fundamental cases of intervention locality (Rizzi, 1990), there may be cases without interveners in which the locus of an element plays a crucial role. The same modal appearing in different positions within the functional spine instantiates different kinds of modality (Tsai, 2015 on Chinese modals). Similarly, different types of negation realized in different positions give rise to distinct interpretive effects (Greco, 2019 on standard negation in TP vs. expletive or emphatic negation in CP).

This dissertation addresses the *where-* and *what-*problem with the aim of ultimately providing a proposal on the structural analysis for imperatives, also in light of acquisition data from Chapter 2.

1.3.2 The Beginning: Movement in Imperative Clauses

The idea that imperative verbs have to move can be at least traced back to **Emonds** (1976).

Emonds (1976) observed that certain syntactic operations are restricted to root clauses, a property he captured under the notion of ROOT TRANSFORMATIONS. Among these operations he included the derivation of affirmative imperatives.

Discussing French, Emonds notes that affirmative imperatives differ from declaratives in that clitic pronouns appear in enclisis rather than in their canonical preverbal position (as seen in §1.2.4, relevant examples are repeated here for convenience). In ordinary finite clauses, French clitics obey a rigid ordering:

- (131) Jean me le donne.
 Jean to.me.cl.1sg.dat it.cl.m.3sg.acc give.pres.ind.3sg
 ‘Jean gives it to me.’
- (132) Il nous la présente.
 he.CL.3SG.NOM to.us.CL.1PL.DAT her.CL.F.3SG.ACC present.PRES.IND.3SG
 ‘He introduces her to us.’
- (133) *Jean me lui donne.
 Jean to.me.CL.1SG.DAT to.him.CL.3SG.DAT give.PRES.IND.3SG
- (134) *Jean lui me donne.
 Jean to.him.CL.3SG.DAT to.me.CL.1SG.DAT give.PRES.IND.3SG

The preverbal order is strictly fixed as follows:

- (135) me/te/se/nous/vous > le/la/les > lui/leur

Reordering is impossible, and certain combinations (e.g. *me* > *lui*) are excluded. In affirmative imperatives, however, clitics follow the verb:

- (136) Donne-le-moi!
 give.IMP.2SG-it.CL.M.3SG.ACC-to.me.CL.1SG.DAT
 ‘Give it to me!’
- (137) Présente-le-lui!
 present.IMP.2SG-it.CL.M.3SG.ACC to.him.CL.3SG.DAT
 ‘Present it to him!’

Crucially, the internal order of clitics in enclitic position is not identical to the preverbal order simply shifted to the right of the verb. Compare:

- (138) Il me le donne.

- (139) he.CL.3SG.NOM to.me.CL.1SG.DAT it.CL.M.3SG.ACC give.PRES.IND.3SG
 *Il le me donne.
 he.CL.3SG.NOM it.CL.M.3SG.ACC to.me.CL.1SG.DAT give.PRES.IND.3SG
 vs.
- (140) Donne-le-moi !
 give.IMP.2SG-it.CL.M.3SG.ACC-to.me.CL.1SG.DAT
 ‘Give it to me!’
- (141) *Donne-moi-le !
 give.IMP.2SG-to.me.CL.1SG.DAT-it.CL.M.3SG.ACC
- (142) Présente-le-lui !
 present.IMP.2SG-it.CL.M.3SG.ACC-to.him.CL.3SG.DAT
- (143) *Présente-lui-le !
 present.IMP.2SG-to.him.CL.3SG.DAT-it.CL.M.3SG.ACC

Thus, while preverbal clitics follow the hierarchy *me* > *le* > *lui*, postverbal clitics in imperatives display the order *le* > *moi* > *lui*. The difference is systematic and cannot be reduced to simple linear displacement.

To account for these facts, Emonds proposes two distinct syntactic operations (A) and (B), as well as (C) to account for the non-over nature of imperative subjects (§1.2.3):

- (A) A **Root Transformation** that preposes the verb over the clitic sequence, yielding V–CL order in affirmative imperatives;
- (B) A local rule, termed **Clitic Interchange**, which reorders certain clitics (notably *le/la/les* with respect to *lui/leur*) in postverbal position;
- (C) A **deletion rule**, eliminating the NP subject of an imperative clause.

First, a Root Transformation preposes the verb over the clitic sequence, deriving the verb–clitic order characteristic of affirmative imperatives. As he states: “*A single root transformation preposing the V over such a clitic sequence (dependent on the absence of any preceding material in the string) derives the affirmative imperative construction*” (Emonds, 1976, p. 230). This operation applies only in root clauses and only when no material precedes the verb, thereby capturing the distributional restriction of affirmative imperatives.

However, he argues that verb preposing alone would incorrectly yield forms such as **Donne-moi-le*. For this reason, Emonds introduces a second rule, termed Clitic Interchange, a local syntactic operation that reorders certain clitics in postverbal position. In particular, forms such as *le/la/les* must precede dative forms (*lui/leur*) and tonic forms (*moi/toi*) in enclitic sequences. The combination of Root Transformation and Clitic Interchange therefore derives both enclisis and the correct internal ordering of clitics:

- (144) Donnez-moi ces cigares!
 give.IMP.2PL-to.me.CL.1SG.DAT these cigars
 ‘Give me these cigars!’

Emonds (1976) further notes that preverbal material in imperatives is possible only if it is followed by ‘comma intonation’, as in (152):

(152) À ce moment précis, mettez-vous à la table!

[Ex. by Emonds 1976 p. 203]

Here, the initial phrase is prosodically separated, preserving the structural condition relevant to imperative inversion.

Negative imperatives provide additional evidence for the requirement on the absence of external material. In French, object clitics precede the verb in negative imperatives:

(153) Ne le mangez pas
NEG it.CL.M.3SG.ACC eat.IMP/PRES.IND.2PL NEG

(154) *Ne mangez le pas
NEG eat.IMP/PRES.IND.2PL it.CL.M.3SG.ACC neg

[Ex. by Emonds 1976 p. 203]

Emonds (1976) argues that the presence of the negative marker *ne* blocks the enclitic order characteristic of affirmative imperatives. Thus, the negative marker, external to the affirmative clitic–verb configuration, forces a different syntactic arrangement.

Summarizing, these facts support Emonds’ conclusion that both subject–clitic inversion and affirmative imperative inversion fall outside the domain of structure-preserving, local transformations and are classified as root transformations.

He also postulates a deletion rule, one of those deletion rules that apply only in independent clauses that are immediately dominated by a root node S. Constituents directly under S such as COMP, NP and AUX may be eliminated. For imperatives, Emonds (1976) postulated a deletion rule that deletes both the subject NP of an imperative, as well as the auxiliary *will*:

(155) (You will) Please come in immediately.

(156) (You will) Help me, won’t you?

[Ex. by Emonds 1976, p. 244]

As illustrated, Emonds provides the earliest movement-based account of imperative syntax: affirmative imperatives are not base-generated with postverbal clitics, but are derived by syntactic transformation restricted to root contexts. Importantly, Emonds does not formulate this analysis in terms of verb movement to C, as many influential scholar will in later years (see next subsection). Although his system includes a Complementizer position in the underlying structure of clauses, as he assumes Bresnan’s (1972) work on the COMP position), his account of imperatives is not framed in terms of V-to-C movement.

On the contrary, he explicitly states that NOTHING has to be there before the verb in imperative clauses for an imperative clause to be yielded by a transformational rule, which “applies only if NOTHING precedes the clitics in the string” (Emonds 1976, p. 202, his emphasis). In this respect, although he does not address clausal reduction in the modern sense, his analysis can be seen as anticipating later approaches to imperatives that treat them as structurally low and not involving movement to the left periphery. Notably, despite assuming the existence of a COMP position in the clause structure, he does not appeal to it in his treatment of imperatives. Furthermore, the emphatic capitalization of NOTHING strongly suggests that the absence in

question is intended to be literal: when no material precedes the verb, there is genuinely no structure in that position, rather than an underlying configuration that is merely silent or elided. More generally, his proposal is compatible with subsequent views of syntactic structure according to which when a position is absent, it is genuinely absent, rather than present but occupied by silent or elliptical material (see Cecchetto & Donati, 2022).

1.3.3 Imperatives in CP

It is **den Besten (1983, first circulated in 1977)** who later reconceptualizes the facts discussed in Emonds (1976) **proposing for the first time that the finite verb raises to C in imperative clauses**. He dubs this approach as Complementizer Attraction, whereby the movement component of Emonds' analysis is retained, but its structural landing site is explicitly identified as C. Den Besten does not posit an additional syntactic rule comparable to Clitic Interchange; the clitic ordering facts are not central to his account and are not derived via a separate syntactic transformation. The theoretical shift thus consists in proposing imperative movement to C.

Once again, den Besten focuses on enclisis, found only in affirmative imperatives and not in negative ones in French (157). It is restricted to root clauses, thus falling under the class of root transformations *à la* Emonds (1976), and accounted for via verb movement to C in den Besten system, crossing over the clitic cluster. The mechanism he proposes is reported in Table 4: The Affirmative Imperative Inversion mechanism as envisaged in Den Besten (1983, table adapted from p. 49). COMP= Complementizer, CL= Clitic, V= verb, X= remaining projections. This applies to positive imperatives only, while in negative imperatives such movement is not postulated.

- (157) a. Donne-le-moi
give.IMP.2SG-it.CL.M.3SG.ACC-to.me.CL.1SG.DAT
'Give it to me!'
b. Ne me le donne pas
NEG to.me.CL.1SG.DAT it.CL.M.3SG.ACC give.IMP.2SG NEG
[Ex. from Emonds 1976]

Position	COMP (1)	CL (2)	V (3)	X (4)
Base String	1	2	3	4
Result	1 + 3	2	e (trace/empty)	4

Table 4: The Affirmative Imperative Inversion mechanism as envisaged in Den Besten (1983, table adapted from p. 49). COMP= Complementizer, CL= Clitic, V= verb, X= remaining projections.

Rivero (1994b, 1994a, first appeared in 1988) further develops den Besten's idea of V-to-C movement in imperatives, generalizing the connection between imperatives and C across languages. Her work has been taken up by many scholars in subsequent research and will be discussed further below, particularly in relation to the revised versions of her 1994 publications. First, imperatives express a modality, close to the classical grammarians' notion of *irrealis* or *potentialis*, which she assumes can be associated with

a temporal or modal C° morpheme. Rivero (1988) argues that imperative C° turns the verb into a performative operator, yet she does not elaborate further. In addition, several languages display dedicated imperative morphemes that differ from indicative or subjunctive morphology and must therefore be associated with a distinct functional category. Rivero (1988) refers to these as true imperatives in the Balkan languages, as opposed to surrogate imperatives, which are morphologically identical to independently existing tenses in the system (§1.2.1). This imperative morphology forces movement of the verbal complex to C° in positive imperatives.

With respect to negative imperatives, Rivero (1988) proposes that negation blocks verb movement beyond AgrS and T toward the specific imperative agreement morphology located in C, which structurally dominates NegP. She claims this provides an important argument in favor of verb movement to C in imperatives, since it accounts for the contrast between positive and negative imperatives (in Romance, at least). In affirmative imperatives, the verb raises to the imperative agreement morphology in C, whereas in negative imperatives it does not move beyond AgrS, because negation prevents access to C.

Rooryck (1992) assumes with Rivero (1988) that imperatives move to C. His work focuses on the systematicity of enclisis in imperatives (in Romance, Balkan languages and beyond), which he argues is exactly the result of V-to-C movement. He further assumes that the distinctive imperative morphology in C, which is not realized in negative imperatives in Romance (which are suppletive forms, §1.2.1), functions in many Romance dialects as an operator that triggers subjunctive morphology in the lower AgrS and T. The subjunctive then surfaces in the same way as in embedded clauses selected by verbs that require the subjunctive. In such cases, the value of C, lexically determined by the selecting verb, likewise induces subjunctive morphology in the embedded T.

Rooryck (1992) adds that the imperative verb must move to C alone, to yield enclisis. The morphology of the imperative is such that if the verb and clitic moved high as a whole chunk of structure, it would be impossible for the clitic to antecedent-govern its own trace. Therefore, the imperative verb raises to C alone, and the clitic is “left behind”. Rooryck assumes that clitics are adjoined to I and therefore when the verb moves to C, the order verb-clitic is yielded.

If one adopts Kayne’s (1989) proposal that clitics incorporate into the verb and subsequently move together with it through the functional projections, a further question arises as to why clitics fail to move along with the verb all the way to C. Rooryck (1992) suggests that this asymmetry is related to the specific nature of C in imperative clauses. Imperatives are characterized not only by distinctive modal properties, commonly associated with *irrealis* or *potentialis* notions of classical grammars, and encoded in C, but also by highly restricted agreement properties. These agreement features are limited to second person singular and plural, including honorific forms, and to first person plural in exhortative contexts. He extends Rizzi’s (1990) proposal for English embedded clauses, according to which C may host either an overt complementizer or a non-overt AgrC, to root clauses. On this view, these restricted agreement properties can be attributed to a dedicated imperative agreement morpheme located in C. In the representations discussed above, this head has been labeled AgrC. He argues the presence of agreement features in C gains further plausibility in light of the observations by Rivero (1988) and Zanuttini (1991) that languages with dedicated imperative morphology systematically exclude the realization of such morphology in negative imperatives. In these cases, negation blocks verb movement to C, thereby preventing the verb from attaching to the imperative morphology hosted there. Note, however, that there are exceptions to this pattern (as seen in §1.1.2), the negative imperative puzzle remains partially open (Poletto, 2016). The reader is referred to the discussion in Chapter 4.

Rivero (1994b) proposes that true imperatives raise to C (proposal she first made in work first circulated in 1988). From Modern Greek and Romanian, she extends this proposal also to Spanish, arguing

three properties of imperatives which follow: (i) their root nature, (ii) enclisis, and (iii) incompatibility with negation.

She observes a contrast between Spanish true imperatives on one side, and Bulgarian and Serbo-Croatian imperatives on the other side. In Castilian Spanish a true imperative cannot be negated, while no problem of this sort arises in Bulgarian or Serbo-Croatian. This is due to the different role C has in these languages: in Spanish, it is the carrier of illocutionary force, and the imperative verb needs to raise there to activate the illocutionary force of imperatives. In doing so, negation acts as a barrier. Therefore, Spanish imperatives cannot be negated. Rivero notices three properties of Castilian Spanish imperatives that lead her to the conclusion that the imperative verb needs to raise to C. The first is that true imperative verbs are root constructions, and cannot be embedded under verbs of command. Surrogate Imperatives (to use her terminology, §1.2.1, instead, enjoy the same syntax as the verbal form from which the surrogate imperative has borrowed its morphology. Hence, surrogate imperatives in Castilian Spanish do not move to C according to Rivero, and rather remain in I. This happens because the suppletive form employed in Castilian Spanish is subjunctive: a complementizer is needed as well, and Rivero (1994b) argues that since C is occupied by *que*, raising of the verb to that position is forbidden:

- (158) a. Que escribáis!
 that write.PRES.SBJV.2PL
 ‘You just write!’
 b. *Que escribid!
 that write.IMP.2SG
 ‘You just write!’

And surrogate imperatives may be embedded:

- (159) a. ordeno [que me deis el libro]
 order [that to.ME.CL.ACC.1SG give.PRES.SUBJ.2PL the book]
 ‘I order you to give me the book’
 b. *deis-me el libro
 give.PRES.SUBJ.2PL-me the book
 c. no me deis el libro
 NEG me give.PRES.SUBJ.2PL the book
 ‘don’t give me the book’

[Ex. by Rivero 1994, p. 98]

Moreover, another factor that Rivero (1994b) takes into consideration is the following: Castilian Spanish imperatives display enclisis. Building on Rooryck’s (1992) approach, according to which the imperative verb raises to C on its own and leaves the clitic behind in I, thereby yielding enclisis, since clitics cannot raise to C together with the verb, she likewise concludes that this analysis is on the right track. On this account, clitics remain in I, adjoined to it or to some other functional projection, while the imperative verb moves to C.

She argues her proposal further derives the contrast between infinitival surrogate imperatives and true imperatives with respect to the distribution of prepositions. Prepositions such as *a* and *sin* can appear with infinitives in root surrogate imperatives, but they are excluded with true imperatives. She argues that this follows if these prepositions are analyzed as occupying C: since true imperatives require verb movement to C, the presence of a preposition in that position yields a conflict, whereas infinitives, which do not involve verb movement to C, freely cooccur with these elements. Thus, the grammaticality of forms like *a escribir!* and the ungrammaticality of *a escribid!* or *sin empujad!* are taken to reflect competition for the C position:

- (160) A escribir!
to write.INF
'come on, write!'
- (161) A correr!
to run.INF
'come on, run!'
- (162) Sin empujar!
Without push.INF
- (163) *A escribid!
- (164) *Sin empujad!"

[Ex. by Rivero 1994b pp. 99-100; Rivero 1994c p. 549]

The preposition in (160)-(162) is argued to occupy C, on the basis of its distribution under embedding verbs. In particular, P-infinitival surrogate imperatives can be embedded under verbs that select for a recursive CP, such as *decir* 'say', but not under verbs that block CP recursion, such as *pedir* 'demand'. This contrast is illustrated in (165) and (166).

- (165) a. Digo que a escribir.
I.say that to write.INF
'I say to write.'
- b. Digo que sin empujar.
I.say that without push.INF
'I say not to push.'
- (166) a. *? Pido que a escribir.
I.ask that to write.INF
- b. * Pido que sin empujar.
I.ask that without push.INF

The contrast is taken to show that the preposition *a/sin* occupies a C-head. Verbs like *decir* allow CP recursion (i.e. CP can take another CP as its complement), making space for both *que* and the P in distinct C positions. Verbs like *pedir*, which select a single CP layer and disallow recursion, leave no structural slot

for the prepositional C, hence the ungrammaticality. See Chapter 3 for an empirical contrast with the Italian equivalent of these structures and a different structural analysis.

The following is the explanation Rivero argues for in her account of negative ineffability for true imperatives in Spanish. The Empty Category Principle (ECP) requires that every trace must be properly governed. If a movement operation occurs and the trace is not structurally supported or “seen” by its antecedent, a violation occurs. In negative imperatives negation acts as a barrier. If a verb tries to skip over negation to reach C, it violates the Head Movement Constraint (a specific form of ECP): both negation and the imperative verb are heads, so negation intervenes.

A different scenario can be observed in Bulgarian and Serbo-Croatian. In these languages, C has a different function, namely that of a morphological licenser of clitics. The imperative feature is instead located in I. Imperative verbs share the same syntax as declaratives and interrogatives, and may either remain in I or raise to C. It is the distinct morphology that allows imperative forms to be distinguished from declaratives.

An imperative verb raises out of VP to check an imperative feature in I, where Force is also checked. Subsequent movement from I to C in Bulgarian and Serbo-Croatian imperatives is triggered by PF requirements related to clitics, independently of imperative morphology. In fact, imperatives in these languages must appear in C in order to license clitics. When licensing is achieved by other means, the verb does not raise further and may remain in I. For example, in Bulgarian, the imperative verb may remain in I when it is negated or when another element, such as a conjunction, functions as a morphological licenser for the clitic. Crucially, movement from I to C is available to other verbs in the paradigm as well, not only to imperatives. The same mechanisms apply uniformly across verbal forms.

In Rivero (1994b), the idea that imperative V must move to C is also intended to capture the root character of so called true imperatives in a way parallel to classic V2 analyses. Since C is a legitimate landing site for verb movement in root clauses but not in embedded ones, she argues the proposal derives the restriction of true imperatives to root contexts. Surrogate imperatives, by contrast, do not involve verb movement to C and are therefore able to occur in embedded environments. The same assumption also explains the availability of emphatic root imperatives introduced by the complementizer *que*. This view crucially relies on a view of C as a single projection, instead of an exploded layer as envisaged in Rizzi’s left periphery (1997). See §1.4 for discussion this issue.

As mentioned before in §1.2, **Rivero and Terzi** (1995) divide languages into two types based on their syntactic properties. Type I languages have a dedicated syntax for imperative clauses. Type II languages use the same syntactic structure for imperatives and non-imperative clauses. Both types have dedicated imperative morphology. The difference is that Type I languages also show syntactic differences, while Type II languages do not. Spanish and Modern Greek belong to the first group, while Ancient Greek and Serbo-Croatian belong to the second.

In their analysis, the contrast depends on the nature of the C head. In Type I languages, C carries a strong imperative feature that triggers movement. In Type II languages, C lacks this feature, and imperative verbs have the same distribution as other verbs. In these languages, the imperative feature is located in the TP layer rather than in C. As a result, verb movement to C is not driven by the imperative force of the clause but by independent factors.

Serbo-Croatian is a clear example. As discussed above, verbs raise to C to satisfy what the authors call the W-FUNCTION. This refers to Wackernagel languages, where clitics must appear in second position. If no constituent licenses them, the imperative or another verb raises to C in first position to host the clitics.

From a diachronic perspective, Rivero and Terzi further argue that Ancient Greek eventually lost this pattern and Modern Greek developed into a language with a strong C, thus converging with the Type I

system¹². Note also that Ancient Greek has a remarkably rich morphological paradigm (M. L. Rivero & Terzi, 1995, p. 308, fn. 8)

Rivero and Terzi (1995) argue that the locus of imperative syntax varies across languages. In languages with specialized imperative syntax, it is located in CP. In Wackernagel languages, it is located in TP. Cypriot Greek represents an intermediate case, as it still shows strong imperative features in C, as discussed below.

In Type I languages, C is the position where logical mood is specified, such as declarative, interrogative, or imperative. Since these languages have imperatives with distinctive morphology, these verbs can only be used in imperative clauses and therefore the authors argue that they carry intrinsic logical mood. Other verbs, instead, can appear in declarative and interrogative clauses, so their morphological mood does not encode logical mood.

The authors assume that C is a root projection in imperatives, building on Rivero (1994b), whence the non-embeddability of imperative clauses. They do not discuss other properties such as the lack of a prototypical subject, temporal and aspectual restrictions and morphological characteristics in detail.

Rivero and Terzi argue that the imperative feature active in imperatives is a strong feature in minimalist terms. It satisfies Chomsky's (1994) Greed Principle, according to which Move applies only if the morphological properties of an element would otherwise remain unchecked in the derivation. In this case, movement takes place to satisfy the imperative feature. They describe this feature as the equivalent of the modal operator proposed by Stenius (1969), which encodes declarative, imperative, or interrogative force. In Stenius' view, this operator is distinct from the propositional content of the sentence.

In Rivero and Terzi's analysis, the feature corresponding to this operator differs from other verbal features. Unlike tense or agreement features, it does not express grammatical information about the verb. Instead, it encodes logical mood and includes illocutionary force.

As for the incompatibility with negation in Type I languages, Rivero and Terzi discuss negation and enclisis as empirical phenomena explained by their analysis. Negation shows operator-like properties. For example, it can be modified by adverbs. For this reason, they treat negation as a head of the same type as C. In negative imperatives, the verb cannot move across negation. They adopt Rizzi's (1990) Relativized Minimality and assume that this constraint is sensitive to the properties of heads, as proposed in Roberts (1992). Since both negation and the imperative verb carry operator features, the verb cannot cross negation. This restriction does not apply to clitics. Clitics do not have operator features, so they do not trigger minimality effects even if they intervene. Enclisis can therefore be derived through verb movement to C.

In Type II languages, imperatives can be negated regularly, for example in Serbo-Croatian *ne čitajte* (NEG read.IMP.2SG). In these languages, imperative features are located in I rather than in C.

As anticipated, Cypriot Greek represents an intermediate case, as its imperatives have specialized syntax and cannot be negated and rigidly have enclisis. So in imperatives it behaves like type I languages, and in non-imperatives it behaves almost like Ancient Greek, a type II language. Almost, because the placement of clitics in the clause varies, but still the syntax is that of non-imperative sentences. More specifically, Cypriot Greek does not display rigid Wackernagel effects both the order verb-clitic and clitic-verb is allowed, and clitics cannot be in first or second position, so they are lower in the clause. The authors assume Terzi's (1994) analysis whereby the clitics have to be preceded by at least one constituent and that is a PF requirement, but there is no problem if there is more than one constituent before the clitic. The

¹² Note that this analysis of diachronic development appears to be in tension with Roberts and Roussou's (1999) formal approach to grammaticalization, which characterizes grammatical change as involving the progressive loss of (last resort) movement and a tendency towards smaller syntactic structures, e.g. from bi-clausal to mono-clausal constructions (see Chapter 3 for further discussion).

authors do not provide explicit examples. However, their discussion suggests that both enclisis and proclisis are possible in negative imperatives in Cypriot Greek, which would be suppletive forms.

This pattern is similar to Italian negative imperatives, which are suppletive and use infinitival morphology. These forms allow clitic climbing, as shown in §1.2.4 and §1.2.5. See also Chapter 4 for further discussion and for the analysis proposed in this thesis.

Another approach that analyzes imperatives as involving movement to C is proposed by **Platzack and Rosengren** (1998). A key difference from Rivero (1994b) concerns the absence of FinP in imperatives in their proposal; as a consequence, certain projections in the TP layer are also absent. Crucially, only some projections are missing, namely MoodP and TP. FinP is assumed to attract features expressed in Tense and Mood. See Di Domenico (2004) for a stronger version of this view, whereby the whole TP layer is absent in imperative clauses.

Platzack & Rosengren (1998) examine imperatives in German, English and Mainland Scandinavian, so this constitutes a departure from the languages seen so far. Yet the properties they aim to capture via their analysis are cross-linguistically widespread. They argue that the absence of FinP in imperative clauses follows from the following three main properties: (i) imperatives cannot be embedded, (ii) they exhibit morphologically impoverished forms, and (iii) they lack a prototypical subject. These properties are taken to reflect the absence of the Finiteness projection, from which also the absence of MoodP and TP follow. In the generative tradition, this is **one of the first approaches that syntactically encodes the impoverished morphology of imperatives** and explicitly accounts for the lack of overt subjects.

They adopt Rizzi's (1997) articulated structure of the left periphery. They focus on the Finiteness Phrase (FinP) and the Force Phrase (ForceP), leaving aside information structural positions like Topic and Focus. ForceP is analyzed as encoding clause type: imperatives bear an [imp] feature merged in Force, while interrogatives are specified as [+wh] and declaratives as [-wh], also merged in Force. The [imp] feature is strong in Germanic languages, thus triggering overt movement, with the exception of English, where only *do*-imperatives raise to Force.

Platzack and Rosengren (1998), building on Rivero (1994b), assume that clause type is encoded through formal features in Force. Interrogatives are marked by [+wh], declaratives by [-wh], and imperatives by [imp]. To account for the distinction among these clause types, they adopt and extend a principle originally proposed by May (1985) and later developed by Rizzi and others, according to which clause type features are associated with the Left periphery.

In their analysis, the [imp] feature in Force is strong in all Germanic languages except English. A strong feature triggers overt verb movement. This explains why, in languages such as German, the imperative verb raises to Force. English behaves differently. An overt imperative subject typically precedes the verb, as in ***You** call the police!* (ex. by Platzack and Rosengren 1998, p. 185), which indicates that the verb does not raise overtly to Force. Assuming a strong imperative feature in English would require positing movement of an invisible element, possibly related to support *do*. Since there is little motivation for such a move, the authors conclude that imperative Force is weak in English.

They further assume that clause type features, including [$\pm$ wh] and [imp], are merged in Force, where sentence mood is encoded. Verbal lexical entries contain a situational or event variable *s*, following Davidson (1980) and subsequent work. At LF, this variable moves to Force and is bound by an existential operator. In yes/no interrogatives, the operator Q takes scope over the existentially bound proposition. This signals that the existence of the event is left open.

Like questions, imperative clauses also involve a further operator in addition to the existential operator. The authors propose a modal operator of necessity, labeled N, from which a possibility operator M can be

derived. This operator takes scope over the existentially bound proposition. Unlike the epistemic operators associated with interrogatives, the imperative operator is deontic.

Platzack and Rosengren assign a central role to FinP. In their view, FinP has a dual function. It establishes the predication relation between subject and predicate, thus satisfying the EPP, and it anchors the proposition in time and space, encoding finiteness. Since imperatives lack FinP, they do not express a proposition anchored in time and space. In this sense, they lack reference. Imperatives instead express a deontic sentence mood that sets a norm relative to the addressee. Because of this, ForceP does not select FinP in imperative clauses. The absence of FinP blocks both temporal anchoring and the presence of a proper subject.

This account differs from **Potsdam** (1998). His analysis is a high analysis of imperatives, which involve the CP area, as the others illustrated in this section. The main point here is that Potsdam (1998) argues that imperative syntax is not exceptional and can be analyzed within a standard clausal structure. Platzack and Rosengren attribute this difference to the empirical scope of the analysis. Potsdam focuses on English (with indeed a rich empirical description, notably on Imperative subjects), a language that lacks a distinct imperative morphology and shows limited verb movement compared to other Germanic languages. These properties may conceal structural differences between finite and imperative clauses.

Turning back again to Platzack and Rosengren's (1998) analysis, they argue that if a clause lacks FinP, it also lacks TP and MoodP. Imperatives, therefore, lack all three projections. In this sense, they are the least articulated clause type when compared to declaratives and interrogatives. At the same time, they are marked by the sentence-type feature [imp], which is also present on the imperative verb. Imperatives are thus structurally less articulated but formally more marked. This tension between structural simplicity and formal markedness raises theoretical questions. See section 1.4 for further discussion, especially in light of the acquisition data presented in Chapter 2.

The absence of FinP does not imply any restriction on the imperative verb with respect to features that are independent of the tense–mood–finiteness system. Cross-linguistically, imperative verbs often show agreement morphology. Within the Germanic family, the authors discuss German and Icelandic. As it was discussed extensively in the section on typological approaches, this pattern is common and applies across language families (§1.1.2).

The relation between ϕ -features on the imperative verb and ImpNP, then, is analyzed as a Spec–head configuration in AgrSP.

Aspect is likewise independent of tense, mood, and finiteness. It follows that languages with overt aspectual morphology, such as the Slavic languages, express aspectual distinctions in the imperative. Russian confirms this prediction. In (167), the imperfective imperative *chitajte* (read.IMP) appears, whereas in (168) the perfective form *prochitajte* (read.PERF) is used:

- (167) Sidite ticho i chitajte!
 sit quiet and read.IMP
 'Sit quietly and read!'
- (168) Prochitajte doma etot rasskaz!
 read.PERF at home this story
 'Read this story at home!'

The fact that imperative clauses cannot be syntactically embedded also follows from this structural account. Embedded clauses function as referring expressions, typically as arguments of a predicate

(Rothstein, 1983). Platzack and Rosengren (1998) argue that the presence of FinP is a necessary condition for a clause to have referential force. Since imperative clauses lack FinP, they cannot satisfy this requirement and therefore cannot be embedded, nor refer. An imperative is not something **about** an addressee, but something that is uttered **to** an addressee. In this light, imperatives are not referential. The ungrammaticality of the examples above follows from this interpretative and structural property.

An overt NP identical to the subject of finite clauses is never obligatory in imperative clauses (rare exceptions exist, see Aikhenvald, 2010). This is consistent with the absence of FinP and, consequently, the absence of an EPP position in SpecFinP. At the same time, an optional NP may occur if it is pragmatically marked. This element is referred to as the overt ImpNP and shares several properties with the subject of a corresponding finite clause.

As seen in §1.2.3, evidence from Swedish shows that predicative adjectives and participles can agree with the imperative addressee. In there is a single addressee; in (169)a, multiple addressees in (169)b:

- (169) a. Var försiktig!
 be careful.SG
 b. Var försiktiga!
 be careful.PL

ImpNP shares core properties with the subject of finite clauses. Whether overt or covert, it can bind an anaphor within VP, control PRO in a complement clause, and trigger agreement on a predicate adjective (§1.2.3). Platzack and Rosengren (1998) note that these properties do not depend on finiteness, mood, or tense. They are typically associated with positions such as SpecAgrsP or SpecVP, which remain available in the imperative structure under the analysis proposed by Platzack and Rosengren (1998).

Alternative analyses assume an empty category in SpecVP of imperatives. Beukema and Coopmans (1989), as well as Fries (1992), propose such an element. Beukema and Coopmans analyze it as a variable bound by an empty operator. Later, Beukema (1992) argues that the empty category is small *pro*, a view also adopted by Rooryck (1992), den Dikken (1992), and Potsdam (1998).

Given that the silent ImpNP behaves like an overt second-person pronoun in imperative clauses, Platzack and Rosengren (1998) there is no strong reason to assume a different type of element. ImpNP can therefore be taken to bear syntactic features such as Case and ϕ -features, which enter into a checking relation with the corresponding features in AgrS.

However, ImpNP differs from the subject of a finite clause in one crucial respect: it is selected without the feature [finite] (cf. Chomsky 1995). By contrast, the canonical subject of a finite clause is introduced with a [finite] feature. Because ImpNP lacks this feature, it cannot merge into a structure that contains Tense, Mood, and Finiteness. If it does, the derivation crashes.

In conclusion, Platzack and Rosengren (1998) argue that the lack of a strong Spec-FinP capable of attracting the subject in imperative clauses (remember that their discussion concerns V2 languages, excluding English) implies that there is no overt landing site outside of VP for imperative subjects. Consistently, imperative subjects are found in a lower position than finite subjects. Importantly, however, they do not commit to a specific structural position for these subjects.

Belletti (1999) constitutes another CP analysis for imperative clauses. She argues that TP-layer positions in Italian/Romance imperatives are “radically empty” in imperative clauses, and that the checking of imperative verbal morphology takes place low in the structure, below T and AgrS, which do not participate in the derivation. In this aspect of having a deficient TP layer, Belletti’s (1999) approach is in line with Platzack & Rosengren (1998). She focuses mainly on Italian and Standard French mainly, and her work

is intended in the broader scope of accounting for enclisis and proclisis in Romance in all contexts and clause-types.

She proposes movement of the imperative verb to C: specifically, an Imperative Operator is assumed to be located in the left periphery. This operator is responsible for (i) the interpretation of imperatives and (ii) the 2nd person subject restrictions discussed in §1.2.3. The operator binds an empty category in subject position, assigning it the features 2nd person, singular/plural, $\pm$ speaker. This yields the observed restrictions to 2nd person singular and plural, as well as 1st person plural. Therefore, such an analysis accounts for 2nd person singular imperatives, second person plural forms, and 1st person forms, often referred to as hortatives (§1.1.2). Structurally, the operator occupies the specifier of a head in the CP domain and enters into a criterial configuration with an imperative head, in the sense of Rizzi (1997, and later work in 2015). Belletti (1999), reprinted in the collection of articles published as Belletti (2009, p. 156), formulates the Imperative Criterion as follows: “*an imperative Op must be in a Spec–head relation with an imperative head and vice versa.*” Since imperatives display distinctive morphology, the imperative feature is assumed to be located on the verb. Consequently, the verb must raise to the head whose specifier hosts the Imperative Operator, thereby establishing the required criterial configuration.

Belletti (1999) argues that the empty subject of imperatives is not like the null subjects in true null-subject languages. Its reference is restricted to the persons compatible with the imperative, principally the second person, with number distinctions and optional inclusion of the speaker, as yielded by the imperative operator described above.

Belletti works adopts a set of assumptions about clitic derivation. She treats third person accusative Romance clitics as D° elements. They enter the derivation with a very reduced structure: essentially a minimal DP that contains only the clitic D head. There is no lexical NP complement. The analysis relies on three main claims. First, clitics move because they carry a strong Case feature that must be checked in the syntax. If the feature is not checked, the derivation fails. This is based on the empirical observation that Romance clitics are the only elements that have overt Case specification. Indeed, there exist accusative clitics, dative clitics, for example; but also nominative ones, partitive ones, and locative clitics.

Second, the landing site of this movement is inside the AgrO projection. Third, given their minimal structure, clitics may move either as heads (X°-movement to AgrO) or as maximal projections (XP-movement to Spec-AgrO). Both options are available, with different empirical results: enclisis in Italian non-finite forms, enclisis in French imperatives and proclisis in French infinitives.

Given the absence of tense and subject agreement morphology on imperative verbs in Italian (§1.2.1), Belletti (1999) assumes that T and AgrS positions are not involved in the derivation of an imperative, particularly regarding the checking of verbal morphology. Such morphology, then, must be checked lower in the functional spine. Belletti (1999) assumes that checking of verbal morphology happens in a low position in the clause, which allows the verb to pass through AgrO and carry the clitic along to the relevant head in C. This is motivated on independent grounds by work by Kayne (1991) on infinitives, another non-finite form sharing many similarities with imperatives (see Chapter 2 and 4 of this dissertation). Belletti also notes that the position corresponding to MoodP in Platzack and Rosengren (1998) could be called ModeP in her framework. She does not commit to this label per se, but she does commit to the structural position itself, building on Kayne’s (1991) analysis of InfP for infinitives, as said above. This subtle distinction between absence and inactivity of functional projections is especially important for this thesis, a point which will be discussed further below.

Belletti proposes that whenever the verb adjoins to a head carrying the clitic, the result is systematically enclisis (adjunction is always left-adjunction). This is consistent with her idea that cliticization is fundamentally triggered by PF factors, as the movement of the clitic follows the necessity of voiding AgrOP

prior to PF. A terminological clarification is important here. Belletti describes T and AgrS in imperatives as “radically empty,” but she does not mean that these positions are absent. Rather, they are inactive: they exist in the structure and can serve as landing sites for clitics. As she notes in footnote 45 (p. 315), while some accounts such as Rizzi (1993) and Laenzlinger (1994) assume T and AgrS are simply absent in imperatives, she maintains that they are present and relevant for movement, especially to satisfy the Head Movement Constraint (HMC). The HMC has to be satisfied since in her analysis the verb moves to C.

A terminological clarification is important for the purposes of this dissertation. Belletti (1999) describes T and AgrS in imperatives as “radically empty,” but this does **not** mean that these projections are absent. Rather, they are inactive: they exist in the structure and can serve as landing sites for clitics. This distinction is crucial because some authors, such as Rizzi (1993) and Laenzlinger (1994), assume that T and AgrS are simply missing in imperatives, as Belletti (2009 notes in fn. 43, p.315). As for the accounts that have been discussed in this thesis so far, the same is assumed by Platzack & Rosengren, as seen above, and by Di Domenico (2004) and Salustri and Hyams (2003), discussed in the next subsection. Belletti, in contrast, argues that these projections are present, and their existence is necessary to satisfy the Head Movement Constraint (HMC) when the verb moves to C. Belletti

Summarizing, Belletti argues that these intermediate TP-layer projections exist but are empty, and that their presence is necessary to satisfy the HMC when the verb moves to C. This is a crucial point, nonetheless overlooked by the above-mentioned authors which propose movement to C in imperatives and absent intermediate projections. This issue will be taken up again in §1.4, as well as in Chapter 3 in relation to the proposal developed in this thesis.

Other notable high-CP analyses of imperatives include the following. **Isac (2015)** offers a particularly rich account, as it extends the analysis to subjunctive and polite imperative forms. **Alcazar and Saltarelli (2014, 2022)** provide a cross-linguistic perspective on imperative syntax, looking also at phenomena such as allocutivity. **Frascarelli and Jiménez-Fernández (2021)** addresses information structure, prosody and Common Ground updates in imperatives, assuming a high CP projection encoding speaker and addressee, similarly to **Speas and Tenny (2003)**. **Han (2001)** develops an account that integrates both syntactic and semantic considerations, examining the relationship between force, negation, and imperative interpretation.

1.3.3.1 Hybrid Analyses

Three analyses are discussed here in which the core assumption is that imperatives raise to C, or at least to a high position in the left periphery. At the same time, however, these authors leave room for the possibility that imperatives may also instantiate lower structural configurations, a point typically acknowledged in footnotes or lateral remarks rather than in the main proposal. For this reason, these approaches are treated here as *hybrid accounts*.

Salustri and Hyams (2003, 2006) put forward the hypothesis that imperatives are the analogous to the root infinitive in acquisition. They look at pro-drop and non-pro-drop languages, via the investigation of spontaneous production data of children up until 4 years of age. What they find is that at the same age, and at the same rate, children acquiring pro-drop languages overproduce imperatives, while children acquiring non-pro-drop languages overproduce root infinitives. See Chapter 2 for a detailed discussion. Here, the focus will be on the structural analysis they provide for imperatives.

They highlight the peculiarities of imperative syntax, for instance with respect to enclisis, and emphasize their similarity to root infinitives, a domain once again that will be explored further in Chapter 2. They argue that imperatives are tenseless and adopt **Han’s (2000)** analysis, according to which imperatives are endowed with both an *irrealis* and a *directive* feature, encoding a command directed toward the realization of an event that has not yet occurred at speech time. Structurally, they propose that ForceP

However, in Salustri and Hyams (2006, fn. 17), the possibility of positing a low ForceP within the lower IP area, in the sense of Belletti (2004), is mentioned as a potentially more economical alternative to verb movement all the way to C.

“A message is displaced to the extent that the key features in its antecedents and consequences are removed from the time and place of transmission. A great deal of human speech is displaced in this sense.”

Di Domenico (2004) further supports the reduced inflectional status of imperatives looking at cases of phonological truncation (see §1.2.1, Belletti 1999; Floricic 2000), as in the next Italian example:

- Di Domenico interprets truncation as possible precisely because the subject is lost. In other words, the final portion of the imperative verb carries essential inflectional information.
- Turning to position of the imperative verb, Di Domenico (2002) notes that the subject may precede (172) or follow it (173):
- (171) Telefonate-le!
 telephone.IMP.2PL-her.CL.ACC.3SG.F
 ‘Call her!’
- (172) Tu porta la valigia
 You.TOP take.IMP.2SG the suitcase
- (173) a. Porta-la TU
 take.IMP-it.CL.ACC.3SG.F you.FOC
- b. *TU portala
 you.FOC take.IMP-it.CL.ACC.3SG.F

When the subject-like element is a topic, it precedes the verb (172). When it is focal, it must follow the verb (173)a. From this distribution, Di Domenico concludes that the imperative verb in Italian occupies a position: (i) higher than the object clitic string; (ii) higher than FocP; (iii) lower than (Spec) TopP. She identifies this position as Top°.

Cross-linguistic comparison reinforces the point. Consider German:

- (174)
- a. Dorthin geh nicht
 - b. (Du) geh nicht dorthin (Swabian)
 you go.IMP not there
 - c. Geh (du) nicht dorthin (other dialects)
 - d. Geh DU nicht dorthin
 go.IMP you not there
- ‘Don’t go there’

In standard German, the imperative precedes the topic (174)a, while in Swabian it may follow it (174)b. With respect to focus, the verb appears higher. In English the following examples apply:

- (175)
- a. Do SOMEONE help him quickly!
 - b. Someone do help him quickly!
 - a’. Come here!
 - b’1. No, YOU come here!
 - b’2. *No, come YOU here!

In English, the lexical verb remains lower. The position corresponding to Italian Top° is occupied by imperative *do*, while the lexical verb stays lower. In German, due to V2, the imperative verb moves even higher.

These differences mirror well-known cross-linguistic patterns of verb movement in declaratives: English *do* occupies the position filled by the lexical verb in Italian, while German verb movement targets a higher position.

Most accounts assume that Imperative Clauses share the structure of Declaratives, with the only difference being higher verb movement (e.g. Rooryck 1992; Rivero 1994; Rivero & Terzi 1995; Potsdam 1995; Zanuttini 1997). Other proposals, however, link imperative properties to structural differences. Platzack & Rosengren (1998) argue that Imperatives lack FinP and contain an IP without Tense. Belletti (1999) assumes a “radically empty” Agr.

In line with the latter family of proposals, Di Domenico assumes the following structure:

- (176) [ForceP [TopP [FocP [VP ...]]]]

Imperative Clauses lack FinP. This accounts for their inability to be questioned or combined with modal verbs, properties associated with FinP (Platzack & Rosengren, 1998). Following Bianchi (p.c. with Di Domenico), Di Domenico connects the absence of FinP to another property: imperatives cannot be embedded. FinP is taken to be the locus of clause anchoring, connecting a clause either to previous discourse or to its own independent Placement Layer. Lacking FinP, Imperative Clauses cannot be embedded and do not project their own Placement Layer. Di Domenico calls them NON-PLACED EXPRESSIONS. They are

identified directly with the speech event and cannot be displaced along the relevant dimensions of tense and person. They are restricted to second person and present tense.

Since the Placement Layer is absent, the usual restrictions on subject overttness do not apply. If the Null Subject Parameter concerns [Spec, IP], and IP is absent, then Imperative Clauses in Italian, English, and German impose no conditions on subject overttness. This correlates with two well-known properties: imperatives may contain a vocative without a co-referring pronoun, and they lack subject clitics in subject-clitic languages.

Di Domenico assumes that Top^o hosts the imperative verb in Italian and the imperative do in English, and that in German the imperative verb passes through this position on its way to a higher head, possibly Force^o, as argued by Platzack & Rosengren (1998). This position is compatible only with a verb endowed with a second person feature, understood as an inherent, non-displaced feature.

Given this structure, an important issue remains unresolved: are the TopP/FocP projections involved those of the left periphery (Rizzi 1997), or those in the VP periphery (Belletti 2001)?

Belletti (2001) argues that the TopP/FocP cluster is present both in the CP domain and in the VP periphery. In declaratives, the higher FocP encodes contrast, while the lower FocP encodes new information. In imperatives, focus may carry either interpretation. Di Domenico suggests that Imperative Clauses contain only one focal position, which must encode both contrastive and new-information readings.

The crucial point for this dissertation is that Di Domenico explicitly leaves open whether the relevant Top/Foc projections are located in the left periphery or in a lower area of the clause. This means that, despite proposing a structure without FinP and IP, she does not fully settle the structural height of imperatives, an issue she leaves open for future research. This unresolved point constitutes a crucial gap. The present dissertation takes this gap as one of its starting points and aims to provide a more precise account of the structural position of imperatives, especially with respect to their interaction with movement and functional architecture.

Notably, Di Domenico (2004, p. 99, fn.31) provides further support for a low structural analysis of imperatives, drawing on data from Belfast English (BE) discussed in Henry (1995). The comparison between Belfast English and Standard English (SE) shows that, in declarative clauses, the verb occupies a position lower than frequency adverbs and negation in both varieties:

(177) *BE/*SE He went not away

(178) *BE/*SE He went always away

[ex. from Di Domenico 2004, p. 99]

In imperative clauses, however, the verb moves higher in Belfast English than in Standard English, as it may appear to the left of the subject:

(179) BE/SE You go away

(180) BE/*SE Go you away

[ex. from Di Domenico 2004, p. 99]

These facts receive a natural explanation under the assumption that imperative clauses occupy the lower portion of clause structure and that, across clause types, the verb in Belfast English may move up to Top^o, whereas in Standard English it remains within VP, as commonly assumed. **Henry (1995)**, by contrast, proposes a construction-specific movement of the verb in Belfast English, i.e. a movement restricted to imperative clauses. This view is not substantially different from several accounts discussed in the section on

high imperatives in C, where verb movement to the left periphery is likewise treated as a property specific to imperative constructions rather than as the reflex of a more general structural configuration.

Zanuttini et al. (2012) develop a unified account of imperatives, promissives, and exhortatives, grouping them under the label JUSSIVES. Their central objective is to explain the person and number restrictions that characterize the subjects of these clauses and, at the same time, to derive their sentential force compositionally.

In their proposal, jussives are associated with a dedicated functional head, the T-Jussive head. This head bundles person, number, and case features into a single projection. The interpretive constraints observed in imperative subjects follow from this feature configuration. The T-Jussive head builds on the Jussive head introduced in Zanuttini (2008). In imperatives, the T-Jussive head provides the subject with 2nd person restrictions, in promissives the subject is instead restricted to 1st person singular, and hortatives to 1st person plural.

Focusing of course on imperatives, they are analyzed as consisting of T-Jussive and vP, without additional functional projections.

Zanuttini et al. (2012) review how imperative subjects have been treated in the literature. They identify three broad lines of analysis, worth summarizing here.

(I) A distinct lexical entry for imperative subjects.

Schmerling (1982) proposes that imperative subjects possess two special properties: they refer to the addressee and belong to a specific syntactic category, IMP/IV, which combines with a VP to form an imperative clause. On this view, an imperative sentence can only be formed if its subject lexically encodes the relevant interpretive restrictions. Platzack and Rosengren (1998) can be seen as advancing a similar idea, with the ImpP projection illustrated in the previous subsection. The authors argue that a struggle for this approach is that it requires separate lexical entries for forms such as *you*, depending on whether they occur in imperative or non-imperative contexts. The pronoun would have to belong to category IMP/IV in imperatives, but to a different category elsewhere.

(II) A higher noun phrase determines interpretation and licenses a null subject.

Several analyses attribute the interpretive properties of imperative subjects to a higher element in the clause. According to the performative hypothesis (Downing, 1969), the subject's interpretation is controlled by an argument of a higher performative predicate, and that null subjects arise through deletion, in a manner comparable to control. Han (1998) develops a similar view: the subject is PRO, controlled by an implicit argument of a null imperative operator. Beukema and Coopmans (1989) offer a related but distinct account. They treat the null subject as a variable bound by an element, possibly null, in a topic position in the left periphery; the interpretation of a null topic is then determined by discourse. In all these cases, the licensing and interpretation of the subject are attributed to a structurally higher element.

(C) A functional projection determines interpretation and licenses the null subject.

A third line of research treats imperative subjects as *pro*, whose interpretation is fixed by a functional head in the clause. The proposals differ as to which head is responsible: a special imperative Infl (Rupp, 2003), a special imperative T (Jensen, 2003), or a special imperative C (Bennis, 2006, 2007). Zanuttini et al. (2012) situate their analysis within this family of approaches, attributing the interpretive restrictions on imperative subjects to a functional projection present in the clausal spine.

Zanuttini et al. (2012) argue that the restrictions on imperative subjects cannot be explained by semantics and pragmatics alone and require a syntactic account.

A purely pragmatic approach might claim that imperatives are directives addressed to the hearer, so the subject must be second person. But the authors argue this explanation proceeds backwards: in generative

linguistics, meaning is built compositionally from the combination of the elements in the structure; one cannot appeal to the final meaning of a sentence to explain what elements it contains.

A more sophisticated pragmatic view might allow the subject to refer in principle to anyone, but only certain combinations yield a felicitous speech act. Zanuttini et al. (2012) show that this fails. For instance, if the core meaning of an imperative is “the addressee is to bring *p* about,” then both *You be kissed by John* and *John kiss you* should be acceptable, since both involve the addressee enacting *p*. Yet only the first is grammatical, showing that what matters is not merely who is referred to, but their syntactic position.

The same problem arises with passives: if the requirement were purely semantic (the addressee must be the agent), then “John be kissed by you” should be fine, since “you” is the agent in the by-phrase. However, it is not.

Cross-linguistic evidence reinforces this point. In Korean, promissive clauses require the speaker to appear specifically in subject position, not just anywhere in the sentence. Pragmatics can say that “a promise involves the speaker,” but it cannot explain why the speaker must occupy the subject slot rather than object or oblique positions.

On these grounds, the restrictions on imperative and promissive subjects are syntactic, not merely interpretive, and these syntactic constraints play a central role in determining the illocutionary force of the sentence.

As shown by the data in §1.2.3, in (69)–(76), imperative subjects in English consistently exhibit second-person features: null subjects, proper names, and quantificational NPs all license second-person reflexives (*Wash yourself*, *Mary wash yourself*, *Everyone wash yourself*), while these configurations are ungrammatical in declaratives (*Mary washed yourself*, *Everyone washed yourself*, examples by Zanuttini et al. 2012, pp. 1238–1239).

The authors argue that the second-person feature seen in imperatives is contributed by a functional head present in all jussive clauses, the Jussive head. Different person restrictions yield different types of jussives. This head is absent in declaratives and interrogatives and ensures that the subject carries the person features required to license null subjects, reflexives, and quantificational subjects, all restricted to second person. Compositionally, this also yields the directive force of the clause.

The novelty of their proposal lies in identifying this projection as T-Jussive and in integrating person, number, and case features into a single head, from which both structural licensing and interpretive effects are derived. This feature-bundle configuration is proposed building on Grimshaw (2000) and Sigurðsson (2009; 2010) among others.

The Jussive head can be both null or overtly realized. For example, in Korean imperatives, a jussive particle like *-la* can co-occur with a speech-style particle *-e*:

(181) Kongpuha-e-la! – ‘Study!’

(182) Kongpuha-e! – ‘Study!’

[Ex. by Zanuttini et al. 2012, p. 1250]

The sentence in (182), which lacks *-la*, is interpreted in the same way as (181). Zanuttini et al. (2012) argue that whatever meaning *-la* contributes is still present in (182), supplied by a null Jussive head. While some languages express this head overtly (often as sentence-final particles), in Italian imperatives we do not see overt markers. Nonetheless, the Jussive head is assumed to be present and to encode the clause’s sentential force.

The question then arises as to the structural position of the Jussive/T-Jussive head. Korean imperatives are particularly informative in this respect, as they display an overt imperative particle, analyzed as the overt realization of the T-Jussive head, which appears lower than the overt complementizer. On the basis of

Korean data, Zanuttini and collaborators outline two possible approaches. The first locates the T-Jussive head in the same structural position as other Korean clause-typing particles, namely below the complementizer and above T. Under this view, T must raise to the Jussive head in order to form the T-Jussive feature bundle; consequently, the T-Jussive head cannot be lower than T. The second approach places T-Jussive^o in a position distinct from that of declarative and interrogative particles, either in C or in T. Although the authors consider both options compatible with their proposal, they lean toward the first, as it preserves the traditional assumption that clause-typing particles constitute a unified grammatical class. On this view, a functional head encoding sentence type is generally located between T and Force; but not in ForceP itself, as that is the locus of the overt complementizer in Korean. In this aspect, Zanuttini et al. (2012) differ from traditional proposals associating ForceP with clause-typing elements. Notably, in both approaches outlined above, the Jussive head may ultimately be located either in the C domain or within the IP area, hence this work falls under the *hybrid* approaches.

The following summary, based on Zanuttini et al., reprises the discussion presented in §1.1.1.2 concerning the semantic analysis of imperatives as formulated by Zanuttini et al. (2012). It is important to discuss this here to justify their choice in the structure and denotation of imperative clauses, which will be provided below, to conclude the discussion on their proposal. Three views or currents are individuated by the authors in the available literature, for further references see Zanuttini et al. (2012, pp. 1259-12562).

The **Speech Act View** holds that the meaning of an imperative consists in the performance of a speech act. Several versions of this idea have been proposed.

The performative hypothesis as envisaged by Lewis (1979) treats imperatives as formally equivalent to explicit performative sentences: *Leave!* is analyzed as equivalent to *I order you to leave*, with both expressions denoting the set of worlds in which the speaker orders the addressee to leave at the time and place of utterance. More recent syntactic proposals, such as those of Rivero and Terzi (1995) and Rizzi (1997), can be seen as updated versions of this hypothesis, in that they postulate an illocutionary force operator in the higher functional structure of all clauses, and its semantics is not discussed further.

However, Zanuttini et al. (2012) argue that this approach faces a significant empirical problem. While true imperatives — those with a dedicated morphological paradigm — may plausibly be associated with an imperative operator, no such evidence is available for imperatives formed with subjunctive, indicative, or infinitival verb forms. Consider the Italian examples in (183):

- (183) a. Signor Rossi, che nessuno si sieda in prima fila! (Italian)
 Literally: ‘Mr. Rossi, nobody sit in the first row!’
 b. Ragazzi, che tutto sia in ordine quando torno questa sera!
 ‘Kids, everything be in order by the time I get back this evening!’

Here the subject of the imperative is not the addressee; rather, the addressee is signaled by a vocative phrase (*Signor Rossi, Ragazzi*). Zanuttini et al. (2012) account for this by proposing that the Jussive head ranges only over the addressee, i.e. the vocative, leaving the rest of the structure without an imperative operator. The performative hypothesis therefore cannot be extended uniformly across the full range of imperative clauses.

A second version of the Speech Act View is developed by Han (1998) in the dynamic tradition of Lewis (1979). Han proposes that the meaning of an imperative is an instruction to the addressee to add a proposition to their Plan Set, a set of propositions representing the states of affairs the addressee intends to bring about. The proposal is intuitively interesting, however it comes with some shortcomings: the theoretical status of the Plan Set is left unclear; the syntax-semantics-pragmatics interface is not made

explicit; and the definition of directive meaning in terms of “instructing” is circular, since instructing is itself a type of directive act. Zanuttini et al. nonetheless consider Han’s core insight worth preserving, noting that it can be substantially improved upon by drawing on subsequent work in the same dynamic tradition, particularly Portner (2004, 2007, 2012), whose theory will be adopted in their analysis and this dissertation.

The **Modal View**¹³ proposes that the meaning of an imperative is derived from a covert, obligatorily performative modal (Stockwell et al. 1973; Han 1999, 2001, 2011; Schwager 2007; Kaufmann 2012; Grosz 2008, among others). The intuition behind this approach is that imperatives behave similarly to modal sentences used performatively, as in (184):

(184) You must leave right now!

However, as Portner (2007) notes, simply positing a covert modal is not sufficient to explain the directive function of imperatives, since the standard semantics of modals accounts only for their descriptive, non-performative meaning. Performativity is a pragmatic property that must be derived separately, whether by treating the modal as a performative verb, assigning it a dynamic meaning in the sense of Han (1998), or deriving performativity as a pragmatic effect of tied to presuppositions (Kaufmann 2012).

A further issue, even more crucial, is the following. The modal view does not explain why imperative clauses come with their unique syntax compared to declaratives with modal verbs, imperatives also display a range of properties that distinguish them from modalized sentences, as extensively discussed in §1.2. The authors claim that while some imperative clauses provide evidence for a covert modal element, other imperative forms do not, instead, including polite imperatives and certain negative imperatives (they do not provide examples, but nonetheless cite Kayne 1992 covert modal for negative imperatives, see Chapter 4). They argue that any adequate analysis of imperative meaning must cover all these cases. For these reasons, the authors do not adopt this approach.

The **Semantic Type View** holds that imperatives have a distinct semantic type from declaratives, and that their discourse function follows from this difference in type. Both the Speech Act View and the Modal View assume that imperatives, like declaratives, denote propositions. The Semantic Type View rejects this assumption. According to Portner (2004, 2007), imperatives denote **properties** rather than propositions, distinguishing them from declaratives (which denote propositions) and interrogatives (which denote sets of propositions). The structure of an imperative clause then does not need to encode illocutionary force directly in the syntactic structure via a dedicated projection, but the meaning (semantic type) of the imperative, combined with the pragmatic component of the To-do List update, derives the proper sentential force of imperatives.

Zanuttini et al. (2012) adopt Portner’s (2004, 2007) version of this view. Portner builds on the dynamic framework of Lewis (1979) and on Han’s (1998) notion of the Plan Set, but revises it in two important respects. First, where Han worked with a Plan Set as a set of propositions, Portner works with a To-do List as a set of properties. Second, where Han left the theoretical status of the Plan Set unclear, Portner is explicit that the To-do List is a discourse component parallel to Stalnaker’s (2002) Common Ground. Just as assertion adds a proposition to the Common Ground, uttering an imperative adds a property to the addressee’s To-do List. This is captured by the update rule in (D), where T(c) assigns a To-do List to each participant in context *c* and CG(*c*) is the Common Ground:

¹³ For material on Modality and Mood, and their distinction and sometimes partial overlap, see respectively Portner (2009) and Portner (2018).

- (D) “For any context c and any root sentence S , add $[[S]]c$ to the component of c which is a set of objects of the same semantic type as $[[S]]c$, specifically:
- (E) Imperatives: For any context c and any root sentence S such that $[[S]]c$ is a property P , $c + S$ = the context c just like c except that $T(c) = T(c)[\text{addressee}(c) \rightarrow T(c)(\text{addressee}(c)) \cup \{P\}]$
- (F) Declaratives: For any context c and any root sentence S such that $[[S]]c$ is a proposition p , $c + S$ = the context c just like c except that $CG(c) = CG(c) \cup \{p\}$ ”
- [Rule taken from Zanuttini et. al 2012, (42), p. 1263]

This approach separates clause typing from the assignment of illocutionary force: a clause is typed as imperative by virtue of denoting a property, and its directive function follows from principle (D) rather than from any ad hoc syntactic operator or projection. See also Zanuttini and Portner (2003) on exclamation, whose illocutionary force is derived compositionally rather than via an exclamative phrase or operator, and Lohnstein (2007). The authors argue that such a separation is theoretically desirable, given the lack of uniform syntactic evidence for a dedicated imperative operator across the full range of imperative clauses. As will be shown in Chapters 3 and 4, we adopt this framework as the semantic foundation of our analysis. At the same time, we argue that, when coupled with a fully articulated clausal spine, this approach risks overgenerating certain structural configurations that are in fact unattested (see §1.4 for discussion).

On all these grounds, Zanuttini et al. (2012) provide a semantic analysis that explains the interpretive restrictions on jussive subjects, assuming the minimal syntactic structure T -Jussive+ vP mentioned above. The central question is how the Jussive head, together with the person features it carries, contributes to the meaning of a sentence. Considering the approaches to imperative semantics outlined above, the authors discuss how one could, in principle, identify the Jussive head with the head of a high functional projection with the illocutionary operator (speech act view) or with a covert modal (modal view). For the reasons discussed earlier, however, the authors adopt the semantic type view.

Assuming the above-mentioned syntactic structure, the semantics of imperative clauses is the following:

$$(185) \quad [\lambda x : x = \text{addressee}(c). [\lambda w . vP'(x)(w)]]$$

In the notation of Heim and Kratzer (2012), this expresses a property that is only defined when its argument is the addressee. When defined, it is true of an individual a in a world w if the core vP is true of a in w . For example, the imperative *Leave!* expresses the property of leaving, restricted to the addressee.

Therefore, the authors envisage the Jussive head as an abstraction operator, functioning as a λ binder (I. Heim & Kratzer, 2012). Functional heads can have the function of λ binders (Kratzer, 2009) Such operator binds the argument it agrees with, namely the subject.

To conclude, remember that Zanuttini et al. (2012)’s goal is to derive the semantics of all jussives, not just imperatives. In their proposal, imperatives update the addressee’s To-do List, promissives update the speaker’s, and exhortatives update both. This is yielded by the presuppositions associated with the relevant phi-features of each jussive subtype (second, first, second+first).

The final account considered here is that of **Di Domenico (2004)**, once again a *hybrid* account in that her main proposal makes imperative verbs raise to C , even if she adds that they might also be much lower. More specifically, In her discussion of the syntax of imperatives, Di Domenico distinguishes between two broad types of analyses. The first group treats imperatives as structurally parallel to declaratives, with the only difference being verb movement to C (Rooryck 1992; Rivero 1994b; Rivero & Terzi 1995; Potsdam

1995; Zanuttini 1997). A second line of research goes further, proposing that Fin and part of the IP layer are absent (Platzack & Rosengren 1997), or that Tense and Agreement are “radically empty” (Belletti, 1999). Di Domenico adopts this second perspective and proposes the following structure for imperatives:

(186) [ForceP [TopP [FocP [VP ...]]]]

FinP is absent, and consequently the entire Placement Layer (i.e. the IP domain) is missing. In line with Platzack and Rosengren (1998), she argues that this follows from the fact that imperatives cannot be questioned, combined with modal verbs, or embedded. A dedicated subject position is likewise absent, accounting for the possibility of null subjects, the incompatibility with subject clitics, and the availability of a vocative without a coreferential pronoun.

1.3.4 Imperatives in the Middle

Rivero (1994b) argues that in Bulgarian and Serbo-Croatian the imperative feature is located in I, since C does not function as a force indicator. She does not specify exactly which functional projection hosts the imperative feature. A similar proposal is advanced by Rivero and Terzi (1995) for Ancient Greek and the so-called Type II languages. As seen in Section 1.2, these authors claim that such languages do not have a dedicated imperative syntax. Instead, imperatives in these languages share the same syntactic structure as other verbs.

For this reason, these works are cited in this section, “Imperatives in the Middle,” understood as referring to the TP layer, or MITTELFELD in German linguistic terminology. Rivero and Terzi (1995), in Type II languages imperatives do not involve any special syntactic configuration; the only distinction lies in morphology, especially given that Ancient Greek is morphologically rich. This observation could, in principle, extend to other languages with highly developed verbal inflection paradigms, such as Sanskrit. A thorough study of such languages and their imperatives, however, would go beyond the scope of this dissertation.

It is worth noting that even in Sanskrit, the second-person singular imperative shows a morphologically impoverished form, alongside other fully inflected forms, including dual marking (Aikhenvald, 2010).

1.3.5 Imperatives in the vP periphery

In the literature, some analyses deviate from the traditional idea of CP imperatives to propose a different approach. Imperatives have also been envisaged as reduced, deficient, or truncated, and even if the terminology may vary, what is common to these proposals is that imperatives are claimed to not involve high clausal projections such as CP or a high TP projection.

Notably, **Shlonsky** (2004), in his work on enclisis and proclisis in French, argues that imperatives are “truncated structures” that lack a CP layer, since they cannot be embedded, host a *wh*-element, or accommodate a topic (Shlonsky 2004, p. 346). His focus is on the phenomena of enclisis and proclisis, and he does not elaborate further on the syntactic structure of imperatives.

Jensen (2007) proposes a structural analysis of imperatives in the vP periphery. She explicitly compares CP approaches and IP approaches (her terminology). Her discussion focuses on English and Mainland Scandinavian languages.

She argues that her account belongs to a group of analyses that do not propose a special syntax for imperatives. Instead, these analyses treat imperatives as essentially comparable to declaratives and interrogatives, as in Potsdam (1998, see §1.3.3). Then she divides these analyses between CP approaches, as

anticipated, and analyses that assume a “truncated IP structure” (Jensen, 2007, p. 163). IP structure analyses she quotes are her own (2003) PhD dissertation, and Rupp (2003).

Jensen (2007) assumes a clausal structures with the widespread layers of the generative tradition, vP, IP and CP (Rizzi (in the sense of Rizzi, 1997). The latter layer is able to express propositions, namely an element that may be captured in terms of truth values. Since CPs express propositions, they can either be embedded within a larger structure or be the locus where questioning is encoded. Moreover, Jensen (2007) argues that impossibility of embedding imperatives suggests they may not be CP clauses. Other empirical evidence goes into this direction: as illustrated in §1.2, imperatives across languages consistently lack overt subjects, tense and subject agreement morphology, have restricted aspectual properties. These recurring characteristic have led **Rupp (1999)** toward an analysis based on a truncated IP structure, as noted by Jensen (2007). IP approaches typically build imperative clause structure from the bottom up, incorporating only those elements that imperatives actually display cross-linguistically. As Rupp (originally appeared in 1999, p. 45, 2003) writes, an IP analysis “[...] respects structural economy in that it does not contain any empty heads or functionless nodes, but involves only as much structure as necessary.” Depending on broader theoretical commitments, IP theories may either remain neutral on whether a CP layer is present or argue that imperatives lack a CP layer altogether. Crucially, however, IP approaches share a core assumption with CP approaches: the same structural processes and mechanisms operative within IPs should also be found in imperatives.

Jensen’s approach belongs to a broader family of analyses that ultimately minimize the syntactic distance between imperatives and other clause types such as declaratives and interrogatives (§1.3.3). Whether imperatives are analyzed as truncated structures lacking a CP layer altogether, or as structures in which the CP layer is present but plays a lesser role relative to IP, the underlying assumption is that imperatives do not require a dedicated syntactic architecture of their own. This stands in contrast to a different line of research, represented, among others, by Belletti (1999), Di Domenico (2004), Zanuttini (2008) and Zanuttini (2012), in which imperatives are assigned a special syntax specifically designed to derive their distinctive properties: restrictions on embedding, impoverished morphology, second-person subjects, to name but a few salient ones.

As the quote from Rupp (2003) above illustrates, both authors assume that imperatives consist of a vP with only the necessary projections on top of it. In this respect, their approach bears some resemblance to Zanuttini et al. (2012), although the latter argue that imperatives do project to the CP layer, or at most to the higher portion of TP, with a preference for CP on the grounds that this is where other clause typing particles are present. Jensen herself labels her approach an IP approach; in the present work, however, I will refer to it as a vP periphery approach¹⁴. The IP layer is well-known to be a richly articulated domain, as is particularly evident in Romance languages, as demonstrated by the seminal work of Cinque (1999), and the label vP periphery more transparently captures the structural locus under discussion.

Jensen (2007) brings forward empirical arguments in support of the view that an IP approach better captures the syntax of imperatives, since certain properties of these clauses would otherwise remain unexplained.

¹⁴ The term vP periphery, as mentioned earlier in this thesis, draws on the terminology and theoretical insight of another seminal contribution to the study of the IP layer: Belletti’s seminal work on the low IP area (Belletti, 2004). Belletti identifies this zone of the clause as a site hosting scope-discourse positions such as topic and focus in Italian, observing that just as TP has its own periphery, namely the CP, vP too has a periphery of its own, the low IP area or vP periphery. As will become clear in Chapter 3, the present thesis places particular emphasis on this idea of parallel peripheries and on the role of the low periphery in the syntax of imperatives; see also Poletto (2006) on the Parallel Phase Hypothesis. The reader is referred to Chapter 3 for full discussion.

The first argument concerns the semantic nature of imperatives and their relationship to the notion of proposition. As Jensen (2007) observes, the difficulty of evaluating imperatives within truth-conditional semantics has been widely noted since at least the seminal work of Frege, and this difficulty stems largely from the fact that imperatives do not express propositions¹⁵. In other words, as seen in §1.1.1, one cannot say whether an imperative clause is true or false, nor can one respond to a command with “no, that’s not true”, or its contrary. Jensen argues that this incompatibility with truth-conditions can be demonstrated by investigating the licensing of certain adverbs.

Adverbs of this type, such as *unfortunately* and *surprisingly*, are illicit in imperatives, as shown below:

- (187) *Unfortunately buy a ticket!
 (188) *Surprisingly eat your greens!
 (189) *Uheldigvis køb en billet!
 (190) *Køb uheldigvis en billet!
 (‘Unfortunately buy a ticket!’)
 [Ex. by Jensen 2007, p. 168]

Observe the contrast with interrogatives:

- (191) Did you surprisingly eat your greens?
 (192) *(Do) surprisingly eat your greens!
 [Ex. by Jensen 2007, p. 168]

According to Jensen (2007), main clauses in the Mainland Scandinavian languages display the well-known V2 pattern. In the standard account of V2, the finite verb moves to C, crossing the intervening heads in accordance with general locality principles, and a maximal projection is moved to the specifier of CP. This analysis goes back to den Besten (1983) and subsequent work.

Within this system, different types of constituents can occupy the initial position in Spec, CP. These include not only arguments but also adverbial phrases, such as manner adverbs. Jensen illustrates this with the Swedish example below:

- (193) Upprört strök Baker sin skjorta.
 ‘Baker ironed his shirt in an upset way.’

Here, the manner adverb *upprört* appears in clause initial position, preceding the finite verb, as expected under a V2 analysis.

However, Jensen (2007) observes that when manner adverbs are fronted, they typically have contrastive force. This is shown by Danish and Swedish dialogue examples such as the following:

- (194) Danish
 A: Spiste han suppen hurtigt også?
 ‘Did he eat the soup quickly too?’

¹⁵ See Kaufmann (2012) for a different analysis. She treats imperatives as propositional in the same sense as declaratives, arguing that what distinguishes them is not their propositional content but their presuppositions: on this view, *Eat!* is semantically equivalent to *You must eat!*, with both sentences expressing propositions that differ only in their presuppositions. The reader is referred to §1.1.1.2.

B: Hurtigt spiste han bare fisken. Suppen spiste han lynhurtigt.

‘He only ate the fish quickly. The soup he ate very fast.’

(195) Swedish

A: Åt han soppa sakta också?

‘Did he eat the soup slowly too?’

B: Sakta åt han bara fisken. Soppan åt han fort.

‘He only slowly ate the fish. The soup he ate quickly.’

These cases show that fronted manner adverbs receive a contrastive interpretation in declarative V2 clauses. If imperatives in Mainland Scandinavian were structurally identical to other CP clauses, as proposed in CP based analyses such as Platzack and Rosengren (1998), we would expect the same possibility of placing adverbs in the initial position in imperatives. However, Jensen (2007) points out that this expectation is not borne out. Initial adverbs are generally excluded in imperatives, as shown in Swedish and Danish:

(196) Swedish

a. *Helst drick vitt vin till fisken.

‘Preferably drink white wine with the fish.’

b. *Oartigt lämna rummet (och ring inte tillbaka).

‘Impolitely leave the room (and do not call back).’

c. *Snabbt ring polisen.

‘Quickly call the police.’

(197) Danish

a. *Helst drik hvidvin til fisk.

‘Preferably drink white wine with fish.’

b. *Straks sæt dig ned.

‘Sit down immediately.’

c. *Hurtigt løb til butikken.

‘Quickly run to the store.’

Crucially, Jensen notes that in these ungrammatical examples there is no intonational break, or “comma intonation”, between the adverb and the rest of the clause. If the adverb is separated by a clear pause, it becomes acceptable, but in that case, it is as a parenthetical element, hence not integrated in the functional spine proper.

(198) Swedish

Drick helst, företrädesvis vitt vin till fisken.

‘Preferably, drink white wine with the fish.’

The same reasoning applies to vocatives. For Jensen (2007), vocatives are also introduced with comma intonation and are therefore external to the clause structure. They are not regular subjects in Spec, CP or Spec, IP, but parenthetical elements. A similar distinction is made in Zanuttini (2008), who differentiates between true imperative subjects and proper vocatives. True subjects are structurally integrated into the clause, whereas vocatives are separate elements, marked prosodically and syntactically as parenthetical.

Importantly, Jensen (2007) notices that if adverb are postverbal, instead of preverbal as the examples above, then they may coocur with an imperative:

- (199) Drick helst / fcireträdesvis vitt vin till fisken. (Swedish)
 drink.IMP preferably white wine to the fish
 ‘Preferably drink white wine with the fish’

Jensen (2007) further shows that adverbs are fully acceptable in postverbal position in Scandinavian imperatives. Consider the following examples:

- (200) Swedish
 Lämn oartigt rummet (och ring inte tillbaka).
 ‘Impolitely leave the room (and do not call back).’
 b. Swedish
 Ring snabbt polisen.
 ‘Quickly call the police.’
 c. Danish
 Drik helst hvidvin til fisk.
 ‘Preferably drink white wine with fish.’
 d. Danish
 Sæt dig straks ned.
 ‘Sit down immediately.’
 e. Swedish
 Så ställ dig där borta!
 ‘Then stand over there!’
 f. Danish
 Løb hurtigt til butikken.
 ‘Quickly run to the store.’

These data indicate that the imperative verb moves out of the vP, as is independently expected in Mainland Scandinavian. However, they do not show that the verb raises as high as C, unlike what happens in other clause types under a standard V2 analysis. If the verb moved to C in imperatives as well, we would expect the specifier of CP to be available for fronted constituents such as predicative adverbs. The fact that

preverbal manner adverbs are excluded suggests that this position is not accessible in imperatives, and rather the imperative verb raises to I, instead of C.

Since in the literature on Scandinavian languages negative fronting has often been discussed alongside adverb preposing (Holmberg and Platzack 1995, *inter alia*), Jensen (2007) examines this phenomenon as well. Negation in these languages is assumed to be an XP, since negation does not block verb movement and, in some dialects, can be indeed fronted. Observe how certain varieties of Swedish and Norwegian allow negative fronting in declaratives:

- (201) a. Inte köpte Johan den.
 ‘John did not buy it.’
 b. Inte vet jag var hon bor.
 ‘I do not know where she lives.’

Danish, however, does not permit this pattern:

- (202) *Ikke ved jeg hvor hun bor.
 ‘I do not know where she lives.’

Taking these data into account, Jensen (2007) claims that the same should apply to imperatives, if a CP position were available in their structure. This prediction is not confirmed. In Danish and Swedish, imperatives with clause initial negation are clearly ungrammatical. By contrast, postverbal negation is fully grammatical:

- (203) a. *Ikke løb. (Danish)
 b. *Inte spring. (Swedish)
 NEG run.IMP
 ‘Do not run.’
 (204) a. Løb ikke. (Danish)
 b. Spring inte. (Swedish)
 run.IMP NEG
 ‘Do not run.’

[Examples from Jensen 2007, p. 174]

Norwegian appears at first sight to be different, since negative imperatives of the type *negation > verb* are possible:

- (205) Ikke spring!
 ‘Do not run!’

However, Jensen (2007), following previous work of hers (2003), argues that this does not involve ordinary negative fronting to Spec, CP. Instead, Norwegian is claimed to have two homophonous negative elements, and the one used in these imperatives is a special imperative negation. Additional evidence comes from variation among speakers and from the interaction between negation and adverbs, which does not pattern like regular declarative clauses.

Jensen (2007) also considers claims in Platzack and Rosengren (1998) that topicalised imperatives in German support a CP analysis. While examples such as the following are reported:

- (206) ??Die Waffen lasst liegen!

‘Leave the weapons behind!’

Jensen notes that such cases are marked and require a strong contrastive interpretation. Comparable structures are clearly ungrammatical in English and in Mainland Scandinavian, and the same is observed by Koopman (2007) in Dutch:

- (207) *The weapons leave behind!

- (208) *There don’t go!

On these grounds, Jensen (2007) highlights that imperatives in Mainland Scandinavian do not behave like full CP clauses.

A further argument in favor of an IP analysis comes from the behavior of preverbal clausal adverbials in MSc imperatives. As Jensen (2007) shows, clausal adverbials are licensed preverbally in MSc imperatives, as illustrated in (209) and (210):

- (209) a. Så snart glasset er fuld, sæt det på bordet. (Danish)

- b. Så snart glaset är fullt, sätt det på bordet. (Swedish)

(‘As soon as the glass is full, set it on the table.’)

- (210) a. Efter du har spist maden, sæt tallerkene på plads. (Danish)

- b. Efter att du har ätit maten, sätt tallrikarna på plats. (Swedish)

(‘After you have eaten the food, put the plates where they belong.’)

Unlike predicative adverbs, clausal adverbials adjoin to IP rather than to CP. This is demonstrated by two pieces of evidence: first, they cannot precede a V2 element in a main clause, as shown in (210); second, they cannot precede that in main or embedded clauses, as shown in (211)-(212):

- (211) a. *Så snart glasset er fuldt, han sætter det på bordet. (Danish)

- b. *Så snart glaset är fullt, han sätter det på bordet. (Swedish)

(‘As soon as the glass is full, he puts it on the table.’)

*When she moved to the city that she could actually get a job was amazing.

- (212) a. *He promised when he got home that he would cook dinner for the children.

- b. *She swore after she finished her thesis that she would move to Paris.

- c. *It seems while washing the dishes that he cut his thumb.

Since clausal adverbials adjoin to IP and are admitted preverbally in MSc imperatives, it follows that the imperative verb must be in I^o, below C^o.

Summarizing, Jensen (2007) presents three arguments against a CP analysis of imperatives. First, proposition-taking adverbs are illicit in imperatives, suggesting imperatives do not build enough structure to form a proposition, which is associated with the C-domain. Second, fronting operations available in declarative clauses, topicalization of adverbs, negation, and DPs, are all prohibited in Mainland Scandinavian imperatives, indicating that the C-domain is inert in these clauses. Third, preverbal clausal adverbials, known

to adjoin to IP, are admitted in MSc imperatives, confirming that the imperative verb raises to I° but not to C° . Jensen concludes that an IP analysis is both more minimal and empirically adequate and puts forwards the hypothesis that no process or mechanism associated with the CP layer should be found in imperatives.

Moving on to another analysis, **Ershova (2017)** proposes that in reflexive-causative imperatives in Kabardian, the morpheme *ɤe-* is an overt realization of an imperative mood head located in the vP periphery. This suggests that at least some imperative features are encoded low in the clause rather than in a high functional projection.

Other notable vP analyses of imperatives are worth mentioning here, as they broadly follow the same theoretical spirit as those discussed above. Beukema and Coopmans (1989) argue that English imperatives remain within the VP. Moreover, Potsdam (1998, p. 340) notes that generative proposals treating imperatives as “VPs or other reduced clause types” include Schmerling (1982), and further observes that Henry’s (1995) analysis of imperatives in a Belfast dialect of English profitably employs a VP internal representation for the subject. Finally, it is worth noting that Emonds, whose work was discussed in section 1.3.2 and who was among the first to treat imperatives as structures involving a dedicated transformation, does not explicitly argue that imperatives raise to C. This is unsurprising given that the theoretical framework available at the time did not yet include the fine-grained articulation of functional heads of subsequent generative work.

1.3.6 Interim Summary

Overall, the prevailing tendency in the generative literature is to assume that the imperative verb raises to C. However, a smaller but significant set of analyses argues that imperatives involve movement to a lower structural position, whether within the IP layer or the vP periphery.

With respect to the morphologically impoverished nature of imperatives, different explanations have been proposed. In some accounts, this impoverishment is captured through the absence of specific functional projections within the clausal spine. In others, the entire IP layer, together with FinP, is assumed to be missing. In yet other approaches, as in Rivero (1994b) and Rooryck (1992), the reduced morphology of imperative clauses is treated as a descriptive property and is not derived from a specific structural analysis.

As noted by Di Domenico (2004), two main families of analyses can be identified. The first treats imperatives as structurally parallel to declaratives, with the only difference being verb movement to C (Rooryck 1992; Rivero 1994b; Rivero and Terzi 1995; Potsdam 1995; Zanuttini 1997). The second goes further, proposing that Fin and part of the IP layer are absent (Platzack and Rosengren 1997), or that Tense and Agreement projections are radically empty (Belletti 1999). Di Domenico adopts this second perspective. The proposal advanced in Zanuttini et al. (2012) can be regarded as intermediate: imperatives involve a dedicated Jussive head to which the verb moves, a head that may bundle together features typically associated with T, thus functioning as a complex feature bundle that reconceptualizes rather than eliminates the inflectional layer.

A further line of research, represented by Rivero (1994b) and Rivero and Terzi (1995), locates the imperative feature in I rather than C, arguing that in languages such as Bulgarian, Serbo-Croatian, and Ancient Greek, imperatives do not involve a dedicated syntactic configuration and share their structure with other verbal forms, with morphology playing a more prominent role than syntax in encoding imperative meaning.

Finally, analyses in the vP periphery tradition, including Shlonsky (2004), Jensen (2007), Rupp (1999, 2003), Beukema and Coopmans (1989), and Ershova (2017), propose that imperatives are structurally truncated, consisting of a vP with only the minimal projections required by the cross-linguistic properties

of these clauses. Jensen (2007) provides empirical support for this view from Mainland Scandinavian, showing that proposition-taking adverbs, fronting operations, and the distribution of clausal adverbials all point to the conclusion that the imperative verb raises to I but not to C, and that the CP layer is absent in imperative clauses. Following Rupp (1999, 2003), Jensen adopts a minimalist stance according to which only the projections that are necessary are present in imperative clauses. Although Jensen does not specify precisely which functional projections are included, the overall architecture of their account is one in which the imperative verb raises to I while only the indispensable structure is projected above vP. In this sense, despite Jensen's own terminological choice of IP approach, her analysis is more transparently characterized as a vP periphery account.

1.3.7 A Theoretical Benchmark

This section presents a theoretical benchmark of the main syntactic analyses of imperatives proposed in the generative literature discussed in this section.

The term BENCHMARK is used here to refer to a comparative mapping of existing proposals on imperatives, with the goal of making explicit both their empirical and theoretical coverage, as well as their limitations.

Table 5: Benchmark summarizing main theoretical proposals on the (morpho)syntax of imperatives, presented in chronological order. Proposals are further grouped according to the locus of the imperative in the functional spine. organizes the literature according to the proposed locus of imperatives in the clausal architecture (CP, TP, vP-periphery), the type of theoretical approach adopted, the languages and empirical domains covered, and the main phenomena each proposal aims to account for, and the limitations.

Although the primary focus of this dissertation is on syntactic theory, typological and semantic approaches are included in the benchmark to the extent that they provide crucial cross-linguistic generalizations and empirical constraints that any descriptively and explanatorily adequate syntactic analysis must ultimately address and take into account.

In this light, the notion of 'limitations' adopted in Table 5: Benchmark summarizing main theoretical proposals on the (morpho)syntax of imperatives, presented in chronological order. Proposals are further grouped according to the locus of the imperative in the functional spine. is to be understood relative to the specific goals of the present work, which is primarily concerned with syntactic theory. Therefore, works that do not pursue a formal generative analysis or that are framed within typological or semantic approaches are not evaluated negatively: the absence of a formal syntactic derivation or of a generative framework when reported is intended as descriptive property in the framework of this thesis on syntax, rather than as a shortcoming *per se*.

The theoretical benchmark will be expanded in subsequent chapters, first with acquisition evidence in Chapter 2, then with theoretical proposals in Chapter 3, and finally with novel empirical evidence and acquisition data on infinitival imperatives in Chapter 4¹⁶.

¹⁶ Following the tradition of computational linguistics, and thanks to discussions and collaborative work with Cristiano Chesi on Italian minimal pair benchmarks (Bressan et al., forthcoming), benchmarks are particularly valuable also because they are always expandable, as mentioned. Should any proposals have been overlooked, this shortcoming is entirely due to the author of this dissertation and unintentional. The author will be glad to update the benchmark with any relevant past or future proposals that may have been missed.

Author (Year)	Locus proposed	Theoretical Framework	Languages	Key Phenomena	Main Limitations
Emonds (1976)	-	Early generative	English, French	Imperatives as root transformations: non- embeddability, enclisis	Three distinct rules to account for enclisis and reordering of clitics in French; focus on non- embeddability and enclisis only; no account of negative imperatives.
den Besten (1983, first circulated in 1977)	CP	Early generative	French, English, German	Illocutive force, word order, non- embeddability	No discussion of enclisis and ordering of pronouns in French
Rooryck (1992)	CP	Pre- cartographic	Romance (major + minor varieties), Balkan.	Enclisis	Pre-Split CP
Rivero (1994)	CP and TP	Generative, Pre- cartographic	Castilian Spanish (CP) + Serbo- Croatian, Bulgarian (TP, unless 1 st or 2 nd position clitics attract the verb to C)	Enclisis, negative ineffability, non- embeddability, cross-linguistic variation between Romance and Balkan	Pre-Split CP, no account of lack of prototypical subjects and impoverished morphology
Rivero & Terzi (1995)	CP (languages with specialized imperative syntax) and TP (in	Generative, Pre- cartographic	Ancient Greek, Modern Greek, Cypriot Greek, Serbo- Croatian,	Enclisis, Negative Ineffability,	Pre-Split CP, no account of lack of prototypical subjects and impoverished morphology

	Wackernagel languages)		Spanish		
Platzack & Rosengren (1998)	CP (ForceP); lack of FinP, and other projections in the TP layer	Generative, Cartographic (left periphery is assumed)	English, German, Mainland Scandinavian	Lack of prototypical subjects, impoverished morphology, non- embeddability	Stipulative features: [imp] in C (ForceP) and on the imperative verb and [finite] feature on ImpP, i.e. the subject
Potsdam 1998	CP	Generative, Cartographic (left periphery is assumed)	English	Detailed empirical description of the imperative in English, especially imperative subjects	Pre-Split CP, treatment of imperatives as other clause- types as the work is limited to English only
Belletti (1999)	CP, Imperative Criterion in CP, no explicit commitment to a precise CP functional projection	Generative, Cartographic (left periphery and criterial positions are assumed)	Italian mostly, French	Phonological truncation in 2 nd person imperatives, non- embeddability, impoverished morphology, interpretation, person restrictions	Intermediate TP projections are present, but empty, to satisfy the HMC, no mechanism of how that is yielded is proposed
Di Domenico (2004)	CP, with the possibility of vP periphery	Generative, Cartographic	Italian, Standard English, Belfast English, German	Most core properties, especially root nature, impoverished morphology, information structure	Does not commit to a specific landing site for the verb, either in CP layer of vP periphery
Jensen (2007)	vP periphery	Generative, Cartographic	English and Mainland Scandinavian	Non- embeddability, adverbs	Limited empirical scope, no discussion of Romance nor interface with semantics

Aikhenvald (2010)	—	Typology	Extremely broad typological sample	Cross-linguistic distribution of imperative forms; privileged status of morphologically impoverished 2sg imperatives	Impressive amount of data, no in depth theoretical discussion: it is a typological study
Zanuttini et al. (2012)	CP/High TP	Syntax, Minimalism, Semantics	English, Korean, Italian, Bhojpuri	2 nd person restrictions on null subjects, NP subjects, quantificational subjects; semantics of imperatives	No discussion of non- embeddability, negative imperatives, overgenerates modals and auxiliaries and TP elements that are absent in imperatives

Table 5: Benchmark summarizing main theoretical proposals on the (morpho)syntax of imperatives, presented in chronological order. Proposals are further grouped according to the locus of the imperative in the functional spine.

1.4 ISSUES AND GAPS IN THE LITERATURE

After a review of the literature on imperative clauses, it is now possible to identify the issues that emerge and the gaps that remain to be addressed. Such issues and gaps will be considered one by one, before moving on to the next Chapter.

1.4.1 Historical and Quantitative Gap

An issue recurrently noted in the literature is the **relatively less attention provided to imperatives within syntactic theory compared to declaratives and interrogatives**. As observed at least since Davies (1986), and reiterated more recently by Floricic and Molinu (2012) and Potsdam and Edmiston (2015), imperatives have received less attention in the syntactic literature than declaratives and interrogatives, and are often treated only partially or as a secondary concern within broader discussions. This observation holds despite the existence of several influential and seminal studies specifically devoted to imperatives, including monographs and entire chapters in relevant work (Potsdam, 1998; Rupp, 2003; van der Wurff, 2007; Zanuttini, 1997). Importantly, despite publication of more recent comprehensive monographs explicitly dedicated to imperatives (Aikhenvald, 2010, 2017 in typology; Alcázar & Saltarelli, 2022; Isac, 2015 on morphosyntax, Kaufmann, 2012 on semantics, *inter alia*), and dedicated chapters (Giurgea & Remberger, 2016; Portner, 2016) this imbalance remains.

A keyword-based search in Google Scholar (“imperative syntax”, “interrogative syntax” “declarative sentences syntax”) supports this impressionistic view by the above-mentioned authors, even though a full bibliometric analysis awaits further research.

The keyword-based search was conducted in Google Scholar in order to obtain an indicative measure of the relative volume of syntactic research devoted to different clause types. When quotation marks were used to restrict the search to exact expressions, “interrogative syntax” returned $\approx 1,180$ results, whereas “imperative syntax” yielded ≈ 614 results. Searches without quotation marks produce substantially larger numbers overall, but are affected by terminological noise. In particular, the term declarative is often omitted when referring to declaratives, which plausibly accounts for the comparatively lower number of results for queries such as “declarative sentences syntax” ($\approx 112,000$ results). Queries such as “declaratives syntax” (plural) and “declarative syntax” (singular) are both problematic because the first yields only 7 results when used with quotation marks, and when not searched for with quotation marks, the search engine assumes the user is looking for “declarative syntax”. That is a different notion, i.e. a different approach to syntax compared to Minimalism and Cartography which will not be discussed here.

Further evidence for the relatively limited attention devoted to imperatives in syntactic research of imperatives comes from the **historiography of linguistics**. Notably, in Graffi’s (2019) monumental “*Due secoli di pensiero linguistico*”, imperatives do not even appear as a thematic entry in the index. In his “*Two Hundred Years of Syntax*” (Graffi, 2001) only very limited space is devoted specifically to imperatives. This is by no means a limitation of Graffi’s works, which are impressive in scope and depth; rather, it reflects a more general gap in the field. There appears to be still **no historical perspective devoted exclusively to the imperative**. Imperatives have never, to the best of this author’s knowledge, been the object of a dedicated historical reconstruction: they appear only sporadically, often as marginal or ancillary cases within broader discussions of mood, modality and sentencehood, rather than as a clause-type whose historical theoretical treatment is traced in its own right.

The relatively more limited attention devoted to imperatives in syntactic research compared to other phenomena is also plausibly connected to intrinsic properties of imperatives themselves. Imperative clauses are often short (in a pre-theoretical sense) and, crucially, they resist embedding. As a consequence, **imperatives systematically escape a range of standard syntactic diagnostics that rely on embedding configurations, such as island tests or tests based on Relativized Minimality** (Rizzi, 1990). Since nothing may move above the imperative layer, imperatives provide fewer opportunities for investigating syntactic properties through displacement of constituents. This may have further contributed to their underrepresentation in syntactic theory.

1.4.2 Theoretical Gap in CP Analyses

Secondly, there is a temporal and theoretical gap in the generative literature. **Much work on imperatives is antecedent to the cartographic enterprise and the elaboration of the CP domain (Rizzi, 1997; subsequent cartographic studies). As a result, classical CP proposals envisaging only one projection in CP may no longer fully align with contemporary syntactic theory.** As a result, many classical CP analyses risk becoming what Moro (2016) metaphorically describes as “dead stars”: analyses that continue to illuminate the field despite no longer being compatible with current theoretical assumptions and empirical findings on the rich array of functional projections in the clausal spine (end empirical data, see §1.4.5).

This assumption appears to reflect longstanding ideas that have not been fully updated in light of the now widely recognized split left periphery (Rizzi, 1997; Rizzi & Bocci, 2017). It is clear from both cartographic research and broader syntactic theory that more than a single functional projection exists, and analyses that impose a simple Complementizer Phrase on imperatives risk oversimplifying their actual syntactic behavior.

As an illustrative case, in Rivero (1994b), the idea that imperative V must move to C is intended to capture the root character of so called true imperatives in a way parallel to classic V2 analyses. Since C is a legitimate landing site for verb movement in root clauses but not in embedded ones, she argues the proposal derives the restriction of true imperatives to root contexts. Surrogate imperatives, by contrast, do not involve verb movement to C and are therefore able to occur in embedded environments. The same assumption also explains the availability of emphatic root imperatives introduced by the complementizer *que*.

However, this line of reasoning crucially relies on the pre-cartographic view of C. Once one adopts an articulated or exploded left periphery in the sense of Rizzi, with multiple functional projections within the CP domain, the argument weakens: if there are several distinct C positions, verb movement to some C related head no longer guarantees roothood *per se*.

The limitations of pre-cartographic C analyses is one of the motivations behind the present dissertation, which investigates the morphosyntax of imperatives within a contemporary cartographic and minimalistic framework.

1.4.3 Morphological and Feature-related Issues

As seen in §1.3.3, Platzack and Rosengren (1998) argue that imperative clauses differ from declaratives and interrogatives in two main ways. First, they are marked by the clause-type feature [imp], which is also present on the imperative verb. Second, imperatives lack TP, MoodP, and FinP. Together, these properties make imperative clauses the most marked clause-type, in contrast to declarative and interrogative clauses.

However, this claim appears to contrast with acquisition data, where imperatives are frequent and acquired early (see Chapter 2). In the analysis proposed in this thesis (Chapter 3), the situation is reversed. Despite their strong illocutionary force, imperatives seem to be the least marked clause type if “less marked” is understood as easily learnable, frequently used, and morphologically meagre. Platzack and Rosengren (1998) do not provide further clarification on their notion of markedness.

A further issue concerns the status and distribution of the features involved. In their system, clause type is encoded by a dedicated [imp] feature in C (ForceP), which is also realized on the imperative verb. They assume that [imp] is the formal exponent of imperative clause type. Under this assumption, however, broader questions about the feature system in clause-types as a whole are immediately raised. Declaratives are specified as [−wh], and interrogatives are characterized by [+wh] in their system. If imperatives are marked by [+imp], what would the negative value of this feature correspond to? The absence of a clear [−imp] clause-type suggests that the feature-based approach may be stipulative, unless [−imp] constitutes some kind of paradigmatic gap, which nonetheless would still call for an explanation.

There are alternative accounts in the literature that derive imperative force configurationally and compositionally without an [imp] feature as such, notably Portner (2007) and Zanuttini et al. (2012). The latter work still utilizes features, but number features on the imperative subject, deriving the restrictions of imperative subjects, instead of a [finite] feature on the subject. This weakens the necessity of positing an [imp] feature in the first place.

This raises a broader question: is imperative clause type best analyzed in terms of dedicated features, or can it be derived from structural configuration alone? Or a hybrid, but parsimonious approach is required?

A related problem involves intermediate projections and the realization of impoverished morphology. According to Belletti (1999), intermediate functional heads are present but inactive, allowing clitics to pass through, whereas Platzack and Rosengren (1998) assume them to be absent. In Rivero (1994), this issue is

not taken into account at all, despite her discussion on Spanish, a language which presents indeed morphologically meagre imperatives.

Moreover, CP based analyses raise another non-trivial conceptual problem. The imperative morphology that is claimed to reside in C is often not overtly realized and appears, in many systems, to be morphologically impoverished (or a zero morpheme, or a thematic vowel). This makes the postulation of agreement features in C° appear somewhat *ad hoc*, especially given that imperatives typically lack the rich agreement distinctions found elsewhere in the verbal paradigm. One might even question whether imperatives truly instantiate agreement at all, unless one assumes agreement with a zero morpheme.

From a more contemporary perspective, this analysis can be seen as a precursor to approaches that locate the defining properties of imperatives not in agreement morphology *per se*, but in a dedicated jussive head (Zanuttini 2008, Zanuttini et al. 2012). Such a head primarily encodes person-related restrictions on subjects, rather than directly supplying morphological material. Under this view, the emergence of imperative morphology would follow indirectly from the interaction with the person constraints (ensuring that the subject of an imperative is the addressee), rather than from overt agreement features in C. How exactly imperative morphology surfaces, as opposed to indicative or subjunctive morphology, remains an open question and requires to take a stance on a theory of verb movement and morphological realization, of the sort developed in later work such as Roberts (2019) and Schifano (2018) even though imperatives are not their primary focus.

1.4.4 Cross-Linguistic and Typological Considerations

Cross-linguistic data reveal considerable variation in both morphological marking and syntactic properties of imperative clauses. Typological surveys of positive and negative imperatives (van der Auwera et al., 2013; Aikhenvald, 2010) show that imperatives may be realized through dedicated particles, morphological markers, special clitics, or periphrastic constructions. These patterns indicate that imperative clauses exhibit a structural heterogeneity, which is not yet fully captured in existing formal analyses. As challenging as it sounds, looking at typological data is beneficial.

In fact, for the purposes of this dissertation, the focus will be on the substantial portion of these imperatives (approximately one third of the languages in Aikhenvald's (2010) typological sample) that display an impoverished morphological form. This suggests that such imperatives may constitute a special class, and any comprehensive analysis of imperative syntax must explicitly account for them.

Indeed, the special status of second-person singular imperatives emerges both cross-linguistically and in diachronic considerations too. Aikhenvald (2010) discusses how imperatives are more stable over time than other verbal forms, suggesting that not only morphologically, but also on a structural level there might be something differing compared to other verbal forms, if one follows Roberts and Russou's formal approach to grammaticalization (1999).

Another factor to consider is the following: Rivero and Terzi (1995) provide a typological framework distinguishing two types of languages based on syntax. In Type I languages, imperatives display distinctive syntax, as incompatibility with embedding. The authors analyze this as involvement of the CP layer in the structure, via verb movement to C. Spanish and Modern Greek are examples of this type. In Type II languages, imperative clauses share the same syntax as non-imperative clauses, as exemplified by Ancient Greek. The authors argue that in Type I languages, C bears a strong feature that drives movement, whereas in Type II languages it does not. These typological distinctions highlight the importance of taking cross-linguistic variation into account in syntactic models of imperatives (see §1.3.4 for discussion of their analysis and other traditional CP-based proposals).

If one assumes simply verb movement to C, a remaining challenge is how to account for intermediate cases, such as suppletive imperatives: these forms often exhibit more morphological material, may allow negation, but still resist embedding and may not cooccur with modals and auxiliaries. In this sense, they display a hybrid syntax, combining features of both Type I and Type II imperatives, which remains to be challenging.

Finally, the special status of second-person singular imperatives is also reflected in their cross-linguistically attested morphological impoverishment. Typological and diachronic studies show that imperative forms tend to be more conservative than other parts of the verbal paradigm: they frequently preserve older morphological patterns even when these disappear elsewhere. For instance, Aikhenvald (2010) notes that imperative forms may retain ergative-absolutive case marking long after it has been lost in the rest of the verbal system, and more generally exhibit a higher degree of diachronic stability. The persistence of such conservative morphological properties, together with the recurrent tendency toward morphological minimality, constitutes a cross-linguistic pattern that remains to be accounted for.

1.4.5 Empirical Tension from Language Acquisition and Language Degeneration

The uneven distribution of attention to imperatives, compared to other clause types, is observable not only within theoretical and comparative syntax, but also in domains such as language acquisition and language degeneration. While imperatives are by not completely absent from these areas of research, their treatment remains relatively sporadic and rarely central. This suggests that imperatives remain underexploited as a testing ground for hypotheses concerning clause structure and its development or erosion over the lifespan (p.c. Cristiano Chesì).

A particular tension arises from language acquisition data. Imperatives are frequent and acquired early in both first and second language acquisition, which appears to contrast with high-structure proposals that assume a full CP layer or rich functional projections. This empirical evidence raises questions about whether the CP structure posited in many theoretical analyses is required for early-acquired imperative clauses.

In addition, studies on language degeneration are still limited. Although some research addresses the behavior of imperatives in aging or impaired populations, these phenomena have received relatively little attention, leaving substantial room for further investigation.

Summing up, these observations point towards the need to reconsider the structure of the CP in imperative clauses, particularly in light of acquisition and degeneration data. The novelty of the present dissertation lies in explicitly integrating acquisition evidence into the analysis of imperative syntax, an approach that has not been pursued in much previous research.

1.4.6 Open Questions and Directions for Next Chapters

Despite stimulating research in the realm of imperative clauses, several open questions remain.

One critical issue concerns the overgeneration of structures in existing analyses. For example, Zanuttini et al. (2012) propose a jussive head (T-Jussive) to account for various imperative properties. Despite the richness of their analysis, which also provides an account for promissives and exhortatives, a conceptual challenge remains. If T moves to Jussive, it is unclear why certain auxiliaries or modals cannot raise to T-Jussive in some contexts (for example, **must help me!*). The authors note that the jussive head might alternatively be interpreted as a modal or a speech-act phrase, following other theoretical proposals. Nonetheless, this does not fully clarify the conditions under which some elements can or cannot occupy T-Jussive. This represents an open question in current analyses.

Another gap concerns the position of the imperative in Italian. vP accounts exist, but they are the minority compared to CP analyses, and they do not integrate acquisition data (Di Domenico, 2004). Similarly, updates to Rivero's (1994) work are needed to account for the left-peripheral structures she investigates in Spanish, translating her approach to a Split-CP view. Integrating these perspectives may shed light on how imperatives interact with functional projections in the CP and on the nature of intermediate or mixed cases, such as suppletive imperatives.

In addition to these last questions, the key issues and questions highlighted in the preceding sections are the following:

- (G) How to account for the morphological impoverishment of true imperatives and the hybrid syntax of suppletive ones?
- (H) [imp] feature approach versus configurational approaches: which has more empirical and theoretical coverage? In other words, is CP needed in imperatives?
- (I) What can the special status of second-person singular imperatives in the cross-linguistic and diachronic dimension tell us about their syntax?
- (J) Can empirical tensions from early acquisition and limited data on language degeneration inform us on the syntax of imperatives?
- (K) Is it possible to account for all the empirical restrictions in §1.3 while also deriving the sentential force of imperatives?

1.4.7 Conclusions

The present chapter has discussed the empirical and theoretical background necessary for the investigation of imperative clauses.

The discussion began with the question of how imperatives should be defined. The literature reveals that different approaches have emphasized distinct aspects of imperative constructions; consequently, the definition of imperatives partly reflects these theoretical orientations. In the present study, the imperative is treated as a clause type, and the analysis focuses primarily on its morphosyntactic and semantic properties (Zanuttini et al., 2005). The definition in (36) was therefore adopted, repeated below:

- (213) **an imperative is a clause-type whose morphosyntax is conventionally and robustly associated with a directive sentential force, in that the speaker seeks to bring about a particular action by the addressee.**

The chapter then turned to typological evidence in order to examine how imperatives behave across languages. Cross linguistic data reveal that a substantial portion of imperative forms are morphologically impoverished. Approximately one third of the languages surveyed in typological studies display imperative forms that correspond essentially to the verbal root, occasionally accompanied by a thematic vowel. Moreover, even in languages that permit periphrastic strategies for the formation of imperatives, certain elements of the periphrastic construction may be omitted. The result is a reduced form that closely resembles what has been described as 'short' or 'brief' imperatives. These patterns point toward a recurrent cross linguistic tendency toward morphological minimality in imperative morphology.

The discussion then moved to the morphosyntactic properties of imperatives, drawing on empirical evidence reported in the literature. As anticipated in the typological overview, imperative forms are

morphologically meager. A distinction must therefore be drawn between true imperatives and suppletive imperatives. True imperatives, in the sense of Zanuttini (1997), correspond to fully impoverished forms, typically associated with the second person, either singular or plural depending on the language. Suppletive imperatives, by contrast, involve forms whose verbal morphology is borrowed from other tenses within the verbal paradigm. This distinction is not only morphological but has reflexes in the syntax; notably, true imperatives cannot be negated in Italian, while suppletive imperatives allow negation.

Several additional morphosyntactic restrictions were also discussed. Imperatives are generally incompatible with auxiliaries and modal verbs. Furthermore, unmarked imperatives lack tense: they are incompatible with past tense morphology and receive a default temporal interpretation. Their aspectual value has often been described as *irrealis*, referring to events located right after speech time or projected into the future. Imperative clauses may co-occur with vocatives, which mark the addressee explicitly.

Verb class restrictions also emerge. Imperatives typically require an agentive predicate and are therefore usually incompatible with stative verbs. These constraints reinforce the view that imperative clauses encode a directive relation between speaker and addressee, which presupposes the presence of an agent capable of performing the commanded action.

A further issue that has received considerable attention in the literature concerns clitic placement. In Romance languages, and in several unrelated languages as well, imperatives systematically trigger enclisis. Another well-known property concerns negation. True imperatives, in the sense defined above, cannot generally be negated; in many languages a suppletive form must be used instead. Moreover, imperatives resist embedding and are incompatible with interrogative force. Accordingly, they cannot co-occur with *wh*-elements. Finally, certain adverbs are excluded in imperative contexts; for instance, evaluative adverbs such as *surprisingly* are typically infelicitous in imperative clauses.

The second part of the chapter reviewed the main formal analyses proposed in the generative literature. A central issue concerns the position targeted by the verb in the derivation of imperatives and, more broadly, which portion of the functional spine is involved. The question is theoretically significant because distinct positions within the functional hierarchy are associated with different grammatical properties. The discussion began with early proposals in generative transformational grammar, such as the analysis developed by Emonds (1976). Subsequently, higher analyses were examined in which imperative clauses involve the CP layer. Alternative proposals locate imperatives within the TP domain. Considerably fewer analyses assume that imperative properties originate in the vP periphery. For clarity, the chapter concluded with a benchmark table summarizing the predictions and empirical coverage of these different approaches.

The main empirical, theoretical issues and gaps raised by the literature were summarized in the preceding section. With these in mind, the next chapter will address a further problem, namely the tension between high CP analyses of imperatives and the evidence provided by acquisition data. In particular, the patterns observed in Italian acquisition suggest developments that are not readily compatible with analyses that locate imperatives in the CP domain.

Chapter 2 – The Acquisition of Imperatives in Italian

2 THE ACQUISITION OF IMPERATIVES IN ITALIAN

In Chapter 1, it was anticipated that acquisition data would be brought into the discussion on the syntax of imperatives. The present chapter specifically addresses whether first language acquisition data support a configuration of imperatives involving the CP layer, the TP layer, or the vP periphery, and more broadly, how children deal with imperative structures in development. The aim is to provide a structural analysis of imperative clauses that takes learnability into account and is as explanatorily adequate as possible.

The chapter presents empirical data on Italian imperatives in acquisition. Two types of imperatives are examined: positive imperatives, building on and extending Rossi (2023)¹⁷, and infinitival imperatives, namely negative imperatives, generic imperatives, and *a*-Imperatives. Infinitival imperatives have not been previously investigated from an acquisitional perspective, and the present chapter constitutes the first systematic presentation of empirical evidence on the matter. The chapter is therefore aimed both at reanalyzing the data on positive imperatives in a new theoretical light and at filling the empirical gap on infinitival imperatives, bringing the two together for the first time.

For positive imperatives, acquisition data reveal a tension with the proposals that imperatives move to C. This tension emerges along three main axes. The first concerns the timing of imperative acquisition relative to the development of the functional spine. Under the Growing Trees approach (Friedmann et al. 2021), the CP layer is available only after the vP and IP layers are in place. Yet positive imperatives appear very early in child production, with impoverished morphology, at a point when the CP layer has not yet been acquired. This is in direct tension with analyses that locate the imperative verb in Force or other high left-peripheral positions.

The second axis concerns the overproduction stage documented by Salustri and Hyams (2003, 2006), who show that imperatives are overproduced around age 2 to 3 in non-target contexts, in a pattern parallel to the overproduction of root infinitives at the same age and at comparable rates. Root infinitives have been analyzed as truncated structures lacking the CP layer (Rizzi, 1993/1994), yet imperatives are traditionally assumed to involve CP. This parallel, combined with the many grammatical properties shared by the two constructions (discussed in section 1.1.2), raises the question of why Italian children prefer imperatives over infinitives, and what structural account can unify the two phenomena.

The third axis concerns the structural configuration assumed for imperatives in most analyses, namely movement to C combined with the absence of intermediate TP projections. In Contemori and Belletti (2014) and Belletti (2024, 2026) this configuration, attested in reduced relative clauses such as *il leone bagnato dalla mamma* ‘the lion wetted by the mother’, emerges very late in typical development, in striking contrast to the early appearance of regular relative clauses. The tension with imperatives arises because a structurally parallel configuration is assumed for them, yet imperatives appear among the very earliest verbal productions.

¹⁷ Sections 2.3 and 2.5 are based on two previous publications of the author of this dissertation, respectively:

- (i) Rossi, S. (2023). Italian/Romance imperatives as radically reduced structures: A CHILDES corpus study. *Rivista Di Grammatica Generativa*, Lingbuzz Press, 45(5), 1–39.
- (ii) Rossi, S., Formichi, G., Neri, S., Sgrizzi, T., Zanollo, A., Bressan, V., & Chesi, C. (2025). Acquisition in Babies and Machines: Comparing the Learning Trajectories of LMs in Terms of Syntactic Structures (ATTTracTSS Test Set). In C. Bosco, E. Jezek, M. Polignano, & M. Sanguinetti (Eds.), *Proceedings of the Eleventh Italian Conference on Computational Linguistics (CLiC-it 2025)* (pp. 1007–1017). CEUR Workshop Proceedings. <https://aclanthology.org/2025.clicit-1.94/>

The corpus study in 2.4 constitutes novel and unpublished empirical evidence, as well as the zoom-in analysis on imperatives in the computational modeling experiments. The original sources are regularly cited in the text when needed.

The chapter also investigates, for the first time, the production of infinitival imperatives in Italian child language. The results reveal a sharp contrast: hundreds of positive imperatives are attested across the corpus data, while infinitival imperatives are virtually absent. Only negative imperatives are produced, and quite rarely; moreover, the negative imperatives attested at times display non-target negation, with children using *no* instead of the target *non*, while the infinitival morphology and clitic placement tend to be correct. This dissociation between the negation form and the imperative structure mirrors what has been observed for root infinitives in Dutch, where children use the anaphoric negation *nee* rather than the regular sentential negation *niet* (Rizzi, 1993/1994). This provides further cross-linguistic support for the grammatical parallelism between imperatives and root infinitives. Generic imperatives and *a*-Imperatives are entirely absent from spontaneous production data. On these grounds, it is argued that seemingly minimal structural differences between positive and infinitival imperatives have significant consequences for early production, a point that syntactic theory must take into account and that will be explored in the following chapters.

Finally, the chapter presents a set of experiments comparing human developmental trajectories with those of Italian Language Models of different sizes, building on Rossi et al. (2025). Following Chesi (2025), computational modeling, carefully combined with experimental and theoretical work, can support and inform linguistic theory. The results show that Language Models follow children's learning trajectories only partially, with the model trained on child-directed speech showing the most consistent alignment with the Growing Trees developmental stages. The present chapter additionally extends that work by examining the perplexity estimates for individual imperative types. The results are consistent with the corpus findings: generic imperatives are the imperative type that language models find least predictable, while true and negative imperatives are the most predictable, converging with the pattern observed in child production data.

The chapter is organized as follows. Section 1.1 identifies the acquisition puzzles that motivate the empirical investigations. Section 1.2 presents the research questions. Sections 1.3 and 1.4 present Corpus Study 1 on positive imperatives and Corpus Study 2 on infinitival imperatives respectively. Section 1.5 presents the language model experiments. Section 1.6 provides a concluding discussion integrating the findings of all three studies. Appendices are provided at the end of the chapter.

2.1 ACQUISITION PUZZLES

At least three main points of tension emerge with the acquisition data if one takes as a starting point the traditional analyses of imperatives, involving movement to C, whether to Force as in Platzack and Rosengren (1998), to a position below complementizers as in Zanuttini et al. (2012), or to other heads in left periphery depending on the proposal (see Chapter 1). Each of these points of tension is examined in turn in the following subsections. They will then be further developed and tested in the corpus studies presented later in the chapter, where the empirical predictions that follow from the competing hypotheses are assessed against spontaneous production data.

2.1.1 The Growing Trees Approach: Late CP, Early Imperatives

The first point of tension, or puzzle, regards the fact that CP layer becomes available to the child in later acquisitional stages, while imperatives are acquired very early. The puzzle will be discussed in detail.

Starting from the late acquisition of the CP layer, or more accurately, acquisition of structures *involving* the CP layer, the first, seminal work that has inspired this very dissertation and subsequent work, is Friedmann et al. (2021).

The fact that not all constructions are immediately available to the child is, of course, a well-known pattern in language acquisition (Guasti, 2017). Indeed, a body of work from the 1990s onwards has been proposed that accounts for this within a maturational perspective, notably Radford (1988, 1990). As summarized in Friedmann et al. (2021), several proposals have been put forward: a lexical stage before a functional one (Radford, 1988); a stage with VP only (Guilfoyle & Noonan, 1992; Lebeaux, 1988; Platzack, 1990; Radford, 1990, 1996); a stage with VP and a further single functional projection above it (Clahsen, 1990; Clahsen et al., 1993, 1996). Moreover, Armon-Lotem (2008) also suggested maturation in a bottom-up fashion in the acquisition of IP and further categories.

This means that the child's grammar progressively converges toward the target grammar in maturational steps. The Growing Trees approach (Friedmann et al., 2021) builds on such works, offering extensive empirical coverage in Modern Hebrew. As it will be discussed below, a number of subsequent work extended the same or similar findings also to other languages, as summarized in Belletti et al. (forthcoming).

The Growing Trees approach is based on experimental and corpus work by both Friedmann and Reznick (2021) and Friedmann et al. (2021). As mentioned above, these two studies take into account Modern Hebrew. In Friedmann & Reznick's (2021), the following data were obtained:

- (i) results from a *sentence repetition task* (60 monolingual, typically-developing children (age 2;2–3;10);
- (ii) results from a corpus study of spontaneous production of 61 children (age 1;6–6;1), recorded once in a *cross-sectional* modality;
- (iii) results from *longitudinal* data from 5 children belonging to the cohort of the cross-sectional study.

In Friedmann and Reznick (2021), the authors hypothesize that the patterns observed in the results, namely which structures emerge earlier and which later, may be attributed to movement properties; more specifically, A vs. A' movement, with structures involving A' movement being acquired later than those involving only A movement.

Friedmann et al. (2021) take into account the data in Friedmann and Reznick (2021), adding further longitudinal spontaneous production from 9 children. The interested reader is referred to Friedmann et al. (2021, appendix A) for further details.

According to the Growing Trees approach (Friedmann et al. 2021), acquisition of syntactic structures proceeds in maturational stages, as the previously quoted studies had already proposed. The novel contribution of the Growing Trees Approach lies in the link between the maturation of the grammar and the cartography of the functional spine as it has been developed over the last decades (Rizzi 1997; Cinque 1999; Rizzi & Cinque 2010; Belletti 2004; Belletti 1990).

More specifically, the cartography of the functional spine offers a way to capture the progressive, stage-wise acquisition of a series of syntactic structures involving different portions of the syntactic tree, as will be illustrated below.

Building on Rizzi's (1997) and Rizzi & Bocci's (2017) account of the Italian left periphery, the authors extend that approach to the analysis of the Modern Hebrew left periphery, adopting the functional sequence in (214). See also Belletti et al. (forthcoming) for discussion. The full labels of each functional head are given in (215), whose correspondence to specific syntactic structures will be discussed below.

(214) Force > Int > Top > Q > Mod > Fin

(215) Force = Force Phrase

Int = Interrogative Phrase

Top = Topicalized Phrase

Q = Questions/Focalization Phrase

Mod = Modifier Phrase

Fin = Finiteness Phrase

Given this account of the left periphery in Modern Hebrew, one is now in a position to look at what the data reveals. **Robustly, across all children, the appearance of various kinds of syntactic structures follows the same order. Such order can be captured in terms of three main stages, plus a fourth one that will be discussed below. Crucially, these stages naturally follow the shape of the functional spine.**

Proceeding in a bottom-up manner, and therefore consistently, in broad terms, with previous maturational proposals such as Radford (1990), the first stage comprises structures involving vP and the IP layer. Then, the lower portion of the left periphery becomes available: this portion starts from Fin, the lowest head of the left periphery, and progressively extends upward to include Q and Mod. Finally, the last stage reaches the full syntactic tree, as the remaining and highest projections of the left periphery, namely Top, Int, and Force, also become available to the child. Importantly, availability of a portion of the syntactic tree signifies that structures involving the above-mentioned portions of the tree appear in spontaneous production; therefore, the syntactic tree “grows” in a bottom-up manner. See Figure 1 for a visual representation.

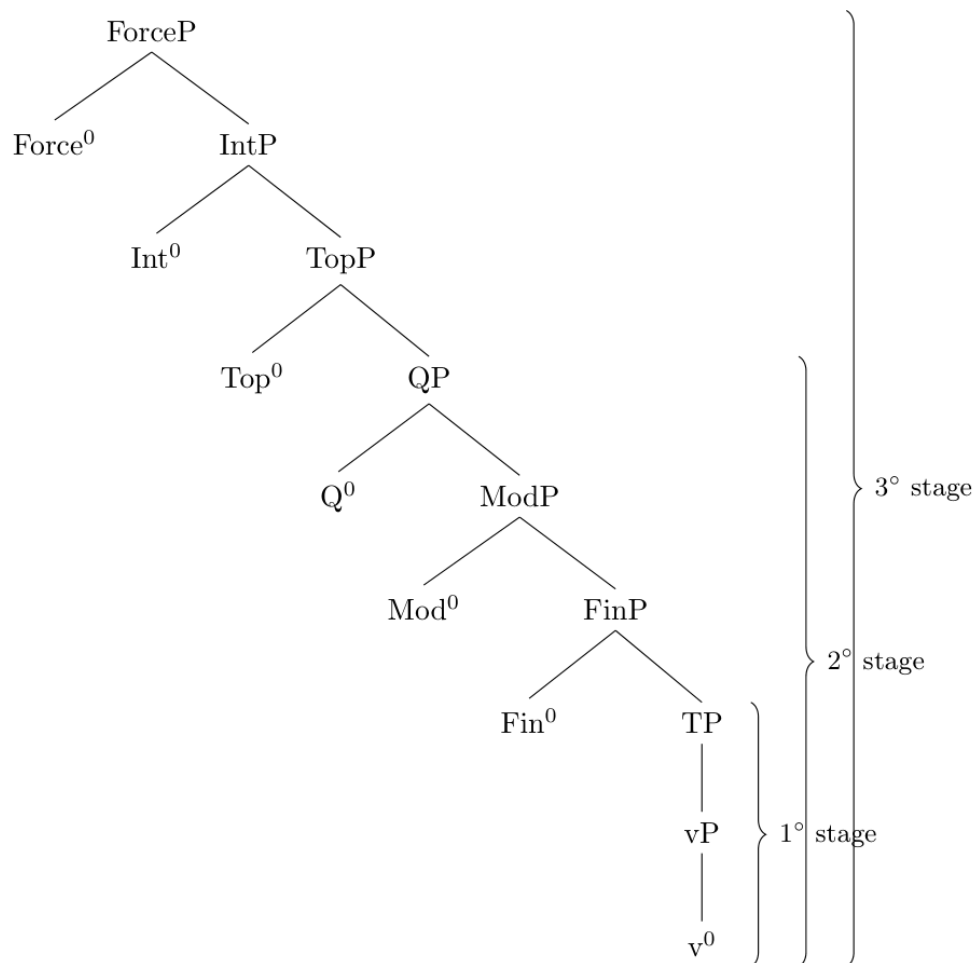


Figure 1: The Three Growing Trees stages; simplified schema adapted from Friedmann et al. (2021).

A further, fourth stage is also proposed in Friedmann et al. (2021). This stage will not be taken into account in the present dissertation, as it concerns a later acquisitional period: as anticipated, imperatives crucially involve an acquisition timeframe where children are extremely small, at the onset of the two-word stage. The fourth stage is related to phenomena that crucially involve the CP layer and long-distance dependencies. It regards intervention within the Relativized Minimality Framework (Rizzi, 1990), as envisaged in Friedmann et al. (2009).

In particular, after the third stage whereby the whole syntactic tree becomes available, children still struggle with intervention effects in the sense of the above-mentioned references. Configurations involving certain featural traits, active in a given language, may give rise to full ungrammaticality or processing/syntactic difficulties for children. This suggests that the three main Growing Trees stages do not exhaust the full picture of syntactic acquisition; rather, other components of the grammar interact with the geometry of the functional, cartographic spine in theoretically and empirically interesting ways.

During the **first stage**, children produce structures which make use of bare IPs and A-movement:

- ❖ Unaccusatives (with movement of the internal argument to subject position)
- ❖ SV sentences with transitive and unergative verbs (with movement of the external argument to SpecIP)

The **second stage** of acquisition includes the first portion of the left periphery:

- ❖ Inversion structures with the verb in **Fin**
- ❖ Yes/no questions (**Q** Phrase)
- ❖ *Wh*-questions (**Q** Phrase)
- ❖ Adverb preposing (**Mod** Phrase)

The **third stage** consists of structures involving the highest field of the left periphery:

- ❖ Topicalization structures (**Top** Phrase)
- ❖ Why-questions (**Int** Phrase)
- ❖ Interrogative embedded clauses with *im* ‘if’ (**Int** Phrase)
- ❖ Relative clauses (**Force** Phrase)
- ❖ Declarative embedded clauses with *she* ‘that’ (**Force** Phrase)

An important clarification is in order here. **Structures do not become available one by one in a strictly sequential bottom-up fashion; rather, they emerge in clusters.** Within each cluster, no robust ordering has been found. For instance, within Stage 2, no consistent acquisitional ordering between yes/no questions and *wh*-questions has been attested across children.

What is robust across all children examined, more than 70 in Modern Hebrew, plus parallel cross-linguistic findings in Belletti et al. (forthcoming), in both corpus and experimental data, **is that the order of acquisition follows the three stages corresponding to structures ascribable to different portions of the syntactic tree:**

- ❖ Stage 1: vP + IP
- ❖ Stage 2: vP + IP + Fin, Q, Mod

❖ Stage 3: vP + IP + Fin, Q, Mod + Top, Int, Force

Therefore, as illustrated above, whole portions of the syntactic tree become available to the child in an explosive fashion, as it were.

Crucially, children do use lower portions of the tree when higher ones have not yet matured, and their development follows a **strict implicational path: Stage 1 > Stage 2 > Stage 3**. In other words, development is always bottom-up: the production of Stage 1 and Stage 3 structures, without the intermediate portion of the tree being present, has never been attested in the data.

As for the boundary between the lower field of the left periphery (Fin, Q, Mod) and its higher field (Top, Int, Force), no obvious unifying syntactic or semantic factor readily suggests itself as an explanation for this grouping. It is precisely for this reason that the authors appeal to the cartographic representations and the geometry of the syntactic tree as the diagnostic tool to capture the empirical data: the structures observed in child production follow exactly the bottom-up development of the syntactic tree.

Consistently with what was noted in Friedmann & Reznick (2021), movement of the lexical verb to C was acquired later than A-movement. In Friedmann et al. (2021), a more cartographic perspective is adopted, which neatly captures what emerges from the analyzed data in the three developmental stages illustrated above.

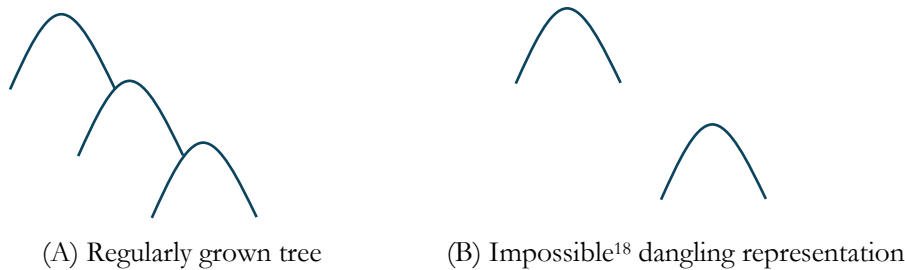


Figure 2: In (A), a representation of a canonically-grown tree (Stage 1 > Stage 2 > Stage 3). In (B), a dangling representation (Stage 1, NO Stage 2, Stage 3), dispreferred by the child.

The three Growing Trees stages follow a strict implicational path, consistent with another developmental mechanism in the literature. This mechanism, truncation in Rizzi's (1993/1994) sense, allows children to optionally truncate the syntactic tree and produce "smaller" structures. These truncated structures are less computationally costly (Rizzi, 2006) and may reflect the child's (automatic, subconscious) "memory" of a time when only lower layers of the tree were available. This mechanism accounts for RIs (§2.1.2) and root null subjects in non-pro-drop languages, and closely relates to Friedmann's (2006) pruning hypothesis concerning aphasia. The parallel between truncation and the Growing Trees approach is a crucial shared constraint: truncation can apply only at the clausal edge, and maturation proceeds in inviolable implicational steps. Configurations like (B) Figure 2 are impossible under both approaches; lower portions of the tree cannot be omitted if higher ones have been acquired. Friedmann et al. (2021) notice therefore that Guttman Scales (Guttman, 1944, 1950) apply exactly to these implicational relationships. Indeed, the concept of the Guttman scale is the following: if property B is present, then property A must too. The contrary does not necessarily happen: is property A is there; B may or may not be present. Notice how this is exactly what happens with respect to the maturational stages discussed so far.

¹⁸ As will be discussed in §2.1.3, this configuration is not impossible *per se*, but it is in the developing grammar (Belletti, 2024, 2026). Adult speakers, by contrast, are able to handle structures with this configuration.

A distinction is due between maturation and truncation, despite their shared ban against internal layers of the clause missing. Truncation presupposes that the whole syntactic tree has already become available: as shown in Rizzi (1993/1994), children produce RIs and *wh*-questions and topicalized constructions within the same timeframe. The latter structures involve the higher zones of the tree, the second and third Growing Trees stage, respectively, demonstrating that the full tree is accessible to the child. Truncation is therefore an optional computational mechanism, available in root contexts after the tree has fully grown, to avoid further computational cost (Rizzi, 2006). Grammatical maturation, by contrast, necessarily prevents the child from producing a structure whose relevant functional layer has not yet developed, for instance, a topicalized sentence while still in the first or second stage.

What emerges from the data is that the relevant clusters of constructions ascribable to each developmental stage emerge in a robust and clear manner (Friedmann et al. 2021, p. 11). This is further confirmed by the fact that these clusters follow Guttman scales: the production of a third-stage structure, such as a relative clause, does not occur before second- and first-stage constructions have appeared.

Individual variation plays a crucial role in grammatical maturation. It is not possible to identify a fixed age or timeframe at which children are in a given stage, much like other biological maturational processes, such as teething or puberty, which follow a personal schedule. What remains invariant, however, is the order in which structures are acquired, following implicational relations in the sense of Guttman (1944, 1950).

In short, the Growing Trees logic (Friedmann et al. 2021) predicts that CP is acquired after IP, a pattern robustly demonstrated for **Modern Hebrew**.

As reviewed in Belletti (2024, 2026), the Growing Trees findings extend well beyond Modern Hebrew, with cross-linguistic evidence from typologically diverse languages all pointing in the same direction.

For **Italian**, Casadei (2024) administered a sentence repetition task to 27 typically developing children (aged 1;6–7;8), finding clear evidence of the three stages. Notably, she also investigated corrective focus, a structure not previously analyzed in the original Growing Trees paper and found that only children in stage 2 or above could repeat it, consistently with the Growing Trees Logic. Moreover, Moscati and Rizzi (2021), in a longitudinal corpus study on the Italian left periphery, found that *wh*-questions (excluding *why*) were the first manifestation of the CP layer, systematically followed by *why* questions and *che*-clauses, with the latter two unordered with respect to each other, as expected, since both belong to stage 3.

In **Czech**, Matiasovitsová et al. (2022) found the same Growing Trees ordering in spontaneous speech, with root *wh*-questions preceding relative clauses, in line with their belonging to stage 2 and stage 3 respectively.

For **Brazilian Portuguese**, Meira and Grolla (2023) showed that *wh*-que questions, involving a lower left-peripheral position, were produced from age 1;4, while *é*-que questions, requiring the highest zone of the left periphery, appeared a year later alongside finite embeddings.

Reznick and Friedmann (forthcoming) analyzed longitudinal data from a **Russian**-acquiring child (18–34 months), finding IP acquired first, followed by the lower left periphery with root *wh*-questions, and finally, topicalization, relative clauses, and embedded clauses together.

Further studies have extended the Growing Trees framework to novel structures. Woods & Roeper (in press) examined the acquisition of two types of negative questions in **English**, finding that negative tag structures (e.g. *John is coming, isn't he?*) precede higher negative questions (e.g. *Isn't John coming?*), consistently with a bottom-up acquisition of the left periphery. For English, Robiatu (2025) provides further

corroborating evidence through a computational analysis of CHILDES data (MacWhinney, 2000), finding the same bottom-up maturational pattern of the three Growing Trees stages¹⁹.

Šimík et al. (2023) tested correlatives and light-headed relatives in Czech preschoolers, finding correlatives easier to imitate — in line with their structurally lower position. Patrizi and Sanfelici (2024) examined adverb acquisition in Italian, finding a Manner > Aspectual > Temporal order consistent with the Cinque (1999) hierarchy and the Growing Trees logic, and suggesting that further stages may be distinguished within the vP and IP layers as well. Sgrizzi (2024) showed that Italian-acquiring children produced restructuring infinitival complements before control infinitival complements, in line with the monoclausal analysis of restructuring and the CP analysis of control structures (Cinque, 2004, 2006).

Regarding **Catalan** and **Spanish**, Bosch (2023) observes that what she calls the “illocutionary complementizer” *que* (e.g. *Ai, que crema!* ‘Ouch, it’s burning!’) occurs earlier than embedding complementizers. Whereas Bosch analyses this marker as related to a high head of the left periphery, it is suggested here, along the lines of Belletti (2009, 2013, 2015), that these markers are first merged in the lower part of the left periphery, in Fin, as markers of finiteness, and are therefore expected to be acquired before embedded declarative markers. Embedded declarative markers are expressed in the highest field of the left periphery in order to locally satisfy selectional requirements, which are not relevant for root structures. That *que* can lexicalize different positions in the CP space has been proposed for Spanish by Villa García (2012). Another instance of lower *que* was mentioned earlier for *wh-que* questions in Brazilian Portuguese as the realization of the Foc/Q head. It is therefore expected that this complementizer occurring in main clauses will be acquired in Stage 2, before instances of embedding, in particular declarative embedding complementizers, which appear in Stage 3.

Belletti (2024) also discusses Rossi (2023), which serves as a foundational source for the first corpus study of this chapter, as well as elements of the analysis regarding positive imperatives presented in the next chapter. How these findings converge with the Growing Trees logic will be discussed in detail as the analysis unfolds.

Having surveyed the Growing Trees framework and its crosslinguistic extensions, the discussion now turns to the connection of such approach with the acquisition of imperatives. Notably, the original Growing Trees proposal (Friedmann et al. 2021) does not discuss imperatives. Rossi (2023) and the present dissertation are intended to address this gap, focusing on Italian. To do so, it is first necessary to consider what the acquisition literature has already established about imperatives. The most important finding that emerges is straightforward: imperatives arrive early.

Imperatives appear early in children’s spontaneous production and are indeed among the very first verbal forms children acquire. This has been often noted in the literature. For **Romance**, this has been empirically attested in **Italian** (Belletti & Guasti, 2015; Salustri & Hyams, 2003, 2006), where imperatives appear at the onset of the two word stage. The same has been noted for **Spanish**, among Romance (Grinstead, 1998; Montrul, 2004), and **Catalan** (Salustri & Hyams, 2006).

Also in unrelated languages child imperatives display similar acquisition patterns. Early imperatives (23–27 months) are attested in **Egyptian Arabic** as inquired by Omar (1973), who notices a contrast with negative imperatives, which are acquired much later, after passing the 30-month mark. Early imperatives are found at least also in **Ku Waru**, a language of the New Guinea Highlands (Rumsey, 2003), **Hebrew** (Berman, 1985), **Tagalog** (Garcia et al., 2021).

¹⁹ Notably, Robiatu (2025) also examines imperatives in their computational analysis of English CHILDES data, finding them at the first Growing Trees stage, consistently with the analysis developed in the present dissertation. This finding will be taken up in the first corpus study in §2.3.

If one considers that imperatives are often morphologically impoverished and consist only of the root of the verb and the thematic vowel, as seen in Chapter 1, then children's early confidence with such structures does not look surprising. The early nature of imperatives will be corroborated by the corpus study 1 in this chapter, in §2.3

The full puzzle can now be stated. As discussed in Chapter 1, the majority of syntactic analyses of imperatives assume that the imperative verb raises to C. Keeping this in mind, how is it possible that imperatives are attested from very early on, if they require raising to C, namely an area that becomes available only in later stages of acquisition?

A temporal tension emerges. On the one hand, imperatives are early structures: they are morphologically impoverished, consist of little more than the verbal root, and are incompatible with embedding, itself a late-acquired configuration. On the other hand, the dominant syntactic analyses place imperatives in the CP layer, which, under the Growing Trees logic, is among the last functional projections to mature. These two facts are difficult to reconcile.

In this light, the early production of imperatives by Italian children, potentially at a stage when the left periphery is not yet available, points towards a low imperative analysis, one in which imperatives do not involve the CP layer. Whether this is indeed the case is precisely what will be investigated and addressed in the first corpus study of this chapter, in section §2.3 (Rossi 2023).

2.1.2 Imperatives vs. Infinitives: a developmental and grammatical link

2.1.2.1 *Development*

Children's early productions show deviations from target adult grammar that are systematic (Guasti, 2017): their non-random nature is of particular interest for linguistic theory as it reflects the exploration of the hypothesis space by the child within the limits and constraints of the language faculty.

Children's exploitation of the available hypothesis space offered by the language faculty manifests itself in **omission errors**, namely when children's early multi-word utterances are more impoverished compared to adult target forms (Guasti, 2017). There are also cases of **unexpected creative behavior** in production, e.g., Belletti (2017a) and Belletti and Manetti's (2019) work on *a*-Topics and reflexive-causative passives. In these latter cases children seem to "invent" new, non-target forms. Children often show non-target constructions in the target language which would be instead target in another, adult language (Belletti, 2023). Whence the hypothesis that they deviate in non-random ways, within what is possible in human language(s).

Regarding the dimension of omission errors, Guasti (2017) discusses how English-acquiring children up until 3 years old produce non-target forms which resemble telegraphic speech (Bloom, 1970; Brown, 1973; Guasti, 2024), whereby certain functional elements (auxiliaries, verbal inflections) are absent:

- (216)
- a. Mumma ride horsie. (Sarah, 2;6)
 - b. Marie go. (Sarah, 2;3)
 - c. Eve [has] gone. (Eve, 1;6)
 - d. Eve [is] cracking nut. (Eve, 1;7)
 - e. You [are] nice. (Sarah, 2;7)
 - f. Fraser [did] not see him. (Eve, 2;0)
 - g. Where [did] ball go? (Adam, 2;3)

[Ex. from Guasti 2017, data from CHILDES, MacWhinney, 2000)

A particularly well-studied instance of omission errors in non-pro-drop languages such as French, German, and Dutch is the overproduction of RIs in main clauses (Blom, 2003; Haegeman, 1995; Hoekstra & Hyams, 1998; Rizzi, 1993, 2006; Wexler, 1994).

- (217)
- | | | | | |
|-------------------|-------|----------|-------|----------|
| a. voir | l' | auto | papa | (French) |
| see.INF | the | car | daddy | |
| b. Thorstn | das | hab'n | | (German) |
| Thorstn | this | have.INF | | |
| c. Pappa schoenen | | wassen | | (Dutch) |
| Daddy shoes | | wash.INF | | |
| d. Der ikke | vaere | | | (Danish) |
| It | not | be.INF | | |

[Ex. from Wexler (1994)]

These are real non-finite forms: crucially, children treat them as morphologically non-finite. This is visible thanks to their distribution with respect to negation: in the RI developmental stage, children place finite verbs before negation and non-finite verbs after it (Guasti, 2017). This distinction mirrors the adult grammar and demonstrates that children know the finiteness distinction from early on. This pattern is robust in French (Pierce, 1992), German and Dutch (Hoekstra & Hyams, 1998; Poeppel & Wexler, 1993; Verrips & Weissenborn, 1992; Weissenborn, 1990).

In Italian, a pro-drop language, RIs are absent: verbs are inflected from early on (Belletti & Guasti, 2015; Guasti, 1993; Montrul, 2004). This cross-linguistic asymmetry is the starting point for the data analysis and proposal by Salustri & Hyams (2003, 2006), who draw a parallel between RIs and imperatives on the basis of spontaneous production data. These authors identify an acquisitional stage in the first half of the second year of life in which children overproduce tenseless, morphologically impoverished structures, presumably because these are less computationally costly (see Rizzi, 2006). In non-null-subject languages, these structures are RIs, as seen above. Instead, in pro-drop languages, children resort to imperatives (positive imperatives, second person singular). In Chapter 1, there was extensive discussion on the cross-linguistically robust nature of morphologically impoverished imperatives. This aspect concerns Italian as well. Salustri & Hyams (2003) also mention *bare perfectives* in Greek, treating them as instantiating the same RI/Imperative developmental stage manifesting in young acquirers of Greek. Indeed, Varlokosta et al. (1998) individuate bare participles as the RI analogue in Modern Greek. The present dissertation focuses mainly on RIs and imperatives; for a connection with reduced participials, see the General Discussion in §2.6.

The proposed stage is argued to be universal (Salustri & Hyams 2006), with data drawn from a typologically diverse set of languages including French, German, Dutch, Italian, Spanish, Catalan, Hungarian, and Slovenian, covering both pro-drop and non-pro-drop languages within and beyond Romance. RI analogues, namely impoverished verbal forms available in early acquisition, have also been noted in Modern Greek, as mentioned, and in Chinese and Japanese (Murasugi, 2014).

Salustri & Hyams (2003, 2006) argue that imperatives function as the RI equivalent in early null-subject languages on the basis of corpus data, as well as interpretive and grammatical properties, which will be

discussed in the next section. It is crucial to underline here that **in all languages taken into account, the overproduced imperative forms is always the second person singular one.**

The authors analyzed spontaneous production from 9 Italian-acquiring children, drawing data from the CHILDES database (MacWhinney, 2000). A first finding is that **imperatives occur significantly more often in child language than in adult language**: in adult-directed speech, imperatives constitute 5.6% of verbal utterances, and 14.9% in child-directed speech, whereas in the earliest child productions analyzed (Francesco and Denis from age 1;5) imperatives account for 40% and 78% of verbal utterances respectively (Roma and Leonini corpora, Antinucci & Parisi, 1973; Leonini, 2002). The authors acknowledge that some of these early forms may be rote forms, meaning that they are not yet analyzed as in the target grammar but in some way they are memorized as they are, without being full imperative constructions. An example would be *guarda!* ('look!'). Even if that was the case, imperative production remains high even later, when children start producing imperatives with the clitic correctly in enclisis position, for example (this point will be taken up again below). Indeed, examining later stages and additional children (Viola, Martina, Diana, and Denis again from the Calambrone and Leonini corpora, Antinucci & Parisi, 1973; Cipriani et al., 1989, imperative production remains elevated around the second year, peaking at approximately **40% between ages 2;0 and 2;4, and stabilizing at adult-like levels by age 2;6 or 2;7**. These figures are averages, and individual variation is not explicitly discussed by the authors. Nevertheless, a stage of overproduction is robustly attested, and the parallel with RI overproduction in non-pro-drop languages, both in terms of frequency and timing, is striking (Salustri & Hyams, 2003, 2006; Wexler, 1994).

Further evidence comes from a bilingual child, Leo (Berger-Morales & Salustri corpus, (Berger-Morales & Salustri, 2003), who acquires German and Italian simultaneously. Leo produces imperatives at high rates in his Italian, but not in his German, where the frequency of imperatives is instead comparable to the frequency of RIs in the same child's German data. This cross-linguistic dissociation within a single child supports the imperative as the RI analogue.

A crucial specification concerns which imperatives are overproduced. The overproduction concerns exclusively second person singular imperatives: true imperatives with distinctive morphology in Italian, as discussed in Chapter 1. **Crucially, the overproduced forms are genuine imperatives (grammatically-speaking), not default indicative or underspecified forms.** This is demonstrated by the fact that children produce second person singular imperatives from all three conjugation classes, including the second and third conjugation, where the imperative and indicative forms are not homophonous. Clitic placement provides further evidence: children systematically produce enclisis with imperatives, consistently with the adult grammar. While some of the earliest attested forms could in principle be analyzed as rote forms, meaning memorized chunks produced without any underlying grammatical analysis, it is difficult to establish this with certainty; more importantly, even granting that possibility, the broader pattern of overproduction cannot be reduced to rote learning, as the verbal forms children produce are grammatically identifiable as imperatives across conjugation classes and place the clitic correctly in enclisis position. This finding will also be corroborated by the first corpus study in this chapter. How children use these forms at the interpretive level, however, is a separate question, which will be addressed in the Concluding Discussion after having reviewed the results of the Corpus studies.

In Salustri and Hyams (2006), the analysis is extended beyond Italian to further null-subject languages: Spanish, Catalan, Slovenian, and Hungarian. The same pattern emerges, namely a peak of imperative overproduction in the first half of the second year that decreases over time, together with the absence of RIs.

2.1.2.2 Grammar

So far, a strong relationship has emerged between a series of non-finite verbal forms that are morphologically impoverished and overproduced by children in the first half of the second year of life: imperatives, RIs, bare participles. The focus has been on infinitives and imperatives. This subsection discusses how the link between infinitives and imperatives is not confined to the way children treat them during development. Rather, this link is also reflected in the grammatical properties these forms share in the target grammar, which is exactly what one would expect, given that children treat them similarly in acquisition. The distinction between non-pro-drop languages, where RIs are overproduced, and pro-drop languages, where imperatives are, remains important to keep in mind.

As introduced above, imperatives and RIs share a number of properties in the target grammar. The following discussion primarily focuses on Italian, although it is not exclusive to it. The relevant properties are the following:

- (A) They both lack overt subjects;
- (B) They are incompatible with subject clitics;
- (C) They cannot be embedded, and can be used in matrix contexts despite lacking Tense;
- (D) They cannot be questioned nor admit *wh*-elements;
- (E) They do not admit modals, nor auxiliaries;
- (F) They both display impoverished, non-finite morphology;
- (G) Clitics are found in enclisis position;
- (H) Incompatibility with standard sentential negation: imperatives in Italian cannot be negated, RIs are compatible with negation marginally;

Each of these properties will be discussed in turn below.

As for property (A), imperatives and infinitives both do not display overt subjects, as seen in Chapter 1 for imperatives. Both do not license an overt nominative subject in canonical position.

Beukema and Coopmans (1989) argue this is the case since imperatives and infinitives are specified as [-tensed], and therefore nominative Case cannot be assigned to the subject position. Rooryck (1992) argues that imperatives do not have the same [-tense] specification as infinitives, because there exist future imperatives in Latin and therefore in his view Tense has to be specified.

- (218)
- a. ama
love.IMP.PRES.2SG
 - b. amato
love.IMP.FUT.2SG
 - c. amate
love.IMP.PRES.2PL
 - d. amatote
love.IMP.FUT.2SG
- [Ex. by Rooryck 1992, p. 229]

Rooryck (1992) thus argues that it would be more accurate to say that the tense of imperatives is restricted to non-past tense. It remains true however that past imperatives morphology does not seem to exist (e.g., *Telefonale ieri!* ‘Call.IMP.2SG her yesterday!’), or at least they are not the unmarked imperative form²⁰. He characterizes the temporal/modal value of imperatives as [-realized], a value compatible with future but not past interpretations. Stowell (1982) similarly proposes this characterization for the tense of infinitives. Rooryck (1992) discusses how his notion is not new; it has long been observed that the semantic interpretation of infinitival morphology corresponds to a temporal/modal notion. Bresnan (1972) notes that infinitival complements refer to *something hypothetical or unrealized*. Stowell (1982) concurs, stating that the tense of infinitives is semantically interpreted as unrealized or as a “possible future”. Reinterpreting Beukema and Coopmans (1989), Rooryck (1992) suggests that imperatives and infinitives share the temporal feature [-realized] in common rather than the feature [-tensed].

Moving on to property (B), Di Domenico (p.c. with M. Nicolis) mentions that imperatives are incompatible with subject clitics, on the basis of data from Veronese, a Northern Italian variety:

- (219)
- a. *Ti te magni la pasta.*
2SG 2SG.CL eat.2SG the pasta
‘You eat pasta.’
 - b. *Magna la pasta!*
eat.IMP.2SG the pasta
‘Eat pasta!’
 - c. *Ti magna la pasta!*
2SG eat.IMP.2SG the pasta
‘You eat pasta!’
 - d. **Ti te magna la pasta!*
2SG 2SG.CL eat.IMP.2SG the pasta

As shown in (219), the co-occurrence of a subject pronoun and a subject clitic is grammatical in finite contexts but ungrammatical in imperative ones. The same incompatibility with subject clitics holds for RIs. As discussed in Rizzi (1993/1994), Pierce (1989) observes that subject clitics tend not to occur in French RIs. The same is observed in Dutch by Haegeman (1995).

A core property (C) shared by imperatives and RIs is their root nature: both forms are restricted to matrix contexts and cannot appear in embedded clauses. Of course, adult infinitival verbal forms do occur in embedded clauses and as complements of various verb types in Italian. Following Pollock (1989), clauses have a tense variable that needs to be bound. In finite contexts, the finite morphology plays this role, while embedded clauses inherit the main clause tense variable. Hence, root infinitival verbal forms are usually excluded as their tense variable would remain unbounded, being thus [-tense] or [-realized] (Rooryck, 1992), as discussed above.

There is, however, an important exception that will be the focus of Corpus Study 2 in this chapter and Chapter 4: a bare infinitive can appear in isolation in Italian when it carries imperative force, specifically

²⁰ See Bosque (1980) on retrospective imperatives.

under a generic interpretation of its subject, whereby the directive is addressed to all possible addressees, as in:

- (220) Generic imperative (Italian)
- | | | |
|--------------------------|-----|-----------|
| Allacciare | le | cinture! |
| Fasten.INF | the | seatbelts |
| 'Fasten your seatbelts!' | | |

[Ex. from Salvi & Borgato 1991]

Neither imperatives nor RIs are compatible with interrogative sentential force (Zanuttini et al., 2005), nor can they co-occur with *wh*-elements (Rizzi, 1993/1994; Haegeman 1995; Di Domenico 2004) (property D).

Crucially, as noted by Rizzi (1993/1994), children who produce RIs during the overproduction stage also produce questions within the same timeframe. Nevertheless, the two structures never co-occur. RIs and interrogatives are in complementary distribution, reflecting the fact that they involve fundamentally different clausal configurations. This observation led Rizzi to propose an analysis of RIs in terms of clausal truncation, whereby the child optionally applies a truncation mechanism that reduces the clausal structure in matrix contexts, omitting the higher functional projections while preserving the lower ones. This mechanism is available only in root contexts, which accounts for the non-embeddability of RIs. It is also argued to be driven by the child wanting to save computational resources. As will be discussed in the following subsection, the truncation approach is compatible with all the properties (A)-(H) examined here.

Concerning property (E), it has been noticed that RIs involve lexical verbs (Rizzi 1993/1994). More specifically, root infinitival auxiliaries are unattested as shown by the ungrammaticality of the following forms in French and German child production. Crucially, sequences of a lexical infinitival verb preceded by an auxiliary are equally unattested and do not qualify as RIs:

- (221) a. *avoir mangé (French)
- to.have eaten
- b. *être venu (French)
- to.have come
- c. *gekauft haben (German)
- bought to.have

[Ex. from Wexler 1994, p. 78]

The same restriction applies to modal verbs: Salustri and Hyams (2003, 2006) observe that as the overproduction stage of RIs comes to an end, modal verbs begin to appear, suggesting that modals are absent precisely during the period in which RIs are overproduced. Imperatives show a parallel incompatibility with both auxiliaries and modals, as demonstrated by Di Domenico (2004):

- (222) a. * Will it!
- b. * Must it!
- c. * Vuommi/Vogliami aiutare!

want.IMP-me help.INF

[Ex. from Di Domenico 2004, p. 83]

As for property (F), both imperatives and RIs display morphologically impoverished verbal forms, as discussed in detail in Chapter 1 with respect to imperatives. Infinitives share this property: beyond the imperative morphology already described (*mangi-a*, root + thematic vowel), infinitives carry an additional infinitival ending *-re*. Following Belletti (1999), building on Kayne's (1991) proposal of a low Infinitive head, both imperatives and infinitives check their (meagre) verbal morphology in a low position in the functional spine. For imperatives, the relevant morphology is the thematic vowel, as in *mangi-a'* (eat.imp.2sg); for infinitives, it is the *-are* ending²¹.

Clitics in enclisis position is property (G). As discussed extensively in Chapter 1, enclisis is a systematic property of imperatives, attested not only in Italian and the Romance language family more broadly but also in unrelated languages such as Modern Greek. The same pattern holds for infinitives in Italian: object clitics must appear in enclisis position with infinitival forms as well (Belletti 1990, 1999, Rooryck 1992, Salvi and Borgato 1991), as shown by the examples in (223), adapted from Belletti (1999, reprinted 2009, p. 131):

- (223) a. Conoscerla / Conoscendola / Conosciutala
(to) know her.CL / knowing her.CL / known her.CL
- b. *La conoscere / *La conoscendo / *La conosciuta
(to) HER.cl know / her.CL knowing / her.CL known

As introduced in Chapter 1, a notable exception concerns negative imperatives in Italian with second person singular reference, which take infinitival morphology and admit clitic climbing, as shown in (108), example (118) in Chapter 1:

- (224) Negative imperative (Italian)
- a. Non ti muovere!
NEG yourself-REFL.2SG move-INF
'Don't move!'
- b. Non muoverti!
NEG move-INF-yourself-REFL.2SG
Don't move!
- c. *Si muovere!
REFL move-INF
'Move'
- d. Muoversi!
move-INF-yourself-REFL

²¹ This matter is taken up again in Chapter 3, where it is noted that *-are* in infinitives also comprises the thematic vowel *a*. Two analytical possibilities therefore arise: either the Infinitive head also provides the thematic vowel, yielding *-a* in the Imperative Phrase and *-are* in the Infinitive Phrase; or the thematic vowel is inserted by default at PF, in which case no dedicated head is required for the imperative and only the Infinitive head is needed.

‘Move!’ (generic interpretation)

While clitic climbing is admitted in the negative imperative, as the contrast between (224)a and (224)b shows, it is no longer available under a generic interpretation, where enclisis is the only option, as illustrated by the contrast between (224)c and (224)d. This aspect will be taken up again in Chapter 4.

The last property (H) regards the incompatibility of imperatives and negation. The connection between imperatives and infinitives emerges with particular clarity in the domain of negation. As discussed above and in Chapter 1, the second person singular imperative is the core imperative both cross-linguistically and in the acquisition data, being the form that is overproduced by children. (Salustri & Hyams 2003, 2006). This form cannot be negated directly. In order to form a negative second person singular imperative in Italian, infinitival morphology is required, as visible in (108) above. This is a further and particularly striking sign of the tight grammatical link between imperatives and infinitives: the negative counterpart of the core imperative form is, morphologically, an infinitive.

RIs display a related, though less clear-cut, incompatibility with standard sentential negation. Evidence from Dutch suggests that RIs tend to occur with *nee*, the adult anaphoric negation, rather than with *niet*, the regular manifestation of NegP. This suggests that RIs are not fully compatible with the standard projection of sentential negation. The picture is less straightforward cross-linguistically, however: Rizzi (1993/1994) notes that the empirical evidence from French is not conclusive in this respect and calls for further investigation. The property therefore holds robustly for Dutch but requires more cross-linguistic work before a general claim can be made. In Corpus Study 2 in this thesis, it will be shown that the same pattern with respect to negation is found in the infinitival imperatives attested in the corpus data, a finding that further corroborates the grammatical parallelism between the two forms.

2.1.2.3 *The puzzle*

Let us now take stock of the findings discussed so far. Around the age of 2;0 to 2;6, children go through a stage in which morphologically impoverished, tenseless structures are produced at a very high rate (Blom, 2003; Haegeman, 1995; Hoekstra & Hyams, 1998; Murasugi, 2014; Salustri & Hyams, 2003, 2006; Schütze & Wexler, 1996; Varlokosta et al., 1998). In null-subject languages, these structures are imperatives, while young acquirers of non-null-subject languages overproduce RIs forms instead. The frequency and rate of production are parallel across language types, and as shown in the preceding section, the two structures share a remarkable number of grammatical properties (A)-(H).

It is now worth examining how RIs and imperatives have been analyzed in the syntactic literature, as the puzzle that this chapter seeks to address emerges directly from the comparison between the two sets of analyses.

Following Rizzi (1993/1994, 2006), RIs are analyzed as involving truncation of the CP layer: the child optionally omits the higher functional projections, producing a structurally reduced clause in order to save computational resources rather than generating a fully inflected verbal form (and functional spine). In this sense, truncation is a similar operation to *pruning* proposed by Friedmann (2002) in aphasia.

Rizzi’s truncation analysis derives all the syntactic properties discussed above in a unified fashion: the absence of overt subjects, the incompatibility with subject clitics, the restriction to matrix contexts, the incompatibility with *wh*-elements and interrogative force, the impoverished morphology, enclisis, and the marked behavior with respect to negation all follow from the absence of the CP layer and the higher functional structure. The proposal will be illustrated in detail below.

The question arises of why RIs are allowed in early child production and how they are generated. Rizzi (1993/1994) assumes a continuity hypothesis, excluding the possibility of an ad hoc licensing mechanism for RIs in early child language, and proposes instead that RIs arise from the lack of some specification

operative in the target grammar. An alternative account is offered by Wexler (1994), who proposes that children have difficulty with tense values early in development and optionally resort to tenseless structures for this reason.

Rizzi (1993/1994) argues that other possibilities are worth exploring, on the basis of two independent pieces of evidence: the distribution of RIs with respect to *wh*-questions, and the phenomenon of early null subjects. Non-target infinitival verbal forms appear only in root contexts, while in *wh*-questions, children correctly inflect the verb, as evidenced by Crisma (1992) for French and Weissenborn (1992) for German. On the basis of this distributional asymmetry, these authors, together with Friedmann (1992), independently converge on the conclusion that RIs must involve structures in which the functional spine is not fully projected up to CP, but is truncated below that level.

A second relevant phenomenon is the early null subject option in the acquisition of non-null-subject languages, where children up to approximately three and a half years of age tend to omit subjects in the specifier of the root, despite the target language requiring them (Rizzi, 1994). Since early null subjects appear only in the specifier of the root and not clause-internally, Rizzi (1994) proposes that the principle according to which full clauses are CPs is not available to the child in the early stages. That principle consists in all clauses being CPs, or more accurately, that $CP = \text{root}$. When such principle is not mature yet, the CP layer may be lacking, and a subject in SpecTP may occupy the specifier of the root and be omitted. This is consistent with the first developmental stage in the Growing Trees framework (Friedmann et al. 2021), in which only vP and IP are available.

The syntactic tree may be truncated at different levels, as evidenced by other constructions such as small clauses (Radford 1990) and lexical maximal projections. If truncation applies below the Tense phrase, the resulting structure is a non-finite, unmarked form. In English, truncation of this kind yields a bare VP (Wexler 1994); in French and German, it yields a root infinitive, since infinitival morphology is checked low in the structure, following Kayne's (1991) proposal of a low Infinitive head. Since the T position is absent, there is no Tense variable to be bound, and the root infinitive, while non-target, does not violate the relevant binding requirements. This approach differs from Wexler's (1994) Optional Infinitive account in a crucial respect: what is optional here is the application of the truncation mechanism itself, not the absence of inflection as such.

The properties of RIs (and imperatives) (A)-(H) are consistent with this truncation logic. Rizzi (1993/1994) discusses the following. RIs are incompatible with subject clitics (Déprez & Pierce, 1993 for French; Haegeman, 1995). Whether subject clitics are analyzed as AgrS markers (Déprez and Pierce 1993), as elements that cliticize into AgrS (Kayne, 1984; Rizzi, 1986), or as weak pronouns licensed by AgrS (Cardinaletti & Starke, 1993), they are in all cases located higher than T. Since the AgrS head is absent from truncated structures, subject clitics cannot occur with RIs. RIs are likewise incompatible with questioning and *wh* elements, as noted above: given that *wh*-questions involve the CP layer (Rizzi, 1996, 1997; Rizzi & Bocci 2017), this follows directly from truncation. In a *wh*-question, the verb is correctly inflected because the full IP is projected. The absence of auxiliaries with RIs (Wexler, 1994) also follows, since auxiliaries involve the Tense phrase (Guasti, 1993), whether they are base-generated in T or require T for feature checking. Finally, assuming that NegP is higher than T (Zanuttini, 1991, 1997), NegP should likewise be truncated, yielding an incompatibility between RIs and negation. As discussed in the preceding section, this appears to be the case in Dutch, where RIs tend to co-occur with *nee*, the adult anaphoric negation, rather than with *niet*, the regular manifestation of NegP, though the cross-linguistic picture remains to be fully clarified (Rizzi, 1993/1994).

The truncation account also provides a principled explanation for the absence of RIs in Italian and other null-subject languages (see Sgrizzi, submitted for a different approach). Following Rizzi (1994) and

Belletti (1990), Italian verbs, both tensed and untensed, have strong AgrS features that must be checked overtly, triggering overt movement. This contrasts with French, where the verb raises past negation only in finite contexts. Observe the relevant oppositions in (225)-(227) below:

(225) French:

- a. n'avoir pas lu le livre
- b. ne pas avoir lu le livre
- c. *ne lire pas le livre
- d. ne pas lire le livre

(226) Italian:

- a. non aver più letto il libro
- b. *non più aver letto il libro
- c. non leggere più il libro
- d. *non più leggere il libro

(227) English:

- a. to have not read the book
- b. to not have read the book
- c. *to read not the book
- d. to not read the book

[Ex. from Rizzi 1993/1994]

Since AgrS is higher than NegP, and NegP is higher than T, the root infinitive option in Italian is blocked: Italian infinitival forms require projection of the functional spine up to AgrS, and truncating the structure at InfP in the sense of Kayne (1991) would leave the strong AgrS feature unchecked, causing the derivation to crash.

Now, as discussed in Chapter 1, imperatives have been traditionally and predominantly analyzed as involving the CP layer, with the imperative verb occupying the left periphery. This creates a direct tension with the root infinitive analysis: if the two structures share the properties in (A-H) and are overproduced in parallel across different languages, one would expect them to receive a unified structural analysis, yet the standard analyses pull in opposite directions. This tension constitutes the central puzzle to be addressed in what follows.

More specifically, if one assumes Salustri and Hyams' (2003) analysis of the imperative, or any other high analysis of the imperative (with imperatives raising to C), something does not add up.

There are at least three puzzling aspects that emerge from this scenario, in which RIs and imperatives are analogue structures in acquisition.

As discussed in Chapter 1, imperatives have been traditionally and predominantly analyzed as involving the CP layer, with the imperative verb occupying a position in the left periphery. This creates a direct tension with the root infinitive analysis: if the two structures share the many properties in (A-H) and are overproduced in parallel across different languages, a unified structural analysis would be expected, yet the

standard analyses pull in opposite directions. This tension constitutes the central puzzle to be addressed in what follows.

More specifically, if one assumes Salustri and Hyams' (2003) analysis of the imperative, or any other high analysis in which the imperative verb raises to C, at least three puzzling aspects emerge from the scenario in which RIs and imperatives are analogue structures in acquisition.

The first concerns the structural asymmetry between the two constructions. According to high analyses of the imperative, such structures require the CP layer, while RIs, following Rizzi (1993/1994), are truncated, and lack it entirely. Under the Growing Trees approach (Friedmann et al. 2021), in which the child acquires the functional spine in a bottom-up manner, more complex structures correspond to later developmental stages. It is therefore unexpected that children acquiring a non-null-subject language have the option of truncating the CP layer, which represents an area of later acquisition, while children acquiring a null-subject language omit the internal IP layers, which are mastered early in the first Growing Trees stage, and retain projections in C. One might propose that Italian-acquiring children project the full syntactic tree earlier than their peers acquiring non-null-subject languages, but this does not constitute a satisfactory explanation. Under uniformity guidelines, the growth of the syntactic tree is expected to proceed in a similar fashion across child populations acquiring different languages, as corroborated by Moscati and Rizzi (2021), Robiatu (2025) for English, Casadei (2024) for Italian and other cross-linguistics studies described in Belletti (forthcoming). The comparable time frame observed for the root infinitive and imperative overproduction stage further suggests that the developmental timing should be similar across language types. It is therefore difficult to maintain that children at the same developmental stage resort, in one case, to a truncated structure lacking the CP layer, and in the other, to a structure that projects all the way up to Force.

The second puzzling aspect concerns the internal structure of imperatives under a high analysis. Under Salustri and Hyams (2003), as well as under related high analyses such as Platzack and Rosengren (1998), the intermediate IP layers are absent while the CP layer is present. This is not consistent with the truncation logic or with the maturation logic embedded in the Growing Trees framework, according to which intermediate projections cannot be absent if higher ones are present: if stages A and C are projected, stage B must be as well. Representations of this kind are therefore not compatible with the way the child's functional spine is assumed to develop.

The third aspect concerns computational complexity, and can be made precise in terms of phase theory (Chomsky 2001). A phase consists of the phase head, either C or transitive little *v*, together with its complement. Phases reduce the computational burden of sentence generation by dividing the derivation into steps and restricting the search space of Probe operations, as well as the set of lexical items active at any given point in the derivation, thereby reducing the load on working memory. Under this view, a derivation involving more phases is more complex than one involving fewer. RIs involve only one strong phase, the vP phase, since the CP layer is absent. Imperatives under a high analysis, by contrast, require two strong phases, since the imperative verb raises to C. It is therefore unexpected that children undergoing the same developmental stage and producing structurally similar constructions should, in one case, produce a truncated, computationally lighter structure, and in the other, a structure imposing a heavier computational burden. This asymmetry represents a further source of tension between the acquisition data and high analyses of imperatives.

2.1.2.4 Further Complications: Infinitival Imperatives and the Interpretation of RIs and Imperatives in development

The picture is further complicated by the existence in Italian of infinitival imperative forms, which have never been examined from an acquisitional perspective, and which, with the exception of negative

imperatives and generic imperatives, have not received comprehensive syntactic treatment in the literature on Italian either. Zanuttini (1997) offers a seminal analysis of negative imperatives, while generic imperatives have been examined cross-linguistically by Isac (2015) and, for specific aspects, by Pak et al. (to be discussed in Chapter 4). What has been called here *a*-Imperatives are only briefly mentioned in Rivero's work on Spanish, and no study exists that examines all these forms together, either from an acquisitional perspective or from the perspective of grammatical theory.

This question is all the more pressing given that Italian possesses several imperative forms that are morphologically identical to the infinitive, as illustrated below. These forms are discussed in detail in Chapter 4; one example of each type is provided here.

Negative second person singular imperatives require infinitival morphology:

- (228) Negative imperative (second-person singular):
Non mangiare!
NEG eat.INF
'Don't eat!'
Paraphrase: *I order you not to eat/I forbid you from eating.*

Generic imperatives, which address an indiscriminate set of possible addressees, also take bare infinitival form:

- (229) Generic Imperatives:
Allacciare le cinture!
fasten.INF the seatbelts
'Fasten your seatbelts!'
Paraphrase: *passengers are instructed to fasten their seatbelts.*
[ex. from Salvi and Borgato 1991, p.153]

Finally, *a*-Imperatives, which express a peremptory command to begin an action at speech time, are formed with the preposition *a* followed by a bare infinitive:

- (230) A-imperative:
A mangiare!
To eat.INF
'Go eat now!/Start eating now!'
Paraphrase: *the speaker peremptorily orders the interlocutors to start eating.*

The existence of these forms in the Italian target grammar makes the absence of infinitival imperatives in child production particularly striking and in need of explanation, a question that will be taken up in Chapter 4.

The gap to be addressed here is therefore not merely an empirical one, nor simply a matter of extending existing analyses to previously unexamined data. Rather, it connects directly and naturally to the core question raised in this chapter: given that root infinitival imperative forms exist in Italian, why do children not use them during the overproduction stage? Or maybe they do and it has never been noticed in the literature before, since these forms are not the unmarked second person positive imperative?

This question leads to what is perhaps a crucial open issue, namely how RIs and imperatives are used and interpreted during the overproduction stage. Salustri and Hyams (2003) build on Hoekstra and Hyams' (1998) account of the Modal Reference Effect and the Eventivity Constraint, according to which RIs and

imperatives express some kind of modality, typically deontic with respect to imperatives, and concern eventive verbs. However, it is not always straightforward to interpret children's spontaneous production, particularly when working with written corpus transcripts, and the attribution of modality to RIs may not always be correct. As Belletti (p.c.) observes, certain RIs appear to be descriptive rather than modal, as in the following example from Pierce (1992):

- (231) Michael dormir (French)
Michael sleep.INF

In this example, the child may simply be describing the fact that Michael is sleeping, rather than expressing a desire or necessity for him to do so. Nonetheless, Salustri and Hyams (2003) point out that as RIs begin to disappear and imperative overproduction decreases, modal verbs start to appear (see also Blom, 2003 on Dutch), which constitutes indirect but non-trivial evidence in favor of a modal interpretation of these forms.

The question of how to interpret these child utterances remains open though, and is directly linked to the broader question of why Italian children and children acquiring other null-subject languages overproduce imperatives rather than RIs. The possibilities are the following. One option is to adopt strongly the view of Salustri and Hyams (2003), which is to some extent corroborated by the emergence of modals at the end of the overproduction stage. However, this raises a further question: if all overproduced imperatives express deontic modality, Italian-acquiring children would be in some sense restricted to a single modality, while children exploiting the root infinitive option have access to a wider range of modal interpretations, including root modality, and perhaps to a lesser extent epistemic modality (Portner, 2009). This asymmetry is not obviously expected if the two constructions are genuine analogues in acquisition. Moreover, the concrete possibility that some of these utterances are simply assertions, as suggested by Belletti (p.c.), cannot be dismissed. This connects to a deeper epistemological problem: the interpretation of child production data is inevitably mediated by the adult observer's perspective, and there is no straightforward way to set aside that lens.

What can be established at this point is that the forms produced by children during the overproduction stage are grammatically identifiable as infinitives and imperatives, as demonstrated by the evidence discussed throughout this section. The interpretive issue, namely what children mean by these forms and whether they are uniformly modal or also extend to assertive and other uses, remains open. It will be taken up in the general discussion at the end of the chapter, in light of the corpus data presented in the following sections, and will be connected to the broader picture that also includes the overproduction of participial forms in acquisition (Antinucci & Miller, 1976). For now, it is worth anticipating that a more adequate characterization of these forms may be in terms of a *passepertout* form: morphologically impoverished structures that, precisely because of their minimal structure, are not only overproduced in quantitative terms but also overextended to contexts in which the target grammar would deploy a fuller range of speech acts. The corpus studies that follow are designed to shed light on these issues.

2.1.3 Different Kinds of Reduction: Imperatives vs. Reduced Relative Clauses

Another striking acquisition puzzle concerns Reduced Relative Clauses (RRCs). In Italian, RRCs are formed by a head noun and a bare participial in the passive voice, as in *il leone bagnato dalla mamma* ('the lion bathed by the mum'). The head of the relative corresponds to the internal argument (IA) of the verb. They are called 'reduced' since they involve less pronounced material compared to their full relative clause counterpart, which includes a complementizer and an auxiliary: *il leone che è bagnato dalla mamma* ('the lion that

is bathed by the mum’). For this reason, they have also been referred to as Passive Object Relatives (PORs) in the literature (Belletti, 2024, 2026; Contemori & Belletti, 2014).

RRCs are acquired surprisingly late. Contemori and Belletti (2014) show that RRCs are virtually absent from children’s spontaneous productions even at age 7 and 8 (5% and 2.9% respectively), compared to 42% in adults. This stands in striking contrast with their full counterpart (34.6% at age 8), while adults use both at comparable rates (48% full, 42% reduced). Regular relative clauses, namely those not involving a passive participial, are acquired much earlier, around age 3 (Belletti & Guasti, 2015). Therefore, shorter does not mean easier, as highlighted in Belletti (2017a, 2024, 2026). What drives this asymmetry?

In the elicitation of Object Relatives (OR) in Contemori & Belletti (2014), both adults and children tend to avoid them. In their view, this is because ORs involve an intervention configuration (Friedmann, Belletti & Rizzi 2009): the head noun of the relative corresponds to the NP object of the verb, and an intervening NP subject creates a costly featural overlap [+NP feature]. The NP feature, also called lexical restriction (Friedmann et al., 2009). Adults frequently resort to RRCs: passivation via *smuggling* (Collins, 2005) allows them to avoid the intervention configuration. Older children resort to PORs as well, but consistently prefer the full form over the reduced one. The most common child strategy overall is reformulation into subject relatives, robustly shown in the literature to be easier than object relatives.

The puzzle deepens considerably when one considers that reduced structures are not universally difficult for children. On the contrary: as mentioned in the previous section, reduced participles of the type *Problema risolto!* (‘Problem solved!’) and positive imperatives are among the earliest structures produced in child language (Antinucci & Miller, 1976; Berger-Morales & Salustri, 2003; Salustri & Hyams, 2003, 2006). This suggests that clausal reduction *per se* is not the source of complexity in RRCs relative to full relatives. Something more specific must be at play.

On a grammatical level, bare participles and positive imperatives display a striking cluster of shared properties, particularly in terms of what they are incompatible with: embedding, *wh*-elements, focus, auxiliaries, modals, and Tense. Recent research has converged on the proposal that these facts can be captured via a mechanism of radical reduction, whereby these structures lack both CP and TP layers and are as reduced as they appear, namely they are not elliptical (Cecchetto & Donati 2023 for participles). Crucially, reduced participles and imperatives, as well as RIs, are not only early-mastered but are even overproduced in development: children produce these morphologically impoverished forms instead of fully inflected verbs up until around age 3-4 (Salustri & Hyams 2003; Rizzi 1993). This overproduction happens exclusively in root contexts, in embedded clauses and *wh*-questions, children correctly inflect the verb, whence the characterization of this phenomenon as ‘optional’ truncation.

Belletti (2024, 2026) argues that RRCs instantiate a configuration of internal reduction: a Force head in CP is present, while the Finiteness Projection is absent (CP present, no TP, vP present). This contrasts with the external reduction — or truncation — found in bare participles, imperatives, and RIs (no CP, no TP, vP present). Internal reduction is challenging for the developing grammar because it violates the implicational logic active in child truncation (Rizzi 1993): when a functional layer is absent, everything above it must be absent too. In the maturing grammar, functional projections become available progressively following an implicational order: vP > TP > CP (Friedmann 2021). If CP is present, then TP and vP must also be projected. An internally reduced structure like RRCs, where CP is active but TP is missing, violates this logic and is therefore not licit in early grammars. It is this violation, rather than relativization or

passivization per se, that drives the late acquisition of RRCs: other passives (e.g. the *si*-causative passive, Belletti 2017) and other relatives are produced by children considerably earlier²².

A twofold tension thus emerges: an empirical asymmetry between a shorter but harder structure and a longer but easier one, and a theoretical debate over the structural representation of RRCs, hinging on the interplay between cartography and labeling theory.

Most importantly for the present discussion, both accounts highlight a striking paradox with respect to imperatives. Imperatives and RRCs share a superficially similar structural profile: both involve missing internal layers and some form of CP activity. Yet imperatives are produced with high frequency from very early on in acquisition, indeed they are *over*produced, while RRCs become available only many years later: at age 8 the production is not yet the same as the adult one (2.9 vs. 42%).

2.2 RESEARCH QUESTIONS

The puzzles identified in the preceding section give rise to the following research questions, which will guide the corpus studies presented in the remainder of the chapter.

The first question concerns the timing of imperative acquisition relative to the emergence of the CP layer. Given that imperatives are attested early in child production and that the CP layer is acquired relatively late, as predicted by the Growing Trees framework, the question is whether imperatives are indeed found in the data before clear evidence of structures involving CP appears. If this is the case, then the data would not support a CP analysis of imperative clauses.

The second question concerns the use of infinitival imperatives in acquisition. It is already established that young acquirers of Italian do not overproduce infinitives (Guasti 1993), but root infinitival forms are not entirely absent from child production. Among these, the question arises of whether any instances of infinitival imperatives, that are allowed in the adult grammar of Italian. Are they attested in the corpus data, and if so, how they are distributed and employed by children?

These questions will be addressed in turn in the corpus studies that follow.

In terms of methodology, following Gries (2022), the two corpus studies differ in their primary orientation: the first corpus study is hypothesis-driven (are early imperatives compatible with CP?), designed to test the predictions that emerge from the theoretical puzzles identified above, while the second is exploratory, aimed at investigating an empirical domain (infinitival imperatives) for which no prior acquisitional account exists.

2.3 CORPUS STUDY 1: POSITIVE IMPERATIVES

As anticipated, Corpus Study 1 builds on Rossi (2023), and is extended here by the addition of Corpus Study 2 on infinitival imperatives, presented in the following subsection. The findings of both corpus studies then inform a discussion of how language models handle these structures (based partly on Rossi, Formichi, et al., 2025), followed by a general discussion that ties together the results, connecting infinitives and imperatives to other reduced forms in the target grammar and in acquisition, namely participial forms.

²² An alternative syntactic account of RRCs is offered by Cecchetto and Donati (2022), who analyze bare participles as VPs in which the internal argument moves over the verb, triggering *labeling by feature sharing*. This movement provides these structures with full illocutionary force despite their reduced nature, and only unaccusatives and passives are compatible with this configuration. As a consequence, RRCs instantiate A-dependencies rather than A'-dependencies and do not involve the CP layer. Under this account, RRCs should be structurally simpler than full relatives, yet the acquisition data show the opposite. The difficulty with RRCs could then stem from a challenge specific to the labeling algorithm that children may not yet have fully mastered. This constitutes an important open puzzle.

As discussed in Chapter 2, imperatives are among the very first verbal forms children produce across typologically diverse languages. For Romance, this has been empirically attested in Italian (Belletti & Guasti, 2015; Salustri & Hyams, 2003, 2006) where imperatives appear at the onset of the two-word stage, as well as in Spanish (Grinstead, 1998; Montrul, 2004) and Catalan (Salustri & Hyams, 2006). The same pattern is found in unrelated languages: early imperatives are attested in Egyptian Arabic (Omar, 1973), who also notes that negative imperatives are acquired considerably later, after the 30-month mark, in Hebrew (Berman, 1985), in Tagalog (Garcia et al., 2021), and in Ku Waru, a language of the New Guinea Highlands (Rumsey, 2003). Following evidence from Moscati and Rizzi (2021), and later Casadei (MacWhinney, 2000), the growth of the Italian syntactic tree follows the three developmental stages identified in Hebrew by Friedmann et al. (2021). In this light, imperatives may be produced before the full left periphery is acquired. If that is the case, analyses that envisage the imperative verb as raising to C would not be supported by evidence from acquisition.

2.3.1 Data

Rossi (2023) looked at spontaneous production of 4 Italian children (Raffaello, Martina, Viola, Diana), whose data is available on CHILDES. The CHILDES database (MacWhinney, 2000) is part of a larger project called Talkbank, dedicated to the collection of oral human interaction. Together with Homebank and Phonbank, it is part of the Talkbank repository devoted to children's speech. CHILDES offers transcripts in CHAT format of around 1-hour-long conversations between a child and some adults (usually parents or relatives, together with researchers and observers, also sometimes called investigators) in a pre-arranged setting.

All four children are part of the Calambrone Corpus, a longitudinal corpus collected by Cipriani et al. (1989). Given the nature of the research question, it was necessary to select children who were young enough to be at or near the onset of the two-word stage. Following Moscati and Rizzi (2021), who examine CHILDES data to track the development of the left periphery in early Italian, Raffaello, Martina, and Viola were identified as most suitable. Indeed, they are among the youngest children in the corpus and, crucially, they display a slower growth of the functional spine, according to Moscati and Rizzi's (2021, p.18, Figure 4) data. Since these are the children whose syntactic tree develops in a slower way, they are more likely to exhibit a stage, if present, in which imperatives are produced while the CP layer (or part of it) is not yet accessible. To ensure a more representative sample, Diana was included as a control child, representing a child with faster development of the functional spine. The study thus examines a total of four children, three of whom have slower development and one with faster development. Only written transcripts were examined, as the Calambrone Corpus (Cipriani et al., 1989) does not include visual or auditory data.

A total of 39 transcripts were analyzed: 13 files for Raffaello, 10 for Martina, 10 for Viola, and 6 for Diana, covering an overall age range of 1;7 to 2;10. The size of the transcripts is expressed in terms of the total number of child utterances. The reader is referred to full details in Table 6.

Corpus	Child's name	Age of 1 st transcript	Age of last transcript examined	# of analyzed transcripts	# of available transcripts	# of child's utterances
Calambrone	Raffaello	1;7,07	2;8	13	17	2,260
Calambrone	Martina	1;7,18	2;03,22	10	13	2,601
Calambrone	Viola	1;11,16	2;10,03	10	10	2,667
Calambrone	Diana	1;08,05	2;05,01	6	9	1,312

Table 6: Data analyzed in Rossi (2023), table adapted from Rossi (2023, p. 20).

Not all available transcripts for each child were analyzed, for the following reason: since the primary aim of the study was to establish whether imperatives are attested before the left periphery becomes available, data collection was stopped once the first clear manifestation of the highest left-peripheral head, Force in Italian (Rizzi & Bocci, 2017), was identified in a child's production. Therefore, only the relevant developmental timeframe was examined. At the same time, of course, data collection was not stopped at the first manifestations of lower left-peripheral structures, namely yes/no questions and *wh*-questions, since imperative production across all three Growing Trees stages was of interest. As a result of this criterion, all available files were inspected for Viola, while for Raffaello, Martina, and Diana respectively 5, 3, and 3 files were left out.

2.3.2 Methodology

The corpus analysis targeted three sets of structures. First, imperatives, distinguished into two types: bare imperatives, consisting of the imperative form alone, and imperatives with other material, namely imperatives accompanied by clitics, pre- or postverbal subjects, or adverbs. This distinction is relevant because imperatives with further linguistic material provide richer evidence for the syntactic context in which the imperative is produced. Crucially, only second person singular imperatives are considered, as they are the overproduced form in acquisition according to Salustri and Hyams (2003, 2006) and they are the core imperative form from a morphological, interpretative and cross-linguistic perspective as well (see Chapter 1). Second, structures involving the lower portion of the left periphery, namely structures involving the second Growing Trees stage. Finally, third stage structures were searched for. See Table 7 below for the complete list of structures.

	Structure	Left-peripheral functional head involved
2nd stage structures	Control structures	Fin
	Yes/No Questions	Q
	<i>Wh</i> -questions	Q
3rd stage structures	Why questions	Int
	Complement clauses involving the complementizer <i>che</i> ('that')	Force
	Relatives	Force

Table 7: Left-peripheral structures investigated in Corpus Study 1. Adapted from Rossi (2023, p. 21).

The analysis was conducted semi-automatically, combining automatic queries with manual inspection. Automatic searches were carried out using the CLAN program and the TalkBank online browser, which allow efficient queries over CHILDES transcripts in CHAT format. Automatic queries were used to calculate and cross-check the frequency of target structures and to reduce the risk of human oversight. However, automatic search alone is not sufficient for this type of research, for two reasons.

The first is phonological variation in child production. Children, especially younger ones, often produce non-target phonological forms that cannot be fully anticipated when designing a query. To illustrate, the query for why-questions based on the Italian form *perché* needed to be extended to cover a range of attested variations found across the 39 transcripts, as shown in Table XXX:

Child	Age of first occurrence, in months	<i>Perché</i> variation
Viola	23	Checché
Martina	22	Pocché
Martina	22	Pecché
Martina	27	Pecchè
Raffaello	28	Penché

Table 8: Phonological variations of *perché* found in the data. Only the first occurrence of each variant is displayed. Adapted from Rossi (2023, p. 22)

While some variation can be captured through regular expressions (Jurafsky & Martin, 2009), unexpected forms of this kind can only be reliably identified through manual inspection.

The second reason concerns interpretive accuracy. Given the nature of the research questions, in which even a single utterance can be decisive for establishing the presence or absence of a given portion of the functional spine, no relevant structure could be left unexamined. Manual inspection of the transcripts was therefore essential not only for identifying target structures but also for interpreting them as accurately as

possible, bearing in mind the inherent interpretive limitations discussed in the preceding section. Particular attention was paid to the linguistic context of each utterance, as well as to the broader setting and the nature of the activities in which children and adults were engaged. In this respect, the dependent tiers available in CHAT transcripts, which record participant actions, glosses, prosodic features, hesitations, and other suprasegmental information, provided valuable help. In many cases, however, entire portions of the transcript had to be read in order to interpret a single utterance.

This was especially important for imperatives. Whole transcripts were read in order to establish both that the forms were grammatically identifiable as imperatives and that they displayed an illocutionary force compatible with imperative use (Condoravdi & Lauer, 2012), which encompasses a wide range of uses including orders, wishes (e.g. *guarisci presto!*, “get well soon!”), permissions, and concessions. This step was particularly critical given that second person singular imperatives in Italian are homophonous with the third person singular indicative, as illustrated below:

- (232) Trova il tesoro!
 find.IMP.2SG the treasure
 ‘Find the treasure!’
- (233) Tu trovi il tesoro.
 you.2SG find.PRES.IND.2SG the treasure
 ‘You find the treasure.’
- (234) Lei trova il tesoro.
 she.3SG find.PRES.IND.3SG the treasure
 ‘She finds the treasure.’

The problem is further compounded by the fact that in the second and third conjugation, the imperative is not distinctive even with respect to the first and second person singular of the indicative. Observe the examples below:

- (235) Corri la maratona!
 run.IMP.2SG the marathon
 ‘Run the marathon!’
- (236) Tu corri la maratona.
 you.2SG run.PRES.IND.2SG the marathon
 ‘You run the marathon.’

Crucially, however, as noted by Salustri and Hyams (2003), **the imperatives overproduced by children come from all three conjugation classes**, including the second and third conjugation, where no distinctive morphology is available. This constitutes evidence that these forms are genuine imperatives rather than default or homophonous indicative forms, a finding that is replicated in the results of the present corpus study, as will be shown below.

Utterances that could not be confidently distinguished from homophonous indicative forms were excluded from the analysis.

2.3.3 Findings

2.3.3.1 Imperative Production

The first step of the analysis consisted of the identification of imperatives in the data. Table 9 presents the imperatives found across all four children, organized by age in months. As indicated in the caption, green cells mark the production of bare imperatives, while pink cells indicate the onset of production of imperatives cooccurring with other material, such as clitics, postverbal subjects, adverbs. Cases where no imperative appeared in a given transcript are marked with an x, while blank spaces reflect the absence of data for that month, either due to the actual lack of transcripts in the corpus or due to the decision not to analyze further files once a manifestation of Force had been identified.

IMPERATIVE PRODUCTION					
Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19	x	4			4
20		12		2	14
21	x	14			14
22	1	11		23	35
23	3	26	6	8	43
24	3		3	22	28
25	6	29	54	29	118
26					
27	8	61			69
28	4		12		18
29	11		23	38	72
30	13				13
31	15		20		35
32	9		21		30
33					
34			26		26

Table 9: Distribution of imperative forms across transcripts, organized by age in months.

When multiple transcripts were available for a given month, all sessions are included. An x marks transcripts in which no imperative was attested.

Blank cells reflect missing data, either because no transcript exists in the CHILDES database for that age or because the file was not included in the analysis following the first attestation of a Force-related structure (see Methodology section).

Cells in green correspond to transcripts containing only bare imperatives, that is, imperatives produced without accompanying material.

The transition to pink marks the first transcript in which imperatives appear together with additional elements such as clitics.

Overall, **519 imperatives were found in the data**. 25 unclear cases were excluded. As visible in Table 3, imperatives appear very early across all four children: Raffaello produces his first imperatives in month 22, Martina at month 19, Viola at month 23, and Diana at month 20. **Consistent with Salustri and Hyams (2003), imperative production in early Italian shows a peak between 2;1 and 2;5**, which is comparable to the peak in RI production observed in children acquiring non-null-subject languages. It should be noted, however, that since not all available transcripts were analyzed for each child (see the Methodology section above), the total number of imperatives in the later months is likely to be even higher than what is reported here, still consistently and in a corroborating fashion with Salustri and Hyams (2003, 2006).

As anticipated, all structures listed in Table 2 were searched for in the data. For detailed tables of the frequency and dispersion of each structure type across transcripts and months, the reader is referred to the Appendix. The findings presented below focus directly on the comparison between imperative production and the first attestation of the relevant left-peripheral structures, with the aim of establishing whether imperatives are produced before the manifestation of the Growing Trees stages involving the CP layer.

The following examples illustrate some of the imperative forms found in the data, drawn from Rossi (2023, pp. 24-25):

(237) Martina, 19 months:

appètta

wait.IMP.2SG

‘Wait.’

(237) is one of the earliest imperatives attested in Martina’s data. It is a bare imperative, whose phonological realization is non-target (*appètta* instead of the target form *aspetta*), but fully interpretable by a native speaker of Italian.

(238) Raffaello, 30 months:

guanda, guanda, gira-ti

look.IMP.2SG, look.IMP.2SG turn.IMP.2SG-you.CL.2SG

‘Look, look, turn around.’

Example (238) contains two bare imperatives (*guanda, guanda*) followed by an imperative form with enclisis (*gira-ti*). The clitic *ti* is attached to the verb *gira* in enclisis position, consistently with the adult grammar of Italian imperatives (see Chapter 1). The form *guanda* represents a further instance of non-target phonological realization of the target form *guarda*.

The following two examples illustrate additional cases of productive imperatives which cooccur with further material, namely the adverb *qua* (‘here’) and the demonstrative *questo* (‘this’), both correctly placed:

(239) Raffaello, 27 months:

poggia qua

put.IMP.2SG here

‘Put (it) here.’

(240) Raffaello, 30 months:

tie’ questo

take.IMP.2SG this

‘Take this.’

Observe example (240): the imperative of the Italian verb *tenere* (‘to take/hold’) is acceptable both as *tieni*, which is homophonous with the second person singular present indicative, and as the more colloquial truncated form *tie’*. Raffaello produces the latter, which constitutes an even more morphologically reduced imperative form (Belletti, 1999).

A methodological note concerns imperatives produced by a child immediately after an adult. Such cases were included in the count only when the context made clear that the child had understood the adult’s instruction and was producing the imperative with genuine imperative force, as in the following instance:

(241) Raffaello, 24 months:

veni!

come.IMP.2SG

‘Come!’

The relevant context is provided below:

(242) INV: chiama un po’ Giancarlo.

INV: call.out.IMP.2SG a.little Giancarlo)

INV: Call out Giancarlo.

CHI: Giancarlo!

INV: vieni!

INV: come.IMP.2SG

INV: Come!

CHI: veni!

CHI: come.imp

CHI: Come!’

The investigator asks Raffaello to call out Giancarlo; Raffaello responds by calling his name and then, when the investigator produces the imperative *viene*, he echoes it as *veni*, a non-target phonological realization.

Two examples from Diana’s production are worth discussing, as they are connected with a robust, systematic property of imperatives in Romance, namely enclisis (Belletti, 1999; Rooryck, 1992; Zanuttini, 1997, *inter alia*). Diana displays non-target behavior in this respect, only in two instances, which, despite rare, are worth discussing. In (243), Diana produces the clitic *ti* twice (clitic in bold in the next example), once in proclisis and once in enclisis position attached to the verb:

(243) Diana, 25 months:

ti ferma-**ti**

you.CL.2SG stop.IMP.2SG-you.CL.2SG

‘Stop!’

- A comparable instance of clitic reduplication is found in (245), where Diana produces *lo mettilo* instead of the target *mettilo*:

- Unlike (244), Diana does not self-correct here. The clitic *lo* appears in proclisis alongside the enclitic *lo* attached to the imperative *metti*, yielding the non-target form *lo mettilo*.

These instances of clitic doubling in Diana's production may bear comparison with cases in which children overproduce clitics with restructuring verbs (Rizzi, 1982), such as *lo voglio farlo* ('it.CL want to do it.CL) (Belletti p.c.), where the object clitic appears both with the matrix and the embedded verb.

Interestingly, clitic reduplication of this kind is not exclusively a feature of child language: it is also attested in adult varieties of Romance. As discussed in Pescarini (2021), several Romance dialects have lost clitic climbing in periphrastic constructions, and the transition is witnessed by cases of clitic reduplication in which two instances of the object clitic appear, one proclitic to the functional verb and one enclitic to the lexical verb. Pescarini (2021) illustrates this with data from Lombard and Romansch dialects spoken in Grisons, southern Switzerland, where proclisis to the modal verb (246) and proclisis to the infinitive (0) represent two endpoints of a diachronic change, with reduplication as the intermediate stage, instantiated by the variety of Fex Platta, in which clitic reduplication is available in the target adult grammar:

- (246)
- | | | |
|----|---------------------------------------|--------------|
| a. | iɐ lɐ 'vɔj ta'kɛ:r | (Stampa) |
| | 1sg.NOM= 3SG.F.ACC= want.1SG bind.INF | |
| | 'I want to bind it.' | |
| b. | ɛ lɐ 'vɔ: lɐ ta'ce:r | (Fex Platta) |
| | 1SG.NOM= want.1SG 3SG.F.ACC= bind.INF | |
| | 'I want to bind it.' | |
| c. | 'vɔ:j lɐ ta'ka | (Poschiavo) |

want.1SG 3SG.F.ACC= bind.INF

‘I want to bind it.’

In this light, Diana’s instances of clitic reduplication can be seen as an occurrence of hypothesis space exploration within the limits imposed by the language faculty: the error she produces, while non-target with respect to standard Italian, corresponds to a grammatical option that is instantiated in another natural language, namely the Fex Platta variety (Pescarini, 2021). The fact that she tends to self-correct immediately suggests awareness of the target grammar though, while the error itself reflects the availability of clitic reduplication as a possible structural configuration²³.

2.3.3.2 Imperatives and the Acquisition of the Left Periphery

Table 10 summarizes the first attestation of every structure analyzed in this study, together with the distribution of imperative production across children and months. Table 11 presents the same results expressed in terms of functional heads ascribable to the structures analyzed, to facilitate the tracking of the three Growing Trees stages.

²³ A further observation on this matter, of anecdotal nature: the author of this dissertation overheard a native speaker of Italian produce *vi devo dirvi* at a dinner, with clitic reduplication (i). A few months later, she heard another native speaker utter the same structure with different morphemes, as in (ii):

- i. **Vi** devo **dirvi**
you.CL.2PL must.1SG tell.INF-you.CL.2PL
‘I must tell you.’
- ii. **Lo** devo **farlo**
it.CL.3SG must.1SG do.INF-it.CL.3SG

While this is likely a performance error rather than a systematic grammatical pattern, it is nonetheless consistent with the availability of clitic reduplication as a possible configuration within the space defined by the language faculty, instantiated in the adult target grammar of varieties such as Fex Platta (Pescarini, 2021).

IMPERATIVES AND LEFT-PERIPHERAL STRUCTURES				
Age in months	Children			
	Raffaello	Martina	Viola	Diana
19	x	Y/N Q – WH Q		
20		FIN		Y/N Q- WH Q
21	x			
22		WHY		
23	Y/N Q	EMB	WH Q – (WHY*)	
24				REL
25	WH Q		Y/N Q	FIN - EMB
26				
27	EMB	WHY - REL		
28	WHY - FIN			
29				WHY
30				
31			FIN	
32	REL			
33				
34				

Table 10: Summary of the first appearance of each structure analyzed in the study, organized by child and age in months.

Colored cells indicate timeframes in which imperatives are attested: green cells correspond to bare imperatives, pink cells to imperatives produced with additional material such as clitics.

An x marks sessions in which no imperative was found.

Blank cells indicate the absence of data, either due to the lack of transcripts in the corpus or because files were not analyzed following the first attestation of a Force-related structure. Adapted from Rossi (2023, p.26).

IMPERATIVES AND LEFT-PERIPHERAL FUNCTIONAL HEADS				
Age in months	Children			
	Raffaello	Martina	Viola	Diana
19	x	Q		
20		FIN		Q
21	x			
22		INT		
23	Q	FORCE	Q – (INT*)	
24				FORCE
25				FIN
26				
27	FORCE	INT		
28	INT - FIN			
29				INT
30				
31			FIN	
32				
33				
34				

Table 11: Results of Corpus Study 1 expressed in terms of functional heads. This table is parallel to Table 5. Adapted from Rossi (2023, p.26).

It is confirmed that imperatives are produced very early across all four children. In Martina, Viola, and Diana, imperatives are already attested from the first available transcript; in Raffaello's case, the first two transcripts (months 19 and 21) contain no imperatives, with production beginning at month 22, still before the 2 year mark. It is worth noting that for the three children whose earliest files already contain imperatives, it cannot be established whether production began even earlier unfortunately, prior to the start of data collection. This is an inevitable limitation of corpus-based research with very young children: the research questions posed here require data from children at or near the onset of the two-word stage. Transcripts covering precisely that window are not always available in sufficient quantity. Nonetheless, the overall findings allow for substantive conclusions to be drawn, as will be shown and discussed below.

Turning to the comparison with left-peripheral structures, the results can be summarized in the following way. In transcripts of Martina, Viola, and Diana, manifestations of the Q head are already present from the first file available. This indicates that these children are in the second Growing Trees stage from the outset of the analyzed period. This means that for these three children, no imperatives are attested before the lower portion of the left periphery is acquired. The picture changes when the higher left-

peripheral zone is considered. **In Martina's data, there is a three-month window (months 19 to 21) in which imperatives are produced, but no manifestation of the high left periphery is found. In Diana's data, the equivalent window spans four months, from month 20 to month 23 included.** During this timeframe, Diana produces both bare and imperatives with further material before the high left periphery is acquired.

Viola's case requires more careful consideration, due to the four unclear occurrences of *perché* discussed in §2.3.2. An asterisk after the WHY sign in Table 10 in Viola's column is meant to track this aspect in the broad context of the full range of data. The same applies to INT in Table 11. If the non-target occurrences of *perché* in Viola's data are counted as genuine manifestations of the Int head, then Viola's syntactic tree is fully projected from month 23, at the very beginning of her files. If they are not counted, then Viola remains in the second Growing Trees stage throughout all her transcripts, from month 23 to month 34, producing imperatives throughout this period without any attestation of high left-peripheral structures. It is worth noting that no other structure involving the high left periphery, such as relatives or embedded clauses of any kind, appears anywhere in her files, which makes the conservative interpretation equally plausible.

Raffaello's data represents a particularly noteworthy case. At month 23, there is no manifestation of any left-peripheral structure, neither from the lower nor from the higher portion of the left periphery. This window is brief, but to the extent that the transcripts analyzed here are representative of his linguistic development at that stage, it constitutes evidence that imperatives can be produced in Italian child language before the left periphery is available at all.

Setting aside Viola's ambiguous case, the most robust results come from Martina, Diana, and Raffaello. Martina and Diana both clearly produce imperatives before the high left periphery is acquired, and Raffaello appears to produce imperatives before the full left periphery becomes available. This finding does not support analyses that locate the imperative verb in the high PL, whether in Force (Platzack & Rosengren, 1998; Rivero, 1994; Rivero & Terzi, 1995; Salustri & Hyams, 2006; *inter alia*, see Chapter 1) or in Top (Di Domenico, 2004): if children produce imperatives at a developmental stage in which these heads are not yet available, it is difficult to maintain that the imperative verb targets those positions.

Summarizing, one child in the sample produces imperatives before the left periphery is available, while the remaining children whose data was taken into account produce imperatives during the second Growing Trees stage, before the high left periphery (including the Force and Top functional heads) is acquired. Crucially, also in Italian the development of the functional spine follows the three Growing Trees stages, as seen also in Casadei (2024).

2.3.4 Discussion

The findings of Corpus Study 1 allow for a direct answer to the first research question posed in §2.2: are imperatives attested in Italian child production before the left periphery is acquired? The results confirm that this is indeed the case. Across the four children examined, imperatives appear very early, and in at least three cases they are produced before the high portion of the left periphery is available. Raffaello presents the most striking case, with a window in which imperatives are produced before any left-peripheral structure is attested, including the lower portion of the left periphery. Martina and Diana both produce imperatives during the second Growing Trees stage, before the high left periphery is acquired. Viola's case remains ambiguous due to the unclear status of her early *perché* occurrences.

It is worth noting that the window in which Raffaello produces imperatives without any left-peripheral structure is brief. This is not entirely unexpected: the Growing Trees framework predicts that the lower portion of the left periphery is acquired relatively early, as attested in the original Growing Trees paper

(Friedmann et al. 2021, Appendices) where it is visible that the first stage is rather short, and not visible in every child's data. In the context of this corpus study, data from the other children other than Raffaello confirm that by the time the earliest available transcripts begin, structures involving the Q head are already present. Nonetheless, it is non-trivial to find that all three children (excluding Viola, unfortunately) produce imperatives before the manifestation of the high portion of the left periphery, where many analyses postulate that the imperative verb lands.

Moreover, the overall distribution of imperative production across all four children is consistent with the peak in overproduction observed by Salustri and Hyams (2003, 2006) between approximately 2;1 and 2;5, further corroborating the existence of the overproduction stage of imperatives in Italian as RI analogue.

More specifically, these findings have direct implications for the syntactic analysis of imperatives. In most analyses, the imperative verb is assumed to raise to C: this is the position taken by Rivero (1994), Rooryck (1992), Platzack and Rosengren (1997), and Belletti (1999), among others. More specifically, Rivero (1994) argues that the imperative verb raises to Force in order to check its imperative force feature, and Salustri and Hyams (2003, 2006), building on Han (2000), argue that the directive feature of the imperative is checked in Force, where the verb lands. Di Domenico (2004) locates the imperative in Top. Under all these accounts, the production of an imperative would require the child to have already acquired the relevant head in the left periphery: Force for most accounts, which corresponds to the third Growing Trees stage, or Top, equally a third-stage position in the functional spine. The data presented here is in direct tension with this prediction. Children produce imperatives before Force and Top are projected, which means that the imperative verb cannot target those positions.

The remaining left-peripheral heads do not seem to be viable landing sites either. Fin, the head encoding finiteness, is set to a negative value or is altogether absent in non-finite verbal forms, following Platzack and Rosengren (1998) and more recently Belletti (2024, 2026): given that imperatives lack auxiliaries, modals, and inflectional morphology, positing Fin as the target of imperative movement would be at odds with the very properties that characterize these impoverished forms. Mod, the position associated with pre-verbal adverbial modifiers, would be a highly marked and difficult to justify as landing site for a verbal head. Focus, while at first glance a more plausible candidate, is ruled out on two independent grounds: first, it is incompatible with Raffaello's data, in which imperatives appear before any left-peripheral structure is projected; second, it is incompatible with the empirical generalization discussed by Di Domenico (2004), according to which postverbal focalized subjects follow the imperative verb, as in *portala TU* (bring.IMP.2SG-IT.CL you.FOC, 'bring it YOU'). Since focalization requires movement of the focused element to SpecFoc, the order imperative > focused element could not be derivable, one would instead have *TU portala*, which with the relevant focus prosody, is unattested²⁴. Di Domenico (2004) therefore proposes that the imperative in Italian occupies Top, but this is inconsistent with the data of every child examined in the present study. Crucially, Di Domenico herself acknowledges that it remains to be established whether the Top and Foc heads she considers are those of the high left periphery or those of the low periphery. The empirical evidence

²⁴ A preverbal subject is available in Italian in contexts where it bears a topic interpretation, as in the following construction:

(i) Tu porta la valigia, (che) io porto la cartella.
 you.TOP bring.IMP.2SG the suitcase that I bring.1SG the briefcase
 'You bring the suitcase, I'll bring the briefcase.'
 [Ex. from Rossi 2023, p. 8, from Adriana Belletti, p.c.]

In (i), *tu* precedes the imperative verb with a contrastive flavor, suggesting a topic rather than a proper focus interpretation. This observation is consistent with the existence of a low topic position in the functional spine, distinct from the high Top head discussed in the main text, and is compatible with a low analysis of the imperative.

seen so far points convergently toward a low analysis of the imperative, one in which the imperative verb does not raise into the left-peripheral domain at all.

This analysis is further supported by the convergence of two additional lines of evidence. The first is cross-linguistic: Robiatu (2025) replicates the Growing Trees stages in English spontaneous production data (CHILDES Database) and finds imperatives in the first stage, before any left-peripheral structure is produced. Italian and English thus constitute two independent languages in which the same pattern is attested, providing cross-linguistic support for the conclusion that imperatives do not target the left periphery. The second line of evidence comes from the grammatical properties shared by imperatives and RIs, i.e. properties (A)-(H): the root nature of both constructions, their incompatibility with overt subjects, subject clitics, auxiliaries, modals, and the absence of other elements associated with high functional projections all point in the same direction.

The theoretical picture can be further enriched by considering Belletti's (2024) proposal regarding the developmental trajectory of RIs. Belletti (2024, 2026) suggests that in the earliest stages of acquisition, RIs result from the absence of the CP layer, which has not yet matured; subsequently, as the CP layer becomes available, truncation in Rizzi's (1993/1994) sense is an option, because the child retains a 'memory' of the earlier developmental stage in which the CP was absent and can exploit this to optionally reduce the structure in root contexts, saving computational resources (Rizzi, 2006). Applying this reasoning to the Italian data, imperatives in the earliest stage may similarly reflect the absence of the CP layer rather than a deliberate truncation operation; as the functional spine matures, the imperative continues to be produced as a low structure, consistently with its grammatical properties and with the parallel with RIs.

Overall, the results instantiate a clear implicational relationship of the kind formalized by Guttman (1944, 1950) and applied to syntactic acquisition by Friedmann et al. (2021). As illustrated in Figure 2, imperatives are attested at the first Growing Trees stage, before any left-peripheral structure is projected (Raffaello), and at the second Growing Trees stage, before the high left periphery is acquired (Martina, Diana). Crucially, no child in the sample is at the second or third stage without also having mastered imperatives. This unidirectional implicational pattern constitutes a Guttman scale: the presence of higher-stage structures implies the presence of imperatives, but not vice versa. The emergence of this scale provides further and independent support for the conclusion that imperatives are low structures, acquired before the left periphery, and not the other way around.

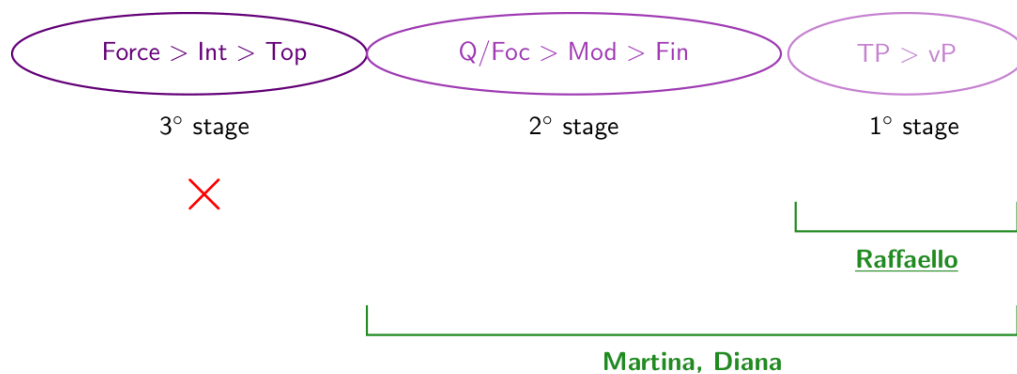


Figure 2: Guttman scale emerging from the corpus data (Guttman 1944, 1950; Friedmann, et al. 2021): imperatives are attested at the first Growing Trees stage (Raffaello) and at the second Growing Trees stage (Martina, Diana), but no child is at the second or third stage without having already mastered imperatives. Adapted from Rossi (2023, p. 27).

A final observation concerns the nature of the data taken into account. The Calambrone corpus (Cipriani et al., 1989) remains an invaluable resource, but it dates to 1989, and the density of transcripts available for the very earliest stages of production is limited. This is precisely the developmental window that matters most for the research questions pursued here, since it is in the first months of the two-word stage that the relationship between imperative production and the acquisition of the left periphery can be most directly observed. There is a clear need for new longitudinal corpora of Italian child spontaneous production with denser coverage of the earliest stages, a project that would require significant time and resources but would be of considerable value for linguistic theory. This point will be taken up again in the conclusions and open questions of the thesis.

Nonetheless, the convergence of the results across the children's data analyzed here, together with the cross-linguistic parallel with English (Robiatu, 2025), the consistency with the Guttman Scales in the Growing Trees framework, and the grammatical properties shared by imperatives and RIs, makes the overall conclusion robust: imperative production in Early Italian supports an analysis of imperatives that crucially does not involve the CP layer. The question of how to formalize this proposal is taken up in Chapter 3.

The present corpus study leaves open a further question, concerning the infinitival imperative forms that exist in Italian. If imperatives are low structures and children produce them before the CP layer is available, what happens with negative imperatives, generic imperatives, and *a*-Imperatives, all of which are morphologically identical to infinitives, the very structure that is the imperative parallel in acquisition? Are these forms attested in child production, and if so, at what developmental stage? Can acquisition data help in providing a formal analysis of such infinitival imperatives, in a comparative fashion to positive ones (Chapter 4)? These questions motivate Corpus Study 2, to which the following section turns.

2.4 CORPUS STUDY 2: INFINITIVAL IMPERATIVES

Children acquiring null-subject languages overproduce positive imperatives (Salustri and Hyams 2003, 2006), paralleling the high production rate of RI in non-null-subject languages (Rizzi 1993/1994; Hoekstra and Hyams 1998; Wexler 1994, *inter alia*). As seen in the preceding sections, this parallel has both a developmental and a grammatical dimension: the two constructions are overproduced in the same timeframe in development and share a remarkable number of salient syntactic properties (A-H). The present corpus study focuses on the developmental dimension. The grammatical domain, specifically the syntax of infinitival imperatives, will be addressed in Chapter 4, constituting novel empirical evidence and analysis on the syntax of such structures.

In Corpus Study 1, positive second person singular imperatives were shown to be attested in Early Italian, before the left periphery is acquired in Raffaello's data and before the high portion of the left periphery becomes available in Martina and Diana's data. The overproduction stage observed by Salustri and Hyams (2003, 2006) was replicated and corroborated. This is the starting point for Corpus Study 2. Given the close grammatical and developmental link between imperatives and RIs seen so far, and given that Italian possesses imperative forms with infinitival morphology, (negative imperatives, generic imperatives, and *a*-Imperatives), the present corpus study asks whether these forms are attested in child production.

More specifically, the following questions are addressed: do children produce infinitival imperatives in Italian? If so, are they used in a target-like way or as simpler tenseless forms? How does the production of infinitival imperatives compare to that of canonical positive imperatives? And what do the results imply for the syntactic analysis of positive, negative, and other infinitival imperatives? The discussion at the end of

the chapter will address these points, linking the findings of both corpus studies to the broader question of how positive imperatives are interpreted and used in early Italian.

Indeed, a further domain that has been mentioned but not yet directly addressed concerns the interpretation of RI and imperatives in acquisition. Examining infinitival imperatives is aimed at shedding light on this matter as well. If children produce infinitival imperatives, it becomes possible to ask whether they use them with the target sentential force or whether they extend them to other contexts, in the same way that positive imperatives and RIs have been argued to function as modal forms encompassing a wide range of modalities. In fact, Salustri and Hyams (2003, 2006), building on Hoekstra and Hyams' (1998) Modal Reference Effect, propose that overproduced imperatives express a form of modality (deontic, bouletic, dynamic, for instance). However, as discussed in section before, certain RIs appear to have a descriptive rather than modal interpretation (Adriana Belletti p.c.), and the question of how children actually use these forms remains open. Comparing the distribution and use of positive imperatives with that of infinitival imperatives may help clarify both how children use the second person singular imperative and whether infinitival imperatives, if attested, are used in a target-like way or assimilated to the broader category of tenseless forms with wide modal interpretation.

2.4.1 Data

The data examined in Corpus Study 2 come from the same four children analyzed in Corpus Study 1. This choice was made to allow comparability between the two classes of imperatives searched for in the data (positive vs. infinitival ones). Dasa was again drawn from the Calambrone Corpus (Cipriani et al., 1989) via the CHILDES database (MacWhinney, 2000). For Corpus Study 2, however, all available transcripts for each child were analyzed, since the criterion of stopping at the first manifestation of Force does not apply here. An overview of the data is provided in the following Table:

Child	Age in months	# of analyzed transcripts	# of child's utterances
Raffaello	19–35	17	3,812
Martina	19–31	12	6,666
Viola	23–34	10	6,280
Diana	20–24	9	3,812

Table 12: Data from the Calambrone Corpus (Cipriani et al. 1989) via CHILDES (MacWhinney 2000), covering ages 1;7 to 2;11, across 48 transcripts and 20,570 child utterances in total.

2.4.2 Methodology

The methodology was semi-automatic, following the same procedure described in §2.3.2, hence automatic extraction using CLAN and the TalkBank online browser, combined with manual inspection of the transcripts. The structures targeted in this study were negative second person singular imperatives, generic imperatives in both affirmative and negative form, and *a*-Imperatives, as seen in (228)–(230). Given that the target structures are morphologically identical to infinitives, it was possible to run automatic queries extracting all verbal forms with infinitival morphology across the transcripts, and to subsequently perform manual inspection to determine whether any of the retrieved forms carried a genuine imperative force. Unclear cases were excluded.

2.4.3 Findings

The results reveal a striking **asymmetry** between positive and infinitival imperatives.

Across all 48 transcripts and 20,570 child utterances, only 5 instances of infinitival imperatives were found, all of which are negative second person singular imperatives and all produced by Diana. No generic imperatives and no *a*-Imperatives were attested in any child's production at any point in the data. By contrast, Corpus Study 1 (Rossi, 2023) documented 519 positive second person singular imperatives across the same four children. The distribution of infinitival imperatives is provided in Table 13, while Table 14 presents the distribution of positive imperatives from Corpus Study 1 for comparison.

Child	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Diana		0		0	0	0	0	0	0	1	4	0	0	0
Martina	0	0	0	0	0	0	0	0	0	0	0	0	0	
Raffaello	0		0	0	0	0	0	0	0	0	0	0	0	0
Viola					0	0	0		0	0		0	0	0

Table 13: Negative imperatives, generic imperatives, and *a*-Imperatives produced by the four children in the Calambrone Corpus (Cipriani et al. 1989).

Age expressed in months. Blue shading proportional to values. Blank cells = no data for that month.

Child	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Diana		2		23	8	22	29				39	X		
Martina	4	12	14	11	26		29		61	X	X		X	
Raffaello	0		0	1	3	3	6		8	4	11	13	15	9
Viola					6	3	54			12	23		20	21

Table 14: Positive 2nd person singular imperatives produced by four Italian-acquiring children (Calambrone Corpus, Cipriani et al. 1989).

Age expressed in months. Orange shading proportional to values. X = transcripts not analyzed (Force already attested).

Blank cells = no data for that month. Adapted from Rossi (2023).

The 5 negative imperatives produced by Diana are distributed across two transcripts, with 1 occurrence at month 28 and 4 occurrences at month 29. No other child produces any infinitival imperative of any type at any point in the data. The following examples illustrate the negative imperatives found in Diana's production:

- (247) Diana, 29 months:
 non cadere!
 NEG fall.INF
 'Don't fall!'

The form is target, as the negative imperative is correctly formed with *non*, followed by the infinitive, and the illocutionary force is directive, addressed to a specific interlocutor. This is consistent with the adult grammar of negative second person singular imperatives in Italian (Zanuttini, 1997).

The overall picture emerging from these data is clear: generic imperatives and *a*-Imperatives are completely absent from the data, with some rare attestations of negative imperatives in early Italian child production, while positive imperatives are produced from very early on and at a high rate, in the overproduction stage individuated by Salustri & Hyams (2003, 2006) corroborated in Corpus Study 1 in this thesis.

2.4.3.1 Extended Corpus Analysis: Negative Imperatives across Italian CHILDES Corpora

The rarity of infinitival imperatives found in Corpus Study 2 motivates an **extension of the search to a broader sample** of Italian children available on CHILDES. Since negative imperatives are the only infinitival imperative type attested in the Calambrone data, and since the automatic extraction of infinitival forms following a negative marker is methodologically straightforward, the search was extended to all Italian corpora available on CHILDES, covering a total of 20 children from multiple corpora: the Calambrone corpus (Cipriani et al., 1989), the Antelmi corpus (Antelmi, 1997), the D’Odorico corpus (D’Odorico & Carubbi, 2003), the Klammler corpus (Klammler & Koroschetz, 2024), the Roma corpus (Antinucci & Parisi, 1973), and the Tonelli corpus (Tonelli et al., 1995). The search targeted both second person singular and second person plural negative imperatives, as well as non-target forms involving negation followed by an infinitive.

The results confirm the pattern found in Corpus Study 2: negative imperatives are extremely rare across the board. Of the 18 children examined, the large majority produce zero instances of negative imperatives across their entire longitudinal record. The children who do produce some occurrences are Diana and Rosa from the Calambrone corpus, Camilla from the Antelmi corpus, Guglielmo from the Calambrone corpus, and Marco from the Tonelli corpus. The totals remain very low in all cases, with Rosa producing 2 occurrences at month 2;8 and 3 at month 3;2, and Marco producing the highest count in the sample, with occurrences spread from month 1;8 to 2;4.

Nonetheless, several non-target forms are worth examining in detail. A systematic pattern emerges across multiple children: the use of *no* instead of the target negative marker *non* in negative imperatives. This alternation between *no* and *non* is attested in 4 children out of 18: Camilla, Marco, Martina, and Rosa.

At month 3;2, Rosa produces a sequence in which a target negative imperative is followed by a bare infinitive without negation, suggesting that the negation is not yet fully integrated into the structure:

- (248) Rosa, 3;2:
no, non l’azzare, levare perché quetto subito dande
no NEG IT.CL.raise.INF remove. because this.PHO immediately big.PHO
Transcriber’s gloss: non l’alzare, non lo togliere perché questo è grande
‘No, don’t raise it, remove it because this is big.’

The form *azzare* is a phonologically non-target realization of *alzare* (‘raise’), while *quetto* and *dande* are non-target realizations of *questo* and *grande* respectively (‘this’, ‘big’). Crucially, the sequence *non l’azzare* constitutes a target negative imperative with correct clitic placement in proclisis before the negated infinitive immediately followed by *levare* without negation, signifying that Rosa produces the negative imperative correctly but then reverts to a bare infinitive for the second verb in the sequence. As discussed in Chapter 1, in Italian negative imperatives the clitic may appear both in enclisis and in proclisis position (Zanuttini, 1997).

Camilla (Antelmi corpus, Antelmi, 1997) is the most interesting case in the extended sample. At month 2;4 **she produces negative imperatives with the non-target negation *no* instead of *non*, a pattern that persists and alternates with target forms across her transcripts**. There are multiple occurrences of this alternation, with clitics correctly placed in enclisis position despite the non-target negation. At month 2;11 she produces 6 target negative imperatives with correct clitic use. The co-occurrence of non-target negation with correct clitic placement is particularly revealing: it shows that imperative force, morphology, and clitic placement in enclisis are already acquired, while the specific form of the negation, and possibly deeper structural constraints tied to it, are still being stabilized.

Marco (Tonelli corpus, Tonelli et al., 1995) produces the highest number of occurrences in the extended sample, spread across a relatively long period from month 1;8 to 2;4. At month 1;8, the transcriber annotates *no fa* as a repetition attempt of the adult's *non si fa* ('one does not do it'):

- (249) Marco, 1;8:
- | | | | | | |
|--------|-----------|-----------------|-----|-------|------------------|
| Adult: | non si | fa, | non | si | picchia |
| | NEG si.CL | do.PRES.IND.3SG | NEG | si.CL | hit.PRES.IND.3SG |
- 'One doesn't do that, one doesn't hit.'
- CHI: no fa
- no do.PRES.IND.3SG

Marco replaces *non* with *no* and omits the impersonal clitic *si*, producing a reduced but communicatively effective prohibitive form. At month 2;3 the transcriber annotates two infinitival forms as potential proto-negative imperatives:

- (250) Marco, 2;3:
- | | | | | | | |
|-----------|----|-----------|--------|-------|-----|------|
| vidare, | no | vidare, | chetto | fa | la | buia |
| shout.INF | no | shout.INF | this | makes | the | dark |
- 'Shout, don't shout, this makes it dark.' (intended)

The transcriber glosses *vidare* as *gridare* ('scream') with a phonological error, and notes that the infinitives here appear to be non-governed, suggesting they may function as proto-negative imperatives rather than RIs in the standard sense.

Martina (Calambrone corpus, Cipriani et al., 1989) presents several proto-imperative forms with non-target negation, annotated as such by the transcriber. At month 1;8 she produces *ellòla*, *no toccale*, *chiuse*, apparently attempting to reproduce the adult's *non si tocca* (an impersonal imperative form expressing an instruction²⁵) with non-target negation *no* and a non-target verbal form. The form *toccale* in place of the target *toccare* likely reflects a phonological difficulty with the [r] sound. At month 1;9 she produces *no levare*, with correct infinitival morphology but non-target negation, in a context in which the intended meaning is clearly prohibitive:

- (251) Martina, 1;9:

²⁵ Sánchez López (2025) discusses such imperative forms in Spanish arguing that they are Passive Imperatives, hence being both an imperative clause but with passive grammar as well. An analysis of systematic investigation in acquisition of such forms in Italian is lacking and left for future investigation; the point is taken up again the concluding chapter.

no 0w levare
 no [null.cl] remove.INF
 ‘Don’t remove it.’ (intended)

The symbol 0w in the transcript marks the absence of an expected word, in this case the object clitic. The transcriber notes the unusual negative construction explicitly. The infinitival morphology is correct despite the non-target negation, while the clitic is missing.

Therefore, these data from the extended corpus analysis confirm and strengthen the finding of the first portion of Corpus Study 2. Negative imperatives are rare across all Italian CHILDES corpora. The forms that do appear are often non-target in the negation marker, with *no* used in place of *non*, while infinitival morphology and clitic placement tend to be correct in most instances. The main exception concerns the impersonal clitic *si*, which is omitted in at least one instance (Marco, 1;8), suggesting that the integration of *si* into the negative imperative structure represents an additional acquisition challenge beyond the basic *neg* + *infinitive* structure.²⁶

Child	Age in months	Form	Notes
Camilla (Antelmi)	2;4–3;4	no + inf (non-target neg)	Alternation <i>no</i> / <i>non</i> across transcripts; clitics correctly in enclisis
Rosa (Calambrone)	2;8	non mette’ (truncated inf)	Non-target phonological reduction of <i>mettere</i> ; possibly dialectal
Rosa (Calambrone)	3;2	non l’azzare, levare	Target neg imp followed by bare inf without negation; non-target phonology (<i>azzare</i> , <i>quetto</i> , <i>dande</i>)
Marco (Tonelli)	1;8	no fa	Repetition of adult <i>non si fa</i> ; non replaced by <i>no</i> , <i>si</i> omitted
Marco (Tonelli)	2;3	vidare, no vidare	Proto-neg imperatives annotated as “Non-governed infinitives” by transcriber; <i>vidare</i> = <i>gridare</i> (‘scream’) (PHO)
Martina (Calambrone)	1;8	no toccale	Non-target neg; <i>toccale</i> for <i>toccare</i> , likely PHO difficulty with -are
Martina (Calambrone)	1;9	no 0w levare	Non-target neg; missing clitic (0w); infinitival morphology correct

Table 15: Noteworthy non-target forms which involve negation and infinitives; drawn from manual inspection of transcripts.

PHO = phonological error. 0w= missing word.

²⁶ A personal anecdote from the author of this dissertation is worth mentioning in this respect. Her cousins, as children, frequently produced forms such as *no piace* (no like), instead of the full form *non mi piace* (NEG to-me.CL like.PRES.IND.1SG) which is consistent with the pattern observed in the corpus. Interestingly, such non-target forms appear to have been picked up by their parents, to the extent that they are occasionally still used as idiomatic expressions within the family.

2.4.4 Discussion

The overall findings of Corpus Study 2 and the extended corpus analysis converge on a clear picture: **infinitival imperatives are a rare phenomenon in early Italian**. Across 20 children drawn from six Italian CHILDES corpora, covering a total of over 20,000 child utterances, **only a handful of negative imperatives are attested, all produced by a small subset of children. Generic imperatives and *a*-Imperatives are entirely absent**. This is a stark contrast with positive imperatives, which are produced in Italian from very early on and at a high rate (Corpus Study 1, Salustri and Hyams 2003, 2006; Rossi 2023).

Two further findings deserve attention before turning to the discussion on viable accounts of such acquisition patterns.

First, a cross-linguistic parallel: **the contrast between early positive imperatives and late negative imperatives is not unique to Italian**. As noted at the outset of this chapter, Omar (1973) observes the same pattern in Egyptian Arabic, where positive imperatives appear early while negative imperatives are acquired considerably later, after the 30-month mark. The Italian data are consistent with this pattern: the first robust attestations of negative imperatives appear at month 28 in both Diana and Marco, with Marco showing one earlier occurrence at month 1;8 that is then absent for several months before reappearing. The large majority of the children in the sample produce no negative imperatives at all across their entire longitudinal record. Overall, the Italian findings replicate the Egyptian Arabic pattern, suggesting that the greater complexity of negative imperatives relative to positive ones is a cross-linguistically spread phenomenon, extending beyond Romance. It thus deserves attention and further inquiry in other languages, too.

Second, another cross-linguistic parallel, but in another domain. It is worth underlining the non-target forms attested in the extended corpus analysis, in particular the **systematic use of *no* instead of *non* as the negation marker in negative imperatives across multiple children and corpora. Crucially, this pattern mirrors what has been observed for RIs in Dutch, where children tend to use *nee*, the adult anaphoric negation, rather than *niet*, the regular manifestation of NegP (Rizzi, 1993/1994)**. The parallel between Italian-acquiring children using *no* in negative imperatives and Dutch-acquiring children using *nee* with RIs provides further cross-linguistic support for the grammatical and developmental link between imperatives and RIs, as seen in §2.1.2. In both cases, it appears that children try and produce the target structure with the target illocutionary force, but do so with the resources that they have, or they prefer to exploit, yielding non-target realizations.

A strikingly parallel pattern is reported for child Modern Hebrew by Berman (1985), as reported in Aikhenvald (2010). In Hebrew, adults addressing children, and children addressing each other and adults, express prohibition with the negative word *lo* ('no, not') followed by an infinitive, rather than with the standard adult form *al* ('don't') followed by a future-marked verb. Children thus produce *lo lingóa* ('not to touch') rather than *al tiga* ('don't touch'), and *lo lakum* ('not to get up') rather than *al takumi* ('don't get up'). Berman (1985) notes that infinitives are overextended by children for many speech acts well into the third and even fourth year as the most typical way of expressing requests, desires, and prohibitions, in "*a way of formulating directives more obliquely than through straightforward imperative forms* (my emphasis, Berman 1985, p. 268)".

Both children and adults therefore exploit the infinitive together with the simpler negation marker *lo*, yielding a pattern that is structurally parallel to what has been observed in the Dutch RIs (Rizzi, 1993/1994) and Italian negative imperatives (this present corpus study).

Turning to the explanation of the main finding, namely the rarity of infinitival imperatives in the data, with the total absence of Generic and *a*-Imperatives and the rare occurrence of negative imperatives, several accounts can be considered and evaluated.

A first account in terms of processing difficulty and phonological complexity would capitalize on infinitival imperatives involving an extra syllable compared to positive second person singular imperatives, and that the infinitival ending *-re* involves a degree of articulatory/phonological complexity that may contribute to its avoidance in development.

However, **it seems that phonological and/or processing difficulty *alone* cannot explain the scarcity of infinitival imperatives.** If it did, one would expect Generic Imperatives, which consist of a bare infinitive without negation, to be easier to produce than negative imperatives, and therefore more frequent. Instead, the opposite is observed: the only infinitival imperatives attested are negative, while Generic Imperatives are entirely absent. Processing difficulty may be a contributing factor, but it cannot be the primary source of hardship for the developing grammar. Indeed, negative sentences are actually harder to process and result in higher error rates compared to affirmative ones, and negation is integrated into the discourse model only at a later stage (Dale & Duran, 2011, and references therein). This may contribute to the scarcity of negative imperatives in early Italian. The absence of generic and *a*-Imperatives, which do not involve negation, remains unexplained²⁷ under a processing/phonological complexity account.

A third account in terms of contextual restrictions it is also insufficient as the only explanation. It could be that the specific discourse contexts in which infinitival imperatives are used are simply too rare in child-directed speech. However, there is independent evidence in the acquisition literature that children are highly creative in overextending syntactic structures to contexts beyond their target use. On independent grounds, it has been shown, for instance, that among the first passive forms to emerge in Italian child production there are *si*-causative passives. They are which are not frequent in the input, yet in child production they appear before other “regular” passive constructions that would intuitively seem “easier” (Belletti, 2017a, 2023; Contemori & Belletti, 2014). The connection to the present data is worth noting on two domains. First, as discussed above, given children’s creativity, they could have in principle extended a Generic or a *a*-Imperative to other contexts. Remember, after all, that such forms in Italian are bare infinitivals (a part from the ‘*a*’ element in *a*-Imperatives). The second domain is the following: when the adult in the Calambrone transcripts says *non si tocca* (‘one does not touch that’), the child does not reproduce the impersonal negative imperative, failing to produce the impersonal *si* clitic and resorting instead to a reduced form. This is consistent with the view that constructions involving *si* require structural complexity that the child has not yet fully acquired at that time. In fact, the *si*-causative passive is in any case a later stage structure, produced from around 4 years onwards. **The absence of generic and *a*-Imperatives, therefore, cannot be attributed solely to the infrequency of the relevant contexts where they appear in the target, adult grammar; especially given that Generic imperatives, such as *allacciare le cinture!* (fasten.INF the seatbelts!), differ only minimally from positive imperatives such as *allaccia le cinture!* (fasten.IMP.2SG the seatbelts!), and could in principle be overextended in the same way that positive imperatives and *si*-causative passives are.**

Therefore, **it seems that to account for the present findings one cannot do without taking into account syntactic constraints.** According to the overall results of Corpus Study 1 and Corpus Study 2, infinitival imperatives seem more complex than canonical positive imperatives, with differences among infinitival imperatives themselves as well. Following influential proposals on verb movement in generative

²⁷ Italian also possesses **negative** Generic Imperatives, as will be discussed in Chapter 4. Neither affirmative nor negative generic imperatives are attested in the corpus data.

grammar, starting from Belletti (1990) to more recent proposals such as Roberts (2019) and Schifano (2018), morphological endings require dedicated heads in the functional spine, to which the verb moves. This implies that an infinitive involves at least one additional projection, for the infinitival ending *-re*, compared to a bare positive imperative. This structural difference, even if minimal, appears to be sufficient to make children prefer the positive imperative as the privileged overproduced structure.

One might object that phonological complexity alone could account for the avoidance of infinitival forms, given that the infinitival ending *-re* involves an articulation that is known to be acquired relatively late. This is likely a contributing factor, but it cannot be the only explanation. The corpus data contain instances of children who avoid the full infinitival ending while still producing an infinitive when needed, as in Martina's *no toccale* (month 1;8):

- (252) Martina, 1;8:
 no toccale
 no touch.imp
 'Don't touch it.' (intended, for target *non toccare*)

Here Martina avoids the *-re* ending, producing *-le*, but nonetheless she utters a negative imperative. This shows that phonological difficulty with *-re* does not prevent children from producing infinitive forms altogether when needed; rather, they adapt the phonological realization while preserving the syntactic structure. Phonological complexity may therefore be a contributing factor, but the overall pattern is consistent with the view that the imperative syntax in Italian is more parsimonious than the infinitival syntax, and that this parsimony is what makes the imperative the preferred form at the overproduction stage.

The total absence of generic imperatives and *a*-Imperatives requires a separate account. Superficially, these forms appear simple: generic imperatives consist of a bare infinitive, and *a*-Imperatives of a preposition followed by an infinitive. Yet their total absence from the data suggests that additional complexity is involved, complexity that is not immediately visible at the surface but must be present at the structural level. These findings will motivate the analyses developed in Chapter 4.

In the case of generic imperatives, additional structural complexity may derive from the involvement of a generic operator (Chierchia, 1995): a generic imperative does not address a specific interlocutor but rather an indiscriminate set of possible addressees, a semantic and pragmatic property that requires structural encoding beyond what a simple infinitive would need. In the case of *a*-Imperatives, periphrastic and aspectual properties are similarly implicated. The *A*-Imperative expresses an immediate imperative, requiring the addressee to begin the action at the moment of utterance, a more specific temporal and aspectual configuration than the default temporality of positive imperatives, which are compatible with both immediate and non-immediate interpretations.

There is cross-linguistic evidence that aspectually marked imperatives are acquired later than unmarked ones. Schieffelin (1985) reports that in Kaluli, a language that distinguishes between immediate and future imperatives, immediate imperatives appear in early child language from around 25 months, while future imperatives, which are also less frequent in caregiver speech, are not attested until after 30 months. The *A*-Imperative in Italian is, in this sense, a marked form: although it expresses an immediate and peremptory order, it encodes a specific aspectual configuration that the positive imperative does not require. It is therefore expected, on this account, to be a later-acquired structure. The total absence of *a*-Imperatives in the corpus data is consistent with this prediction. The syntax of generic imperatives, negative imperatives, and *a*-Imperatives will be examined in detail in Chapter 4.

This structural account also aptly addresses the broader question of why Italian-acquiring children choose to overproduce positive imperatives rather than RIs or infinitival imperatives. It was already established by Guasti (1993) that Italian-acquiring children do not go through a root infinitive overproduction stage. The present corpus study takes a further step: even setting aside the question of overproduction, one might expect some infinitival forms to appear in the data, and among these, potentially some infinitival imperatives. The near-total absence of such forms is therefore a substantive finding in its own right. The contrast is striking: positive second person singular imperatives are produced abundantly from as early as month 19, with hundreds of occurrences across the overproduction stage (months 2;1 to 2;5 approximately), while infinitival imperatives are virtually absent across the same age range and beyond, with only a small number of negative imperatives attested from month 2;4 onwards. Generic imperatives and *a*-Imperatives do not appear at any point in the data.

2.4.4.1 *Corpus Study 1 and Corpus Study 2 results: Interim Summary*

To summarize, the findings of Corpus Study 1 and Corpus Study 2 together call for a syntactic account. The acquisition patterns observed cannot be fully reduced to phonological complexity, processing difficulty, or pragmatic restrictions on use. The most telling piece of evidence in this respect is the contrast between the total absence of generic imperatives, which involve no negation and differ only minimally from positive imperatives on the surface, as in *allacciare* (fasten.INF) versus *allaccia* (fasten.IMP.2SG), and the occasional presence of negative imperatives, which are in principle harder to process due to the presence of negation. If processing difficulty or phonological complexity were the primary explanatory factors, generic imperatives should be easier to produce than negative ones, and therefore more frequent. The opposite is observed. It might be objected that generic imperatives are also less frequent in the input than positive imperatives, and that their absence could therefore reflect input frequency rather than structural complexity. However, input frequency alone is not a sufficient explanation: there is independent evidence in the acquisition literature that even very low-frequency structures in the input can be acquired early and productively when the child's grammar is ready for them. Belletti (2017, 2023) shows that among the first passive-like constructions to emerge in Italian child production are *si* causative passives, which are extremely rare in caregiver speech, yet appear before other passive constructions that would intuitively seem simpler and more accessible. This suggests that a small number of occurrences in the input can be sufficient to trigger the acquisition of a structure, provided that the structure itself is within reach of the child's grammar at that developmental stage. The absence of generic imperatives from the corpus data is therefore more plausibly attributed to structural complexity than to input frequency. This asymmetry suggests that the relevant dimension is structural rather than merely phonological or pragmatic, and that different types of infinitival imperatives involve different degrees of structural complexity, with generic imperatives and *a*-Imperatives requiring more than negative imperatives.

These considerations point toward two separate structural analyses: one for positive imperatives, which are available early as low, computationally light structures that children overproduce and overextend across a wide range of communicative contexts, and one for infinitival imperatives, which require additional structural complexity and remain largely inaccessible throughout the age range examined. The second person singular positive imperative emerges from these data as the privileged structure of early Italian, the form that most directly instantiates the developmental universal of tenseless overproduction that parallels the root infinitive stage in non-null-subject languages. Both analytical implications will be developed in the chapters that follow: the structural analysis of positive imperatives in Chapter 3, and the syntax of infinitival imperatives in Chapter 4.

2.5 EXPERIMENTS: IMPERATIVES IN (LARGE) LANGUAGE MODELS

Language models (LMs) are computational systems trained to predict the next word in a sequence of text, given all preceding words. In doing so, they learn statistical regularities over large amounts of linguistic data, and in recent years have demonstrated impressive performance on a wide range of linguistic tasks (Srivastava et al., 2022, *inter alia*). From the perspective of acquisition studies, and therefore of the present thesis, what is most relevant is not their performance *per se*, but the question of whether their learning trajectory follows that of human language acquirers (Bender et al., 2021; Chesi et al., 2026). Comparing computational systems with human learners is interesting because it forces the development of explicit models of what language does and how it is acquired. This is a non-trivial, challenging practice: the architectures of these models and their internal representations are often opaque, giving rise to the well-known *black box problem* (Belinkov & Glass, 2019; Fomin & Astromskis, 2023; Von Eschenbach, 2021), which makes it difficult to directly inspect an LM’s internal processed and what it has model has “learned”. Nonetheless, comparing machines and humans can highlight similarities and differences that may be fruitful to linguistic inquiry, and should not be neglected as such (Chesi, 2025b, 2025a).

This question connects directly to the Poverty of Stimulus debate. A robust observation in first language acquisition is that children converge on the adult grammar within a remarkably short developmental window, regardless of the language they are exposed to, and with limited primary linguistic data (Crain & Thornton, 2000; Guasti, 2017). This has traditionally been taken as evidence for biologically given mechanisms pertaining to (narrow) syntax, as formalized in the Generative tradition. Some researchers have argued that LMs, which achieve impressive linguistic generalizations from data alone, challenge the necessity of such mechanisms, suggesting that rich syntactic knowledge may emerge from statistical learning given sufficient data and appropriate inductive biases (Goyal & Bengio, 2022; Piantadosi, 2024; Piantadosi & Hill, 2022). However, as noted by Chesi (2025a, 2025b) and Chesi et al. (2026), the debate concerns not only whether LMs exhibit linguistic capacities, but whether they can inform a theory that accounts for the cognitive underpinnings of natural language, as mentioned above. Following Fodor (1985), Baggio et al. (2024), and Chesi (2025a, 2025b; 2026), a distinction must be drawn between models, which are tools for simulating or predicting linguistic data, and theories, which seek to explain underlying cognitive mechanisms. An LM that merely replicates linguistic behavior is not the same as a theory that explains it. In this sense, LMs function as tools for hypothesis testing rather than as explanations of the cognitive foundations of language (Chesi, 2025a, 2025b).

What makes the comparison between LMs and children interesting for the purposes of this thesis, is a more specific question: not whether LMs “learn” language in the same way as children, but whether their “learning” trajectory mirrors the developmental stages observed in child language acquisition. Following Chesi et al. (2026), a LM that aspires to cognitive plausibility with respect to syntax should meet at least three criteria: it should process linguistic input incrementally, as humans do; it should be exposed to naturalistic training input approximating the kind encountered by human learners, and not be trained on massive amounts of data, and it should reproduce the developmental trajectory observed in first language acquisition.

It is this third criterion that is investigated in Rossi et al. (2025). If the Growing Trees stages (Belletti et al., forthcoming; Friedmann et al., 2021) capture something fundamental about the acquisition of syntax, a linguistically and cognitively plausible model should display the same acquisitional trajectory in stages.

The measure used to measure this sensitivity is *perplexity*. Intuitively, perplexity measures how surprised a LM is by a given sentence. More specifically, a sentence that the model finds highly predictable receives low perplexity; a sentence that the model finds unexpected receives high perplexity. If a model has learned

to handle a given syntactic structure robustly, it will assign consistently low perplexity to sentences instantiating that structure, irrespective of lexical variation. The hypothesis tested in Rossi et al. (2025) is that perplexity should increase across Growing Trees stages: structures that children acquire early, such as simple subject-verb sentences and imperatives (Belletti & Guasti, 2015; Casadei, 2024; Friedmann & Reznick, 2021; Montrul, 2004; Robiatu, 2025; Rossi, 2023), should receive lower perplexity than structures acquired later, such as *wh*-questions, topics, and embedded clauses. Imperatives, a first-stage structure in the Growing Trees framework in Italian (Rossi, 2023, this thesis) and in English (Robiatu, 2025), provide a particularly direct test case for the present chapter: a model that mirrors human developmental patterns should handle imperative sentences with greater ease than second and third-stage structures.

This section presents the main findings of Rossi et al. (2025), focusing on the aspects most directly relevant to the questions raised in this chapter. For full methodological details, including the construction of the ATTracTSS dataset and the statistical analyses, the reader is referred to the original paper.

2.5.1 Data and Methodology

The study tested four Italian LMs: two small GPT2 models, *ita-baseline-small* and *NeTS-3M* (De Vries & Nissim, 2021; Fusco et al., 2024), *GePpeTto* with 117M parameters (De Mattei et al., 2021), and a larger model, chosen as ‘control’, namely *Minerva-7B-base* with 7 billion parameters (Orlando et al., 2024). The choice of models was motivated by the desire to compare models of different sizes and training regimens: crucially, **NeTS-3M was trained exclusively on a 3M-token corpus of Italian child-directed speech**, available from Fusco et al. (2024), making it the most directly comparable to a human child learner in terms of input quantity and quality.

The four models were tested against a curated benchmark, called ATTracTSS (Rossi et al., 2025) constructed by linguists at the NeTS Lab in Pavia, in the spirit of the Italian BLiMP benchmark also developed at the same lab (Bressan et al., forthcoming). Benchmarks of this kind are essential tools in computational linguistics: they consist of carefully designed sets of sentences against which models can be tested in a controlled manner, allowing for precise and replicable evaluation of LM’s linguistic abilities. This approach is necessary because it is not possible to simply ask a LM how it processes a given structure and expect a meaningful answer. Asking ChatGPT or any other conversational AI, or any model whether it can produce a relative clause would be methodologically uninformative (Chesi, 2025b, 2025a). It would be uninformative in the same way that asking a child directly whether they know how to form a relative clause would tell us very little about their actual grammatical competence. One would need a controlled experiment or the analysis of spontaneous production. For LMs, spontaneous production is difficult to exploit systematically, both because models tend to generate a wide range of outputs and because eliciting specific structures requires prompting, which introduces a confound similar to an elicitation task rather than genuine spontaneous production. A perplexity-based benchmark avoids these problems by measuring how the model responds to linguist-designed sentences without any prompt-based intervention. As anticipated, the relevant benchmark for this work is ATTracTSS (*Acquisition Trajectories in Terms of Syntactic Structures*), a novel dataset constructed for the study in Rossi et al. (2025), directly relevant for this thesis project. It consists of 17 prototypical syntactic constructions corresponding to the structures predicted to emerge at different Growing Trees stages, as detailed in Table 1 of Rossi et al. (2025), and reported in Table 16:

ID	Sentence Type	GT	NE	Example (Italian)
i	SV simple	1	1	<i>Alessandro telefona.</i>
ii	SV unaccusative	1	1	<i>Luigi sale.</i>
iii	VS unaccusative	1	1	<i>Arriva Matteo.</i>
iv	Imperatives	1	1	<i>Corri!</i>
v	Modals	1	?	<i>Il babbo vuole saltare.</i>
vi	Root <i>wh</i> -questions	2	1	<i>Chi annaffia i fiori?</i>
vii	Root <i>yes/no</i> questions	2	1	<i>Ha mangiato la mela?</i>
viii	Preposed Adverbs	2	1	<i>Raramente Giorgio dorme.</i>
ix	Focus	2	?	<i>No, l'uccellino salutano i bambini!</i>
x	Illocutionary COMPs	3	1	<i>Che brutto!</i>
xi	Why questions	3	2	<i>Perché il bambino piange?</i>
xii	Topics	3	2	<i>Il cavallo, la bambina lo lava.</i>
xiii	Embedded <i>that</i>	3	2	<i>Il cavallo vede che la mucca beve l'acqua.</i>
xiv	Embedded <i>if</i>	3	2	<i>Non so se Luca verrà al mare.</i>
xv	Subject Relative	3	2	<i>Il bambino che gioca con la mamma.</i>
xvi	Object Relative – intervener	3	2	<i>Il ragazzo che loro abbracciano.</i>
xvii	Object Relative + intervener	4	?	<i>Il ragazzo che la nonna abbraccia.</i>

Table 16: Stage development predictions of the Growing Trees (GT) and the Neo-Emergentist (NE) approaches for the 17 sentence types in the ATTracTSS dataset (Rossi et al., 2025).

A question mark indicates that no clear prediction of the acquisition stage is available in the relevant literature.

The imperative row (iv), highlighted, is the structure most directly relevant to the present chapter. Examples are in Italian. For glosses, and the full ATTracTSS dataset, the reader is referred to the Appendices in Rossi et al. 2025, and the following direct link to the dataset repository: <https://nets-lab.github.io/attracts/>

The 17 prototypical syntactic constructions, each further subdivided into variations such as changes in verbal class, yielding 89 subphenomena in total. For each subphenomenon, 100 lexically diverse items were generated, for a total of 8,900 items.

The dataset was also mapped onto the predictions of the Neo-Emergentist framework (Bosch, 2023; Bosch & Biberauer, 2024) allowing for a direct comparison of the two theoretical approaches. The two frameworks differ fundamentally in their predictions about the availability of the CP layer in early child language. Under the Growing Trees approach, the syntactic tree grows bottom-up: only vP and IP are available at the first stage, with the lower portion of the CP layer becoming available at the second stage and the higher portion only at the third. This means that CP structures are predicted to be absent from the earliest stages of child production, a prediction that is directly relevant to the analysis of imperatives developed in this chapter. Under the Neo-Emergentist framework, by contrast, the macro-categories V, T,

and C are assumed to be available from the onset of acquisition, with development consisting in a progressive refinement and subdivision of these coarse-grained categories into finer-grained distinctions. The substantive difference between the two approaches therefore concerns the status of the CP layer: absent from the earliest stage under Growing Trees, present from the start under Neo-Emergentism.

This divergence leads to different predictions about the order of acquisition. Under the Neo-Emergentist view, basic CP structures such as *wh*-questions, yes/no questions, and illocutionary complementizers are expected to emerge early, by virtue of their low formal complexity and their connection to speaker-hearer oriented material. However, as noted by Belletti et al. (forthcoming), illocutionary complementizers are analyzable as second-stage structures under the Growing Trees framework. Moreover, the Neo-Emergentist framework does not encode the Guttman scale relationships observed between structures: if a child produces a given structure, all structurally simpler ones must already be present, a constraint that the Neo-Emergentist framework does not straightforwardly capture. A further methodological consequence of this is that Neo-Emergentist studies rely on MLU as the primary developmental measure rather than on the implicational ordering of structures. Since the first Growing Trees stage is typically very brief, as documented in Friedmann et al. (2021) and corroborated by the data in Corpus Study 1 of this chapter, second-stage structures tend to appear early in absolute terms. Neo-Emergentist studies risk conflating first and second-stage structures, effectively losing sight of the first stage altogether. Nonetheless, given that the debate between the two approaches remains active and empirically open, both frameworks were included in the study without excluding either one *a priori*, in the interest of a fair and comprehensive comparison.

The evaluation method is based on perplexity, as introduced in the preceding section. For each sentence in the dataset, the negative log probability assigned by each model was extracted using the lm-evaluation-harness platform (Lintang Sutawika et al., 2024). Perplexity values were then averaged across the 100 lexical variants of each syntactic construction, in order to reduce the impact of individual word-level frequency effects. A series of linear mixed effects models were run to assess whether the stage-wise articulation of Growing Trees and Neo-Emergentism significantly predicted perplexity across models.

For NeTS-3M, a longitudinal analysis was additionally carried out across training epochs. In the context of LM training, an epoch corresponds to one complete pass through the entire training dataset. By evaluating the model at multiple points during training rather than only at the end, it is possible to observe how its sensitivity to different syntactic structures develops progressively, offering a window onto the learning trajectory of the model.

2.5.2 Findings

Findings of the Perplexity Analysis on the 4 models illustrated above, tested against the ATTracTSS dataset comprising a wide range of structures of varying complexity and developmental stages, show an overall alignment of all four models with the linguistic developmental trajectory observed in children. Perplexity values tend to increase with the progression of Growing Trees stages across all models; mean perplexity for Stage 1 structures ranges from 32.30 (Minerva) to 40.62 (GePpeTto), while Stage 3 structures receive substantially higher perplexity, ranging from 48.51 (Minerva) to 65.05 (NeTS-3M), as reported in Table X. This suggests that the syntactic structures that children acquire later, and therefore find more difficult, roughly overlap with the sentence types that LMs find less predictable, or in other words, more “unexpected”.

It was observed that a three stage model such as the Growing Trees one yields better predictions, compared to the two-stage subdivision of the Neo-Emergentist framework. In a series of linear mixed

effects models, treating the Growing Trees stages as a fixed factor significantly improved model fit in all four models (ita-baseline-small: $\chi^2(2) = 10.633$, $p < .005$; NeTS-3M: $\chi^2(2) = 376.68$, $p < .0001$; GePpeTto: $\chi^2(2) = 9.16$, $p < .0001$; Minerva: $\chi^2(2) = 35.5$, $p < .0001$). The same analysis for the Neo-Emergentist stages did not yield significant results for any of the models tested ($p > .05$ in all cases). This suggests the Neo-Emergentist two-stage articulation whereby certain CP structures are available from the very first stage does not capture model behavior as effectively as the Growing Trees stages.

The most interesting results come from NeTS-3M, the model trained exclusively on child-directed speech and the only one for which a longitudinal analysis across training epochs was possible, given that its architecture, training regimen, and training data could be fully controlled. NeTS-3M is the only model for which all pairwise comparisons between Growing Trees stages reach statistical significance, including the distinction between Stage 1 and Stage 2 ($\chi^2(2) = 376.68$, $p < .0001$; Stage 1 vs. Stage 2: estimate = 6.71, SE = 0.34, $p < .001$; Stage 2 vs. Stage 3: estimate = 2.80, SE = 0.46, $p < .001$; Stage 1 vs. Stage 3: estimate = 3.91, SE = 0.48, $p < .001$). The longitudinal results show that NeTS-3M progressively reduces the perplexity gap between stages as training proceeds, while maintaining a consistent distinction between them throughout. This suggests that training on a small but curated corpus of naturalistic child-directed speech, rather than on massive amounts of general text, allows a model to approximate the early developmental stages more faithfully, including the crucial distinction between the first stage, where imperatives are found, and the second stage, where left-peripheral structures begin to emerge.

Some important asymmetries between LMs and human children remain, and caution is needed when interpreting these results. Within stages, some variation is observed: why-questions, classified as a third-stage structure under the Growing Trees framework, receive surprisingly low perplexity from all models, while some simple subject-verb transitive sentences, classified as first-stage structures, receive comparatively high perplexity. The correspondence between human acquisition and model behavior is therefore robust at the level of the general trend across stages, but it breaks down for individual structures in certain cases. The low perplexity assigned to why-questions may reflect the fact that when the model encounter *perché*, it directly associates it with a why questions, in a different, linear way compared to the child who would need to compute the syntactic structure on a hierarchical level. This is a speculation and more research should be carried out to test this further, but the data interpreted in this way points to a genuine difference between statistical predictability and the structured syntactic knowledge that characterizes human acquisition.

Crucially for the present chapter, imperatives are classified as first-stage structures in the ATTracTSS dataset, and indeed all four models assign them low perplexity. This is directly relevant to the findings of Corpus Study 1: just as Italian-acquiring children produce imperatives before the left periphery or its highest portion is available, LMs handle imperative sentences with greater ease than structures pertaining to the later stages. However, one must handle these results with caution before taking too strong a stance. As discussed above, the general alignment between model behavior and child developmental trajectories is overall found when taking into account a three-stage division; but differences and asymmetries at the level of some structures are interesting because they unveil that there must be different factors at play in LMs “learning” and child acquisition. Therefore, also results treating imperatives as first stage structures should be noted, but treated with caution for the time being.

In the future more experiments need to be carried out, testing more ecological training regiments and more cognitively plausible models.

2.5.2.1 Extended Analysis: Imperative Types in the ATTracTSS Dataset

The following analysis constitutes an original expansion of Rossi et al. (2025) conducted for the purposes of the present thesis. In the original study, all imperative types were treated as a single macro-phenomenon for the purposes of the stage-level analysis, a methodological choice that was statistically motivated by the unequal number of subphenomena across macro-categories. The breakdown by imperative type presented here was not included in the original paper, and the observations that follow are therefore new. The underlying perplexity estimates are drawn from the ATTracTSS dataset reported in Rossi et al. (2025); the interpretation and analysis are original to the present work.

The ATTracTSS dataset includes four imperative macro-types: true imperatives (second person singular positive imperatives), negative imperatives, suppletive imperatives (first and second person plural forms), and generic imperatives. Table 17 reports the mean log-probability and standard deviation for each type, aggregated across all four models.

Imperative type	Subphenomena	GT stage	Mean log-prob	SD
True imperative (2nd person singular positive)	9	1	-33.44	9.12
Negative imperative	18	1	-33.32	7.48
Suppletive imperative (1st/2nd person plural)	18	1	-35.53	8.57
A-imperative	4	1	-35.53	8.57
Generic imperative	1	1	-40.71	5.72

Table 17: This table represents an original analysis made for the purposes of the present thesis, based on data from Rossi et al. (2025). Mean log-probability and standard deviation (SD) for each imperative type in the ATTracTSS dataset, aggregated across all four models tested in Rossi et al. (2025). All imperative types were classified as Growing Trees (GT) Stage 1 as working hypothesis. Lower log-probability (higher absolute value) indicates greater model uncertainty. The true imperative row is highlighted in yellow; the generic imperative row in red, reflecting the largest divergence from the true imperative. The number of subphenomena tested for each type is reported in the second column (e.g., sentences with clitics of different number and gender). Full table with all subphenomena available at <https://nets-lab.github.io/attracts/>

Although all imperative types are classified as first-stage structures under the Growing Trees framework, the models do not treat them uniformly. True imperatives and negative imperatives receive the highest log-probability values, meaning that the models find them most predictable: -33.44 and -33.32 respectively. Suppletive imperatives and *a*-Imperatives receive somewhat lower values (-35.53), indicating slightly greater model uncertainty. Generic imperatives, however, stand out clearly as the most difficult type for the models, with a mean log-probability of -40.71, considerably lower than all other imperative types.

This ordering is consistent with the acquisition data presented in Corpus Study 2. Generic imperatives are entirely absent from Italian child production across all corpora examined, and the models find them the least predictable of all imperative types. True imperatives, which are the most abundantly produced form in child language and the core of the overproduction stage, are the most predictable for the models together with negative imperatives. The parallel between the two sources of evidence, human child production data and model perplexity estimates, is striking: in both cases, generic imperatives emerge as structurally distinct from positive and negative imperatives, despite being superficially simpler on the surface.

Note that this analysis is aggregated across all four models. A more fine-grained investigation, breaking down results by individual model and examining the longitudinal trajectory of NeTS-3M specifically for

imperative subtypes, would be needed to draw stronger conclusions. This constitutes a direction for future research that will not be taken up here, as further work should also address other limitations of the present study discussed below.

2.5.3 Discussion

The results of Rossi et al. (2025), together with the original expansion presented above, converge on two main conclusions. First, LMs trained on Italian show a general alignment with the stage-wise developmental trajectory predicted by the Growing Trees framework, assigning lower uncertainty to structures that children acquire early and higher uncertainty to structures acquired later. This alignment is more robust under the Growing Trees three-stage articulation than under the coarser two-stage subdivision of the Neo-Emergentist framework, which failed to reach significance as a predictor of model behavior across all four models tested. Second, within the category of imperatives, which are uniformly classified as first-stage structures as working hypothesis (and following the Growing Trees predictions and the results of Corpus Study 1), the models show meaningful variation across types: true and negative imperatives are the most predictable, while generic imperatives are the least predictable, with a gap that is consistent with the acquisition data presented in this chapter.

Two main aspects of these findings are worth discussing and underlining. On the one hand, they provide indirect computational support for the theoretical proposals developed in this chapter. The fact that imperatives receive relatively high log-probability across all models, and that this holds specifically for the true second person singular imperative that is overproduced by children, is consistent with the view that this form is structurally simple and computationally light. The fact that generic imperatives receive substantially lower log-probability, despite being morphologically simpler than positive imperatives on the surface, is consistent with the proposal that they involve additional structural complexity, as will be argued in Chapter 4. In this sense, the LM data and the corpus acquisition data point in the same direction, providing converging evidence from two independent sources.

On the other hand, important limitations must be acknowledged. The correspondence between model behavior and human acquisition is robust at the level of general trends but breaks down for individual structures, as in the case of *why*-questions. LMs and human children are fundamentally different kinds of learners: models capitalize on statistical predictability, while children acquire language in a way that is constrained by the language faculty. Nonetheless, it is worth noting that NeTS-3M, the model trained exclusively on child-directed speech, is the one that most consistently approximates the Growing Trees developmental stages, being the only model for which all pairwise comparisons between stages reach statistical significance. This finding is notable: it suggests that implementing cognitively plausible constraints on the training input, specifically by restricting it to the kind of naturalistic data that a child learner would be exposed to, allows the model to better approximate human developmental trajectories. With the exception of NeTS-3M, the other models were trained on general text corpora that differ substantially from the input available to a child learner; a limitation of the present study. However, a research direction is worth underlining where the cognitive plausibility of a LM is evaluated not only in terms of its linguistic performance, but also in terms of whether its learning trajectory mirrors that of human acquirers. These are preliminary considerations, however, and further research will have to extend these research questions to models with more cognitively plausible architectures and training regimens: all the models tested are Transformer Models, therefore processing input in a parallel way, not in an incremental one, which mirrors human processing more closely (Chesi et al., 2026).

2.6 OVERALL RESULTS SUMMARY

This chapter was aimed at addressing a gap in the acquisition literature: a systematic analysis of the rich imperative verbal landscape in Italian from a developmental perspective was lacking. The focus was on positive imperatives and infinitival imperatives; it should be noted, however, that Italian also possesses imperative forms involving subjunctive morphology, including polite imperative forms. These have been described in Salvi and Borgato (1991) and analyzed in Isac (2015), but their acquisition has not been investigated and remains a direction for future research.

The starting point of the chapter built on Chapter 1, in particular on the classification of imperative structural analyses in broad categories depending on where they locate the imperative in the functional spine: analyses that place the imperative verb in the CP layer, specifically in Force (Platzack & Rosengren, 1998; Rivero, 1994b; Rivero & Terzi, 1995, among many others) or in Top (Di Domenico, 2004); analyses that locate it lower, in the TP layer (Rivero 1994 on Balkan Languages, Rivero & Terzi 1995 on Ancient Greek); and analyses that place imperatives in the vP periphery (Jensen, 2007; Shlonsky, 2004). The traditional analyses are those that require the imperative verb to be in C.

Given this background, three acquisition puzzles were identified that motivate the corpus studies presented in this chapter.

First, if imperatives require the CP layer, children should not be able to produce them before that layer is acquired, yet the developmental literature suggests that imperatives appear very early, across different languages: Italian (Belletti & Guasti, 2015), Spanish (Montrul, 2004), but also unrelated languages such as Egyptian Arabic (Omar, 1973), for instance.

Second, the parallel between imperative overproduction in null-subject languages and root infinitive overproduction in non-null-subject languages, which share a remarkable number of grammatical properties (properties A-H), is in tension with high analyses of the imperative, since RIs have been analyzed as truncated structures lacking the CP layer (Rizzi, 1993/1994).

Third, analyses that eliminate the intermediate IP projections while retaining the CP layer are incompatible with the Growing Trees framework and with the logic of clausal truncation active in development, as seen from the asymmetry between Reduced Relative Clauses and Imperatives. RRCs comprise a Force head but no internal IP projections, and according to Belletti (2024, 2026), that is the source of difficulty for children who acquire such structures only later than 6 years old.

Moving to the empirical data discussed in the chapter, Corpus Study 1 investigated the relationship between imperative production and the acquisition of the left periphery in four Italian-acquiring children from the Calambrone corpus (Cipriani et al, 1989). The results showed that imperatives are produced before the left periphery is acquired in Raffaello's data, and before the high portion of the left periphery is available in Martina's and Diana's data. A Guttman scale emerged: no child is at the second or third Growing Trees stage without having already produced imperatives, but not vice versa. These findings are inconsistent with analyses that locate the imperative in Force, Top, or any other high left-peripheral position, and are consistent with a low structural analysis of the imperative. The cross-linguistic parallel with English, where Robiatu (2025) independently finds imperatives at the first Growing Trees stage, provides further support.

Instead, Corpus Study 2 investigated the production of infinitival imperatives, namely negative imperatives, generic imperatives, and *a*-Imperatives, across the same four children and in an extended sample of 20 children from six Italian CHILDES corpora. The results showed that infinitival imperatives are virtually absent from early Italian child production: only a small number of negative imperatives were attested, all produced by a subset of children, while generic imperatives and *a*-Imperatives were entirely absent. This stark asymmetry with positive imperatives, which are produced abundantly from very early on,

cannot be explained by processing difficulty, phonological complexity, or contextual restrictions alone. A syntactic, structural account is needed as well: infinitival imperatives involve additional structural complexity relative to positive imperatives. Non-target forms involving *no* instead of *non* as the negation marker, attested across multiple children and corpora, provide independent evidence that infinitival imperatives pose a challenge compared to positive ones. This *no* vs. *non* alternation mirrors what has been observed for RIs in Dutch (Rizzi, 1993/1994) and for infinitival prohibitives in Modern Hebrew (Berman, 1985).

Finally, the chapter presented an original analysis of imperative types in the ATTracTSS LM evaluation dataset, building on Rossi et al. (2025). The results showed that LMs trained on Italian display a learning trajectory consistent with the developmental stages in the Growing Trees framework overall, but important asymmetries remain (e.g., why questions are treated as “easier” structures than subject-verb transitive structures). Concerning imperatives, true and negative imperatives are treated as easier and most predictable by all the aggregated models, while generic imperatives are the least predictable, in a pattern that converges with the acquisition data. The model trained on child-directed speech, NeTS-3M, showed the most consistent alignment with the Growing Trees stages, suggesting that cognitively plausible input constraints improve the approximation of human developmental patterns. These results are preliminary, but comparing human and artificial learning trajectories in terms of structurally defined developmental stages, rather than in terms of age of acquisition or raw performance, offers a more theoretically-grounded perspective to explore in future, even more fine-grained research.

2.6.1 Limitations

This section concerns the limitations of the studies presented in this chapter, that will be addressed in future research (see next section).

First, the corpus studies are based on a relatively small sample of children. They are all drawn from Italian longitudinal corpora available on CHILDES. On the one hand, this is standard practice in the field, as shown by comparable corpus work by Salustri and Hyams (2003, 2006), Tagliani et al. (2022), among many others. On the other, while the Calambrone corpus is an invaluable resource, it dates to 1989, and the density of transcripts available for the earliest developmental stages is limited. This is precisely the window that matters most for the research questions pursued in this dissertation, and denser longitudinal coverage of children at the onset of the two-word stage would be needed to draw stronger conclusions. New longitudinal corpora of Italian child spontaneous production remain an important priority for the field, which is often neglected in favor of experimental work. Experimental work is of course paramount for linguistic inquiry into acquisition; however, with phenomena that pertain to very early acquisition stages having more spontaneous production data to catch even more fine-grained acquisition patterns would be important.

Besides, experimental methods such as sentence repetition tasks could in principle offer a more controlled approach to the research questions pursued here. However, as seen in Casadei’s (2024) repetition task on young Italian children, children in the age range most relevant to the present study, namely those at or near the onset of the two-word stage, were excluded from the sample as they were too young to cooperate properly and their production was not reliable enough. This made spontaneous production corpus data the most viable option available.

Second, for Corpus Study 1 and 2 an interrater reliability analysis was not carried out. It should be noted, however, that all corpora used are openly available on the CHILDES database, meaning that the data are accessible to any researcher who wishes to verify or replicate the classifications. Moreover, the main findings of the corpus studies are consistent with prior literature in two main respects: the overproduction

stage documented here replicates the findings of Salustri and Hyams (2003, 2006), and the three Growing Trees stages are consistent with those in Friedmann et al. (2021) and Casadei (2024). Third, the language model analysis is preliminary and aggregated across models when it comes to imperatives specifically. A perplexity analysis by individual model and a longitudinal analysis of imperative subtypes in NeTS-3M specifically would be needed to inquire finer grained differences among models. Moreover, the models tested are all transformer-based architectures, which process input in parallel rather than incrementally, and are therefore not cognitively plausible from the perspective of real-time human sentence processing (Chesi, 2026). Recurrent models with incremental processing architectures, such as Recurrent Neural Networks such as Long Short-term memory Architectures (LSTMs, Hochreiter & Schmidhuber, 1997), would constitute a more cognitively plausible architecture to test with the Stages of Acquisition logic. Transformer models were used in the present study for practical reasons of accessibility and reproducibility. Future work will address considerations of cognitive plausibility comparing various kinds of model architectures.

2.7 PROPOSAL AND CONCLUDING REMARKS

2.7.1 Passepartout Forms and the Interpretive Question

The findings from acquisition data in this chapter prompt both a syntactic and an interpretive account of imperatives.

On the grammatical side, the corpus data shows that positive second person singular imperatives are produced very early in Italian child language, before the left periphery is acquired in one child, and before the high portion of the left periphery is acquired in all children (possibly also Viola, who has been excluded for a more cautious approach). This yields a Guttman Scale (Figure 2): no child produces left-peripheral structures before imperatives; one produces them before left-peripheral structures, the others together with low left-peripheral structures, before acquiring the whole functional spine up until ForceP. On the basis of these data and Guttman Scale, imperatives in Italian are first stage structures, according to the Growing Trees approach (Friedmann et al., 2021).

On the interpretive side, a question that has run through the entire chapter remains open: what do children mean when they produce these imperative forms, and how should they be interpreted? In other words, why children acquiring non-null subject languages overproduce infinitives, while children acquiring null-subject languages overproduce imperatives, namely a lot of commands? Do children actually utter all those orders, or do they mean something else?

Salustri and Hyams (2003, 2006), building on Hoekstra and Hyams' (1998) account of the Modal Reference Effect and the Eventivity Constraint, propose that overproduced imperatives express a form of modality, typically deontic, and that they concern eventive verbs. They argue that this is supported by the observation that when the overproduction stage comes to an end, modal verbs begin to appear in child production (Blom, 2003 on Dutch, and subsequent work), suggesting that imperatives had been serving a modal function that is subsequently taken over by dedicated modal verbs. However, as noted throughout this chapter, the Modal Reference Effect *alone* seems not to be sufficient. First, it is not always straightforward to attribute modality to a child's utterance when working from written corpus transcripts: the adult observer's interpretive lens cannot be fully set aside, and children cannot provide explicit metalinguistic reports on their own productions, of course. As Belletti (p.c.) observes, certain RIs appear to have a descriptive rather than modal interpretation, as in the case of a child saying *Michael dormir* (Michael sleep.INF) to describe, rather than wish for, Michael sleeping (Pierce, 1992). Second, as anticipated above, if

overproduced imperatives exclusively express deontic modality, Italian-acquiring children would be restricted to a single modal flavor during the overproduction stage, while children acquiring non-null-subject languages and exploiting RIs have access to a wider range of modal interpretations. This interpretative asymmetry is not obviously expected if the two constructions are genuine developmental analogues.

A more adequate characterization, proposed here, is in terms of a *passepourtout* forms. Positive imperatives, like RIs, are morphologically impoverished structures that, precisely because of their structural simplicity (and reduced size, see Chapter 3), are not only overproduced in quantitative terms but also overextended to a range of communicative contexts that in the adult target grammar would be covered by a variety of different clause types and speech acts, including assertives, expressives, directives, and others. In this view, the overproduction stage is not characterized by a restriction to deontic modality, but rather by the exploitation of a single, simple verbal form across a wide and underspecified range of illocutionary forces. The child, in other words, does not lack the communicative intentions that would in the adult grammar require different structures; rather, the child's grammar provides a single, computationally-light, and low-cost form that is overextended to cover all of them.

This proposal connects naturally to the phenomenon of holophrastic speech in early language development. It has long been observed that children's earliest one-word utterances are used to convey the communicative force of entire sentences: Braine (1971; 1963) noted that a child's word *dada* could mean 'Where is daddy?', 'I want daddy', 'There is daddy', and many other things depending on context. Imperatives, as the most meagre form available to the child, may function as a kind of "holophrastic predicate": a single form that maps onto an underspecified range of illocutionary forces, from directives to assertions to wishes, desires.

The *passepourtout* proposal is also consistent with what Salustri and Hyams (2003, 2006) themselves observe about the end of the overproduction stage. When modals begin to appear, the child is not simply acquiring new vocabulary: the child is differentiating the underspecified illocutionary space that had been covered by the imperative into more fine-grained categories, each associated with a dedicated grammatical form. The emergence of modals marks the end of the *passepourtout* phase and the beginning of a more target-like mapping between grammatical forms and illocutionary forces. This can be described as a form of *learning by forgetting* applied to illocutionary forces: in a first phase, the child associates the imperative clause type with an extremely broad range of illocutionary forces; subsequently, these forces are progressively redistributed to their target grammatical expressions, and the imperative converges on the narrower adult range of directive uses, comprehensively described in Condoravdi and Lauer (2012). Moreover, this developmental trajectory is consistent with the observation that the imperfect, which in Italian expresses a wide range of modal and counterfactual meanings (Ippolito, 2004), is acquired later than other verbal forms, including the imperative (Belletti & Guasti, 2015).

2.7.2 Imperatives and Participles as Default Forms in Early Italian

The *passepourtout* account of positive imperatives connects to a broader observation about early Italian child grammar. Belletti (2024, 2026) notes that in Italian, the root infinitive stage manifests not through RIs, as in French or German, but through two morphologically impoverished forms: imperatives and participial forms. The latter have been described in Antinucci and Miller's (1976) study of "*How Children Talk About What Happened*"; indeed, a quite explicative title. Participles are inquired from an acquisition perspective also in Berger-Morales and Salustri (2003).

The question therefore arises as to which form functions as the default *passepourtout* structure in acquisition, and whether the two forms are in competition or in complementary distribution. This becomes

even more important to discuss in light of recent work by Bhatt et al. (2025) on reduced bare participles, which builds on Cecchetto and Donati (2002), Viganò et al. (2024). The authors argue that perfective aspect in bare participials constitutes the default aspect. This claim is supported by experimental evidence from Stuart and van der Lely (2015): in a sentence–picture matching task, both typically-developing (TD) children and children with specific language impairment (SLI) show adult-like performance in perfective aspect contexts, whereas imperfective contexts pose greater difficulties for younger TD children and for children with SLI.

The quantitative picture is informative: Salustri and Hyams (2003, 2006) report that imperatives constitute approximately 48% of child verbal production during the overproduction stage, while Berger-Morales and Salustri (2003) report that bare past participles constitute approximately 23% of participial constructions, namely, of the choice between full auxiliary+participle and bare participle forms.

- (253) Mamma se n'è *andata*.
 Mom REFL. CL. is gone
 'Mom has gone.' (Italian)

- (254) Disegno *cascato*.
 picture fallen
 'The picture has fallen.'

[Ex. from Berger-Morales & Salustri 2003, p. 1, their emphasis]

Note that the two figures are not directly comparable, as Salustri and Hyams calculate imperative frequency over all verbal utterances, while Berger-Morales and Salustri calculate bare participle frequency over participial constructions only. Nonetheless, the trend is clear, and individual data are even clearer: in Martina's data, for instance, 44% of participial constructions are bare participles. For the imperative data, the reader is referred to the tables in Corpus Study 1 of this chapter, which replicate the Salustri and Hyams findings and illustrate individual variation. For participial forms, the relevant data are reported in Table 5 of Berger-Morales and Salustri (2003), an adapted version of which is reported below, which draws on the same Calambrone corpus inquired throughout this dissertation.

Child	Aux + Past Participle	Bare Past Participle
Diana	87.7% (114/130)	12.3% (16/130)
Martina	53.7% (29/54)	46.3% (25/54)
Viola	66.7% (4/6)	33.3% (2/6)
<i>Mean</i>	<i>77.4%</i>	<i>22.6%</i>

Table 18: Adapted from Berger-Morales and Salustri (2003), Table 5. Distribution of auxiliary-plus-past-participle and bare past participle constructions in the spontaneous production of three Italian-acquiring children. Data from the Calambrone Corpus (Cipriani et al., 1989).

When looking at the input, a crucial parallel between participles and imperatives emerges. Berger-Morales and Salustri (2003) report that in Italian child-directed speech, 96.4% (106/110) of participial forms in the input are auxiliary+participle constructions, while bare participles constitute only 3.6% (4/110).

This mirrors the situation with imperatives, where child-directed speech contains approximately 15% imperatives, yet children produce them at a rate of 48% in spontaneous production. In both cases, the child

overproduces a morphologically impoverished form well beyond its frequency in the input, and in both cases the child systematically omits the higher functional material that would be required in the target grammar: the auxiliary in the case of participles, the CP layer in the case of imperatives. In line with Belletti (2017a), this present work is yet another instance of the fact that frequency should be handled with care when taking into account acquisition, as children display unexpected and creative behavior; not everything can be reduced to ‘a structure is very frequent in the input so the child will say it often’. That is not sufficient to capture phenomena as the overproduction of impoverished verbal forms in acquisition as well as, for example, the well-known case of the so-called *si* causative passive, which emerges earlier and frequently in children’s elicited production than regular passives, a pattern not captured by a frequency-based explanation (Belletti, 2017a, 2019; Belletti & Manetti, 2019)

The proposal advanced in this dissertation is the following: **in Italian, imperatives and participles are overproduced because they are in complementary distribution with respect to their aspectual properties**. Imperatives are employed for *here and now* events and for unrealized, future events, as well as modal contexts, while participial forms are used for events that have already occurred. For the latter, an example is *disegno cascato* (‘drawing fallen’), attested in the Antelmi corpus (Berger-Morales & Salustri 2003; Cecchetto & Donati 2022). Following Rooryck (1992) and others, imperatives express content that is not yet realized, marking them as directed toward the future from the moment of utterance. The child’s grammar at the overproduction stage would therefore be characterized by the exploitation of two forms: one oriented toward past realized events and one toward present and future unrealized events. Crucially, both forms are structurally impoverished (see more below and in the next Chapter) and overextended to a wide range of communicative contexts.

The asymmetry in frequency between the two forms, with imperatives substantially more frequent than bare participles in spontaneous production, is not unexpected under this view. In the adult target grammar, Italian imperatives in their unmarked form are compatible with a wide range of uses and speech acts, from orders to wishes to recommendations and advice (Condoravdi & Lauer, 2012). More importantly, the aspectual interpretation of imperatives as unrealized is compatible with both present and future contexts, and therefore with a much wider range of illocutionary situations than the participial form, which is restricted to realized past events. Intuitively, children are also more strongly present in the *hic et nunc* than adults, so it would be expected that the form encoding unrealized events should be produced more frequently. A further contributing factor is the following: the bare imperative, such as *casca* (fall.IMP.2SG), is shorter than the corresponding bare participle *cascato* (fall.PST.PRT), which carries an additional syllable and an additional morphological element to compute and produce orally.

The structural parallel between the two forms is further supported by the observation that children systematically avoid producing the auxiliary in participial constructions even when it is present in nearly all adult input. This selective omission can be mapped to the truncation mechanism proposed by Rizzi (1993/1994) for root infinitives, and to the low structural analysis of imperatives argued for in this chapter. The proposal that participial forms are similarly reduced structures has been advanced in the literature, notably by Cecchetto and Donati (2002) and Viganò, Cecchetto and Donati (2025), and the acquisition data provide independent empirical support for this view.

A particularly interesting piece of evidence comes from the Antelmi corpus (Antelmi, 1997), cited in Cecchetto and Donati (2022), in which a child produces two juxtaposed utterances within the same conversational turn, one a bare participial form (*lavato*) and one an imperative (*teni*, phonologically non-target form of *tieni*):

(255) questo lavato, teni

this.M.SG

wash.PPRT.M.SG

take.IMP.2SG

[adapted from Antelmi 1997, quoted in Cecchetto and Donati 2022]

The co-occurrence of the two forms in a single turn suggests that the child is simultaneously exploiting both default structures, in a way that is consistent with their complementary aspectual orientation and with the proposal that both instantiate the same underlying reduction mechanism.

Structurally reduced forms in early child language are not limited to imperatives and participles. Prévost (2008), building on data from Caprin and Guasti (2006), shows that in child second language acquisition there is an early stage in which children omit lexical verbs or copulas, producing verbless utterances such as *questa mucca* ('this cow') with the copula omitted (*questa è (una) mucca*, 'this is (a) cow'). This phenomenon decreases after approximately 18 months of acquisition, suggesting a developmental trajectory in which the child progressively fills in the functional structure of the clause.

This complementary distribution also connects to a broader observation about tense and aspect in early child language. Both imperatives and bare participles lack tense morphology: they are impoverished forms, and what the child encodes through them is a basic aspectual distinction, namely whether an event is realized or unrealized. This minimal aspectual contrast, expressed through the choice between the two impoverished forms, is consistent with the idea that early child language builds on a coarse-grained aspectual and modal system that becomes progressively more fine-grained as the functional spine develops and dedicated grammatical forms become available.

In this light, this picture also has implications for the debate between the Growing Trees and Neo-Emergentist approaches discussed in section 1.5. The data presented in this chapter suggest that the child initially goes through a stage, albeit generally brief, in which the CP layer is absent, consistent with the Growing Trees prediction. Subsequently, as the CP layer becomes available, the overproduction stage begins to wind down and modal verbs start to appear, marking the progressive refinement of the child's aspectual and modal system. This does not exclude the possibility that within the acquired portion of the functional spine, categories become progressively more fine-grained over time, which is compatible with the Neo-Emergentist insight about increasing granularity (Bosch and Biberauer 2024) within VP, TP and CP layers respectively. **The present account is therefore not incompatible with a refinement view of syntactic development, provided that, crucially, the CP layer is not assumed to be present from the onset: the data point toward a CP that arrives after an initial stage without it.**

What emerges from this picture is a proposal, advanced in the present thesis, that in early Italian child language children go through a stage in which they systematically avoid projecting higher functional structure and exploit imperatives and participles as the two default forms of their grammar, encoding a basic unrealized vs. realized aspectual contrast through the choice between the two forms. This has direct implications for the syntactic analysis of both constructions, to be discussed below.

2.7.3 Implications for the Syntactic Analysis

A theory of the grammar of imperatives, to be as explanatorily adequate as possible, must take learnability into account, and therefore must be compatible with the early attestation of imperatives, their overproduction stage, and their complementary aspectual distribution with respect to other forms in development. This has been the goal of the present chapter: to establish the empirical picture that will inform the structural analysis of different imperative forms, which will be developed in full in Chapters 3 and 4.

In particular, any analysis of the second person singular positive imperative must be compatible with the fact that this form is produced before the left periphery is acquired. This rules out all analyses that locate

the imperative verb in Force (Platzack & Rosengren, 1998; M. L. Rivero, 1994b; M. L. Rivero & Terzi, 1995; Rooryck, 1992), Top (Di Domenico, 2004), or any other position in the left periphery. It also raises difficulties for analyses that eliminate the intermediate IP projections while retaining the CP layer (Platzack & Rosengren, 1998; Salustri & Hyams, 2003, 2006), since such representations are incompatible with the Growing Trees and truncation logic that are active in development (Belletti, 2024, 2026).

The data instead support an analysis in which positive imperatives are low structures that do not involve the CP layer, and in which their grammatical properties follow from the absence of high functional projections rather than from movement into the left periphery. This is consistent with the analysis of root infinitives as truncated structures (Rizzi, 1993/1994), and with the proposal developed in Belletti (2024, 2026) that early non-finite forms in child language first reflect at first the immaturity of the CP layer, and subsequently result from an optional truncation operation *à la* Rizzi (1993/1994) once the full functional spine becomes available. As the functional spine matures, the option of producing a low imperative structure may remain available, either as a residual truncation option in the sense of Rizzi (2006) or as a grammaticalized property of the imperative clause type itself, depending on the specific analysis adopted. This point will be taken up again in the chapters that follow.

The possibility of cross-linguistic parametrization should also be kept open. In languages with Wackernagel effects, such as those discussed by Rivero (1994), and in languages with rich morphological systems such as Ancient Greek (Rivero & Terzi, 1995), imperatives behave equally to other verb forms that are licensed within the TP layer, without requiring movement to a higher position. In languages such as Serbo-Croatian, the imperative verb may raise to C, but this is driven by the need to morphologically license the clitic in second position; if there is another licenser, the imperative verb may well remain in the TP layer.

The data from Corpus Study 2 add a further dimension to this picture. **The absence of generic imperatives and *a*-Imperatives from child production, despite the overproduction of positive imperatives, suggests that these forms are not structurally equivalent to the positive imperative despite, superficially, differing minimally only with respect to morphology.** They require additional structural machinery, whether a generic operator, specific aspectual heads, that is not yet available to the child at the overproduction stage. The syntax of these forms will be analyzed in detail in Chapter 4, where the acquisition data presented here will be used to motivate and constrain the formal proposal.

Finally, the LM results, though preliminary, point in the same direction. Generic imperatives are the least predictable imperative type for the models, positive imperatives are among the most predictable, and the model that most closely mirrors human developmental patterns is the one trained on child-directed speech.

Chapter 3 – Core Imperatives

3 CORE IMPERATIVES²⁸

From both Chapter 1 and Chapter 2, it emerged how the second person singular imperative has a special status on several respects, compared to other forms. It is the unmarked, core imperative form morphologically, syntactically, typologically and diachronically, as noted in the generative tradition (Belletti, 1999; Rivero & Terzi, 1995; Zanuttini, 1997, *inter alia*), as well as the typological literature (Aikhenvald, 2010; van der Auwera et al., 2013; Xrakovskij, 2001). It is the most impoverished verbal form on a morphological level, and its syntax is the one that deviates the most from other clause types, with all of the peculiar incompatibilities imperatives display: incompatibility with negation, person and agreement morphology, embedding, *wh*-elements, to name a few. Imperative verbs are also the most conservative in diachrony, remaining stable over time while the rest of the verbal paradigm changes, a pattern attested among different language families (Aikhenvald, 2010). On a typological level, Kuryłowicz (1964, p. 137, as cited in Aikhenvald, 2010) already observed that the second person singular imperative occupies a privileged position within its paradigm, to the extent that it can be regarded as its “fundamental” form. The analysis developed in this chapter builds on this, and is aimed at formalizing it explicitly, with a dedicated syntactic analysis. Crucially, Chapter 1 also summarized the main families of formal proposals on the (morpho)syntax of imperatives: analyses that treat imperatives as structurally similar to other verb forms and locate the imperative verb in T (e.g., M. L. Rivero & Terzi, 1995 on Ancient Greek); analyses that argue for a distinct syntax and place the verb in C (Belletti, 1999; Platzack & Rosengren, 1998; Rivero & Terzi, 1995; Zanuttini, 1997, *inter alia*); and a smaller line of research which places the imperative in the vP periphery (Di Domenico, 2004; Jensen, 2007; Shlonsky, 2004, *inter alia*).

Chapter 2 provided empirical evidence from first language acquisition bearing directly on this debate. Corpus Study 1 showed that Italian children produce positive second person singular imperatives before the left periphery is acquired: all children in the sample produce imperatives before the high portion of the left periphery is available (comprising Force, Top, Int, Rizzi, 1997; Rizzi & Bocci, 2017), and one child, Raffaello, produces imperatives before any left-peripheral structure is attested. A Guttman scale (Guttman, 1944, 1950) emerged from the data: imperatives precede left-peripheral structures in every child’s developmental trajectory, but not vice versa. Force and Top are the very positions where most analyses place the imperative verb (especially in Force, Belletti, 1999, Platzack & Rosengren, 1998, and Top in Di Domenico, 2004): these very positions are not active in the child’s grammar at the stage when imperatives are already attested in all children.

The absence of the CP layer in imperatives is further strengthened by further acquisition data, coming from the parallel between imperatives and RIs. The two constructions share a remarkable number of syntactic properties and are treated analogously by children, who overproduce them at the same age and rate (48% of child imperatives vs. 15% of child-directed imperatives, in the first half of the second year of age). Crucially, children overproduce only second person singular forms: another non-neglectable reason to distinguish such imperative forms in a dedicated syntactic analysis. RIs have been analyzed as truncated structures lacking the CP layer (Rizzi, 1993/1994), an account that captures their developmental trajectory as well as their syntactic properties, most of which are shared with imperatives, as mentioned above. One might claim that imperatives could be truncated like RIs, but might nonetheless involve movement to C alongside the elimination of intermediate TP projections, yielding in any case a structurally reduced configuration, as proposed in Salustri & Hyams (2003, 2006). However, this possibility is ruled out on two

²⁸ Part of this chapter is based on a previous publication of the author of this dissertation: Rossi, Sarah. 2023. *Italian/Romance imperatives as radically reduced structures: a corpus CHILDES study*. RGG, 45(5). pp. 1–39. Lingbuzz Press.

The material has been revised and expanded for this thesis.

independent grounds. First, the logic of developmental truncation (Rizzi, 1993/1994), requires that when the structure is truncated at a given point, all projections above that point are absent: a structure cannot retain Force while eliminating the intermediate functional layers. Second, the empirical work in the Growing Trees framework (Friedmann et al., 2021), replicated across multiple languages including Italian, and English, Modern Hebrew and others (Belletti et al., forthcoming), shows that the development of the functional spine follows a strict bottom-up trajectory: $vP + TP > low\ CP > high\ CP$. A structure that requires Force but lacks the intermediate projections would be inconsistent with this developmental logic, as well as the truncation mechanism active in development (see Belletti, 2024, 2026).

A further piece of evidence towards the absence of CP in imperatives comes from the behavior of negative imperatives in child production, documented in Corpus Study 2. Before converging on the target negative imperative form, children also use a non-target anaphoric negation, *no*, instead of the sentential negative marker *non*, at times followed by an infinitive, in other instances followed by an impoverished verbal form. This pattern mirrors what has been observed in other languages: in Dutch RIs, children use *nee* rather than *niet* (Rizzi, 1993/1994); and Modern Hebrew, both children and adults addressing them produce special impoverished forms involving anaphoric negation plus the verb without future inflection, otherwise necessary in target Hebrew imperatives (Berman, 1985). The parallel reinforces once again the developmental and grammatical link between imperatives and RIs.

In this light, acquisition data from Chapter 2 motivate a reanalysis of the Italian positive imperative as a low structure, one that does not occupy any position in the functional spine above the vP periphery. Crucially, not only acquisition data motivated an undated analysis, but also morphosyntactic properties described in Chapter 1 converge independently with acquisition data in pointing towards imperatives being radically reduced structures. Indeed, in the syntactic literature, low analyses of imperatives have been proposed on independent grounds without taking into account L1 acquisition, crucially only based on empirical syntactic properties, a point which will be further developed later. That applies to French (Shlonsky, 2004), English (Jensen, 2007; Rupp, 2003), Belfast English (Di Domenico, 2004), and Kabardian (Ershova, 2017), and the possibility of a low imperative has been noted, albeit without being fully developed, by Di Domenico (2004) and by Salustri and Hyams (2003, 2006). The present chapter develops this line of analysis in full for Italian, with extensions to other languages (Spanish, Catalan, Slovenian, Hungarian, English, Swedish, Danish, Norwegian).

The formal analysis presented in this chapter is characterized by two dimensions. The first concerns the locus of the imperative; in other words, where the imperative verbs ends up in the functional spine, and how much of such functional spine an imperative clause needs. The second concerns the ingredients of the imperative: which formal features, functional heads and operators are included? It will be illustrated how these two dimensions interact in deriving the distinctive properties of the imperative clause type, including its morphological impoverishment, its sentential force, its incompatibility with overt subjects and subject clitics, enclisis, and its other properties. Both dimensions are addressed in turn, and the consequences of the proposed analysis are examined with respect to the morphosyntactic properties discussed in Chapter 1 and the acquisition data seen in Chapter 2.

The chapter is organized as follows. §1.1 provides the necessary background to discuss the analysis, namely the results of Chapter 1 and 2. §1.2 presents the theoretical assumptions on which the analysis builds. §1.3 develops the core structural proposal: §1.3.1 argues for the low locus of the imperative, §1.3.2 introduces and motivates each ingredient of the analysis, and §1.3.3 addresses the question of illocutionary force. §1.4 examines the consequences and advantages of the analysis, organized along two dimensions: acquisition evidence from Chapter 2 (§1.4.1) and examines the morphosyntactic properties (§1.4.2). §1.5 extends the analysis to suppletive forms, and §1.6 discusses the cross-linguistic extension of the proposal.

§1.7 offers a concluding discussion, which includes, in §1.7.1, a consideration of the relationship between child and adult imperatives.

3.1 BACKGROUND

Determining the locus of a linguistic element in the functional spine is a non-negligible task: since the advent of syntactic cartography (Belletti, 1990, 2004; Cinque, 1999; Cinque & Rizzi, 2012; Rizzi, 1997), the hierarchical position of functional projections has taken on an important descriptive and explanatory role, with the same elements in different parts of the spine yielding different interpretive and syntactic properties, as seen in Chapter 1 (§1.3.1). The present chapter addresses two interrelated questions: the position of the imperative verb in the functional spine, and the nature of the elements that enter into the derivation to yield the distinctive properties of imperative clauses.

The morphosyntactic properties that the analysis must account for have been discussed in Chapter 1 (§1.2, references therein) and are presented below in summarized form for ease of reference. The following generalizations hold robustly for Italian (when needed, reference to other languages is made):

- (L) Italian, Romance Imperatives, and imperatives in one third of the languages of the world, are morphologically impoverished, meaning they comprise only the root of the verb, and sometimes a thematic vowel. True imperatives are the most meagre form, while suppletive imperatives, which borrow their shape from other forms in the verbal paradigm, display additional morphological endings and hybrid syntax, i.e. a middle-ground syntax whose extremes are represented by core imperatives (second person singular) and declaratives;
- (M) Imperatives cannot cooccur with auxiliaries and modals;
- (N) Imperatives are null-subject parameter exempts, i.e. their subject need not be overt, and indeed usually it is not, crucially both in null-subject (e.g., Italian) and non-null-subject languages (e.g., French). The subject is always agentive, and restricted to the addressee. Imperatives are also incompatible with subject clitics in varieties that have them (e.g., Veronese);
- (O) In varieties that have clitics, enclisis is robustly found in imperative clauses;
- (P) Imperatives cannot be embedded (despite their impoverished morphology and root nature); they are also incompatible with questioning and *wh*-elements;
- (Q) Imperatives with distinctive morphology (true imperatives) cannot be negated in Romance by preverbal negative markers (e.g., Italian), while no problem arises with postverbal ones (e.g., Piedmontese). A suppletive form (infinitive in Standard Italian) is employed instead to negate a true imperative.

Having provided this overview of the core properties of imperative clauses, additional, more fine-grained properties applicable specifically to Italian will be introduced and discussed where relevant in the course of the analysis developed in the following sections.

Turning now to acquisition data, the following points summarize the results of Chapter 2 (references therein) and the tensions with CP analyses emerged there:

- (R) Early imperatives vs. late CP: positive second person singular imperatives are produced before the left periphery is acquired, with a Guttman scale emerging from the corpus data: imperatives systematically precede high left periphery structures in every child's developmental trajectory, and all left periphery structures in Raffaello's data. If imperatives require CP, these data are unexpected;
- (S) CP imperatives vs. truncated RIs: the overproduction of imperatives in null-subject languages parallels the overproduction of RIs in non-null-subject languages at the same developmental stage and at comparable rates. Most properties of imperatives are shared by RIs (properties A-H, chapter 2²⁹). RIs are analyzed as truncated structures lacking the CP layer: if imperatives require CP, this parallel is unexpected;
- (I) Reduced Relative Clauses (RRCs) vs. imperatives: RRCs, which involve a high CP projection combined with the absence of intermediate TP layers, emerge very late in typical development (6 years old, being still rare at 8 years old). If imperatives involve the same configuration, as it has been proposed in some analyses, their very early appearance is unexplained;
- (U) Positive imperatives vs. infinitival imperatives: infinitival imperatives (Generic Imperatives and *a*-Imperatives) are absent from child production. Input, contextual and/or processing accounts do not fully suffice to account for this: children's production often go beyond the available input in creative, non-target ways, and negative imperatives which would be harder to process are the only (rare) forms attested: this asymmetry between positive imperatives and infinitival ones thus calls for a syntactic explanation;
- (V) Target vs. Non-target Negative Imperatives: negative imperatives are scarce in early Italian. When they appear, children also use non-target anaphoric negation (*no* instead of *non*), sometimes with a target infinitive or an impoverished verbal form, mirroring what has been observed for Root Infinitives (RIs) in Dutch and for prohibitive forms in Modern Hebrew. This pattern of *avoidance* of the full negative imperative suggests that target negative imperatives involve additional functional structure beyond the positive form.

²⁹ Properties A-H from Chapter 2 are reported here again for ease of reference, see Chapter 2 for references. RIs and Imperatives are characterized by the following properties:

- (A) They both lack overt subjects;
- (B) They are incompatible with subject clitics;
- (C) They cannot be embedded, and can be used in matrix contexts despite lacking Tense;
- (D) They cannot be questioned nor admit *wh*-elements;
- (E) They do not admit modals, nor auxiliaries;
- (F) They both display impoverished, non-finite morphology;
- (G) Clitics are found in enclisis position;
- (H) Incompatibility with standard sentential negation: imperatives in Italian cannot be negated, RIs are compatible with negation marginally;

Now the background issues emerged from the literature review (Chapter 1, §1.4.1- 1.4.6) that an analysis of imperatives must address are summarized below.

- (W) **Theoretical gap:** A first set of issues concerns a theoretical gap, mostly left by pre-cartographic analyses. Much of the foundational work on imperatives is antecedent to the elaboration of the split left periphery (Rizzi, 1997; Rizzi & Bocci, 2017), and classical CP proposals, that envisage only a single projection in CP, risk oversimplifying the actual syntactic behavior of imperatives and leaving other morphosyntactic restrictions unexplained. This applies for instance to influential work by Rivero (1994b) and Rivero and Terzi (1995), who argue for verb movement to C in true imperatives, but given recent assumptions on the exploded nature of the left periphery, the questions arises as to where exactly the imperative verb lands.
- (X) **Empirical gap:** A first general issue with CP approaches concerns the range of phenomena they capture. Early and pre-cartographic accounts such as Emonds (1976), den Besten (1983), and partly Rooryck (1992) focus on a limited set of properties, most notably non-embeddability, word order, and enclisis. However, they do not engage with other core characteristics of imperatives, including the behavior of negative imperatives, the restriction on second person subjects, and the presence of impoverished morphology. As a result, these analyses remain descriptively accurate but empirically incomplete. Further generative proposals that locate imperatives in the CP domain, such as Rivero (1994), Rivero and Terzi (1995), Platzack and Rosengren (1998), Belletti (1999), and Di Domenico (2004), expand the empirical scope but still do not derive the full cluster of properties in a comprehensive analysis. Understandably, each analysis has its own focus and aim, and not all morphosyntactic properties are considered at once.³⁰ For example, these accounts often encounter difficulties with the null, special nature of imperative subjects, the reduced morphological paradigm: these properties are often left unaccounted for or require additional assumptions, such as stipulating structurally present but phonologically null projections in the TP layer.
- (Y) **Morphology and features:** A second set of issues concerns the role of features in the imperative clause type, on two levels. The first is the following: CP analyses raise a non-trivial conceptual problem, as the imperative morphology that is claimed to reside in C is often not overtly realized in morphologically impoverished imperatives, reduced to a zero morpheme or merely a thematic vowel. This makes the postulation of agreement features in C appear somewhat *ad hoc*, especially given that imperatives typically lack the rich agreement distinctions found elsewhere in the verbal paradigm. One might even question whether imperatives truly

³⁰ See also the next subsection for further issues concerning illocutionary force, another component that, once again understandably, is not taken up explicitly in most syntactic analyses of the imperative.

instantiate agreement at all, unless one assumes agreement with a zero morpheme. A second issue concerns the feature-based approach to imperative clause type. Platzack and Rosengren (1998) encode imperative force through a dedicated [imp] feature located in ForceP, which is also realized on the imperative verb. However, this raises immediate questions. First, the reasoning risks being circular: the imperative verb moves to C because there is an [+imp] feature in C, and the [+imp] feature is posited in C because the verb moves there; this is proposed among other properties due to the robust verb-clitic ordering attested in imperatives. Second, broader questions about the feature system as a whole are immediately raised: declaratives are specified as [−wh] and interrogatives as [+wh] in Platzack and Rosengren (1998). If imperatives are marked by [+imp], what would the negative value of this feature correspond to? The absence of a clear [−imp] clause type suggests that the feature-based approach may be stipulative, unless [−imp] constitutes some kind of paradigmatic gap, which nonetheless would still call for an explanation. Alternative approaches that derive imperative force configurationally, without a dedicated [imp] feature have been proposed notably by Portner (2007) and Zanuttini et al. (2012). This raises the broader question of whether the imperative clause type is best analyzed in terms of dedicated features and projections, in terms of structural configuration alone, or through a hybrid (but parsimonious) combination of the two.

- (Z) **Cross-linguistic, typological and diachronic variation.** A third set of issues concerns cross-linguistic and typological variation. Approximately one third of the world's languages display morphologically impoverished imperative forms (Aikhenvald, 2010), and in Romance languages this morphological impoverishment is accompanied by a cluster of morphosyntactic properties that set imperatives apart from other clause types, as seen in Chapter 1. This suggests that such imperatives constitute a special class requiring a dedicated structural analysis rather than a mere comparison to other verb forms; they indeed belong to the imperative clause type (Portner, 2007; Sadock & Zwicky, 1985). Suppletive imperative forms, by contrast, display a hybrid syntax: for example, the second person plural imperative in Italian (*non mangiate!*, neg eat.IMP.2PL, 'don't eat!') can be negated but remains incompatible with embedding (Zanuttini, 1997), while in Spanish the equivalent forms take subjunctive morphology and can appear in embedded contexts (M. L. Rivero, 1994b). This cross-linguistic variation in the syntax of suppletive imperatives suggests that the structural analysis of true and suppletive imperatives may need to be kept distinct to some extent. The special status of second person singular imperatives is further reflected in their cross-linguistic diachronic stability: imperative forms tend to preserve older morphological patterns, including ergative-absolutive case alignments, even when these disappear elsewhere in the verbal paradigm (Aikhenvald, 2010). This

diachronic stability may carry structural implications if one adopts a formal approach to grammaticalization (I. Roberts & Roussou, 1999), which will be discussed later.

The considerations in (W)-(Z) motivate a reassessment of the morphosyntactic analysis of imperatives, also in light of a forth set of issues concerning acquisition data, as highlighted above in (R)-(V).

3.2 THEORETICAL ASSUMPTIONS

Having summarized the results of Chapter 1 and 2, now the theoretical assumptions assumed in the rest of this thesis will be illustrated. All assumptions are independently motivated in the literature.

The analysis developed in this chapter is framed within the cartographic approach to syntactic structure (Cinque, 1999; Cinque & Rizzi, 2012; Rizzi, 1997; Rizzi & Bocci, 2017), which assumes a richly articulated functional spine in which each syntactic head encodes a distinct grammatical feature. The low IP area, as developed in Belletti (2004), provides the structural domain within which the imperative is analyzed. Following minimalist assumptions (Chomsky, 1995, 2001), no functional head is postulated unless independently motivated by empirical evidence.

Regarding verb movement, the analysis adopts the roll-up movement approach developed in Roberts (2019) and Schifano (2018), building on seminal work by Belletti on Generalized Verb Movement (Belletti, 1990) and Pollock's Split TP (Pollock, 1989). Under this approach, the verb moves successive-cyclically through a series of functional heads, checking one feature at each step, in accordance with the Borer-Chomsky Conjecture (Borer, 1984; Chomsky, 1995). Following Zanuttini et al. (2012), the morphological properties of the imperative result from a bundle of features that are the output of this head-to-head movement, rather than being encoded in a single projection with an [+imp] feature, whose content is not explicitly specified. Moreover, also Zanuttini et al.'s (2012) view about structurally adjacent features is followed here: features on structurally adjacent functional heads, i.e. heads merged one after the other, function as a unit when they enter a syntactic relation, and a bundle of features can contain at most one instance of a given feature. As Zanuttini et al. (2012) note, the notion of FEATURE BUNDLE is not novel. Indeed they build on Grimshaw's (2000) notion of extended projection, as well as Sigurðsson's (2009; 2010) work, and Pollock's (1989) once again. The roll-up movement approach adopted in this thesis is therefore consistent with the notion of feature bundle.

It will be examined how the imperative verb passes through a low functional head in the low IP area. This position was proposed by Belletti (1999), building on Kayne's (1991) account of a low Infinitive head for the checking of infinitival morphology. Belletti (1999) extends this idea to imperatives, arguing that the distinctive morphology of the second person singular imperative, namely the thematic vowel, is checked in this low position. The present analysis adopts this proposal.

With respect to imperative subjects, the analysis follows Zanuttini (2008) and Zanuttini et al. (2012), who argue that imperatives contain a Jussive Phrase. Such Phrase contains an abstraction operator that both binds and enters into an Agree relation with the subject. This operator is responsible for the obligatory second person restrictions on imperative subjects, and it will be discussed how its presence in the low functional domain is consistent with the absence of an overt subject in the specifier of a high functional projection, such as TP.

The analysis furthermore assumes, as empirically shown in Belletti (2001, 2004, 2005, 2006) that the low IP area, or vP periphery, constitutes an active zone of the functional spine in Italian. This domain corresponds to the edge of the vP phase and, mirroring the architecture of the high left periphery, hosts low Topic and Focus projections. In Italian, this area has been shown to account for a range of phenomena including clitic doubling and postverbal subject placement (Belletti 2001, 2004, 2005, 2006). The same low

peripheral domain has been independently invoked in the analysis of other phenomena, such as scrambling (Wolfe, 2021, Forthcoming and references therein).

The analysis further assumes that vP and CP are strong phases under classical Phase Theory (Chomsky, 2001; Citko, 2014) and that an increasing number of phases in a derivation correlated with increasing computational complexity (Bianchi & Chesi, 2006; Chesi, 2004, 2005). While acknowledging that the precise delineation of phases remains a matter of ongoing debate in the literature (Boeckx & Grohmann, 2007; Bošković, 2014; Mocci et al., 2026), Phase Theory is taken here as a working assumption for now as the theory further develops, also in light of the fact that the broader structural distinction between a lower and a higher clausal domain is independently motivated across a variety of theoretical frameworks: it surfaces in work on the functional hierarchy (Ramchand & Svenonius, 2014), where a low aspectual-eventive zone is isolated (in a manner reminiscent of Belletti's (2004) low IP area) and it can ultimately be traced back to the foundational distinction between A and A' positions, that has been a cornerstone of generative theory at least since Chomsky (1981), regardless of how locality conditions may be reshaped in future accounts (in this respect, see Rizzi, 2025).

3.3 THE STRUCTURE OF TRUE IMPERATIVES: A LOW ANALYSIS

Here the structural analysis proposed in this thesis will be illustrated, and explained point by point in the following sections. The discussion in this chapter starts with second person singular forms, which, as noted above, are core imperatives in that they display distinct properties compared to suppletive forms. However, as anticipated earlier in this dissertation, they are not the only forms to be examined. The imperative forms that will be structurally analyzed in this dissertation are listed below³¹. This chapter will deal with true imperatives (256)a, namely second person singular forms, and suppletive imperatives in the second person plural (256)b, and first person plural (256)c. All of these are positive forms. Imperatives in (256)d-h, by contrast, will be analyzed in the following chapter, after a necessary, in-depth, and novel discussion of their empirical and interpretive properties.

(256)	a. Mangia!	(true imperative, 2nd person singular)
	eat.IMP.2SG	
	‘Eat!’	
	b. Mangiate!	(suppletive form, 2 nd person plural)
	eat.IMP.2PL	
	‘Eat!’	
(257)	c. Mangiamo!	(suppletive form, 1 st person plural)
	eat.IMP.1PL	
	‘Eat!’	
(258)	d. Non mangiare!	(negative imperative, 2nd person singular)
	NEG eat.INF	
	‘Don’t eat!’	

³¹ For a comprehensive overview of Italian imperative forms, including polite subjunctive forms, the reader is referred to §1.2.1 in Chapter 1.

-
- (259) e. Non mangiate! (negative imperative, 2nd person plural)
 NEG eat.IMP.2PL
 ‘Don’t eat!’
- (260) f. Non mangiamo! (negative imperative, 1st person plural)
 NEG eat.IMP.1PL
 ‘Don’t eat!’
- g. Mangiare! (Generic Imperative)
 eat.INF
 ‘Eat (written rule) / Eat! (rule applying to all possible interlocutors)’
- h. A mangiare! (*a*-Imperative)
 eat.INF
 ‘Time to eat! / Start eating! / Go eat!’

3.3.1 The Locus of the Imperative: a Low Structure

This is the core concept of this dissertation and the main point of departure from the traditional conception of the syntax of imperatives in the generative literature: on the basis of what has been discussed so far, the analysis of imperatives proposed here argues that imperatives do not comprise the CP layer.

Indeed, doing otherwise would leave the empirical tension from acquisition data unaccounted for, in addition to some morphosyntactic properties, to be examined later. It will be illustrated also how ‘classical’ empirical arguments in favor of CP analyses, such as enclisis, do not require verb movement to CP *a priori*. The advantages of a vP analysis of the imperative over CP analyses will be illustrated as well.

Moreover, under the present analysis, most TP layer projections are absent in imperatives, given the impoverished morphology, incompatibility with modals and auxiliaries, and further properties that will likewise be discussed below.

Therefore, it is proposed here that imperatives are radically reduced structures. They only include vP and a few projections in the vP periphery (Belletti, 2004): any position above this level of the clause is absent in a radical sense.

Radical absence of a functional projection is defined as the total absence of such projection in the spine, following Cecchetto and Donati’s (2022) terminology, as opposed to ‘empty’ but present projections (proposed in Belletti 1999, for example). Indeed, on a grammatical level, bare participles of the type *Problema risolto* (‘Problem solved’) and positive imperatives *Risolvi il problema!* (‘Solve.IMP.2SG the problem!’) display a striking cluster of shared properties, particularly in terms of what they are incompatible with: embedding, wh-elements, focus, auxiliaries, modals, Tense. Cecchetto and Donati (2022) show that these facts can be captured via a mechanism of radical reduction, whereby these structures lack CP and TP layers and are as reduced as they appear (i.e., they are not elliptical). It is also on the basis of this grammatical parallel between

participles and imperatives that the radical absence of high CP and TP projection is proposed here, without forgetting also the developmental link between them discussed in Chapter 2, namely the early use of non-target bare participles in early Italian. This will be taken up again later in §3.4.

Since the proposal argued for here locates the imperative within the low IP area and does not involve the CP layer, the derivation of the positive imperative involves only one strong phase (Chomsky, 2001), namely vP. This is in contrast with traditional CP analyses that comprise two strong phases.

3.3.2 The Ingredients

The functional projections active in radically reduced Italian imperatives have each received independent motivation in the literature. Only the necessary projections will be proposed, not only for minimalist considerations, but also since acquisition data as extensively discussed in the previous chapter robustly points towards imperatives being computationally-light structures, acquired early and overproduced.

Each position is examined in turn. A list is provided below:

- ❖ **Imperative Phrase** (ImpP): the position where imperative verbal morphology is checked (Belletti 1999; building on Kayne 1991);
- ❖ **Jussive Phrase** (JussP): the projection encoding interpretive restrictions on imperative subjects (Zanuttini 2008; Zanuttini et al 2012);
- ❖ **Topic Phrase** (TopP): the low Topic projection (Belletti, 2004) part of the discourse-related periphery of vP, immediately above FocP. It mirrors the Topic head in left periphery (Rizzi 1997; Rizzi & Bocci 2017);
- ❖ **Focus Phrase** (FocP): the low Focus projection (Belletti 2004; Rizzi 1997; Rizzi & Bocci 2017), likewise part of the vP periphery. It mirrors the Focus head found in the left periphery of the clause and is located immediately above vP.

All of these positions are argued here to be located in the low IP area (Belletti, 2004). The low IP area is a discourse-related portion of the functional spine that is active in Italian, housing a low Topic and a low Focus head which mirror the left periphery of the clause (Rizzi 1997; Rizzi & Bocci 2017). As discussed in Belletti (2004), low IP area projections being available below CP is unsurprising given the architecture of phases (Chomsky, 2001): just as TP possesses its own peripheral domain, vP too projects its own left-peripheral layer.

Two additional functional projections are needed. The first is ImpP, originally proposed by Belletti (1999). ImpP consists in the position where imperatives check their morphology. Crucially, it was already conceived as a low position, parallel to the low position exploited by infinitives (Kayne, 1991), and therefore converges naturally with the low view of the imperative proposed here. More specifically, ImpP is responsible for the checking of imperative verbal morphology. Following Belletti (1999), building on Kayne (1991), imperatives and infinitives check their morphology in two low IP positions rather than in the higher inflectional zone. This is crucial to yield enclisis: given that imperatives check their verbal morphology in a structurally lower position than Agreement Object (AgrO), they are subsequently able to raise to AgrO and left-adjoin to the clitic, thereby yielding enclisis. The imperative verb and the clitic then move together to their ultimate landing site, JussP in the present analysis. It follows that, when a true imperative surfaces with a clitic, an AgrO projection must be active, occupying an intermediate position between ImpP and JussP.

The imperative verb passes through Imp^o, which immediately dominates the low Focus and Topic projections. Later it will be further discussed how this is important to yield enclisis.

A potential objection arises at this point. Given that imperatives in Italian are morphologically impoverished, consisting solely of the verbal root and the thematic vowel, one might ask whether a dedicated head is truly necessary to host that thematic vowel, or whether it could instead be inserted directly from the lexicon, effectively amounting to zero morphology marking nothing but conjugation class. This alternative is not pursued here. The reasoning is one of parsimony and consistency: if the thematic vowel were to arrive directly from the lexicon, one would be committed to a dual mechanism, one in which some verbal morphology (the thematic vowel) bypasses syntactic structure entirely, and one in which other heads, whose positions in the inflectional spine are well-established since at least Belletti (1990), require overt verb movement for feature checking. There is no principled reason to adopt such an asymmetry when a uniform account is available instead.

Crosslinguistic evidence further supports the retention of ImpP as a dedicated functional projection. It is well known that second person singular imperatives in several languages display overt, dedicated imperative morphology. In line with standard assumptions in the generative literature, if a given element is overtly realized in at least one language, it may be null in another without being absent from the structure. Italian expresses imperative morphology solely through the thematic vowel; following Belletti (1999), this is taken as evidence that ImpP is present in the syntactic structure, even if its morphological reflex is minimal.³²

The second position is the Jussive Phrase, first formulated in Zanuttini (2008) and Zanuttini et al. (2012). They locate the JussP in a high position, somewhere between T and the complementizer (no further detail is provided). Instead, it is here argued here that JussP is a low position, i.e. part of the low IP area. As will be shown in the following sections, **this relocation has substantial consequences for the syntactic properties of imperatives and for their acquisition.** As discussed in chapter 1 (§1.3.1), Zanuttini (2008) and Zanuttini et al. (2012) propose that jussive clauses are characterized by a Jussive head which carries interpretable person features, as well as an abstraction operator. In the case of imperatives, such features are second person features, for promissives they are first person features (+speaker), and exhortatives are first person plural features (+speaker, +hearer). The subject receives its second person restriction locally, via both semantic binding and Agreement with this head. This is to ensure that it is indeed the subject which receives the relevant second person features, instead of other constituents in the sentence. Crucially, unlike in Zanuttini et al.'s (2012) proposal, where the Jussive head forms a bundle with T and is located in the CP domain, JussP is here located in the low IP area, immediately above ImpP.

In Korean, the Jussive head is overtly realized by three distinct particles, each associated with a different jussive clause type: one for imperatives (restricted to second person), one for promissives (restricted to first person), and one for exhortatives (restricted to both first and second person) (Zanuttini et al. 2012). Italian, instead, lacks any overt particle of this kind. This suggests that parametric variation affects the overt vs. covert realization of the Jussive head and, crucially, may extend to its structural position across languages. Notably, the position argued for here, immediately above ImpP, within the vP periphery, is, despite being lower than the CP domain traditionally assumed for imperative-related material, nonetheless a peripheral domain. This is consistent with approaches that locate speaker- and hearer-related information at the edges of phases, and converges with the Biberauer's Speaker-Hearer Hypothesis (Biberauer, 2017; Biberauer & Vikner, 2017) which encodes discourse participants at the vP edge. The encoding of speaker- and hearer-related roles in dedicated functional projections has been independently proposed by Speas and Tenny

³² At times, the thematic vowel varies, as already noted in footnote 9 of Chapter 1, where reference is made to Napoli and Vogel (1990) and their discussion of vowel alternations. Consider forms such as *correre* ('to run') and *corri* ('run!'). See also a related discussion in Salvi and Borgato (1991).

(2003) and more recently Heim and Wiltschko (2025), who argue for the existence of a Pragmatic Field above CP, comprising projections where discourse roles are syntactically encoded. Without entering into the question of whether such projections fall inside or outside narrow syntax, the present analysis departs from these accounts in one crucial respect: rather than locating the relevant material in a high domain above CP, it is argued here that JussP occupies a low position within the vP periphery. Indeed, there are even proposals that place sentence final particles in the edge of the vP phase, such as Erlewine (2017) for Mandarin Chinese. Therefore, it seems that indeed there is parametrization in where sentence-final particles may be located, whether in the CP or vP phase edges, in addition to the overt vs. non-overt nature of the Jussive Phrase, taken to be the element that is realized via such particles. Therefore, this represents further support in favor of the Jussive Phrase being found in the low vP periphery.

It is now useful here to remind on which grounds a Jussive Phrase is justified in the structure of an imperative clause. As seen in Chapter 1, a dedicated functional projection is needed to restrict the interpretation of the imperative subject to second person. The need for such a projection is empirically motivated on several grounds. First, as the anaphora data reviewed in §1.2.3 demonstrate, the imperative subject, though usually covert, is always syntactically active and invariably licenses second-person reflexives: *Wash yourself!*, *Mary wash yourself!*, *Everyone wash yourself!* are all grammatical in imperatives, whereas the parallel declarative configurations are not (**Mary washed yourself*, **Everyone washed yourself*; Zanuttini et al. 2012, pp. 1238–1239). This contrast shows that second-person features are present in the structure of imperatives, also independently of whether the subject is overtly realized or not.

Second, as also discussed in Chapter 1, these restrictions cannot be reduced to semantics or pragmatics alone, but a syntactic account and dedicated functional projection is needed as well. A purely pragmatic account might claim that since imperatives are directives addressed to the hearer, the subject is naturally interpreted as second person. Zanuttini et al. (2012) argue, however, that this explanation proceeds in the wrong direction: in generative linguistics, meaning is derived compositionally from the elements present in the structure, and one cannot appeal to the final illocutionary interpretation of a sentence to determine what syntactic elements it must contain. A more sophisticated pragmatic approach might instead allow the subject to refer in principle to any individual, with felicity constraints filtering out non-second-person interpretations at the level of the speech act. This perspective is unsatisfactory as well. If the core meaning of an imperative were simply that the addressee bring about a given task, then both *You be kissed by John* and **John kiss you* should be acceptable, since both involve the addressee in the relevant eventuality. Yet only the former is grammatical, demonstrating that what is at stake is not merely semantic involvement but syntactic subject position. The same asymmetry arises with passives: **John be kissed by you* is ungrammatical despite you being the agent in the by-phrase, which rules out a purely agentive or semantic characterization of the restriction. Cross-linguistic data point in the same direction. In Korean, promissive clauses require the speaker to appear specifically in subject position, not merely somewhere in the sentence. Pragmatics can capture the generalization that a promise involves the speaker, but it cannot explain why the speaker must occupy the syntactic subject slot rather than an object or oblique position (Zanuttini et al., 2012). The second-person restriction on imperative subjects is therefore syntactic in nature, and it is on these grounds that a dedicated functional projection, JussP, is motivated in the present analysis, consistently with the proposal in Zanuttini (2008) and Zanuttini et al. (2012). The novel contribution of the present analysis lies in locating this projection in a low structural position with the novel elements of proposing that is it a low position.

The discussion now turns to a question that has thus far been left open: is a Tense projection present in imperatives at all?

Zanuttini et al. (2012) argue that in the derivation of Jussive clauses, T raises to the Jussive head, where a feature bundle is generated and the two heads operate as a single probe. This is motivated by the

assumption that, upon entering the derivation, T bears a case feature but lacks a person feature. However, this account appears to be better suited for suppletive imperative forms, where a T projection may plausibly be present. An example are for instance in Bosque's (1980) retrospective imperatives which admit an auxiliary and convey past reference and are paraphrasable as 'you should have done p', as in *Haber venido ayer* ('you should have come yesterday') (Bosque, 1980, p. 415). However, these are special constructions, and they differ from the core class of imperatives investigated here, which are typically incompatible with past reference (Zanuttini, 1997; Belletti, 1999), as observable in examples such as **Call me yesterday!*. Therefore, Tense is assumed to be radically absent from the structure, given also the non-prototypical nature of the imperative subject, and neither T nor the T-Juss unification plays a role in the proposal developed here.

If one adopts the low base position for the Jussive head argued for above, an alternative derivational path becomes available for suppletive Italian imperatives: rather than T raising to Juss, it may in fact be the Jussive head itself that raises to meet T. The two heads would then form a unit and function as a probe, broadly in line with Zanuttini et al.'s (2012) general intuition, with the crucial difference that the directionality of movement would be reversed, with Juss raising to T rather than the other way around.

However, independent support for the absence of T in true imperative structures comes from their incompatibility with past-oriented adverbials (Zanuttini, 1997), as anticipated above. As illustrated in (261) and 0, neither true imperatives nor second person plural suppletive forms in Italian can co-occur with such temporal expressions:

- (261) a. **Chiama-la ieri!*
 call-IMP.2SG-her.CL.F.3SG.ACC yesterday
 'Call her!'
 b. **Chiamate-la ieri!*
 call-IMP.2SG-her.CL.F.3SG.ACC yesterday
 'Call her!'

If this distributional restriction is taken as diagnostic of the absence of a tense projection, it follows that T is not present in the structure of suppletive Italian imperatives either.

At first glance, the compatibility of imperatives with future-oriented adverbials might appear to complicate this picture. Italian imperatives freely occur with such adverbs, as shown below:

- (262) *Corri immediatamente / subito / oggi / domani!*
 run-IMP.2SG immediately / at once / today / tomorrow!
 'Run immediately / at once / today / tomorrow!'

Interestingly, some languages even display an overt future morpheme in imperatives, as in Latin (Platzack & Rosengren 1997, building on Zhang's 1990 cross-linguistic survey). Yet this does not appear to entail the presence of an active Tense projection. Beukema & Coopmans (1989) and Rooryck (1992), for instance, analyze imperatives as bearing a [–realized] feature rather than a [–tense] one, thereby capitalizing on the notion of *realis* vs. *irrealis*, as exploited also by Han (2001) and recently discussed in Krifka (2025), who shows that it is grammatically encoded in Daakie, an Oceanic language spoken in Ambrym, Vanuatu. This crosslinguistic variation also intersects with the distinction between immediate and non-immediate imperatives (Aikhenvald, 2010). Immediate imperatives, those directed at an action to be performed at the moment of utterance, tend to be morphologically less marked, while non-immediate imperatives, which target actions projected into the future, often display richer morphological material, particularly in languages where this distinction is overtly grammaticalized. For instance, in Jarawara (Arawá; Southern Amazonia),

the marker of the immediate imperative is *-bi* or *-ho*, depending on whether the addressee is feminine or masculine, whereas the marker of a distant imperative, conveying the meaning ‘do at some distant time or place’, is *-ja-bi* or *-ja-ho*. Aikhenvald (2010) provides further examples of such systems across languages.³³

With respect to Italian specifically, the compatibility of imperatives with future adverbials can be argued to follow not from the presence of TP, but rather from the modal properties inherent to the imperative itself. Imperatives impose a request on the addressee to bring about a state of affairs that is unrealized at speech time (Salustri & Hyams, 2003) or, in Portner’s (2007) analysis, demand an update of the addressee’s To-Do List. This is indeed what Zanuttini et al.’s (2012) assume. This intrinsic orientation towards non-past eventualities renders imperatives naturally compatible with both a here-and-now and a future interpretation, while categorically excluding a past one (Di Domenico, 2004).

On these grounds, the following is the structure of unmarked, core form of a second person singular imperative:

³³ This pattern is relevant for the analysis developed in Chapter 4, where it is argued that *a*-Imperatives in Italian follow an analogous pattern, instantiating a non-immediate imperative. While there are of course crosslinguistic differences, the parallel with systems such as Jarawara suggests that the immediate/non-immediate distinction has syntactic reflexes beyond the individual language, and in Italian is acquired later by children than canonical immediate imperatives (as evidenced by the complete lack of *a*-Imperatives in children spontaneous production seen in Chapter 2), a finding that worth exploring also in other languages.

(263) [JussP [ImpP [TopP [FocP [vP...]]]]]

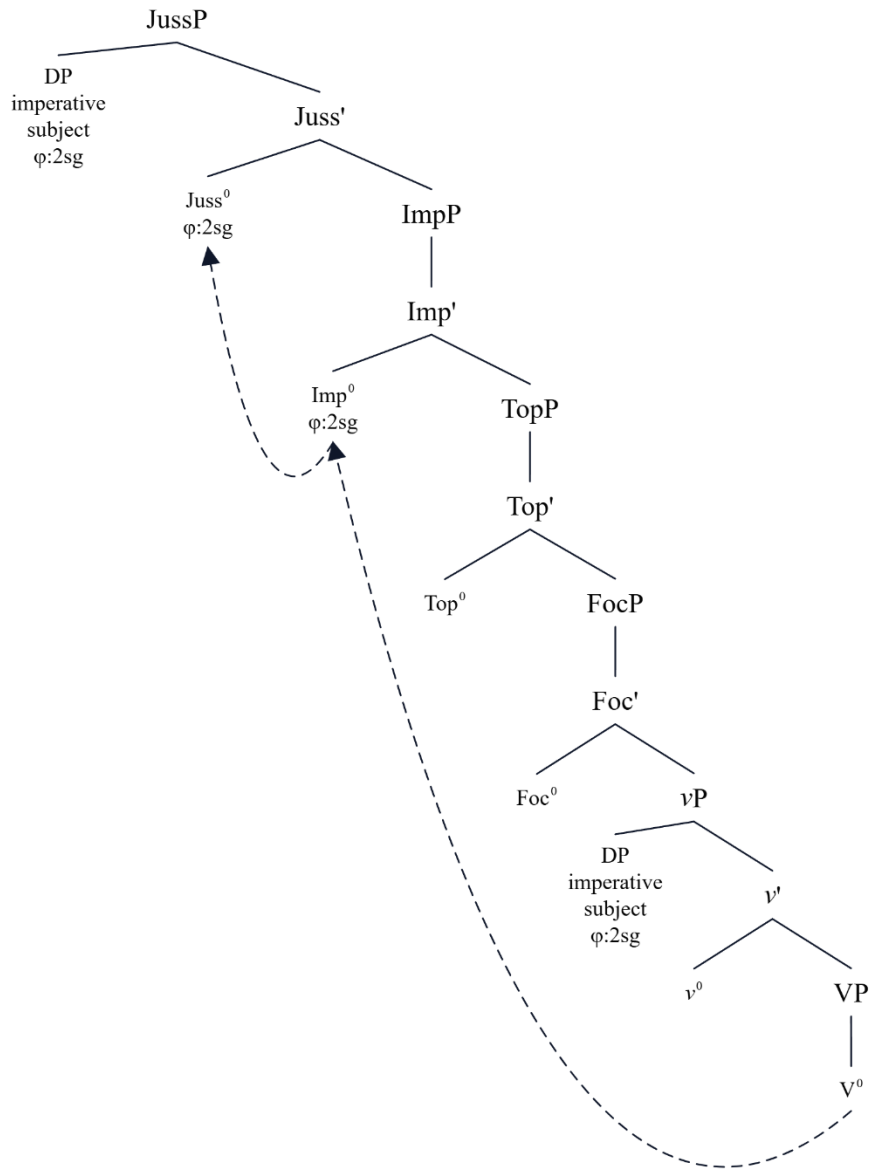


Figure 3: Tree schema of a true imperative in Italian (second person singular).

3.3.3 Illocutionary Force

As introduced in Chapter 1, the theme of imperative force has been the subject of considerable debate in the literature. A central question concerns whether the directive force of imperatives is syntactically encoded in a dedicated functional head, or whether this is not necessary and it arises in another

compositional way from the interaction of the elements in the structure. Two broad theoretical positions can be identified (see Charlow, 2014 and Portner, 2016).

The first, which may be termed the modal approach, holds that imperatives contain a modal projection, either overt or covert, located high in the clause structure. The intuition behind this view is long-standing: it has frequently been observed that imperatives share interpretive properties with modalized sentences, and in particular with deontic or bouletic modals³⁴, as illustrated by the near-equivalence between *Sit down!* and *You must/should sit down!* or *I want you to sit down* (Condoravdi & Lauer, 2012; Grosz, 2011; C. Han, 2001; Isac, 2015; Kaufmann, 2012; Liao, 2023; Portner, 2007). The idea that this correspondence reflects a covert modal element was already assumed, though not elaborated, in Emonds (1976, p. 220) and Kayne (2000). In a more recent form, the modal approach is defended by Kaufmann (2012), Isac (2015) and Liao (2023), among others, who argue that imperatives contain a priority modal projection located high in CP. In Kaufmann's (2012) account, this modal projection triggers a set of presuppositions that ensure the modal is used performatively, issuing a command, rather than descriptively. Imperatives, on this view, denote propositions just as declaratives do, but differ in their presuppositional component, which blocks access to truth conditions and thus yields a performative rather than a modalized assertion. In a similar spirit, Krifka (2023) and subsequent work also locate illocutionary force as syntactically encoded in a high layer, though the precise architecture differs. As Liao (2023) notes, determining whether a modal projection exists in the structure of imperatives, and if so of what kind, remains one of the central open challenges for generative syntax.

(264) The Modal Approach, schema adapted from Liao (2023):

[ModP Modal [TP φ]]

The second line of research, which may be called the non-modal or minimalist approach, maintains that imperatives have a relatively bare syntactic structure and that their directive force arises compositionally from the interaction of the elements in the clause, without any dedicated modal carrying most of the semantic work. This view is associated with Portner (2007), Zanuttini et al. (2012), and Lohnstein (2007), among others. In Portner (2007) a systematic correspondence between clause types and their denotational types is found: imperatives denote properties, declaratives denote propositions, and interrogatives denote sets of alternative propositions. The peculiarity of properties is that they are saturated by the addressee, as shown below:

(265) $\llbracket \text{Close the door!} \rrbracket = \lambda w. \lambda x: x = \text{the addressee in the context. } x \text{ closes the door in } w.$

On this view, illocutionary force is not syntactically encoded but follows from the denotational type of the structure: the discourse participant knows what to do with an imperative, namely update the hearer's To-Do List (a parallel component to the Common Ground in the sense of Stalnaker, 2002), with a relevant property, on the basis of what the clause denotes. The parallels between imperatives and modalized sentences are, on this account, purely pragmatic or apparent. Zanuttini et al. (2012), whose proposal is adopted in the present work, build on this proposal and likewise derive sentential force compositionally: it arises from the interaction of the Jussive Phrase with the remaining elements in the structure and Portner's semantic component, consistently with the treatment of exclamative clauses in Zanuttini and Portner, which do not have an *ad hoc* [+excl] feature but the exclamative flavor emerges from the interaction of a *wh*

³⁴ As aptly summarized by Liao and Wang (2022), and following Portner (2007, 2009), modals are standardly divided into three classes: epistemic modals, which are knowledge-based; priority modals, which are preference-based; and dynamic modals, which concern ability. Priority modals admit a further internal distinction between deontic modals, which express rules or obligations; bouletic modals, which express desires or wishes; and teleological modals, which express goals or purposes

projection and a factive operator. Lohnstein (2007) converges on a similar conclusion, arguing that sentential force is given compositionally via the interaction of more elements: crucially, it is not primitive to a dedicated element in the left periphery.³⁵

(266) The Minimal Approach, schema adapted from Liao (2023):

[JussiveP Op [vP]]

Note that a parallel “modal vs. non-modal” debate arises in the literature on RIs as well (Adriana Belletti, p.c.). Rizzi (1993/1994) derives the properties of RIs from truncation of the functional spine, making all the syntactic properties of RIs follow from this simple mechanism. The non-modal, minimalist view is adopted in this thesis in a similar vein. As will be shown in the following sections, this position is not only theoretically more parsimonious with respect to both the syntax and the semantics of imperatives, but is also better equipped to capture the empirical data from acquisition discussed in Chapter 2, which provide independent evidence against the presence of high functional projections in imperative clauses. See Oikonomou (2023) for a hybrid analysis of Modern Greek, and Charlow (2014) for arguments in favor of hybrid analyses in general. More specifically, in this thesis it will be argued that a minimalist analysis is applicable to core imperatives, and that infinitival imperatives in the next chapter require more functional structure and, indeed, different modal heads. In this light, the approach taken in this thesis is not hybrid in an absolute sense, but rather carefully distinguishes between forms that are genuinely minimal, and treated as such in acquisition as well, and forms that instead require more functional and modal material. The reader is referred to Chapter 4.

The issue of where the imperative is located in the functional spine is strictly related to the above-presented debate. In an analysis in which the CP layer is absent, as proposed here, the question arises as to how the illocutionary force³⁶ of imperatives arises in a configuration comprising indeed only vP and a few projections in the low IP area, given that the CP domain has been taken to encode illocutionary force traditionally. This issue therefore needs to be addressed, and a contribution to the debate and the relevant literature must be made explicit. This concern becomes particularly pressing in the case of radically reduced imperative clauses that nonetheless exhibit a distinct sentential force, and it is natural to anticipate that the reader may raise this question.

The CP domain has been associated with illocutionary force at least since Rizzi (1997). The left periphery has been assumed to host functional projections dedicated to clause typing, and cross-linguistic evidence from sentence-final particles, especially in Asian languages, supports the view that clause type is encoded in the highest portion of the structure (see Cheng, 1997 for a proposal on the uniformity of clause-type particles/elements in CP; see also Paul & Yan, 2022 for Mandarin Chinese; Zanuttini et al., 2012 for Korean).³⁷

However, attributing illocutionary force to a single head in C, whether modal or a Jussive Phrase, raises empirical issues when it comes to imperatives. While certain properties, such as enclisis, may follow from verb movement to a high position, other core properties of imperatives do not follow automatically. In particular, such accounts do not straightforwardly derive the restriction against embedding, the

³⁵ See Oikonomou (2023) for a hybrid analysis of Modern Greek, and Charlow (2014) or a defense of hybrid analyses. Indeed, in this thesis it will be argued that a minimal analysis is at play in core imperatives, and that infinitival imperatives (hence suppletive forms) in the next chapter require more functional structure and, indeed, different modal heads. In this light, the approach taken in this thesis is not hybrid in an absolute sense, but rather carefully distinguishes between forms that are genuinely minimal, and treated as such in acquisition as well, and forms that instead require more functional and modal material. The reader is referred to Chapter 4.

³⁶ See Chapter 1 for a discussion on the difference between illocutionary vs. sentential force.

³⁷ But see Erlewine (2017) for certain sentence-final particles that in her account appear in the vP periphery.

impoverished morphology, or the special behavior of subjects. For the latter properties, additional assumptions would be required, such as internal structural reduction within the CP domain (Salustri & Hyams, 2003, 2006).

From the perspective of acquisition and cognitive plausibility, these additional assumptions are problematic. As discussed in Belletti (2024, 2026), internal structural reduction of this kind would impose a significant computational burden on the learner. Moreover, if imperatives were to involve a full CP, their structure would include two strong phases in the sense of Chomsky (2001). This would increase computational complexity (Bianchi & Chesi, 2006; Chesi, 2004, 2005), a prediction that is not supported by acquisition data, where it is instead emerges that children treat positive, core imperatives as computationally-light structures. For reasons of cognitive plausibility and psychological reality, here an approach will be pursued in which illocutionary force is not encoded in C, and on the basis of empirical arguments, it is not encoded by a single[+imp] feature in C, but emerges from the interaction of multiple elements. As discussed, the present analysis adopts Zanuttini et al.'s (2012) Jussive Phrase. However, the Jussive head should not be understood as a clause-typing head that directly encodes imperative force and derives everything (illocutionary force and all the syntactic properties of imperatives). Rather, it contributes specific syntactic properties, most notably the restriction of the subject to the second person.

Moreover, the modal account faces a significant empirical challenge, indeed, when it comes to the second person restrictions on imperative subjects, including quantificational subjects. It is not clear how an analysis that derives imperatives through presupposition can derive, at the syntactic level, the restrictions documented by Zanuttini et al. (2010) and others, for example, the contrast between a genuine imperative like *someone call them*, as well as the other empirical properties discussed so far, and a declarative. The morphology changes, the verb form changes: this strongly suggests that the relevant distinctions are syntactically encoded, rather than reducible to pragmatic presupposition alone. A purely semantic or presuppositional account would need an independent mechanism to derive these restrictions, whereas this analysis derives both the syntax and interface, interpretive properties of core imperatives.³⁸

3.4 CONSEQUENCES AND ADVANTAGES OF THE ANALYSIS

Having outlined the proposal, advantages it offers and the range of phenomena it covers are examined point by point below. The acquisition data discussed in Chapter 2 are briefly are now addressed explicitly in light of the analysis which captures them; the discussion then proceeds in the same fashion with the morphosyntactic properties that have been referred to throughout and which will be treated individually in turn below.

3.4.1 Acquisition

Turning now to acquisition data, the points (R)-(V) introduced in the background section on acquisition are taken up again here and shown to follow naturally under a low analysis of imperatives.

3.4.1.1 *Early imperatives vs. late CP*

As seen in (R), positive second person singular imperatives are produced before the left periphery is acquired, as shown by the Guttman scale (Guttman, 1944, 1950) that emerges from the corpus data (Chapter 2): imperatives systematically precede high left-peripheral structures in every child's developmental trajectory, and in one case they precede the entire left periphery. Under a low analysis, this pattern is

³⁸ Crosslinguistic parametrization may of course affect how these restrictions are realized: languages like Chinese, and potentially Korean as discussed in Zanuttini et al. (2012), may grammaticalize the relevant distinctions differently. This remains an area for future investigation.

expected, since Italian imperatives do not require CP. By contrast, analyses that locate imperatives in the CP domain (e.g., Rivero 1994; Platzack and Rosengren 1998; Rivero and Terzi 1995) predict that imperatives should emerge only once the (high) left periphery is available, and the prediction is not borne out.

3.4.1.2 *CP imperatives vs. truncated Root Infinitives*

The overproduction of imperatives in null-subject languages parallels the overproduction of RIs in non-null-subject languages, both in timing and in rate (Rizzi, 1993/1994; Rossi, 2023; Salustri & Hyams, 2003, 2006). RIs have been analyzed as truncated structures lacking the CP layer on the basis of morphosyntactic and computational considerations (Rizzi, 1993/1994, 2006). Crucially, they share a non-negligible range of morphosyntactic properties with imperatives (Chapter 2). If imperatives were full CP structures, this developmental and grammatical link would be unexpected. Under a low analysis, the convergence follows from the fact that both constructions instantiate radically reduced structures in Cecchetto and Donati's (2022) sense.

3.4.1.3 *Reduced relative clauses vs. imperatives*

Reduced relative clauses of the type in *il leone bagnato dalla mamma* ('the lion bathed by the mum') involve a high CP projection combined with the absence of intermediate TP functional heads (Belletti, 2024, 2026). They emerge very late in development, around age six, and remain rare even later (Contemori & Belletti, 2014). If imperatives required a comparable configuration, as proposed in some accounts (e.g., Salustri & Hyams 2003, 3006), their very early appearance would remain unexplained: regular relative clauses are acquired much earlier, around age 3 (Subject Relatives) and around age 5 to 6 (Object Relatives) (Friedmann et al., 2009). A low analysis captures this asymmetry directly, since imperatives do not project CP and therefore naturally belong to an earlier developmental stage.

3.4.1.4 *Positive imperatives vs. infinitival imperatives*

Infinitival imperatives, including Generic Imperatives 0 and *a*-Imperatives 0, are absent from child production (Chapter 2). This gap cannot be fully reduced to input frequency or processing difficulty, since children are known to produce forms that go beyond the input in creative, unexpected ways (Belletti, 2017a): negative imperatives, which are arguably more complex to process given the presence of negation (Dale & Duran, 2011), albeit rarely, are indeed attested. The asymmetry therefore points to a deeper structural explanation. Under a low analysis, positive imperatives are minimal structures available early, while infinitival imperatives require additional functional material, such as aspectual and modal projections or generic operators, which are not yet available at this stage. This will be the topic of the next chapter.

3.4.1.5 *Target vs. non-target negative imperatives*

Negative imperatives are scarce in early Italian. When they do appear, children often produce non-target patterns involving anaphoric negation (*no* instead of *non*), sometimes combined with an infinitive or an impoverished verbal form. This pattern mirrors what has been observed for RIs in Dutch (Rizzi, 1993/1994) and for prohibitive constructions in Modern Hebrew (Berman, 1985). The avoidance of the target negative imperative suggests that it involves additional functional structure beyond the positive form. This is expected if positive imperatives are low, minimal structures, while negative imperatives require further material; once again, this will be taken up in the next chapter.

3.4.1.6 *Bare participles vs. imperatives*

Italian-acquiring children systematically overproduce both imperatives and bare participles well beyond their frequency in the input (Berger-Morales & Salustri, 2003; Salustri & Hyams, 2003, 2006), and it has been proposed in the previous chapter that this is so since the two forms are in complementary aspectual

distribution. Imperatives are employed for unrealized, or *irrealis* events, while bare participles encode realized, or *realis*, past events. In line with the passepartout proposal advanced in Chapter 2, both forms are overextended to a wide range of illocutionary forces that in the adult target grammar would be covered by more fine-grained modals (which indeed appear in child production after the RI/Imperative stage ends), but also other declarative contexts; the choice between imperative or bare past participle is given by the aspectual contrast between realized and unrealized events. Note that on the basis of empirical data outlined above and comparison with other participial structures, Cecchetto and Donati (2022) argue that bare participles are radically reduced structures: once again the parallel between RIs, imperatives and participles, namely the default verbal forms of child grammar, is striking. Crucially, in both cases children consistently omit the higher functional material required by the target grammar, e.g., the auxiliary in bare participles, and they share a wide range of incompatibilities, notably embedding, *wh*-elements, focus, auxiliaries, modals, Tense, suggesting that both forms instantiate the same underlying reduction mechanism, and imperatives are thus in need of a vP analysis.

3.4.2 Morphosyntax

The proposed analysis derives a cluster of morphosyntactic properties that have long been observed in the literature on positive imperatives, and which were documented in detail in Chapter 1. These properties follow from the two essential assumptions of the present analysis: the low position of JussP (Zanuttini et al., 2012), and the structural configuration whereby all projections above it are radically absent.

The analysis developed here is primarily dedicated to Italian, and its empirical adequacy is assessed against the properties of Italian imperatives discussed throughout this dissertation. Considerations of cross-linguistic extension are addressed in §3.6, where it will be shown which aspects of the proposal can be straightforwardly generalized and which require more care.

3.4.2.1 Impoverished Morphology

A first advantage of the low analysis concerns the derivation of impoverished morphology. The impoverished morphological paradigm of imperatives follows directly from the reduced syntactic structure: projections associated with finite morphology (I. Roberts, 2019; Schifano, 2018), as well as auxiliaries and modals, as it will be discussed in the next section in more detail, are absent. The TP layer comprises only the low IP area (with the projections illustrated in (261). By contrast, in CP analyses, impoverished morphology is harder to derive as it requires additional mechanisms, such as internal structural reduction within an otherwise projected CP, as discussed in Belletti (2024, 2026).

An additional relevant fact is that imperative forms may undergo further phonological truncation. The phenomenon is particularly visible with irregular verbs in Italian, where truncated imperative forms are common: *di'* / *dici* (*say*.IMP.2SG), *va'* / *vai* (*go*.IMP.2SG), *sta'* / *stai* (*stay*.IMP.2SG). It is important to note, following Belletti (1999), that such truncation phenomena reinforce the idea that imperatives are morphologically minimal forms. This becomes apparent when clitics are present in the structure. The full forms of the above-mentioned verbs, namely *dici*, *vai*, *stai*, yield ungrammaticality when combined with a clitic. Only the truncated form is compatible with it: *dillo* / *vacci* / *stacci* (*say*.IMP.2SG-*it*.CL.3SG) / (*go*.IMP.2SG-*there*.CL) / (*stay*.IMP.2SG-*there*.CL).

Truncation at the phonological level in core imperatives has been discussed for Italian by Belletti (1999) and Salvi and Borgato (1991), and is referred to as *subtraction* in Aikhenvald (2010); see also Platzack and Rosengren (1998) for related observations in Icelandic, and Chapter 1, §1.1.2, for further discussion.

Extra support in this direction comes from the related phenomenon of reduplication. In certain varieties, the truncated version of the imperative verb may be reduplicated for expressive purposes. This is the case in Neapolitan, where forms such as *vien9*, *vie'!* (come, come!) are highly productive (Ledgeway,

2010). In these instances, the truncated form represents the core imperative, and reduplication serves to signal that indeed the addressee is allowed to do something, as in *vien9, vie'!* (come, come!), or it can also be a peremptory command, such as *vatten', va'!* (go.IMP.2SG.you.CL.PART.CL, go.IMP.2SG / 'Go away!!!') Reduplication in imperatives is attested cross-linguistically, as discussed in Aikhenvald (2010)³⁹, and it does not always target the verbal root; in other languages it may affect the verbal endings. Aikhenvald (2010, p. 79, fn. 22) notes that in Sidaama (Kawachi, 2007) the singular canonical imperative is formed with the suffix *-i*, while the plural imperative involves reduplicating the stem-final consonant and adding *-e*. Similarly, in Kambaata, a Cushitic language of Ethiopia, plural marking on imperatives may be partially reduplicated to express an additional degree of politeness. As emphasized by Aikhenvald (2010), reduplication is never the sole marker of imperative force, but rather a pragmatic strategy; crucially, more peremptory or polite forms tend to be morphologically more complex.

In Italian, however, truncation targets the verb root and eliminates inflectional endings. This suggests that the core imperative meaning is encoded really in the minimal verbal root of the imperative. The fact that in Neapolitan reduplication applies precisely to this truncated root further supports Belletti's (1999) observation that the root alone is the true imperative, and indeed sufficient to convey imperative force. In turn, this is fully compatible with a low structural analysis, where the essential properties of imperatives appear to be tied to a minimal structural configuration.

In this spirit, a further advantage of the present approach is that it eliminates the need for an *ad hoc* imperative feature in the left periphery. Accounts such as Rivero (1994), Platzack and Rosengren (1998), and Isac (2015) posit an [imp] feature in C to encode imperative clause type, in parallel with the [+/-wh] feature used for interrogatives. By contrast, the reduced imperative analysis derives clause type compositionally, assuming a low Jussive head. On this view, illocutionary force and the core properties of imperatives follow from the syntactic configuration itself, rather than from a primitive feature located in CP.

A problem with the [+imp] feature is that its status remains unclear. Rivero and Terzi (1995) describe it as "equivalent" to Svenonius's operator, but the nature of this equivalence is not made explicit. It is not clear whether the feature is intended to be an operator in its own right or simply a label in the syntax that stands for it, bearing somehow an imperative trait. Eliminating such a feature results in a more economical analysis, and arguably more learnable, since it relies on independently motivated structural ingredients rather than on a primitive with no explicitly defined syntactic and semantic content. This does not mean that operators should be dispensed with altogether. On the contrary, some form of operator is necessary: imperatives display systematic restrictions on the person and number of their subjects, and their sentential force is highly conventionalized. Any syntactic analysis must therefore engage with interface properties and account for how these restrictions arise.

It is argued here that the crucial difference lies in the role played by the operator. The [+imp] feature in Platzack and Rosengren (1998) does not appear to do more than label clause type and syntactically, it is not clear how such feature may yield the morphosyntactic properties of imperatives apart from verb movement to [imp], which as it was discussed in §3.1, risk nonetheless to be a circular argument: the verb moves because the feature is present, and the feature is postulated because the verb moves. By contrast, the operator posited in Zanuttini et al. (2012), and in a similar spirit in Belletti (1999), performs explicit syntactic

³⁹ In Neapolitan, reduplicated imperatives such as *vien', vie'!* (come, come!) may convey additional pragmatic nuances, including emphasis on immediacy or a permissive flavor ('come on, go ahead'). A full analysis of these forms would require a more detailed investigation of their prosody, internal structure, and distribution across dialects. For present purposes, it is sufficient to note that doubly truncated imperatives provide further support for the idea that imperative force can be encoded in a minimal verbal structure, and that additional expressive or pragmatic effects can be layered on top of this core through mechanisms such as reduplication.

work, namely restricting the person features on the subject. In so doing, it derives the restriction that the subject of an imperative must correspond to the addressee, and this restriction is not negligible but is rather the defining property of imperatives: in imperative clauses, the speaker is not making a statement about an individual, but is directing an action toward an addressee. As noted by Platzack and Rosengren (1998) themselves, among many others, imperatives are inherently addressee-oriented. Declaratives and interrogatives do not display this restriction, as their subjects can refer to any individual: the asymmetry must therefore be captured in the grammar. An addressee-oriented operator achieves this in a principled way and unlike an *ad hoc* feature in C.

3.4.2.2 *Auxiliaries and Modals*

As anticipated, a further advantage of the low analysis concerns the well-known restriction against auxiliaries and modals in imperatives. Imperatives generally do not admit overt auxiliaries or modal verbs, as illustrated by the ungrammaticality of examples such as **Must help me!*. This restriction is robust. A notable exception is represented by so-called retrospective imperatives, which may involve an auxiliary and convey past reference and are paraphrasable as ‘you should have done p’, as in *Haber venido ayer* (‘you should have come yesterday’) (Bosque, 1980, p. 415). However, these are special constructions, and they differ from the core class of imperatives investigated here, which are typically incompatible with past reference (Zanuttini, 1997; Belletti, 1999), as observable in examples such as **Call me yesterday!*.

The incompatibility of auxiliaries and modals in imperative clauses is challenging for analyses that assume a fully projected TP layer in imperatives. In particular, in Zanuttini et al. (2012), T is assumed to move to the Jussive head. If the TP layer is active, it is not immediately clear why auxiliaries or modals could not also occupy the TP and raise to Jussive in the same way. In other words, the analysis risks overgenerating structures in which auxiliaries and modals should be possible, contrary to fact. The same applies to subject clitics, which are not admitted in imperatives (Di Domenico, 2004), and are usually associated with the Specifier of T. If T is present, they should be admitted too; however, that is not the case. The conditions under which elements can or cannot occupy the TP domain remain unclear in their account. In other words, under Zanuttini et al. (2012) it remains to be explained why imperatives systematically exclude elements that would otherwise be expected in those positions, such as auxiliaries, modals, and subject clitics. Their analysis is primarily aimed at accounting for the full range of jussive clauses (imperatives, promissives, exhortatives), and in this respect it is compelling: the compositional derivation of jussive semantics via the interaction of the Jussive head with Portner’s (2007) semantics yields a principled, minimal and parsimonious treatment of sentential force. The proposal is also readily extensible cross-linguistically, given that its minimal structural core, essentially [JussP [vP]], as seen in (266), imposes few language-specific assumptions.

However, the imperative paradigm is heterogeneous, as the examples in (256)–0 illustrate, and as constructions such as Bosque’s (1980) retrospective imperative further demonstrate. As illustrated in Chapter 1, suppletive imperatives in particular are a tricky case because they display a hybrid syntax, somewhat in a middle-ground between core imperatives and declaratives (e.g., see M. L. Rivero, 1994b on Spanish,). The challenge, then, is to develop an analysis that avoids the risk of overgeneration while nonetheless accounting for both core imperatives and suppletive forms, which, as anticipated, require a richer functional structure.

The proposal advanced here is that for core imperatives a refinement of the minimal structure proposed in Zanuttini et al. (2012) is sufficient to derive the properties of core imperatives: if they are radically reduced structures, the incompatibility with auxiliaries and modals which are syntactically encoded in layers higher than the low Jussive head follows, as well as the other morphosyntactic properties that are being explored in these sections.

Once again, acquisition data provide independent support for this proposal. Salustri and Hyams (2003, 2006) show that modal verbs emerge only after the end of the overproduction stage of imperatives in child language. This timing is unexpected under an analysis in which early imperatives already involve a fully specified CP and TP layer capable of hosting modal elements, even if these were assumed to be phonologically null. A more parsimonious account is that early imperatives lack the relevant functional structure altogether, being radically reduced structures, and that modal verbs appear only after the end of the overproduction stage, once children no longer need to exploit a computationally light structure to express the full, wide range of illocutionary forces conveyed by modals.

3.4.2.3 *Imperative Subjects*

For the theoretical discussion of imperative subjects, including the person restrictions captured under the present analysis following Zanuttini et al. (2012), the reader is referred to Chapter 1. The present analysis offers an additional and principled syntactic explanation for null subjects in imperatives extending the proposal in Zanuttini et al. (2012), partly inspired by Di Domenico (2004) and Belletti (1999). Since, as discussed, the Jussive Phrase in Zanuttini et al. is not a bare JussP but rather a T-Jussive head incorporating Tense, a property that may be relevant for promissives, but which, it is argued here, is absent in imperatives, it remains unclear why the subject should fail to be expressed in both pro-drop and non-pro-drop languages alike. This cannot be reduced to a matter of parametric variation; it appears instead to be a structural property of imperatives as a clause type (see Chapter 1 on typological variation). If, by contrast, imperatives are radically reduced structures lacking a TP layer altogether, Tense projection included, then the non-prototypical nature of imperative subjects, namely, the fact that they are consistently covert, follows naturally: there is no Tense projection to host or license an overt subject, and this holds uniformly across both pro-drop and non-pro-drop languages (see the section on crosslinguistic extension below). The subject is base-generated in SpecvP (Kratzer, 1996) and raises to SpecJussP.

In their original work, Zanuttini et al. (2012) do not address the contentious issue of Tense in imperatives, and instead assume for simplicity that a T head enters the derivation bearing a case feature but lacking a person feature, the second person features being contributed instead by the Jussive head itself. The approach proposed here dispenses with this assumption entirely, arguing that no TP is projected in imperatives at all, thereby eliminating the need for this stipulation. In this respect, a potential concern arises in the case of negative imperatives: if the negative marker selects a TP, as proposed in seminal work by Zanuttini (1997), why should the subject remain null even when TP is present? This question will be addressed in the following chapter, where it will be argued that negative imperatives, while requiring additional structure, still do not project a full TP. The deontic and aspectual modal head remains low, below T, in line with work by Hacquard (2006) Anand and Hacquard (2013), as well as Tsai (2015), who locate deontic modals in a lower structural position than epistemic ones, and with work by Ramchand and Svenonius (2014), who partition the TP domain into two distinct zones: a lower, eventive-aspectual layer, where it is claimed here that the imperative is situated, and a higher layer that is absent in imperatives altogether.

3.4.2.4 *Clitic Placement*

Given the systematicity of enclisis in imperatives, the order verb-clitic has been considered as one of the main empirical points supporting a CP analysis of imperatives (Rooryck, 1992; Belletti, 1999, among others), a low one has the challenge of making enclisis, very intuitively associated with verb movement to C, follow from a very minimal structure. The proposal developed here is still very much compatible with Belletti's (1999) account of Italian cliticization.

According to Belletti's (1999), the Italian clitic in the derivation of an imperative clause moves up until AgrPstPrt (AgrObject in previous work, Belletti, 2017b). Imperatives check their verbal morphology in ImpP, which is lower than AgrPstPrt, so that they can subsequently raise to it and left-adjoin to the clitic. From this, the order verb-clitic follows. The next step in the derivation is then verb movement to C, in the original proposal, while it is verb movement to Juss^o in the present analysis. Therefore, this motivates a reassessment of the schemata of the core imperative outlined in (263), as there needs to be a position between ImpP and JussP where the clitic moves

(267) [JussP [AgrPstPrt [ImpP [TopP [FocP [vP...]]]]]

Therefore, a reduced imperative must comprise both a head where the verb can check its morphology (Imp) and a position where it can finally land (Juss) after having left-adjoined to the clitic in AgrPstPrt, yielding enclisis. This two-position requirement is not an ad hoc stipulation: it is independently motivated in the literature. The verb does not move excessively high, and the derivation is essentially equivalent to previous proposals, modulo the addition of one further position that has itself been posited on independent grounds. Crucially, enclisis is derived straightforwardly, and, following Belletti, it emerges precisely by virtue of the low position of the head where imperative morphology is checked. This is a fundamental advantage of the analysis: it renders the account more uniform and more parsimonious, as it avoids movement to CP entirely and thereby sidesteps the problems with the intermediate projections of the TP layer discussed above.

Independent support comes from Baldi and Savoia (2020) and Savoia and Baldi (2023), who demonstrate, on the basis of other linguistic varieties, that movement to C is not required for enclisis. Like Roberts (2019) and Schifano (2018), these authors assume that the relevant morphology is inserted during the syntactic computation. A particularly striking piece of evidence comes from Albanian, where mesoclis places the clitic between the verb and its person features. If the verb has not raised to JussP but has instead acquired its features via Agree a mechanism already envisaged in the original proposal of Zanuttini et al., then the resulting order is precisely that proposed in the present analysis.

3.4.2.5 *Embedding and Questioning*

Two further morphosyntactic properties follow from the structural analysis proposed here, and prove problematic for high CP accounts: the impossibility of embedding and the incompatibility with questioning.

Under a CP analysis in which the imperative verb raises to Force, assuming a full left-periphery, embedding is immediately problematic. Force is the projection responsible for clause typing in embedded contexts, where it is selected by the matrix verb for selectional reasons (Friedmann et al. 2021). The low analysis proposed here derives the unembeddability of imperatives directly: in the absence of a CP layer, no Force projection is present, and the structural conditions for embedding are simply never met.

At this point, the theoretical gap identified in section 1.1 resurfaces. A number of earlier proposals, formulated prior to the split-CP framework, derive unembeddability relatively straightforwardly by moving the imperative verb to C. However, once the split-CP structure of Rizzi (1997) is adopted, the question reopens in a non-trivial way. Some proposals place the imperative verb in Force (e.g., Platzack & Rosengren, 1998), others in Topic (Di Domenico, 2004); yet in neither case is it immediately clear why embedding should be excluded *a priori*, particularly so under an account in which the verb moves to Topic. Crucially, the acquisition data discussed in Chapter 2 bear directly on this point: children producing early imperatives consistently lack structures involving Topic and Force projections, which strongly suggests that these projections form no part of the functional spine of imperatives. This constitutes independent, acquisitional evidence converging with the syntactic argument in favor of a low analysis.

The incompatibility of imperatives with interrogative force and *wh*-elements follows along the same lines. Under a low analysis lacking the CP layer entirely, this incompatibility is derived automatically: with no CP domain available, there is no position for a *wh*-element to move to, and no projection capable of hosting interrogative force. By contrast, under a high analysis in which the verb raises to Force, it remains entirely unclear why a *wh*-element could not co-occur with the imperative verb, since the relevant functional architecture would in principle be available.

Turning back to embedding, it is indeed true that there are exceptions to robust generalization that imperatives (with dedicated morphology) cannot be embedded. Indeed, it has been documented in some historical languages that verbs with unique imperative morphology appear in subordinate clauses introduced by a complementizer equivalent to English *that*. That is the case for Old Swedish, Old Danish, and Old (Delsing, 1999; Platzack, 2007; Rögnvaldsson, 1998), among other languages (Aikhenvald, 2010). The relevant examples are given in (1), taken from Platzack (2007, pp. 181–182):

- (268)
- a. Waktā thig at thu mōdhenktet thit hiarta ther wmwatc (Old Swedish)
'Be careful not to bother your heart with that.'
 - b. Jag bidher tik at thu ey owergiff mik (Old Swedish)
'Please do not abandon me!'
 - c. Ger þú annaðhvort að þú sel þá fram ella munum vér brenna upp bæinn (Old Icelandic)
'Either you deliver it or we will burn the house.'
 - d. Nú ger þú svo mannlega að þú sit heldur að eignum þínum hér (Old Icelandic)
'Now be like a man and stay at your estate.'

Platzack (2007) notes that the verb in these contexts surfaces in the bare stem form, which constitutes the dedicated imperative morphology in these languages and is not recruited for any other grammatical purpose. Interpretations of these data diverge. Jensen (2007) argues that these are not genuine imperatives: the relevant constructions are analyzed as subjunctive clauses headed by a performative verb in the matrix, rather than as core imperatives. Two arguments are brought to support her position: (i) all attested examples feature an overt second-person subject; (ii) a performative verb is invariably present in the matrix clause is a performative verb such as *ask*, *beg* or *urge*. Platzack (2007), instead, treats these cases as genuine embedded imperatives, acknowledging them as true exceptions to the crosslinguistic generalization.

Regardless of how this interpretive dispute is resolved, the morphosyntactic distribution of the subject is directly relevant to the structural analysis. As Delsing (1999) observes for matrix imperatives, the subject is optional and postverbal; in the embedded structures under discussion, however, the subject is obligatory and preverbal. This distribution is precisely what the low vP analysis defended here predicts.

3.4.2.6 *Adverbs*

As succinctly and effectively put by Cruschina (2015), adverbs are sensitive to clause type. The discussion now turns to adverbs in imperatives, as this constitutes one of the central arguments put forward by Jensen (2007), building on Rupp (2003), in favor of a reduced, vP analysis of imperatives in English and Mainland Scandinavian. This is independently supported by acquisition data: Robiatu (2025) finds that English imperatives are first-stage structures under the Growing Trees approach (Friedmann et al., 2021), and are therefore incompatible with a CP analysis.

Jensen's core observation is that, in English and Mainland Scandinavian, CP analyses of imperatives should predict that elements in CP be present in imperatives; in particular, she refers to propositional

adverbs, the distribution of further adverbs, negation and topicalization. The prediction is not borne out: the fronting of all those elements is not admitted. Propositional adverbs in the sense of Ernst (2002), such as *unfortunately* and *surprisingly*, are illicit in imperatives, as shown below (examples from Chapter 1 are repeated here for convenience):

- (269) *Unfortunately buy a ticket!
 (270) *Surprisingly eat your greens!
 (271) *Uheldigvis køb en billet!
 (272) *Køb uheldigvis en billet!
 ('Unfortunately buy a ticket!')
 [Ex. by Jensen 2007, p. 168]

Initial adverbs are generally excluded in imperatives in Swedish and Danish:

- (273) Swedish
 a. *Helst drick vitt vin till fisken.
 'Preferably drink white wine with the fish.'
 b. *Oartigt lämna rummet (och ring inte tillbaka).
 'Impolitely leave the room (and do not call back).'
 c. *Snabbt ring polisen.
 'Quickly call the police.'
- (274) Danish
 a. *Helst drik hvidvin til fisk.
 'Preferably drink white wine with fish.'
 b. *Straks sæt dig ned.
 'Sit down immediately.'
 c. *Hurtigt løb til butikken.
 'Quickly run to the store.'

Crucially, Jensen notes that in these ungrammatical examples there is no intonational break, or "comma intonation", between the adverb and the rest of the clause. If the adverb is separated by a clear pause, it becomes acceptable, but in that case, it is as a parenthetical element, hence not integrated in the functional spine proper.

- (275) Swedish
 Drick helst, företrädesvis vitt vin till fisken.
 'Preferably, drink white wine with the fish.'

Manner adverbs, which can freely occupy a preverbal position in declarative V2 clauses, are systematically excluded from preverbal position in imperatives in these languages. As anticipated, where

such adverbs appear with a clear intonational break, they are argued to be parenthetical elements external to the functional spine proper, and thus do not constitute genuine counterevidence (Jensen, 2007). Postverbal adverbs, by contrast, are acceptable; a finding which supports a vP analysis.

The Italian data pattern in a strikingly parallel way, and are presented here alongside Jensen's Scandinavian examples. In the following ungrammatical cases, no intonational break is present between the adverb and the rest of the clause:

- (276) *Sfortunatamente compra un biglietto!
 Unfortunately buy.IMP.2SG a ticket!
 'Unfortunately buy a ticket!'
- (277) *Sorprendentemente mangia la verdura!
 Surprisingly eat.IMP.2SG the vegetables
 'Surprisingly eat your greens!'

Manner and prepositional adverbs, which can freely occupy preverbal position in declarative V2 clauses in the languages examined by Jensen, are systematically excluded from preverbal position in Italian imperative clauses:

- (278) a. *Velocemente chiama la polizia.
 Quickly call.IMP.2SG the police
 b. *Immediatamente siediti.
 Immediately sit.IMP.2SG-down
 c. *Gentilmente lascia la stanza.
 Impolitely leave.IMP.2SG the room
 d. *Preferibilmente bevi vino bianco con il pesce.
 Preferably drink.IMP.2SG white wine with the fish

Where such adverbs appear with a clear intonational break, and they are parenthetical elements external to the functional spine proper, then they are licit. It is further visible that such adverbs seem to be parenthetical since in (280) it surfaces between the verb and the rest of the clause:

- (279) Siediti, immediatamente!
 sit.IMP.2SG-down immediately
 'Sit down, immediately!'
- (280) Bevi, preferibilmente, vino bianco con il pesce.
 drink.IMP.2SG, preferably, white wine with the fish.'
 'Drink, preferably, white wine with the fish.'

Postverbal adverbs, by contrast, are fully acceptable:

- (281) a. Chiama immediatamente la polizia!

- call.IMP.2SG immediately the police
 ‘Call the police immediately.’
- b. Chiama la polizia immediatamente!
 call.IMP.2SG the police immediately
 ‘Call the police immediately.’
- c. Siediti subito!
 sit.IMP.2SG-down at.once
 ‘Sit down at once.’
- d. Corri velocemente al negozio!
 run.imp.2sg quickly to.the store
 ‘Run quickly to the store.’

The Italian data thus follow the Scandinavian pattern as observed by Jensen (2007): preverbal adverbs without an intonational break render the imperative ungrammatical, while postverbal position is fully licensed. The intonational break rescues the construction, but only if the adverb is parenthetical.

Adverbs expressing obligation are illicit in imperatives in both positions, notice that also the English equivalent is ungrammatical:

- (282) a. *Obbligatoriamente vai via!
 obligatorily go.IMP.2SG away
 *‘Leave obligatorily!’
- b. *Vai via obbligatoriamente!
 go.IMP.2SG away obligatorily
 *‘Leave obligatorily!’
- c. Vai via!
 go.IMP.2SG away
 ‘Go away!’

A speculative observation concerns the relationship between obligation adverbs and the Jussive head. Given that imperatives already encode deontic force, obligation adverbs such as *obbligatoriamente* and the Jussive head, or more precisely, the specifier of the Jussive head, may be in complementary distribution. It is conceivable that the Jussive head itself occupies the structural position of ModOblg in Cinque’s (1999) hierarchy. This remains a tentative suggestion, and no stronger claim is made here; what is significant, however, is that the evidence converges consistently towards a low analysis of imperatives, in line with the argument developed in the preceding sections. More specifically, independent support for this convergence comes from the theoretical literature on modality, as anticipated: Hacquard (2006), Anand and Hacquard (2013), Tsai (2015), Cinque (1999), locate deontic modals in a lower structural position than epistemic ones, and with work by Ramchand and Svenonius (2014), who partition the TP domain into two distinct zones: a lower, eventive-aspectual layer, where it is proposed here that the imperative is situated, and a higher layer

that is absent in imperatives altogether. The low position of the Jussive head proposed here is therefore not an isolated stipulation but it further contributes to the wider and independently motivated discussion on the hierarchy of modals. Indeed, if deontic modality is uniformly low across clause types, it follows naturally that the functional structure of imperatives need not extend beyond this lower domain: the imperative clause is, in this sense, structurally complete precisely where deontic force is encoded, with no principled motivation for projecting further into the higher TP and CP layers.

3.4.2.7 Information Structure and Vocatives

Two phenomena that at first glance seem immediately problematic for a low analysis of imperatives are topics, foci and vocatives, as they have been argued to target the left periphery of the clause (Moro, 2003; Rizzi, 1997; Rizzi & Bocci, 2017). The discussion below examines the debate in the literature concerning these phenomena and shows how they are actually compatible with the proposed analysis.

As observed by Cecchetto and Donati (2022) for reduced participial constructions, when a dislocated constituent appears to the left of the participle, it automatically receives a contrastive interpretation. Crucially, the sentence is grammatical only in the presence of an intonational break, signaled orthographically by a comma. The presence of the intonational break is a key observation made by Cecchetto and Donati (2022), which is extendable here to imperatives, as shown below:

- (283) Reduced participial with topicalization, ‘dislocated reduced’ in the original work

Il problema, risolto (ma la preoccupazione rimane)

the problem, solve.PST.PTCP

Lit: ‘The problem, solved (but the worry remains)’

[ex. From Cecchetto and Donati 2022, p. 20.]

- (284) Imperative with topicalized subject

Tu, risolvi il problema, (io, scrivo l’abstract).

You solve.IMP.2G the problem I.NOM write.PRES.IND.1SG the abstract

‘You, solve the problem, I write the abstract’

This contrastive interpretation naturally encourages a continuation of the discourse, (Cecchetto & Donati, 2022), as signaled by the material in brackets in the previous examples. This is a property once again shared with imperatives. In their analysis of dislocated reduced participials, such as (283), Cecchetto and Donati maintain that these structures are as small as VP, and propose that the internal argument moves to the periphery of the VP as the Goal probed by the past participle, under a mechanism of *labeling by feature sharing*. The dislocated structure is thus minimally different from the reduced participial of the type *Problema risolto!* (problem solved.PST.PRT), differing only in that the internal argument has been fronted to a peripheral position.

Concerning imperatives only, on the basis of the typology of topics proposed by Frascarelli and Hinterhölzl’s (2007), Frascarelli and Jiménez-Fernández (2016; 2021) discuss the following data in Italian. They argue that Aboutness-Shift Topics are not licit in imperatives, whereby Contrastive Topics and Familiar/Given Topics are allowed:⁴⁰

- (285) Basta giocare: vai subito a finire i compiti!

⁴⁰ See also the seminal paper by Benincà and Poletto (2004) for a slightly different typology of topics.

- 'Stop playing: go and finish your homework immediately!'
- (286) Aboutness-Shift Topic
- *Basta giocare: i compiti, vai subito a finirli!
- *'Stop playing: your homework, go and finish it immediately!'
- (287) Contrastive Topics
- A. Dove posso mettere questi fiori?
- 'Where can I put these flowers?'
- B. a. Le rose, mettile nel vaso, il girasole lascialo sul tavolo. (Italian)
- b. Las rosas ponlas en el jarrón, el girasol déjalo sobre la mesa. (Spanish)
- Lit. the roses put-them in the vase, the sunflower leave-it on the table)
- (288) Given Topic
- a. La palla tirala./ 'Tirala, la palla.
- b. La pelota tírala./ 'Tírala, la pelota.
- Lit. the ball throw-it/throw-it the ball)
- [Examples from Frascarelli and Jiménez-Fernández 2016, p.1]

As seen above, also in Frascarelli and Jiménez-Fernández (2016) there is a comma in contrastive topics, and thus an intonational break.

The picture complicates further when considering other languages when the ban on topics in imperatives is more robust and does not concern only some of them. Jensen (2007) indeed observes that topicalization is in fact unavailable in English and Mainland Scandinavian imperatives.⁴¹ While German marginally tolerates topicalized imperatives, and even then, only under a strictly contrastive reading (Platzack and Rosengren 1998, p. 184), a picture partly compatible with the Italian one as outlined above, the English and Mainland Scandinavian correlates are sharply ungrammatical. Topicalization is not possible in English, Danish, Swedish, or Norwegian imperatives, even in the context of contrast:

- (289) a. *The weapons leave behind! [English]
- b. *Våbnene lad ligge! [Danish]
- c. *Vapnen låt ligga! [Swedish]
- d. *Våpnene la ligge! [Norwegian]
- 'Leave the weapons behind!'

The empirical landscape is therefore rich, and nuanced. It is noted here that two broad approaches to topicalization, relating directly to these facts, are available in the literature, and that both are ultimately compatible with a low vP analysis of imperatives. No strong position is adopted here between these alternatives; nevertheless, in light of the findings developed throughout this study, the present work also contributes to the debate surrounding these phenomena.

⁴¹ See also Koopman (2007) on the incompatibility of topics and foci in imperatives in Dutch, a V2 language where imperatives are V1.

The first approach draws on Cecchetto and Donati (2022): the dislocated element occupies a peripheral position at the edge of VP, and the contrastive interpretation arises from movement to that position under *labeling by feature sharing*, as outlined above. In its essence, without committing to a precise position of the topicalized element, this approach is in its essence fundamentally in line with the account of the low IP area as formulated in Belletti (2004), which contains a low topic position, that could be involved in imperatives. This is compatible with a vP analysis. Moreover, topic positions have been argued to occur also recursively in the functional spine, so it may be that two topic positions are available in imperatives, one for right dislocated constituents, and one for left-dislocated ones, both being low positions.

Another approach that is still compatible with a vP analysis holds that topics are not integrated into the imperative clause at all, but are parenthetical or instead instantiate a bi-clausal configuration with imperatives, namely involving two syntactically independent units (Ott, 2017, and references therein). It is assumed here that this may entail the yielding of two distinct Speech Acts (Austin, 1962; Searle, 1969). Crucially, if one assumes a strong hypothesis of a 1:1 interface between prosody and syntax, the presence of an intonational break could be by itself a diagnostic of the underlying syntactic structure. Assuming this, and that left-dislocated and right-dislocated constituents both are prosodically independent from the matrix clause (Bocci, 2013), this may reflect a configuration in which the topic and the imperative are genuinely detached and independent, syntactically, prosodically and interpretationally: the comma intonation could thus be a reflex of a bi-clausal, “bi-speech act” configuration. Indeed, intuitively, when a topic precedes an imperative, the topic first introduces or picks up an element into the Common Ground, and that would be the first speech act, and via the imperative clause a directive is issued, and that would be the second speech act in the sequence. The same holds for vocatives: the speaker first calls the addressee, and only after that the order is issued. The interpretation analysis and the comma intonation might indeed be the sign of the presence of two distinct speech acts. This line of thought is supported by Portner (2004c), who argues that the intonational break signals that the contrastive element is external to the clausal spine proper, and that what appears to be a topic-initial imperative does not involve actual functional projections of the imperative clause. In the same vein, Bianchi and Frascarelli propose that Aboutness Topics (but not for other types of topics), come in a different speech act than the rest of the clause (with might be declarative or imperative and instantiate different speech acts).

However, this is in contrast with standard cartographic assumptions on the left-peripheral topic positions proposed from Rizzi (1997) onwards. It is important to consider that imperatives are special and differ deeply from declaratives and questions, as seen extensively throughout this work both in syntactic, interpretive and acquisitional terms; ‘the lonely imperative, as Jakobson called it, seems to be lonely and special also when it comes to topics, and therefore what could straightforwardly apply in clear cartographic terms in other clause-types is difficult or trickier to treat in imperatives.

A further observation, not explicitly noted by Frascarelli and Jiménez but worth drawing attention to here, concerns the asymmetry between left and right dislocation in imperatives. Consider the following contrast:

- (290)
- | | | | |
|---------------------------|--------|---------------------------|--------|
| a. La | palla, | tira-la! | |
| the | ball | throw.IMP.2SG-it.CL.F.ACC | |
| ‘The ball, throw it!’ | | | |
| b. Tira-la, | | la | palla! |
| throw.IMP.2SG-it.CL.F.ACC | | the | ball |
| ‘Throw it, the ball!’ | | | |

(290)b, the right-dislocated variant, strikes speakers as considerably more natural than (290)a, the left-dislocated one. This asymmetry follows naturally from a low vP analysis of imperatives: if the imperative clause lacks the higher functional projections associated with the CP domain, left-peripheral positions for topic accommodation are simply unavailable within the clause proper, and any apparent left-dislocated element must be external to the structure altogether. Right-dislocation, by contrast, does not require access to the left periphery and is therefore more readily integrated. The contrast between (290) and 0 thus constitutes a further, indirect piece of evidence in favor of the low analysis developed here. That said, judgements on such examples can vary across speakers⁴², and a proper evaluation of this asymmetry would require quantitative and experimental data. This is left to future investigation.

The reader might recall that in Di Domenico, she assumes that in the following example the over subject is topicalized and sits in SpecTop, while the imperative verb is in Top°:

The analysis in this thesis analysis departs from Di Domenico (2004), who proposes that the imperative verb lands in Top°, which is a position she identifies as potentially either the high or low Topic projection, on the basis of the contrast in (291)-(292); while note in (293) how preverbal foci are not admitted:

(291) Tu porta la valigia
you.TOP take.IMP the suitcase

(292) Porta-la TU
take.IMP-it.CL.3SG.F.ACC you.FOC

[Ex. from Di Domenico, 2004]

(293) *TU portala
you.FOC take.IMP-it.CL.3SG.F.ACC

In (293), the preverbal subject *tu* precedes the verb, leading Di Domenico to conclude that the verb occupies Top° and *tu* is in SpecTopP. This analysis is not adopted here. Instead, following Zanuttini et al. (2012), *tu* in (3a) is a pronoun that enters the derivation without a specified person feature, subsequently receiving its second person interpretation via Agreement with the Jussive head. Its surface position is therefore SpecJussP, not SpecTopP, and the verb occupies Juss°. The prominent, topic-like interpretation preverbal imperative subjects sometimes receive is argued to follow not from topicalization proper, but from the pragmatic salience induced by the obligatory second-person restriction, notably reinforced by the fact that imperative subjects are exempt from the null-subject parameter even in non-null-subject languages (Di Domenico, 2004).

Here the main issues in topicalization in imperatives have been outlined. The crucial point to be retained is that, even if topics are taken as potential counterexamples to a low analysis of imperatives, they do not constitute a conclusive argument against it. The debate over whether topics in dislocations are bi-clausal or mono-clausal, and whether they are high or low in the functional spine, is long-standing and cannot be resolved here. What matters for present purposes is that topics need not be uniformly high: they may occupy low positions within the low IP area, as independently motivated in the literature (Belletti, 2004), or they may constitute bi-clausal structures involving distinct Speech Acts, as argued above. A third logical possibility is that when a high topic is present the full functional spine is projected and the structure is not reduced, but this approach is less attractive on grounds of uniformity.

It is further argued here that the picture is essentially the same concerning vocatives, even if this case is more complex: vocatives and imperatives are not only intuitively related but are so also from an

⁴² Judgements from 5 Italian informants, age 28-58.

interpretive and syntactic point of view, a connection noted already by important grammarians (see Ernout & Thomas, 1964 on Latin) and taken up in the modern generative tradition (Florinic, Franck, 2000; Giorgi, 2023; Hill & Stavrou, 2014; Moro, 2003; Portner, 2004c). Proposals that place vocatives high in the structure, specifically above ForceP, as in Moro (2003), must therefore be treated carefully and cannot be dismissed. In the first major generative treatment of vocatives, Moro (2003) argues, on the basis of distributional and interpretive evidence from Italian, that vocatives are allocated in a dedicated functional projection above ForceP, making them among the highest elements in the clausal spine. Moro further observes that the imperative and the vocative share a deep and privileged relationship, both being what the tradition has called *thème nu* (naked form) the most ancient and structurally bare expressions available in the grammar, a characterization that can be traced back to classical sources (see Florinic 2000, who cites de la Grasserie's notion of a grammatical trilogy uniting the imperative, the vocative, and the interjection).

Moro's (2003) analysis focuses primarily on what may be called canonical vocative configurations, namely those that are sentence-initial and sentence-final, and in this sense his analysis is compelling. However, there are other cases of vocatives which are grammatical in Italian which are worth exploring and when doing so the picture has to be enriched. The following examples, which appear grammatical to Italian native speakers, suggest that the distribution of vocatives is more complex than a uniformly high position would predict:

- (294) Pensavo di aver-ti convinto, Alfonso, a non far-lo più.
 think.PST.1SG of have.INF-you.CL.2SG.ACC convince.PST.PTCP Alfonso to NEG do.INF-CL.3SG.ACC more
 'I thought I had convinced you, Alfonso, not to do it anymore.'
- (295) Potrebbe, professore, spiegare di nuovo quel passaggio?
 can.COND.3SG professor explain.INF again that passage
 'Could you, professor, explain that passage again?'
- (296) Dovresti, tesoro, smettere di fumare per davvero.
 should.COND.2SG sweetheart stop.INF of smoke.INF really
 'You really should, sweetheart, really stop smoking.'
- (297) Fa-llo, tesoro, immediatamente!
 do.IMP.2SG-it.CL.3SG.ACC sweetheart immediately
 'Do it, sweetheart, immediately!'

These examples suggest that at least some vocatives occupy a lower position in the structure, plausibly within the low IP area as identified by Belletti (2004), rather than uniformly above ForceP. This observation opens up a distinction that warrants further investigation, namely that between what Zwicky (1974) and Slocum (2016) identify as *calls* and *addresses*: calls are used to attract the attention of an interlocutor and tend to appear at the left periphery or in isolation, while addresses are used to maintain or manage ongoing interaction and are more flexible in their distribution, appearing medially or finally. It is plausible that these two types of vocative differ not only pragmatically but also syntactically, with calls occupying a higher position and addresses a lower one. This distinction requires further dedicated study and is left open here; note that this is somewhat reminiscent of the difference between high and low foci as identified in the

original work on the low IP area by Belletti (2004), who distinguishes from high contrastive foci and low new information foci.

A further theoretical consideration bears on this question. Heim and Wiltchko (2025), in their work on interactional particles and the syntax of engagement, argue that elements belonging to what may be called interactional language (e.g., particles, interjections) are projected high in the clausal spine. If vocatives form part of this interactional domain, as their functional overlap with interjections and their role in managing the speech situation suggests, then Heim and Wiltchko's framework would appear to support a high position for them. However, it is proposed here, following Adriana Belletti (p.c.), that this need not be the case: elements that belong to the interactional dimension of language can be low as well as high, and the assumption that interactional function entails high syntactic position is not self-evident. Relevant in this connection are other works in the literature which place such elements exactly in the low IP area or low vP periphery (Bayer & Obenauer, 2011; Biberauer et al., 2018; Erlewine, 2017; Jarrah & Abusalim, 2021; Paul, 2005; Van Kemenade & Links, 2020).

3.4.2.8 *Diachrony*

In the typological literature, it has been discussed that imperative forms resist diachronic change: as Aikhenvald (2010) documents cross-linguistically, and Maiden (2007) argues specifically for Romance, the second person singular canonical imperative tends to be the most archaic form in the verbal paradigm, retaining morphological properties that other forms have long abandoned. This observation was already present in the classical grammatical tradition: De la Grasserie (1896) and Lyons (1977) among others, noted that imperative verbs are the most ancient verbal forms, a pattern shared with vocatives, as they both instantiate the *forme nue* (the naked form), and *la plus ancienne* (the oldest one).

This diachronic profile sits uneasily with high CP accounts of imperative syntax. Under Wolfe's (2026) proposal, developed within a cartographic framework and aptly titled *Change at the Edge*, diachronic change preferentially targets the outermost layers of the functional spine, that is, the edge of the clausal structure, which in cartographic terms corresponds to the CP layer. If imperative forms were generated high, in or near this edge, they should be among the most diachronically volatile verbal forms, precisely because their derivation implicates the structural positions most exposed to change. The diachronic stability of core imperatives is, on such a view, unexpected. The low analysis, by contrast, derives this stability straightforwardly: a form which does not involve the CP layer is more isolated from the changes that originate at the edge.

It should be noted that imperatives which undergo diachronic change more readily do exist, according to Holvoet (2020), such imperatives are, however, different constructions altogether, namely non-directive imperatives, whose interpretation — but crucially also whose syntax (Rossi & Formichi, submitted) — changes accordingly. Holvoet notices the frequent patterns of grammaticalization (or pragmaticalization, see the original work for discussion) of rhetorical imperatives, conditional imperatives, and other non-directive uses. These are precisely the special constructions that differ from bare, impoverished imperatives but are much richer structurally and interpretatively, and, on independent grounds, they appear to involve movement to CP; the reader is referred to the next section. It is anticipated here that once again the diachronic and the synchronic pictures thus converge: it is the high forms that change, and the low forms that persist.

A further diachronic consideration is raised by Rivero and Terzi (1995), who argue that Ancient Greek and Modern Greek represent two stages of a change whereby the imperative verb, originally behaving syntactically like any other verbal form, has come to raise to C in Modern Greek, triggering the cluster of properties, including enclisis and incompatibility with negation, that distinguishes Modern Greek and Spanish imperatives from languages such as Serbian/Croatian, which, like Ancient Greek, show no such

asymmetry. This account, however, raises a serious theoretical difficulty that deserves attention. Under Roberts and Roussou's (1999) formal analysis of grammaticalization as a process of structural simplification, whereby functional features previously encoded through movement come to be merged directly as heads, reducing derivational complexity, and likewise bi-clausal constructions tend too become monoclausal, the Rivero and Terzi's account becomes less satisfactory. Rather than simplifying the derivation, the proposed diachronic change from Ancient to Modern Greek would involve the addition of a movement step to C, a higher layer of increasing complexity. This tension is noted here as an open problem and constitutes an argument for caution in taking the Modern Greek facts as direct evidence for a high synchronic analysis of imperatives cross-linguistically.

3.4.2.9 Expletive Negation and Expressive Imperatives

This section addresses the expletive negation and non-directive imperatives introduced in the previous section; for reasons that will be illustrated below, the latter will henceforth be termed Expressive Imperatives.

A further and largely overlooked property of imperative clauses concerns their interaction with expletive negation (for the interaction of imperatives with standard sentential negation see Chapter 1 and 4). In the sense of Greco (2020a), expletive negation is a high negative operator merged in the left periphery rather than in the TP domain, as standardly assumed for standard sentential negation (Belletti, 1990; Laka, 1990; Zanuttini, 1997). Standard sentential negation reverses the truth conditions of the proposition it takes scope over (Horn, 1989). Expletive negation is argued to be the same operator, but merged in the left-periphery, above Focus; it targets the presuppositional layer instead of the propositional one (Benincà, 1996). This yields a surprise flavor (see Greco, 2017 and subsequent work). The term expletive negation is used following established usage in the literature. It should be noted, however, that the negation in question is not expletive in the strict sense of semantically vacuous: as argued by Tsiakmakis and Espinal (2022), Greco (2020a), Delfitto et al. (2019), among others, it contributes enriched meaning, often of an expressive or mirative nature, to the construction in which it appears.

Such expletive negation is found in Italian in the so-called Surprise Negation Sentences (Snegs), as originally analyzed by Greco and Moro (2015b, 2015a), and subsequent work by Greco (2017, 2020b). Snegs are constructions in which a negative marker is present, but the overall meaning is affirmative: the speaker uses negation not to negate a proposition, but to express surprise at the truth of an affirmative state of affairs:

- (298) E non mi è scesa dal treno Maria?!
- And not.NEG to-me.CL is got.off of.the train Mary
- 'Mary got off the train!'

Interpretation: it surprised me that Maria got off the train.

These constructions are characterized by the following main properties. They are incompatible with negative polarity items such as *affatto* 'at all' (i) and neg-words such as *nessuno* 'nobody' (ii), but fully compatible with positive polarity items such as *già* 'already' (iii), which are otherwise excluded under standard sentential negation (iv):

- (299) *E non mi è affatto scesa dal treno Maria?!
- And not.NEG to-me.CL is at all got.off of.the train Mary
- (300) *E non mi è sceso dal treno nessuno?!

- And not.NEG to-me.CL is got.off of.the train nobody
- (301) E Gianni non mi ha già
finito i compiti?!
And Gianni not.NEG to-me.CL have.PRES.IND.3SG already
finish.PST.PRT the homework
'Gianni already finished his homework!'
- (302) *Gianni non ha già finito i
compiti.
Gianni not.NEG have.PRES.IND.3SG already finish.PST.PRT the
homework

Furthermore, Snegs marginally admit topicalized constituents (303), but reject focalized ones (304):

- (303) E il libro, non me lo ha
dato a Luca?!
And the book, not.NEG to.me.DAT it.CL have.PRES.IND.3SG
give.PST.PRTC to Luca
'And the book, she gave it to Luca!'
- (304) *E LA PENNA non mi ha
dato a Luca (non il libro)?!
AND THE PEN not.NEG to.me.DAT have.PRES.IND.3SG
give.PST.PRTC to Luca (not the book)

Finally, Snegs carry new information and can answer propositional questions of the type *what happened?* but not entity questions of the type *who got off the train?* (Greco 2020). All examples are from Greco (2020).

In his analysis, Greco proposes that the negative marker in Snegs is merged not in the TP domain, where Standard Negation is base-generated, but in the left periphery, within the CP phase, after the v*P phase has already closed. In this position, the expletive negative marker heads selects a FocP as its complement, which is in turn filled by the TP via movement. Because the v*P phase is inaccessible by the time EN is merged (under the Phase Impenetrability Condition, Chomsky, 2001), no negative operator is present within the vP domain, which accounts for the incompatibility with neg-words and NPIs. Furthermore, since EN selects FocP rather than TP directly, it does not reverse the polarity of the sentence; instead, it operates on the presuppositional layer required by Focus, yielding the characteristic surprise interpretation, in a similar spirit as Benincà (1996). The root nature of Snegs follows from the fact that the entire TP chunk is focalized within the CP layer. This is a crucial point: it is a reduced TP chunk that is displaced in the left periphery, a point to which the discussion comes back later. As seen in the following examples, the fact that Snegs accommodate topicalized constituents while resisting focalized ones, and that they carry new information, follows from this structural configuration. The contrast is illustrated in (306), adapted from Greco (2020, p. 163): while focalization of a TP-internal element is fully licit, as in (306), focalization of the entire TP yields ungrammaticality, as shown in (306):

- (305) Mi chiedo se i turisti pensino che Firenze sia bella.

1SG.CL wonder.1SG whether the tourists think.SBJV.3PL that Florence be.SBJV.3SG
beautiful

‘I wonder whether the tourists think that Florence is beautiful.’ (Indirect Question)

- (306) a. Mi chiedo se [FocP [ROMA]_i i turisti pensino [CP che t_i sia bella]] (non Firenze).

1SG.CL wonder.1SG whether Rome the tourists think.SBJV.3PL that be.SBJV.3SG
beautiful not Florence

‘I wonder whether the tourists think that ROME is beautiful (not Florence).’

- b. *Mi chiedo se [FocP [CHE ROMA SIA BELLA]_i i turisti pensino [CP t_iTP]] (non che Firenze sia bella).

mi chiedo se che Roma sia bella i turisti pensino non c
he Firenze sia bella 1sg.cl wonder.1sg whether that Rome be.sbjv.3sg bea
utiful the tourists think.sbjv.3pl not that Florence be.sbjv.3sg beautiful

‘I wonder whether the tourists think that ROME IS BEAUTIFUL (not that Florence is beautiful).’

Coming back to imperatives, the contrast is illustrated below: while expletive negation is perfectly licensed in a Sneg (307), the same negative element in an imperative context, as in (308), is invariably interpreted as a canonical prohibition, as the expletive negation reading simply fails to arise:

- (307) E non mi è scesa dal treno Maria?
And not.NEG to-me.CL is got.off of.the train Mary
‘Mary got off the train!’

Interpretation: it surprised me that Maria got off the train.

- (308) Non scendere dal treno!
not.NEG get.off.INF from.the train
‘Don’t get off the train!’

Interpretation: canonical prohibition only; expletive reading unavailable.

To the best of the author’s knowledge, expletive or emphatic negation in imperative clauses has received no attention in the typological literature; an absence that is itself revealing, insofar as negation in imperatives is universally interpreted as canonical prohibition without exception, a fact that has largely gone unremarked. Under a view of imperatives as fully projected clauses, including TP and the left periphery, the absence of expletive negation in imperatives is unexpected if one takes into account Greco’s analysis. If imperative clauses project a full left periphery, there is in principle a structural position available for a high negative operator or projection, and its absence would require an independent, non-trivial explanation. Instead, under the view of imperatives as radically reduced structures advocated here, this gap follows directly. If the imperative clause lacks TP and the full left periphery, there is simply no structural position available for expletive negation to be merged.

It should be recalled that in Italian Surprise Negation Sentences (Greco, 2020), the displaced chunk is a reduced indicative TP, which lacks the left periphery and moves to SpecFocP where it is interpreted under

the scope of a high expletive negative operator. A structurally parallel configuration has been proposed in the literature for other constructions involving expletive negation, whereby a reduced gerundive construction, moves to SpecFocP. Such reduced gerundive construction was already treated as lacking COMP at least since Stowell (1982) and has been more recently analyzed as reduced by Lowe (2019), who terms them ACC-ing constructions: they are indeed formed by a subject in the accusative case and a gerund, and they can take adverbial modification:

- (309) Acc-ing construction, in brackets:
 [Him stupidly missing the penalty] lost us the game.
 [ex. from Lowe 2019, p 318]

In particular, in English not-ACC-ing constructions (Rossi, Chesi, et al., 2025; Rossi et al., 2026), the displaced chunk is a reduced gerundive AspP, again a radically reduced structure as big as AspP, as shown in the configuration in Figure 4:

- (310) Not me taking the train at 5am on 3 hours of sleep.
 Interpretation: It is surprising and ironic that I am taking the train early in the morning having slept only a little.
 [Ex. from Rossi et al. 2026]

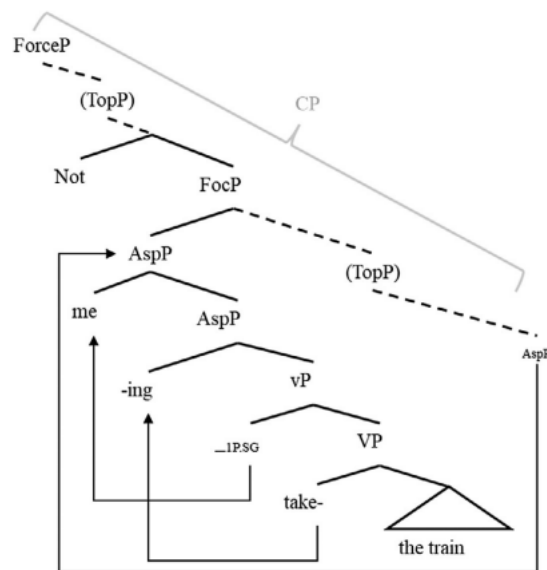


Figure 4: The derivation of the not-ACC-ing construction in (310), adapted from Rossi et al. (2026).

Having established that both surprise negation constructions and not-ACC-ing constructions involve, respectively, a reduced TP and a reduced gerundival AspP moving to the left periphery, it is now possible to draw a connection with imperatives, and in particular with non-directive imperatives. Recent work by Rossi and Formichi (forthcoming) suggests that a structurally parallel configuration is responsible for the peculiar interpretation of rhetorical imperatives and their otherwise unexpected syntactic restrictions.

Rossi and Formichi (forthcoming) examine rhetorical imperatives, which qualify as non-canonical in a theoretically precise sense: they systematically violate the semantics of Condoravdi and Lauer (2012). As discussed in Chapter 1, what unifies all imperative uses under that account is the speaker's retention of the effective preference, however minimal, for the realization of the imperative content *p*. It is precisely by

acting on this condition that the full range of syntactic and interpretive variation among non-directive, non-canonical imperatives can be derived.

Rhetorical imperatives, in particular, violate three core generalizations holding of canonical imperatives: they are speaker-oriented rather than addressee-oriented; they cannot be paraphrased by means of a performative verb; and as mentioned the speaker does not retain the preference for the realization of *p*. The following examples show this. Consider first an Italian example uttered in a lab meeting where 260 glosses for a multilingual project must be written by the end of the day. A researcher, skeptical about the feasibility of the task, turns to a colleague and says:

- (311) Scrivi-le TU, 260 glosse in una sera...!
 write.IMP.2SG-them.CL you.FOC 260 glosses in one
 evening

Lit: 'YOU write 260 glosses in one evening!'

Interpretation: 'It is difficult to write 260 glosses in one evening.'

Now consider a different scenario. Travelling with two colleagues to a linguistics conference in a small town, you reach the train station late at night after a delayed flight. Upon exiting the station, it starts raining heavily. In frustration, you might say:

- (312) Trova-lo tu adesso un taxi con questa
 pioggia!
 find.IMP.2SG-it.CL you.FOC now a taxi with this rain

Lit: 'NOW YOU find a taxi in this rain!'

Interpretation: 'It is difficult to find a taxi in this rain.'

In both cases, the imperative clause does not issue a genuine directive: the clause is not about the speaker, but about the addressee (Demirok & Oikonomou, 2018), and the utterance indeed encodes the speaker's evaluative stance toward the difficulty or impossibility of realizing *p*.

Rossi and Formichi's analysis treat rhetorical imperatives on a par with surprise negation constructions in Italian and not-ACC-ing constructions in English, capitalizing, among other properties, on the structural parallel: just as the gerundival ACC-ing chunk and the reduced TP are deficient and lack their own left periphery, the imperative clause is equally reduced. Its movement to the left periphery, where a covert negative operator takes scope over it, derives both the syntactic restrictions and the non-directive, rhetorical interpretation. The derivational structure is given below:

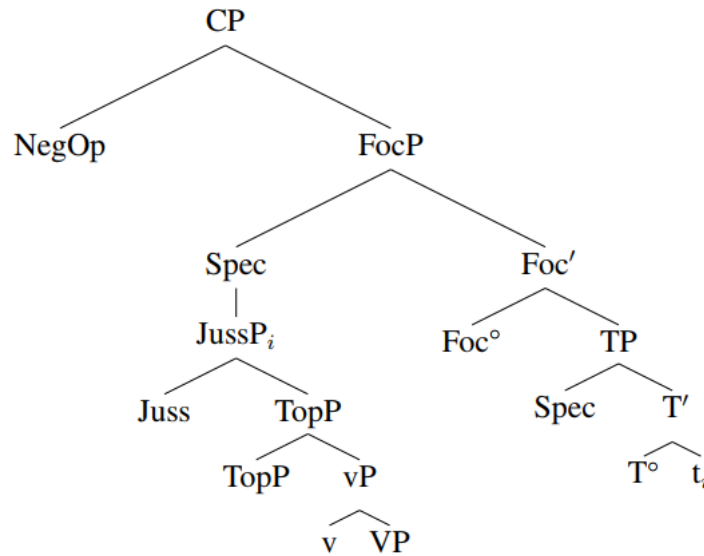


Figure 5: Structural configuration of a Rhetorical Imperative in Italian, adapted from Rossi and Formichi (submitted).

The syntactic restrictions that follow from this analysis are worth making explicit. First, standard sentential negation is incompatible with the rhetorical reading: the presence of a negative marker in TP dissolves it, yielding a canonical prohibition instead. This follows directly from the proposal, since the covert operator is merged in the left periphery complementary distribution with low, standard negation. Second, the subject, when overtly expressed, surfaces in postverbal focalized position and receives a generic interpretation, roughly equivalent to ‘anyone’: what is conveyed is not that the task is difficult for the specific addressee, but that it is difficult for any relevant individual. If the subject is preverbal, by contrast, the construction receives the interpretation of an effective challenge directed at a definite addressee, and the rhetorical reading is lost. Third, left-dislocated material must be given or presupposed: contrastive topics and foci in the left periphery are incompatible with the rhetorical reading, a consequence of the fact that the entire JussP has moved to SpecFocP, occupying the position that would otherwise host such elements. Fourth, the construction is incompatible with embedding, in line with the general behavior of imperative clauses.

The generalization that emerges is that expressive and mirative meanings, across construction types and languages, are systematically derived via the displacement of a reduced, left-periphery-deficient verbal chunk to a position in the left periphery of a higher clause, where an operator takes scope over it compositionally. Rossi and Formichi further suggest that rhetorical imperatives belong to a broader class of what they term expressive imperatives, whose defining property is that they are anchored to the speaker rather than the addressee, and that they in some way override, suspend, or reconfigure the speaker’s actual preference for the realization of *p*. On this view, the apparent directive form is systematically dissociated from addressee-oriented force and instead encodes speaker-oriented evaluative or expressive content.⁴³

⁴³ It is worth noting, finally, that Rossi and Formichi (submitted) identify an additional dimension of internal variation within non-directive imperatives. A distinction emerges between difficulty rhetorical imperatives, of the type illustrated above, and ironic rhetorical imperatives, in which the covert operator targets the preference structure itself rather than the preparatory conditions on imperative force. In the former, the speaker’s preference for *p* may remain intact while the utterance conveys that the relevant circumstances render *p* practically unfeasible; in the latter, the preference is directly reversed, yielding a sarcastic or ironic reading.

Ironic Rhetorical Imperative:

Ecco diciamo che finora abbiamo guardato agli imperativi in particolar

This proposal capitalizes on an independently motivated line of research concerning reduced verbal structures. Cecchetto & Donati (2022) identify several types of reduced participial clauses in Italian, which differ in their internal structure and in whether they remain *in situ* or are displaced to the left periphery. Reduced participials such as *problema risolto* ('problem solved') remain low, instantiating a bare VP (or AspP) without TP or left peripheral projections. By contrast, structures such as *risolto il problema, Luca andò al mare* ('the problem solved, Luca went to the sea') involve displacement of the participial chunk to the left periphery as a unit. Quindi diciamo che c'è un ulteriore parallelo, anche se le strutture che abbiamo visto prima non possono essere incassate, mentre questa participiale sì, *Gianni si chiese se, risolto il problema, Luca andò al mare* ('Gianni asked himself if, the problem being solved, Luca went to the beach').

In this case, however, the displaced chunk evidently does not target SpecFocP but rather a distinct left-peripheral position. This is demonstrated by the ungrammaticality of contrastive focalization of the participial chunk, as shown in (313):

- (313) *Gianni si chiese se [RISOLTO IL PROBLEMA]_i Luca andò al mare (non finito il lavoro).

Gianni si chiese se risolto il problema Luca andò al mare n
on finito il lavoro

Gianni REFL ask.PST.3SG whether solve.PTCP the problem Luca go.PST.3SG to.the sea
not finish.PTCP the work

'Gianni asked himself whether, THE PROBLEM SOLVED, Luca went to the sea (not the work finished).'

The restriction on focalized chunks identified by Greco thus holds more broadly: contrastive focalization of the displaced participial unit is equally excluded. This suggests that the left-peripheral position targeted by the participial chunk is not SpecFocP, a position whose occupation opens alternatives on the presuppositional interpretive layer, but rather a distinct projection, plausibly a topic position. Unlike focus, which introduces contrastive alternatives and operates on the presuppositional layer, topic positions are associated with aboutness and familiarity, and their occupation does not give rise to the alternative-opening interpretive effects characteristic of focalization. The participial displacement construction would therefore instantiate a case of topic-driven movement to the left periphery, structurally distinct from the focus-driven displacement operative in *Snegs* and *not-ACC-ing* constructions, while nonetheless sharing with them the core property of moving a reduced, left-periphery-deficient chunk to a left-peripheral position.

Further support for the connection between expletive negation, mirative meaning, and the broader class of reduced verbal chunks displaced to the left periphery for expressive purposes comes from a structurally related construction: the Lithuanian mirative imperative. As discussed by Holvoet (2020), constructions of this type, in which an imperative form is recruited to express surprise rather than issue a

- (i) (No no ma) pesta-mi pure i piedi!
No but step.on.IMP.2SG-me.CL even the
Lit: "Oh sure, go ahead and step on my feet!"
Interpretation: "I obviously do not want you to step on my feet."

The precise formalization of this contrast, and its implications for a typology of non-directive imperatives, remains an open question that would take the discussion too far afield here.

directive, are attested in several languages, including Dutch (see Holvoet 2020 for examples); see Lithuanian below

(314) Lithuanian Mirative Imperative

Ir sutap-k tu man taip, kaip tik tuo metu į grimo kambarį įeina Kultūros namų direktorius.

and coincide-IMP.2SG 2SG.NOM 1SG.DAT so precisely DEM.INS.SG.M time-INS.SG into
make-up-GEN room-ACC.SG enter.PRS.3 culture-GEN.SG house[PL]-GEN director-NOM.SG

‘And, imagine what a coincidence, precisely at that moment the director of the Clubhouse enters the make-up room.’

[Example from Holvoet, 2020, p. 344 citing Ulvydas, 1971, p. 61]

Several properties of this construction are immediately relevant. First, as Holvoet (2020) notes, Mirative Imperatives in Lithuanian are introduced by the conjunction *o* ‘and’ and may co-occur with an ethical dative (*man*), both of which are characteristic of expressive and speaker-oriented constructions cross-linguistically, as discussed in Di Caro et al. (2025), and for Snegs (Greco, 2020), as visible in (307), where *e* and *mi* are respectively an expletive ‘and’ and an ethical dative.

Mirative Imperatives are here proposed to instantiate the same structural configuration as Rhetorical Imperatives, a direction to be investigated in the future.

Under this analysis, the predicted topic-focus asymmetry should hold for Mirative Imperatives as well. If the reduced imperative chunk occupies SpecFocP, topics should be compatible with the construction while additional foci should be excluded. Investigating whether this prediction is borne out across the languages documented by Holvoet (2020) constitutes a directly testable empirical goal, and one that would provide strong cross-linguistic support for the unified analysis developed here.

The constructions examined in this section point toward a broader category that may be labeled Expressive Imperatives. The defining property of this class of non-directive, non-canonical imperatives is that imperative morphosyntax is dissociated from its canonical directive function and instead recruited to encode speaker-oriented evaluative or expressive content. Rather than targeting the addressee as an agent expected to bring about a given state of affairs, Expressive Imperatives are anchored to the speaker, who uses the imperative form to convey an evaluative stance, whether of difficulty, impossibility, surprise, or irony, toward the proposition expressed. What unifies the class at the syntactic level is the movement of a reduced imperative chunk to the left periphery, where it falls under the scope of a high operator whose semantic contribution determines the specific expressive interpretation. The nature of this operator and what it scopes over varies across construction types: a covert negative operator yields the rhetorical reading of difficulty or impossibility attested in Italian Rhetorical Imperatives (Rossi & Formichi, submitted); further operator types may derive the ironic and sarcastic readings documented in recent work on non-canonical imperatives (Asano & Ihara, 2019; Ausensi & Buchczyk, 2026).

This approach has two important theoretical consequences. First, it is compatible with the imperative clause being a radically reduced structure: it is precisely because the imperative lacks TP and the full left periphery that it can undergo movement as a single chunk to SpecFocP, in the same way as reduced participials (Cecchetto & Donati 2022), reduced indicative TPs in Surprise Negation Sentences (Greco 2020), and reduced gerundive AspPs in *not-ACC-ing* constructions (Rossi et al. 2025, 2026). Second, it supports the view that expressive meaning is not only the product of post-syntactic pragmatic inference, but is grammatically encoded in the syntactic structure of the clause. In this light, Expressive Imperatives constitute a particularly revealing testing ground for theories of the syntax-semantics and syntax-pragmatics

interfaces, and their systematic investigation across languages represents a promising and largely unexplored in the formal literature direction for future research.

3.5 SUPPLETIVE FORMS: EXTENSION OF THE ANALYSIS

So far, the analysis has focused on core imperatives, that is, second person singular forms. These are not, however, the only imperative forms that exist. Returning to the inventory of imperative constructions examined in this thesis, first introduced in (256)-(257), above and repeated here for convenience:

- (315) Mangia! (true imperative, 2nd person singular)
eat.IMP.2SG
'Eat!'
- (316) Mangiate! (suppletive form, 2nd person plural)
eat.IMP.2PL
'Eat!'
- (317) Mangiamo! (suppletive form, 1st person plural)
eat.IMP.1PL
'Eat!'

The present section turns to the analysis of the forms in (316) and (317). As discussed in Chapter 1 (§1.2), true and suppletive imperatives differ morphologically: true imperatives display distinctive morphology not found elsewhere in the verbal paradigm, whereas suppletive forms are homophonous with indicative or subjunctive forms (Zanuttini, 1997). The relevant empirical properties are briefly summarized here before proceeding to the structural analysis.

At the syntactic level, suppletive imperatives pattern with true imperatives in a number of respects. They are incompatible with modals and auxiliaries; the subject is not overtly realized; clitics are invariably enclitic; adverb placement follows the same restrictions; information structure behaves identically; embedding and questioning are equally excluded; expletive negation is equally impossible; and, crucially, the rhetorical reading available in Italian for true imperatives is likewise unavailable.

This contrast calls for a structural account. Following Shlonsky (2004) on French imperatives, suppletive and negative imperative forms may be analyzed as reduced structures that lack the CP layer but involve additional functional projections in the IP domain — sufficient to host negation, but not sufficient to license the full range of properties associated with the left periphery. Shlonsky further argues that imperative morphology is checked low in the structure, in a position below the cliticization site, consistently with the behavior of infinitives and in line with Kayne (1991), Belletti (1999), and the present analysis.

Notably, all imperative forms in French are suppletive (Rivero 1994b: 93), and the distinction between imperatives and present indicative forms is purely orthographic (Kayne 1992). Yet French imperatives display the same cluster of incompatibilities observed throughout this thesis (with embedding, questioning, and auxiliaries) which suggests that morphological suppletion and structural reduction are independent dimensions of variation.

The structural difference between true and suppletive imperatives can be fruitfully connected to a typological observation due to Aikhenvald (2010): cross-linguistically, a canonical imperative addressed to a single addressee is consistently shorter and morphologically simpler than the corresponding form used with multiple addressees. The same asymmetry is found in Italian, where second person plural imperative forms

display additional morphological material relative to their singular counterparts. This additional material can be analyzed as realizing a Number head. The presence of this Number projection entails an enriched functional structure: the clause contains more structure than a bare true imperative, and it is precisely this additional structure that provides an attachment site for negation. The jussive head, conceived as a bundle of features, is in this case associated with an expanded feature specification that includes a Number feature, yielding the morphological and syntactic profile characteristic of suppletive forms.

The structural representations in (x) and (y) make this explicit:

- (318) True imperative:
 [JussP [ImpP [TopP [FocP [vP...]]]]]
- (319) Suppletive imperative:
 [JussP [NumP [ImpP [TopP [FocP [vP...]]]]]]]

The Number head occupies a position immediately below JussP, above the imperative-internal projections. Under a roll-up movement approach in the spirit of Roberts (2019), the lower heads move successively and conflate into the jussive head, so that the feature bundle ultimately realized at Juss^o differs between the two construction types: in true imperatives it contains person and imperative features alone, whereas in suppletive imperatives it additionally contains a Number feature, yielding the richer morphological spell-out characteristic of these forms. It is this additional feature in the bundle that makes available the functional structure necessary for negation to attach, without requiring the projection of a full CP layer.

The inventory of imperative forms examined in this thesis (from bare true imperatives to suppletive plural forms, from infinitival generics to non-directive rhetorical imperatives) suggests that imperative clauses do not form a homogeneous natural class, but rather a structured continuum. This observation invites a broader theoretical reflection, which will be developed in the next Chapter. Borrowing from Lowe's (2019) treatment of finiteness as a scalar rather than binary property, and in the spirit of Ross's (1972) original notion of *the category squish*, it will be argued here that clause types too admit of a gradient structure: what looks like a discrete category — the imperative — is in fact a family of constructions that differ along multiple dimensions simultaneously, including morphological richness, structural height, interpretive canonicity, and the availability of expressive or non-directive readings. This will be referred to as the **Clause-Type Squish**. On this view, true second person singular imperatives represent the core of the category, while suppletive forms, infinitival imperatives, and non-canonical expressive imperatives occupy progressively more peripheral positions, peripheral both grammatically, in terms of the functional projections they involve, and interpretively, in terms of their distance from the canonical directive force associated with the imperative clause type.

3.6 CROSS-LINGUISTIC EXTENSION

Although the focus of this dissertation is Italian, the structural analysis developed in this thesis for Italian imperatives is not expected to be language-specific. The core configuration generalizes straightforwardly to other languages. The present section briefly outlines the terms of this extension.

A natural starting point is morphology. As noted by Aikhenvald (2010), imperatives are morphologically impoverished in approximately one third of the world's languages, with second person singular forms being the most recurrently bare. This cross-linguistic tendency is not accidental: morphological impoverishment is argued here, in the spirit of Belletti (1999), that the surface reflex of structural reduction. The hypothesis pursued here is that where an imperative is morphologically deficient,

it is also syntactically deficient, namely it lacks the full clausal spine and, crucially, its own left periphery. Extending the analysis to the languages discussed in this chapter, and to those examined in the acquisition and comparative literature, allows this hypothesis to be tested more broadly.

A further natural point of entry is the overproduction stage individuated empirically by Salustri and Hyams (2003, 2006) and corroborated for Italian by Rossi (2023), which provides independent support for the cross-linguistic robustness of the analysis. Salustri and Hyams extend their findings to Spanish, Catalan, Slovenian, and Hungarian, making these languages the first candidates for the low imperative analysis pursued here. Crucially, the extension reaches beyond null subject languages. Jensen (2007), in her work on imperatives in English and Mainland Scandinavian, covering Danish, Swedish and Norwegian, argues that such languages lack the CP layer, as seen in previous sections. Shlonsky's (2004) analysis of French imperatives points in the same direction. Crucially, even in this latter group of languages, where children in acquisition prefer to overproduce root infinitives rather than imperatives, imperatives have been analyzed as structurally truncated. The cross-linguistic variation therefore reduces to a question of parametrization within the TP domain: in non-null-subject languages, the functional projections realized in imperative clauses must be higher than those involved in bare infinitives, but the absence of the left periphery remains constant across language types. The present analysis is thus applicable to the full range of languages discussed in this chapter: Italian, Spanish, Catalan, French, English, Danish, and Swedish. Importantly, the cross-linguistic picture receives further support from the acquisitional record more broadly. Imperatives are among the very first verbal forms children acquire across languages. For Romance, this has been empirically attested in Italian (Belletti & Guasti, 2015; Salustri & Hyams, 2003, 2006), where imperatives appear at the onset of the two-word stage, as well as in Spanish (Grinstead, 1998; Montrul, 2004) and Catalan (Salustri & Hyams, 2006). The same pattern extends to typologically unrelated languages: early imperatives, attested between 23 and 27 months, are documented for Egyptian Arabic (Omar, 1973), who additionally notes a sharp contrast with negative imperatives, which are acquired considerably later, past the 30-month mark. Early imperatives are also reported for Ku Waru, a language of the New Guinea Highlands (Rumsey, 2003), Hebrew (Berman, 1985), and Tagalog (Garcia et al., 2021).

Further investigation must establish whether the syntactic and acquisitional evidence consistently points to the absence of the left periphery across all these language types. Ideally, what is needed for each language is the kind of evidence provided for Italian in Chapter 2: a demonstration that imperatives appear in child production before left-peripheral structures become available. This has now been carried out for English (Robiatu 2025) and French (Bressan, p.c.), and analogous work on Russian and Turkish is currently in preparation (Rossi & Mukusheva, in preparation). The prediction is clear: if the low analysis is on the right track, imperatives should systematically precede left-peripheral structures in every language where the relevant developmental data can be gathered. The languages surveyed in this section (Italian, Spanish, Catalan, French, English, Danish, Swedish, and Norwegian) constitute the natural starting point for this cross-linguistic testing endeavor. For Italian, English, and French, the prediction is already borne out. For the remaining languages, the morphosyntactic, typological, and acquisitional considerations reviewed here provide strong *prima facie* motivation for treating their imperatives as low structures, and the empirical exploration is a matter for future research.

3.7 CONCLUDING DISCUSSION

The analysis developed in this chapter proposes that Italian imperatives are radically reduced structures, comprising only vP and a small set of projections in the low IP area in the sense of Belletti (2004). The structure of a core, second person singular true imperative is given again below:

$$(320) \quad [\text{JussP} [\text{ImpP} [\text{TopP} [\text{FocP} [\text{vP} \dots]]]]]$$

The ingredients of this analysis are each independently motivated in the literature: ImpP as the locus of imperative morphology checking, following Belletti (1999) and Kayne (1991); JussP as the projection encoding the second person restriction on imperative subjects, following Zanuttini (2008) and Zanuttini et al. (2012), here relocated to a low position within the vP periphery; and the low Topic and Focus projections of Belletti (2004), which mirror the left periphery of the clause without constituting it. The novel and stronger claim advanced here is that the CP layer is radically absent from the structure of true imperatives, in the technical sense of Cecchetto and Donati (2022): not empty but present, but genuinely absent from the spine.

This proposal directly addresses the theoretical and empirical gaps identified in the background discussion at the opening of this chapter. The gaps outlined in (L) through (O) can now be revisited in turn.

The theoretical gap identified in (L) concerned pre-cartographic analyses and their failure to specify where exactly the imperative verb lands in the articulated left periphery of Rizzi (1997), which was not yet formulated at the time. The present analysis dissolves this question: if imperatives do not reach the CP domain at all, the question of which CP projection hosts the verb does not arise. This is a welcome and principled consequence of the architecture.

The empirical gap identified in (M) concerned the limited scope of previous CP analyses, which accounted for some imperative properties but left others unexplained or required additional independent stipulations. Under the present analysis, the full cluster of properties in (A) through (F) follows from the combination of the above-mentioned ingredients with a single architectural assumption, namely radical reduction. Morphological impoverishment follows from the absence of TP and the checking of verbal morphology in the low ImpP position. Incompatibility with auxiliaries and modals follows from the absence of the functional projections that license them. The null subject and its restriction to the second person follow from the properties of JussP. Enclisis follows from the low checking of morphology in ImpP, below AgrO, consistently with Belletti (1999) and Kayne (1991). Incompatibility with embedding and questioning follows from the absence of CP. The behavior of negation in true versus suppletive imperatives follows from the structural difference between the two, with suppletive forms involving an additional Number projection that provides an attachment site for negation without requiring the CP layer.

The issues concerning features and morphology raised in (N) are likewise covered. The present analysis does not posit an [imp] feature in C, avoiding both the circularity found in Platzack and Rosengren (1998), as well as the absence of a clear negative counterpart [-imp] for such a feature. Imperative force is not encoded by a single, *ad hoc* head but arises compositionally from the interaction of JussP with the remaining structural elements and with Portner's (2007) semantic component, in line with Zanuttini et al. (2012). The Jussive head contributes the syntactic restriction of the subject to second person; the directive interpretation emerges from the denotational type of the structure, not from a clause-typing head in C.

The cross-linguistic and typological considerations raised in (O) are addressed by the extension discussed in §3.5 and §3.6. Morphological impoverishment, attested in approximately one third of the world's languages according to Aikhenvald (2010), is taken here as the surface reflex of structural reduction, and the hypothesis that morphologically deficient imperatives are likewise syntactically deficient receives support from the acquisition data reviewed in Chapter 2 and from the cross-linguistic evidence seen in Chapter 1. The diachronic stability of true imperative forms, also noted by Aikhenvald (2010), is consistent with the low analysis: a minimal, radically reduced form involving only vP and a few projections on top, is lacking the very are, namely the CP area, where diachronic instability is higher (Wolfe, 2026).

The acquisition evidence in (G) through (K) constitutes a crucial empirical argument for the low analysis. The early appearance of imperatives in child production, attested thought a lot of languages from many language families, their systematic precedence over left-peripheral structures in every developmental

trajectory examined, their parallel with root infinitives in non-null-subject languages, and their contrast with the much later emergence of reduced relative clauses; all of these facts are unexpected under a CP analysis and receive a natural explanation under the low analysis proposed here. A structurally shorter structure is computationally lighter than a structurally higher one (Chesi, 2005, p. 200; Moscati & Rizzi, 2014); a structure that does not include CP is available before the left periphery is acquired; and a form that requires only the vP phase and a small number of low projections places minimal demands on the developing grammar.

The proposal developed here is rooted in syntactic cartography and in the low IP area of Belletti (2004). It is worth emphasizing, however, that this architectural commitment is not incompatible with more recent minimalist proposals. The Jussive Phrase of Zanuttini et al. (2012) is itself amenable to a minimalist implementation, and the derivation proposed here, involving roll-up movement in the spirit of Roberts (2019) and a single strong phase, is consistent with the general minimalist program of Chomsky (2001) and subsequent work. The present analysis thus sits at the intersection of cartographic and minimalist commitments, and it is offered in the hope that it may serve as a point of contact between the two research traditions.

3.7.1 Child vs. Adult Imperatives: The Same Form?

A question that naturally arises at the intersection of the acquisition evidence reviewed in Chapter 2 and the structural analysis developed in this chapter is whether child imperatives and adult imperatives are in fact the same syntactic object: two positions are available in principle.

On one view, they are identical. This is the position recommended by the Continuity Hypothesis (Pinker 1984; Poeppel and Wexler 1993), which holds that children's grammars instantiate the same set of formal primitives as adult grammars, with apparent differences reducible to performance, processing, or lexical limitations rather than to genuine structural divergence. Under the Continuity Hypothesis, the early and frequent imperatives observed in child Italian are precisely what the low analysis predicts: a computationally minimal structure, involving a single strong phase and no CP layer, is available from the earliest stages of grammar because it demands little of the developing system. The child's imperative is the adult's imperative.

On the alternative view, child and adult imperatives differ. The primary motivation for this position concerns illocutionary force. Child imperatives, are produced at very high rates and across a wide range of communicative situations, suggesting that they may function as pragmatic passepartout forms. If one assumes a strong, one-to-one correspondence between syntactic structure and semantic and pragmatic interpretation, then the difference in functional deployment between child and adult imperatives might be taken to reflect a genuine structural difference, with child imperatives being more underspecified at the syntax-semantics interface.

The present analysis adopts the continuity position. The structural identity of child and adult imperatives is taken as the null hypothesis, and this position is further supported by the cross-linguistic evidence reviewed in §x: even in non-null-subject languages such as English and Mainland Scandinavian, imperatives have been argued to be structurally reduced, which suggests that the low structure is not a child-grammar artifact but a genuine property of imperative clauses across language types. The high frequency of imperatives in early child production does not therefore require positing a distinct child-grammar object. Rather, what the acquisition data reveal is a developmental trajectory in which the syntactic form is in place from the outset, while the interface between syntax and illocutionary force undergoes refinement over time. As discussed in Chapter 2, the hypothesis is that it is the emergence of modals that marks the turning point: once modal verbs become available in the child's grammar, the range of directive meanings previously

expressed uniformly through the imperative form begins to be distributed across a richer inventory of structures, with modals taking over the expression of weaker or more nuanced directive and modal forces. The child's imperative is thus the same syntactic object as the adult's, but its illocutionary scope is initially broader: children first acquire a single low structure and overextend it across the full range of directive meanings, then progressively restrict its use to the target illocutionary force as the modal system becomes available.

Chapter 4 – Infinitival Imperatives

4 INFINITIVAL IMPERATIVES

The term INFINITIVAL IMPERATIVE has been employed in the generative literature at least since Kayne (1992, 2005) and Rooryck (1992), but it is found also in the typological literature, notably in Aikhenvald (2010). In Standard Italian, three distinct types of infinitival imperatives can be identified. However, despite occasional observations in the literature, a systematic comparative description and structural analysis of these constructions is still lacking. This chapter addresses that gap. Building on the acquisition facts discussed in Chapter 2, it develops an empirical and theoretical investigation of Italian infinitival imperatives, comparing the three constructions both with one another and with canonical imperatives. As already noted in Chapter 2, infinitival imperatives constitute a marginal phenomenon in Early Italian: Generic Imperatives and *a*-Imperatives are unattested in child production, whereas Negative Imperatives occur only rarely and often appear with non-target negation forms. At the same time, however, the differences separating core imperatives from infinitival imperatives, and infinitival imperatives from one another, appear, on the surface, remarkably small.

The first goal of this chapter is therefore empirical. The morphosyntactic and interpretive properties of the three infinitival imperative constructions will be documented systematically and compared in detail. As will be shown, these constructions display a complex pattern of similarities and asymmetries involving subject interpretation, temporal anchoring, clitic placement, indexicality, verbal classes, and left-peripheral phenomena. Crucially, many of these differences are unexpected given the very similar surface configurations of the constructions involved.

The second goal of the chapter is theoretical. Once the empirical landscape has been established, the discussion returns to the acquisition asymmetries introduced in Chapter 2. Why are Generic Imperatives and *a*-Imperatives absent from early child production, while Negative Imperatives are only marginally attested and often appear in non-target forms? As argued in Chapter 2, explanations hinging only on input, context or processing alone do not fully account for these asymmetries: children exhibit considerable structural creativity in spontaneous production and frequently produce forms that go beyond the immediately available input (Belletti, 2017a and related work). The question addressed in this chapter, therefore, is in which way the syntax of infinitival imperatives itself contributes to their developmental distribution. It will be argued that the observed contrasts follow from differences in the nature of functional structure available in the three constructions. The structural analysis proposed in this chapter will aim to derive both the adult grammatical properties of infinitival imperatives and the asymmetries observed in acquisition.

The rest of the chapter is structured as follows. §4.1 identifies and motivates the distinction between three main types of infinitival imperatives. Section §4.2 presents a detailed investigation of their syntactic and interpretive properties. §4.3 develops the structural analysis. It begins by excluding both ellipsis and CP analyses, and then introduces the proposed overall configuration of infinitival imperatives. The section proceeds by articulating the internal architecture of the system, with particular focus on the Jussive Phrase and its interaction with aspectual structure and arbitrary pronouns. It further distinguishes between Qu- $\forall$ and Qu- $\exists$ interpretations in Generic Imperatives and *a*-Imperatives, respectively, and derives their distributional properties from independently motivated syntactic mechanisms. The section concludes with the proposal of a Clause-Type Squish, which captures the continuum of imperative forms. §4.4 concludes.

4.1 THREE TYPES OF ITALIAN INFINITIVAL IMPERATIVES

As seen in Chapter 1, in Standard Italian, the imperative form that exhibits distinct morphology is only the second-person singular affirmative imperative (a.o., Belletti, 1999; Di Domenico, 2004; Salvi & Borgato, 1991; Zanuttini, 1997):

- (321) Mangia!
eat.IMP.2SG
'Eat!'

Other Italian imperatives are suppletive in Zanuttini's (1997) sense⁴⁴, meaning that they do not display unique morphology. Instead, they rely on verbal forms taken from other parts of the verbal paradigm. In this chapter, the focus is on suppletive imperatives in Italian which display infinitival morphology: Negative imperatives in the second-person singular (2), Generic Imperatives (229), and *a*-Imperatives (230):⁴⁵

- (322) Negative imperative (second-person singular):

Non mangiare!
neg eat.INF
'Don't eat!'

Paraphrase: I order you not to eat/I forbid you from eating.

- (323) Generic Imperatives:

Allacciare le cinture!
fasten.INF the seatbelts
'Fasten your seatbelts!'

Paraphrase: passengers are instructed to fasten their seatbelts.

[ex. from Salvi and Borgato 1991, p.153]

b. Montare le tende!
set.up.INF the tents!
'Set up the tents!'

Paraphrase: the older scout leader exhorts all the younger scouts to set up the tents.

[ex. by Valentina Bianchi, p.c.]

c. Svitare il coperchio!
unscrew.INF the lid

⁴⁴ As mentioned in Chapter 1 of this dissertation, in the typological literature (Aikhenvald, 2010, 2017; Veselinova, 2006, 2017, *inter alia*) suppletive imperatives are intended as forms where the verb stem changes entirely, rather than as reflecting the distinction between unique and borrowed morphology as envisaged in Zanuttini (1997). For reasons of consistency with the syntactic and generative literature, the term *suppletive* is employed in this dissertation in Zanuttini's sense.

⁴⁵ The label *a*-Imperative is inspired by Belletti's work on *a*-Topics (Belletti, 2017a, 2018, 2022; Belletti & Manetti, 2019, 2021; Interlandi, 2026).

‘Unscrew the lid!’

Paraphrase: the user (i.e. whoever reads the guide in which this sentence appears) is instructed to unscrew the lid.

[Ex. from Salvi and Borgato 1991, p.152]

d. Rispettare l’ambiente.

respect.INF the environment

‘Respect the environment.’

Paraphrase: whoever reads the sign (on which this sentence appears) is instructed to respect the environment.

[Ex. by Raffaella Zanuttini, p.c.]

e. Indossare la mascherina protettiva.

wear.INF the protective mask

‘Wear a protective mask’.

Paraphrase: whoever reads the sign (on which this sentence appears) is instructed to wear a protective mask.

[Ex. from Pak et al. 2024, p.644]

f. Non parlare al conducente

NEG speak.INF to.the driver

‘Do not speak to the driver’

(324) A-Imperative:

a. A mangiare!

to eat.INF

‘Start eating now! / Go eat now!’

Paraphrase: the speaker peremptorily orders the interlocutors to start eating.

b. A montare le tende!

to set.up.INF the tents!

‘Start setting up the tents now! / Get to setting up the tents!’

Paraphrase: The speaker peremptorily orders the interlocutors to start setting up the tents.

As seen also in Chapter 1, the negative imperative in (228), *Non mangiare!*, is the negated form of (321), *Mangia!*. The core imperative form in Italian (321) cannot cooccur with a preceding negative marker (Poletto & Zanuttini, 2003; Zanuttini, 1997). Instead, an infinitival verbal form is systematically used in negative contexts, as in (228). Importantly, this pattern of NEGATIVE INEFFABILITY applies exclusively to second-person singular imperatives in Standard Italian; but there are cross-linguistic differences, in this respect see Zanuttini (1997) for Romance languages, and Chapter 1, §1.1.2. In contrast, second-person plural

imperatives can accommodate sentential negation, as in (325) below: the ending *-te*, which marks the second-person plural, appears in both the positive and the negated imperative (325). Second-person plural imperatives (both positive and negative) are suppletive forms in Italian, since they are homophonous with the present indicative 0:

- (325) Second-person plural imperatives (Italian)
- a. Mangiate! (affirmative)
eat.IMP.2PL
- b. Non mangiate! (negative)
neg eat.IMP.2PL
- Second-person present indicative verbs (Italian, 1st conjugation class)
- c. Voi mangiate
you eat.PRES.IND.2PL

Negative imperatives in the second person in Italian have the illocutionary force of a PROHIBITION (general directive, negated) or a WARNING (directive which also presupposes some sort of danger to avoid).

Generic Imperatives in (229) consist in a root infinitival verb form. In Italian, this type of imperative is primarily used in written contexts (Isac, 2015; Pak et al., 2024), though it can also occur in spoken language. Generic Imperatives typically express INSTRUCTIONS and GENERAL RULES. Such instructions and rules are understood to be universally valid in that they are applicable to any relevant subject within the given context. In this sense, the subject is interpreted as ‘people in general’, ‘anyone’, ‘whoever reads/listens to the utterance’. To the best of this author’s knowledge, Generic Imperatives in Italian have received less attention compared to core imperatives, but they are attested in the literature; instead, *a*-Imperatives are completely absent, as it will be discussed later. Generic Imperatives can be found in the literature in Salvi and Borgato (1991) and Maiden and Robustelli (2014, quoted also in Aikhenvald’s 2010) who provide a brief empirical description of the phenomenon (both references are descriptive grammars of Italian, and Aikhenvald 2010 concerns typology, she also mentions infinitival imperatives). In the formal literature, they have been analyzed notably by Isac (2015), and in a recent squib by Pak et al. (2024), where they focus on indexicality in these constructions, a point to which the discussion will come back later. As mentioned, Salvi and Borgato (1991), in the third volume of the *Grande Grammatica Italiana di Consultazione*, briefly illustrate these imperative forms in Italian. They describe them as involving a generic agent as subject (“*esecutore generico*”) and note that these imperatives allow clitic placement only in enclisis, which aligns with the general behavior of imperatives in Italian and Romance (Rooryck 1992; Belletti 1999; Shlonsky 2004, *inter alia*, see Chapter 1, §1.2.4). Crucially, this restriction holds even under negation, which sets them apart from canonical second-person imperatives, where negation may also trigger clitic climbing (in Standard Italian). Indeed, Generic Imperatives can be negated, as seen in (229)f, differently from *a*-Imperatives, as it will be shown later.

Consider the contrast in the following examples, adapted from Salvi and Borgato (1991, pp. 157–158):

- (326) Tener-si forte!
hold.INF-CL.IMPERS tight
‘Hold on tight!’
- (327) Non appoggiar-si alla spalliera!

- NEG lean.INF-CL.IMPERS at the backrest!
 ‘Don’t lean on the backrest!’
 (328) *Non si appoggiare alla spalliera!
 NEG CL.IMPERS lean.INF at the backrest!
 (329) Non appoggiar-ti alla spalliera!
 NEG lean.INF-you-CL.2SG at the backrest!
 ‘Don’t lean on the backrest!’
 (330) Non ti appoggiare alla spalliera!
 NEG you.CL.2SG lean.INF at the backrest!
 ‘Don’t lean on the backrest!’

While (326)-(328) are interpreted as involving a generic subject, (329) and (330) involve a definite second-person subject, as showed by the different type of clitic employed (impersonal *si* vs. second-person singular *ti*), as well as the clitic position and the availability of both proclisis and enclisis. Salvi and Borgato (1991, p. 158) further highlight a minimal pair illustrating the contrast between canonical second-person imperatives (331) and Generic Imperatives (332):

- (331) a. Svita il coperchio!
 unscrew.IMP.2SG the lid
 ‘Unscrew the lid!’
 b. Non **lo** allontanare dall’apertura!
 NEG it.CL.M.3SG move.away.INF from.the opening
 ‘Don’t move it away from the opening!’
 c. Non allontanar-**lo** dall’apertura!
 NEG move.away.INF-it.CL.M.3SG from.the opening
 ‘Don’t move it away from the opening!’

Now compare this with the Generic Imperative counterpart:

- (332) a. Svitare il coperchio!
 unscrew.INF the lid
 ‘Unscrew the lid!’
 b. *Non **lo** allontanare dall’apertura!
 NEG it.CL.M.3SG move.away.INF from.the opening
 c. Non allontanar-**lo** dall’apertura!
 NEG move.away.INF-it.CL.M.3SG from.the opening
 ‘Do not move it away from the opening.’

As Salvi and Borgato (1991) note, the example in (332) is infelicitous unless interpreted as involving a second-person singular subject. For native speakers, the presence of the preverbal clitic under negation forces a shift from a generic to a definite, second-person reading. In contrast, generic imperatives consistently require enclisis, even in negative contexts. An ambiguity is thus found between (331) and (332), which share the same superficial form, but have a different interpretation of the subject (second-person singular and generic respectively), as well as other syntactic and interpretive properties which vary in seemingly unexpected ways and will be addressed further on in this chapter.

In their work, Pak et al. (2024) compare Italian Generic Imperatives with their Korean counterpart. They refer to these constructions as *infinitival directives*⁴⁶ and note their frequent appearance on public signage (e.g., in schools, airports) or in written instructions (e.g. guides, recipes). Their focus is to highlight a novel empirical observation, namely a puzzling incompatibility of these imperatives with indexical elements, an aspect which will be addressed in detail later:

- (333) *Dopo l'esame, consegnare il libretto al **tu**o insegnante.
 after the exam, hand.in.INF the booklet to.the your teacher
- (334) Dopo l'esame, consegnare il libretto all'insegnante.
 after the-exam hand.in.INF the booklet to.the teacher
 'After the exam, hand in the booklet to the teacher'.
 [Ex. from Pak et al. 2024, p. 646]

As mentioned, Generic Imperatives are attested across typologically diverse languages. Despite the relative scarcity of discussion of these constructions in the literature (especially the generative literature), they are documented in German, French, Spanish, and Romanian (Isac, 2015; M. L. Rivero, 1994c); and Korean (Pak et al. 2024). Czech may represent a further case: Filip and Carlson (1997), while not explicitly discussing Generic Imperatives as such, argue for the existence of an overt particle encoding genericity in imperative constructions (and other clause-types). In fact, the use of infinitival forms to convey second-person imperative meaning is argued by Van der Auwera et al. (2013) to be cross-linguistically widespread, despite the relatively little attention in the literature. One such case they mention is Ingush, a Nakh-Daghestanian language spoken in the northern Caucasus. The contrast between an infinitival and a true imperative form is illustrated below for Dutch, another language the authors explicitly mention:

- (335) Zingen!
 sing.INF
 Sing!
- (336) Zing!
 sing.IMP.2

[Ex. from van der Auwera et al. 2013]

⁴⁶ The label *infinitival directive* from Pak et al. (2024) is not maintained here to refer to the type of imperatives in (323) to avoid ambiguity: all the imperative forms in this work (228)-(230) would be infinitival directives in the sense that they belong to the imperative clause type, have a directive reading, or a prohibition reading when negated (in any case, a deontic interpretation) and display an infinitival verbal form.

Van der Auwera et al. (2013) do not elaborate further on the syntactic or interpretive differences between the two forms, i.e., infinitival vs. core imperatives, above in (335) and (336) respectively. German provides a related case: Krifka (2018) discusses infinitival imperatives in German such as *Stillstehen!* and *Stillgestanden!*⁴⁷, which express military commands. A crucial empirical point is that in Italian infinitival forms do not usually appear in matrix contexts, but rather need some high c-commanding predicate to select them. The only case in which infinitives do appear in isolation is when they have directive force. In other words, an infinitive in isolation has automatically a directive interpretation. This was noticed by Salvi and Borgato (1991), Di Domenico (2004), as well as Rizzi (1993/1994) in his work on RIs in child language.

Further examples of Generic Imperatives in Italian, illustrated below, include the following:

- (337) a. Non scendere prima che il treno sia fermo
 NEG get.down.INF before that the train be.SBJV.3SG stopped
 'Do not get off until the train has stopped'
- b. Non disperdere nell'ambiente
 NEG disperse.INF in.the environment
 'Do not litter' / 'Do not dispose in the environment'
- c. Immettersi nella corsia di destra
 put.INF.REFL.3 in.the lane of right
 'Get into the right-hand lane'
- [Examples (337)a-c are adapted from Maiden and Robustelli 2014, p. 248]
- d. Parlare a bassa voce
 speak.INF to low voice
 'Speak in a low voice'
- e. Igienizzare le mani prima di entrare
 sanitize.INF the hands before of enter.
 'Sanitize your hands before entering'
- f. Fare la raccolta differenziata

⁴⁷ Attested in German in military contexts, *stillgestanden!* ('Attention!', still-stand.PST.PRT, lit. 'stood still') constitutes a crystallized past participle form with imperative force (Krifka, 2018). It is a crystallized form and as such it is impossible to draw generalizations or conclusions of any rigorous kind; however, it is interesting to notice that once again the link between participles and imperatives, proposed in this thesis to stand also on the basis of their radical reduction, is at play again. Note also that in some languages Participial Imperatives are actually productive, as seen in Rooryck and Postma (2007), who discuss Dutch Participial Imperatives. In Dutch, there crystallized forms and productive ones. Interestingly, such forms in Dutch are incompatible with negation and are only anchored to the here-and-now.

- (i) Opgepast!
 up-taken-care
 'Watch out!'
- (ii) Opgelet!
 up-looked
 'Pay attention!'

[Ex. by Rooryck and Postma 2007, p. 274]

- do.INF the collection differentiated
 ‘Sort the waste’ / ‘Separate waste collection’
- g. Inserire le banconote
 insert.INF the banknotes
 ‘Insert banknotes’
- h. Tenere il tono di voce basso
 keep.INF the tone of voice low
 ‘Keep your voice down’
- i. Inserire tessera, ritirare contanti
 insert.INF card, withdraw.INF cash
 ‘Insert card, withdraw cash’
- l. Spegnere i dispositivi
 turn.off.INF the devices
 ‘Turn off devices’

In English, the closest form to an Italian Generic Imperative is (338), namely a construction formed by *negation + gerund*. A discussion of such forms is provided in Iatridou (2021), who calls them *negation-licensed commands*. However, such constructions are infelicitous without negation and in certain accounts that gerund is considered nominalized, rather than a verbal form (see Donovan, 2022, and references cited there):

- (338) a. No eating!
 b. *Eating!

Now, turning to *a*-Imperatives, they constitute a distinct imperative form used peremptorily to compel action at the time of the utterance: the speaker commands to the addressee to start doing something immediately. A possible context for is a parent addressing their child after repeated refusals to sit at the table and eat, as seen in in (230). Their illocutionary force is that of a PEREMPTORY, IMMEDIATE COMMAND.

This type of imperative conveys a strong sense of necessity, leaving no room for alternative courses of action. Natural translations include “Start to eat now! / Time to eat now!” or “Go eat now!” for (324)a. For (324)b, a natural translation would be “Start setting up the tents now!”, “Get to setting up the tents now!”, or simply “Set up the tents!” with the strong implication that the addressees have to start setting up the tents immediately. To the best of this author’s knowledge, there is no established discussion of *a*-Imperatives in Italian.⁴⁸ However, these constructions have been briefly discussed in Spanish by Rivero (1994a, 1994d)⁴⁹ and mentioned in Bravo (2017).

⁴⁸ The authors of this dissertation wishes to warmly thank Tommaso Sgrizzi and Achille Fusco, fellow colleagues at IUSS Pavia, for having pointed out this empirical phenomenon to me while discussing together their work on infinitives, focused on the alternation between *di* and *a* in infinitival clausal complements (Fusco & Sgrizzi, 2026). Many thanks also to Guido Formichi: the four of us discussed these topics together for the first time on a random morning at IUSS. This chapter owes a lot to my colleagues and that morning for inspiration, judgements and discussion.

⁴⁹ Rivero (1994d) notes that these imperative forms preceded by the *a* element express direct commands, unlike infinitives in isolation (e.g., *Correr!*), which in Spanish may also express desires or wishes rather than directives. The

- (339) A correr!
to run.INF
'Let's run!' / 'Run!'

To summarize, the three types of Italian infinitival imperatives all share an infinitival verbal form in isolation, and differ only regarding the presence of a negative marker and the *a* element, as summarized below:

- (340) Summary: Imperatives with infinitival morphology (Standard Italian)
- a. Non dormire!
NEG sleep.INF
'Don't sleep!'
Interpretation: A prohibition uttered to a definite, second-person singular addressee, who must not fall asleep.
- b. Dormire!
sleep.INF
'Sleep!'
Interpretation: A directive, which may be (i) written on a sign in a barracks or a campsite to indicate bedtime, which applies to all relevant individuals in general; (ii) a command uttered aloud as a way to reinforce an existing rule, namely that the addressees must sleep.
- c. A dormire!
to sleep.INF
'(Go to) sleep!'/Time to go to sleep!'
Interpretation: A peremptory command, i.e. going to sleep at a reasonable time, which coincides with the time of the utterance; to comply, the speaker has to begin acting on it immediately.

As shown above, although the differences among the three types of Italian infinitival imperatives are superficially minimal, they give rise to systematic and non-trivial variation in interpretation and distribution. In particular, the same infinitival form, in isolation or combined with the negative marker *non* or the element *a*, correlates with:

- (AA) different subject interpretations: Negative Imperatives involve a second-person singular subject; Generic Imperatives involve an indefinite, contextually bound interpretation roughly equivalent to

form with 'a' is therefore more clearly associated with imperational force. The same appears to hold for Italian infinitives used in isolation, though here I focus exclusively on imperatives. This contrast between directive and optative readings raises questions for future research, especially when viewed in light of Condoravdi & Lauer's (2012) account of imperatives as also capable of conveying wishes (e.g., *Guarisci presto!* / Get well soon!). In Italian, infinitives used in isolation can indeed express desiderative meanings, but typically require a distinct intonation, may be introduced by an interjection such as *oh*, and tend to evoke a counterfactual or wishful reading, akin to 'if only...' in English (e.g., *Oh, correre!*, with the flavor of *Oh, if only I could run!* / *Oh, how nice is to run!*). Also in French infinitives in isolation lend themselves readily to wish interpretations.

- ‘any relevant participant’; and *a*-Imperatives allow a second-person interpretation that is number-neutral and may extend to inclusive readings involving the speaker;
- (BB) different illocutionary forces: prohibition or warning (Negative Imperatives), general instruction or rule (Generic Imperatives), and immediate, peremptory command or exhortation (*a*-Imperatives);
- (CC) non-trivial syntactic asymmetries, some of which have been previously noted in the literature (notably in Pak et al. 2024 on the ban on indexical elements in Generic Imperatives), while others constitute novel observations of this study, such as the restrictions on unaccusative predicates in *a*-Imperatives.

The contrast is further illustrated below with the following minimal pairs:

- (341) Non mangiare i funghi (Luca!)
 NEG eat.INF mushrooms (Luca.VOC)
 ‘Don’t eat the mushrooms (Luca!)’
 Illocutionary force: PROHIBITION or WARNING, addressed to a specific addressee.
- (342) Non mangiare funghi (in gravidanza).
 NEG eat.INF mushrooms (during pregnancy)
 ‘Do not eat mushrooms (during pregnancy).’
 Illocutionary force: GENERAL INSTRUCTION OR RULE, typically found in institutional, instructional, or generic contexts such as signs, guidelines, or recipes.
- (343) A mangiare i funghi!
 to eat.INF the mushrooms
 ‘(Go ahead and) eat the mushrooms!’ / ‘Time to start eating the mushrooms!’

One important structural asymmetry concerns negation: while both Negative Imperatives and Generic Imperatives allow sentential negation, *a*-Imperatives systematically disallow it, as it will be shown later in the dedicated section. Crucially, in the case of Negative Imperatives and Generic Imperatives, negation instead is not only licit, but it yields an identical surface string, despite corresponding to distinct interpretive and structural configurations, as will be shown in the following sections. By contrast, *a*-Imperatives are independently restricted with respect to negation, which provides a first indication that their structural representation differs more deeply from that of the other two constructions than the presence of the element *a* alone would suggest.

The central goal of this work, as anticipated in the introduction, is to derive these three dimensions of variation from the underlying syntactic structure. In particular, I argue that the surface string in (341) corresponds to at least two distinct underlying syntactic configurations, and that *a*-Imperatives diverge from the other two constructions in a deeper way than the mere presence of the element *a* would suggest. This hypothesis will be supported not only by the distributional and interpretive facts presented in this chapter, but also by the acquisition asymmetries discussed in Chapter 2, which provide independent evidence for the differentiation in syntactic structure of the three types of infinitival imperatives.

4.2 NOVEL EMPIRICAL EVIDENCE: SYNTACTIC AND INTERPRETIVE PROPERTIES

As mentioned in the introductory section, a systematic, in-depth empirical documentation and description of all infinitival imperatives in Italian is lacking in the current literature. Each empirical property is addressed in the next section, with the last one providing a succinct summary.

4.2.1 Subjects

A first peculiar property regards the subjects of these three imperative forms. As seen in Chapter 1, it is cross-linguistically common that imperatives usually do not display overt subjects, interestingly both in pro-drop and non-pro drop languages (Di Domenico, 2004; Platzack & Rosengren, 1998; Zhang, 1990, *inter alia*, see Chapter 1), unless they are pragmatically marked. Nonetheless, imperative subjects are syntactically active (Beukema & Coopmans, 1989; Di Domenico, 2004), as evidenced by the occurrence of anaphors (Principle A of Binding Theory, Chomsky (1993)) in imperative clauses. Such anaphors are bound by the covert subject:

- (344) Prendi-ti cura di te stessa!
 take.IMP.2SG-CL.2SG care of yourself
 ‘Take care of yourself!’

Unsurprisingly, this applies to all three imperative forms that are the focus of this work: the subject is syntactically active, as seen by the licit presence of the anaphor it binds:

- (345) Non dimenticar-ti di te stessa!
 NEG forget.INF-you.CL.2SG of yourself
 ‘Don’t forget about yourself!’
- (346) Rispettare l’ambiente e se stessi.
 respect.INF the environment and oneself
 ‘Respect the environment and oneself.’
- (347) A prendersi cura di sé! (marginal)
 To take.INF.REFL care of oneself!
 ‘Let’s go and take care of ourselves!’

The covert subjects in (345)-(347), as well as those in the previous examples examined so far, differ in their interpretation with respect to person and number, despite all being covert and linked to an infinitival verbal form. This distinction is already partly visible in (345)-(347), where the choice of anaphors varies depending on the imperative form.

In negative imperatives in (228) and (345), the subject is always interpreted as second-person singular. A part from native speaker judgments, one may also appreciate this via syntactic tests about the distribution of anaphors (345), vocatives and clitics (see the next two sections for further restrictions concerning vocatives and clitics, respectively). Examples involving anaphors were already provided; consider now vocatives and clitics.

Vocatives (Hill & Stavrou, 2014; Moro, 2003, *inter alia*) refer to the subject of the imperative in imperative clauses, namely the addressee (Portner, 2004c). The presence of a vocative explicitly indicates that the imperative is directed at a second-person singular interlocutor, as only a second-person singular vocative may appear in this imperative form (348):

- (348) Luca, non correre!
 Luca NEG run.INF
 ‘Luca, don’t run!’

Second-person plural vocatives result in ungrammaticality, as in (349) and (350):

- (349) *Luca e Marco, non correre!
 Luca and Marco NEG run.INF
 *Bambini, non correre!
 Kids NEG run.INF

Moving to clitics, when considering a reflexive verb such as *muoversi* (‘to move oneself’), for example, only a second-person singular reflexive pronoun is permitted, as shown in (351):

- (351) Non ti muovere!
 NEG you.CL.REFL.2SG move.INF
 ‘Don’t move!’

The use of a second-person plural pronoun *vi* (352) or an impersonal one *si* (353) leads to ungrammaticality:

- (352) *Non vi muovere!
 NEG you.CL.REFL.2PL move.INF
 *Non si muovere!
 NEG CL.REFL.IMPERS move.INF

Now, concerning Generic Imperatives in (229), their subjects seem to be unspecified with respect to person and number. As anticipated, Salvi and Borgato (1991) refer to the subject of these imperative clauses as the *esecutore generico* (‘generic agent’). All possible individuals in a relevant given context are addressed, also the speaker themselves if the context of the utterance allows it.⁵⁰ Although imperatives may be self-directed, the possible (but not necessary) inclusion of the speaker might seem a peculiar pattern which does not usually occur in ‘canonical’ imperatives, which are usually second-person (singular or plural), even when they are self-directed (354). However, Condoravdi & Lauer (2012: 44) note that “imperatives have some conventional implication that limits, but does not completely exclude, the involvement of the speaker in the realization of the content”.

- (354) Self-directed imperative (Italian):

⁵⁰ This is in contrast with the position advanced in Holmberg (2010) on null subjects and parametric variation, where generic null subjects are argued not to exist. The existence of null subjects in Generic Imperatives in Italian constitutes evidence against this claim.

- (355) Maria, resisti anche se sei stanca e finisci
la maratona!
Maria resist.IMP.2SG even if be.2SG tired.F.SG and finish.IMP.2SG
the marathon
'Maria, hold on even if you're tired and finish the marathon!'
Paraphrase: Maria urges herself to hold on and finish running the marathon, even though she's tired.

Orthographically speaking, Generic Imperatives do not display an exclamation mark. For instance, the following sign could be found in a train car to urge passengers not to be too loud (on certain trains there are train cars designated as 'quiet zones'):

- (356) Parlare a bassa voce.
speak.INF at low voice
'Speak quietly'

Instead, when such imperatives are uttered aloud, they directive speech acts, also serving as a "reminder of a rule" (Pak et al., 2024). The addressee is whoever listens to the command: all potential interlocutors are addressed. Consider (229), repeated below, in which the airplane pilot (or flight attendant) urges all passengers to fasten their seatbelts:

- (357) Allacciare le cinture!
Fasten.INF the seatbelts
'Fasten your seatbelts!'
Paraphrase: passengers are instructed to fasten their seatbelts.
[Ex. from Salvi and Borgato 1991, p.153]

As previously mentioned, the speaker may be included in the group of addressees of the command, but not necessarily: this is contingent upon the context. To clarify this point, let us take into account (229), repeated in (358), with two different contextual scenarios. The first favors an interpretation of the subject that includes the speaker (358), the second does not (359):

- (358) Generic Imperative (inclusive of the speaker)
Montare le tende!
set.up.INF the tents!
'Set up the tents!'
Paraphrase: the older scout leader exhorts all the younger scouts, herself included, to set up the tents.
Context: At dawn, all the scouts are gathered around a bonfire in the woods, sitting in a circle. The older scout leader utters (358), and as she does so, she begins to stand up, signaling her intent to join the setting up of the tents.
- (359) Generic Imperative (exclusive of the speaker)

Montare le tende!
 set.up.INF the tents!

‘Set up the tents!’

Paraphrase: the older scout leader exhorts all the younger scouts to set up the tents.

Context: At dawn, all the scouts are gathered around a bonfire in the woods, sitting in a circle. The older scout leader utters (359) while remaining seated, as she has a broken arm and cannot join the setting up of the tents.

In (358), the speaker is included as an addressee of the utterance, along with all the other interlocutors: as she utters the command to set up the tents, she begins to stand up. In (359), the speaker employs the same construction, but due to having a broken arm, it is evident from the context that she will not participate in setting up the tents; as a result, (359) is directed to all possible interlocutors except the speaker. Thus, summarizing, written Generic Imperatives, address whoever reads the relevant document (e.g., sign, guide, manual). When spoken aloud, they address all potential interlocutors, and the context determines whether the speaker is included or not.

Another aspect worth considering involves a more marginal, yet still possible, interpretation of the subject of these constructions: the addressee may even be a single individual (second-person singular). Imagine a sergeant addressing only one soldier: (360) is grammatical and felicitous, and there is a strong sense that a rule is uttered aloud:

(360) Forza, camminare!
 come.on, walk.INF!
 ‘Come on, walk!’

A Generic Imperative may be directed at a second-person singular addressee with a somewhat ironic tone as well. Since Generic Imperatives, when spoken aloud, are typically used to enforce a rule, often in a peremptory manner, the effect can become ironic and affectionate in certain contexts. Take a parental relationship between the speaker and the addressee, and imagine a parent and their daughter playing in a park. When it is time to leave, the daughter protests. In response, the parent jokingly utters (361) to their reluctant daughter:

(361) Camminare!
 walk.INF
 ‘Walk!’
 [Ex. by Matteo Greco, p.c.]

A final test to consider involves agreement between the covert subject and a following adjective. Observe the following minimal pair:

(362) Negative Imperative with second-person singular subject
 Non diventare matta
 NEG become.INF crazy.F.SG
 ‘Don’t drive yourself crazy (over it)!’/‘Don’t stress (over it)!’

- (363) Generic Imperative, negated
 Non diventare matti
 NEG become.INF crazy.M.PL
 ‘Don’t drive yourself crazy (over it!)’/‘Don’t stress (over it)!’
 [Ex. by Andrea Moro, p.c.]

In (362), the subject is second-person singular, as illustrated by the agreement on the adjective *matta* (crazy.F.SG), which carries singular and feminine *phi*-features. In contrast, in (363), the adjective *matti* (crazy.M.SG) displays masculine and plural *phi*-features, which are compatible with a generic plural interpretation. In fact, for (363) not to be a generic imperative, an Italian native speaker would need to choose a suppletive (second-person plural indicative) verbal form, whence another minimal pair below, where the Generic Imperative in (363) is repeated in (364):

- (364) Generic Imperative, negated
 Non diventare matti
 NEG become.INF crazy.M.PL
 ‘Don’t drive yourself crazy (over it!)’/‘Don’t stress (over it)!’
- (365) Negative imperative (second-person plural)
 Non diventate matti
 NEG become.PRES.IND.2PL crazy.M.PL
 ‘Don’t drive yourself crazy (over it!)’/‘Don’t stress (over it)!’

This further contrast suggests that (363) and (364) are Generic Imperatives.

Summarizing, the subject of a Generic Imperative is unspecified with respect to person and number. A Generic Imperative typically applies to all (relevant) people in general, especially when written on signs or spoken aloud among a group, amounting to an interpretation roughly equivalent to ‘anyone’. Contextual factors may influence whether the speaker is included or excluded. There may be even a minor second-person singular interpretation of the subject.

The same underspecification regarding person and number appears to apply to *a*-Imperatives, with similar contextual differences that may or may not lead to the inclusion of the speaker as an addressee of the utterance. Take (366) and (367):

- (366) A montare le tende!
 to set.up.INF the tents!
 ‘Get to setting up the tents! / Start setting up the tents!’
 Paraphrase: the older scout leader exhorts all the younger scouts, herself included, to go and start setting up the tents.
 Context: At dawn, all the scouts are gathered around a bonfire in the woods. The older scout leader utters (366), and as she does so, she begins to stand up, signaling her intent to join and start setting up the tents.

(367) A montare le tende!

to set.up.INF the tents!

‘Get to setting up the tents! / Start setting up the tents!’

Paraphrase: the older scout leader exhorts all the younger scouts to go and start setting up the tents.

Context: At dawn, all the scouts are gathered around a bonfire in the woods. The older scout leader utters (367) while remaining seated, as she has a broken arm and cannot join the younger scouts in the action of starting to set up the tents.

However, unlike Generic Imperatives, *a*-Imperatives do not appear in written contexts (excluding, of course, the reporting of direct speech, see Di Domenico, 2004) and more readily address second-person singular and plural addressees. In the next section, it will be shown how vocatives provide further insight into this pattern: while Generic Imperatives do not allow vocatives, *a*-Imperatives do. For now, note that *a*-Imperatives are infelicitous on written signs and cannot be used to express general rules, unlike Generic Imperatives, which apply to everyone. In this sense, while the subject of an *a*-Imperative is unspecified for person and number, it lacks the generic, universal interpretation found in Generic Imperatives.

4.2.2 Vocatives

This section concerns the distribution of vocatives⁵¹ (Hill & Stavrou, 2014; Moro, 2003, *inter alia*) with respect to Negative Imperatives, Generic Imperatives and *a*-Imperatives.

Negative imperatives of the type in (228) always have second-person singular subjects. As anticipated in the previous section, they can cooccur only with vocatives which refer to second-person singular entities. When a first-person or second-person plural vocative (in the following cases in the form of a strong pronoun) are present, the sentence is not licit:

(368) Tu, non mangiare!

you.VOC.2SG NEG eat.INF

‘You, don’t eat!’

(369) *Noi, non mangiare!

we.VOC.1PL NEG eat.INF

(370) *Voi, non mangiare!

⁵¹ In (Italian) imperatives, only Infradeictic vocatives in Moro’s (2003) sense can be used:

- (i) Parla, Guido! (second-person singular imperative, Italian)
 speak.IMP.2SG, Guido-VOC
 ‘Speak, Guido!’

In (i), Guido must be the direct addressee of the imperative, meaning the command is directed specifically to him. The vocative *Guido* is Infradeictic, i.e., Guido refers to the subject of the verb, therefore belonging to the verb’s theta grid.

An Extradeictic vocative (Moro, 2003) refers to an entity which is not present in the argument structure of the verb:

- (ii) Guido, Achille ha deciso di non parlare. (declarative, Italian)
 Guido.VOC Achille has decided of NEG speak.INF
 ‘Guido, Achille decided not to speak’.

Interpretation: the speaker is addressing Guido and asserts that Achille decided not to speak.

A more interesting pattern emerges when considering Generic Imperatives and *a*-Imperatives. Starting from the first ones, assuming that one is using a Generic Imperative to address all the possible interlocutors in the context, except the speaker, observe the distribution of the strong pronoun *voi* ‘you’ (second person plural): a vocative cannot appear in a Generic Imperative:

- Generic imperatives may marginally include vocatives, but these typically denote kinds rather than specific individuals, as in *gente!* ('people/guys!') or *passaggeri!* ('passengers!'), as shown below. This point will be discussed further in the structural analysis; it is already intuitive that genericity plays a central role here.

- A pronoun can precede the Generic Imperative only if the pronoun is used to attract the attention of the addressees in a separate, different speech act (Giorgi, 2023; Portner, 2004c, 2007) with a longer intonational break and the appropriate prosody, as it is also the case for *gente* and *passaggeri* in the previous examples. In (373), the pronoun and the imperative are separated by a clear intonational break, which is longer than the one in (371). Moreover, *voi* carries the prosodic pattern typically used to draw attention, while the imperative retains its characteristic directive intonation, distinct from the one *voi* has:

- If the vocative pronoun follows the imperative, the sentence is ungrammatical. This holds true both when the intonational break is minimal and when it is longer, carrying the prosody of a separate vocative speech act:

- ⁵² Judgements in this section are from 11 Italian colleagues (linguists) and my own.

Usually, the speaker captures the addressee's attention through the vocative first, and then issues the command. That the reverse is not possible is a truism: a command cannot be felicitous if directed at someone who is not listening. This may suggest that vocatives constitute a distinct speech act and, syntactically, are external to the sentence containing the imperative, a point that applies in cases characterized by a stronger intonational break and more prominent prosody, and possibly to vocatives more generally, in line with Portner (2004c) and Giorgi (2023). Indeed, even in accounts in which it is argued that vocatives belong to the functional spine proper, notably Moro (2003), the vocative is assigned a very high position, above Force, in VocP; an analysis in the same spirit is offered in Villalba (2024). It is therefore not straightforward to determine whether the vocative is clause-internal or clause-external. The intuition that nonetheless persists is that the vocative, being non-argumental, enjoys a degree of autonomy with respect to both the theta-grid and the clause as a whole, a property that points to vocatives as a domain deserving further dedicated research. This important point will be taken up again in the structural analysis below, also in light of the previous discussion on the topic in Chapter 3, §1.4.2.7.

Examples (371) and (374) form minimal pairs with the following sentences, which feature a suppletive, second person plural imperative that can cooccur with a vocative both when it precedes and when it follows the verb:

- (375) Voi, montate le tende!
 you.VOC.2PL, set.up-IMP.2PL the tents
 'You, set up the tents!
- (376) Montate le tende, voi!
 set.up.IMP.2PL the tents, you.VOC.2PL
 'Set up the tents, you!'

The same pattern applies when vocatives appear as full DPs. The examples below cover the written use of these constructions (it is more of a marginal use, but a reader of a text may be addressed with a vocative) and their spoken form. Specifically, examples (377)-(382) should be considered as utterances spoken aloud, while examples (383)-(387) are intended as possible sentences one might find on a cooking website or travel guide:

- (377) *Passeggeri, allacciare le cinture!
 passengers.VOC.2PL, fasten.INF the seatbelts!
- (378) Passeggeri! Allacciare le cinture!
 passengers.VOC.2PL! fasten.INF the seatbelts!
 'Passengers! Fasten your seatbelts!'
- (379) Passeggeri, allacciate le cinture!
 passengers.VOC.2PL, fasten.IMP.2PL the seatbelts!
 'Passengers, fasten your seatbelts!'
- (380) *Soldati, partire ora!
 soldiers.VOC.2PL, leave.INF now!
- (381) Soldati! Partire ora!

- soldiers.VOC.2PL leave.INF now!
 ‘Soldiers! Leave now!’
- (382) Soldati, partite ora!
 Soldiers.VOC.2PL, leave.IMP.2PL now!
 ‘Soldiers, leave now!’
- (383) Mescolare l’impasto con un mestolo di legno finché non sarà omogeneo e senza grumi.
 mix.INF the dough with a spoon of wood until not will be homogeneous and without lumps.
 ‘Mix the dough with a wooden spoon until it becomes smooth and lump-free’.
- (384) *Lettori di Giallozafferano, mescolare l’impasto con un mestolo di legno finché non sarà omogeneo e senza grumi.
 readers.VOC.PL of Giallozafferano, mix.INF the dough with a spoon of wood until not will be homogeneous and without lumps.
- (385) Lettori di Giallozafferano, mescolate l’impasto con un mestolo di legno finché non sarà omogeneo e senza grumi.
 readers.VOC.PL of Giallozafferano, mix.IMP.2PL the dough with a spoon of wood until not will be homogeneous and without lumps.
 ‘Readers of Giallozafferano, mix the dough with a wooden spoon until it becomes smooth and lump-free’.
- (386) *Appassionati di moto, ricordare di visitare Volterra, la strada per arrivarci è ottima da percorrere su due ruote.
 motorcycle enthusiasts.VOC.PL, remember.INF to visit Volterra, the road for getting there is great to travel on two wheels
- (387) Appassionati di moto, ricordate di visitare Volterra, la strada per arrivarci è ottima da percorrere su due ruote.
 motorcycle enthusiasts-VOC.PL, remember-IMP.2PL to visit Volterra, the road for getting there is great to travel on two wheels
 ‘Motorcycle enthusiasts, remember to visit Volterra, the road to get there is great for traveling on two wheels.’

Moving on to *a*-Imperatives, they behave differently from Generic Imperatives concerning the distribution of vocatives. While Generic Imperatives disallow them, notably, *a*-Imperatives allow vocatives, in the form of pronouns and full DPs alike:

- (388) Bambini/voi/tu/noi/Luca, a mangiare!
 children.VOC.2PL/you.VOC.2PL/you.VOC.2SG/we.VOC.1PL/Luca.VOC, to eat.INF!
 ‘Kids/you/you/Luca, time to eat/Let’s eat/Go eat!’

As one would expect, also (389), where the vocative involves a longer intonational break, distinct prosody, and arguably constitutes a separate speech act, is acceptable:

- (389) Bambini/voi/tu/noi/Luca! A mangiare!
 children-VOC.2PL/you- VOC.2PL/you- VOC.2SG/ we-VOC.1PL/Luca.VOC! to eat.INF!
 ‘Kids/you/you/Luca! time to eat/Let’s eat/Go eat!’

If two *a*-Imperatives are conjoined, a vocative which precedes each of them is allowed (390). This possibility is excluded for Generic Imperatives (391):

- (390) Voi a bere, noi a mangiare!
 you to drink.INF, we to eat.INF
 ‘You go and start drinking, we go and start eating!’
- (391) *Voi bere, noi mangiare!
 you drink.INF, we eat.INF

4.2.3 Clitic Placement

This section regards the distribution of clitics with respect to Negative Imperatives (2sg), Generic Imperatives, and *a*-Imperatives.

Negative Imperatives (second-person singular) in Italian allow clitics which precede (proclisis) and follow (enclisis) the verb alike (Kayne, 1992, see also Chapter 1):

- (392) a. Non lo fare!
 NEG it-CL.3SG do.INF
 ‘Don’t do it!’
- b. Non far-lo!
 NEG do.INF-it.CL.3SG
 ‘Don’t do it!’

The fact that the clitic may precede the verb is peculiar, considering that usually Italian infinitives systematically allow enclisis:

- (393) Ho deciso di non far-lo.
 Have.PRES.IND.1SG decided of NEG do.INF-it.cl.3sg
 ‘I have decided not to do it.’

Therefore, it does not come as a surprise that Generic Imperatives, being formed by an infinitival verbal form in isolation, only display enclisis. Note also that, as seen in examples (326), (327) and 0, only impersonal *si* is allowed as a clitic in a Generic Imperative (Isac, 2015; Maiden & Robustelli, 2014; Salvi & Borgato, 1991):

- (394) Tener-si forte!
 hold.INF-CL.IMPRS tight

- (395) 'Hold on tight!
 *Si tenere forte!
 CL.REFL hold.INF tight
 'Hold on tight!'

Crucially, when Generic Imperatives are negated (see also §4.2.6), no clitic climbing is allowed:

- (396) a. Non appoggiar-si alla spalliera!
 NEG lean.INF-CL.REFL at the backrest!
 'Don't lean on the backrest!'
 b. *Non si appoggiare alla spalliera!
 NEG CL.REFL lean.INF at the backrest!
 'Don't lean on the backrest!'
 c. Per modificare la prenotazione, cancellarla e crearne una nuova.
 for modify.inf the.f reservation cancel.inf.cl.3sg.f and create.inf.cl.3sg.f a new one
 'to modify the reservation, to cancel it and to create a new one'

Therefore, a distinctive pattern of Generic Imperatives is that they only allow enclisis, also when they are negated. As seen earlier, when the infinitive is used as a suppletive form for the negated second-person singular imperative, clitic climbing is licit (392). Observe also (397) and (398), which constitute minimal pairs with (396) and 0 respectively:

- (397) Non appoggiar-ti alla spalliera!
 NEG lean.INF-you.CL.2SG at the backrest!
 'Don't lean on the backrest!'
 (398) Non ti appoggiare alla spalliera!
 NEG you.CL.2SG lean.INF at the backrest!
 'Don't lean on the backrest!'

The same applies also to Spanish Generic Imperatives, as noted by Rooryck (1992), who also adds that in no dialect of Spanish he is aware of such pattern is licit, therefore highlighting its robustness:

- (399) Spanish Generic Imperative
 No hacerlo!
 NEG do.INF it.CL.3SG.ACC
 (400) *No lo hacer!
 NEG it.CL.3SG.ACC do.INF
 [Ex. from Rooryck 1992, p. 223]
 (401) No hablar.

NEG speak.INF

‘Keep quiet’ (written sign found in a library)

[Ex. by M. Theresa Espinal, p.c.]

A-Imperatives cannot host clitics in proclisis position: both *a*-Imperatives and Generic Imperative follow the usual behavior of Italian infinitives, namely enclisis. As seen in the next examples, when a clitic precedes the verb, ungrammaticality ensues (both when they precede and follow *a*):

- (402) a. *La maratona, a la correre!
 the marathon, to it.CL.F.SG run.INF
 b. *Il fuoco, a lo spegnere!
 the fire, to it.CL.M.SG extinguish.INF
 c. La maratona, la a correre!
 the marathon, it-CL.F.SG to run.INF
 d. Il fuoco, lo a spegnere!
 the fire, to it-CL.M.SG extinguish.INF

Regarding enclisis in *a*-Imperatives, the picture is more nuanced. Although there is a strong intuition that these structures are degraded, they appear even less acceptable when the referent of the clitic is overtly expressed (403)a-(403)b, compared to when it is left implicit (403)c-(403)d:

- (403) a. *La maratona, a correrla!
 the marathon, to run.inf=it-cl.f.sg
 b. *Il fuoco, a spegnerlo!
 the fire, to extinguish.inf=it-cl.m.sg
 c. ? A correr-la!
 to run.inf-it.CL.F.SG
 d. ? A mangiarla!
 to eat.inf-it.CL.F.SG

Note that it is generally much more natural for an *a*-Imperative not to display a clitic. Even when a suitable supporting context is provided (404), a native speaker would typically still prefer not to use a clitic even if there was a salient element in the Common Ground (Stalnaker, 2002) to which the clitic may refer:

- (404) Supporting context: Luca, a 4-year-old child, runs away from the dinner table because he does not want to eat pasta with cauliflower. The child dislikes pasta with cauliflower specifically. He complains, and cries while running around the house. After repeatedly inviting him back to the table in a gentle manner, the parent grows impatient and says:

- (405) ? ‘A mangiar-la!’
 to eat.inf-it.CL.F.SG

- (406) 'A mangiare!
to eat.INF

Even if we consider a suitable supporting context, the *a*-Imperative in (406) would still be the natural form to use and (405) feels degraded. Probably the fact that usually infinitives in Italian allow enclisis helps a little in rescuing the structure in (405), but it remains degraded nonetheless. No problem arises if a full DP follows the *a*-Imperative:

- (407) A mangiare la pasta!
to eat.INF the pasta
'Start eating pasta now!'
- (408) A spegnere il fuoco!
to extinguish.INF the fire
'Start putting out the fire now!'

Rivero (1994c), in her analysis of negative imperatives in Spanish, provides the following example, treating it as grammatical:

- (409) A no escribir-lo!
to NEG write.INF-it.CL.M.3SG.ACC
'Don't write it!'
- (410) [Rivero 1994, p. 103, my gloss]

However, native speaker judgments converge in finding this example unacceptable.⁵³ The unacceptability appears to be cumulative: both the presence of the clitic and the negation are independently problematic, with the latter being marginal in isolation, and acceptable only in particularly accommodating contexts for some speakers. This holds for both Castilian Spanish and Catalan. Rivero's (1994c) judgment may reflect either a more permissive variety of Spanish, or a marginal use that requires further empirical scrutiny. Quantitative data would be necessary to establish the actual distribution of such forms, a direction for future research.

4.2.4 Indexicals

Negative second-person singular imperatives may appear with indexicals. In the following example, the negative imperative form cooccurs with a first person clitic *mi* (411) or strong pronoun *me* (412):

- (411) Prima di partire, non restituir-mi le chiavi
before to leave.INF, NEG give.back.INF-me.CL.1SG.DAT the keys
'Before leaving, don't give me the keys back'.

⁵³ For native-speaker judgements on Spanish and Catalan, the author warmly thanks M. Teresa Espinal, Jaume Mateu Fontanals, Xavier Villalba, Natalia Jardón Pérez, and all the audience at the Linguistics Seminar organized by the Centre de Lingüística Teòrica, at the Universitat Autònoma de Barcelona where the author had the pleasure of presenting part of this work.

- (412) Prima di partire, non restituire le chiavi a me
 before to leave.INF, NEG give.back.INF the keys to me.ACC
 [Examples adapted from Pak et al. 2024]

Instead, Generic Imperatives show an unexpected restriction, first observed by Pak et al. (2024): they cannot cooccur with indexicals⁵⁴. This applies to various kinds of indexicals, as illustrated in the examples below. Starting with those which refer to the speaker, note that they are disallowed both in either clitic (413) or strong pronoun form (414):

- (413) *Prima di partire, restituirmi le chiavi.
 before to leave.INF, give.back.INF=me-CL.1SG .DAT the keys
- (414) *Prima di partire, restituire le chiavi a me
 before to leave.INF, give.back.INF the keys to me.ACC
 [Examples adapted from Pak et al. (2024)]

Indexicals which refer to the addressee are equally not allowed (415):

- (415) *Dopo l'esame, consegnare il libretto al tuo insegnante.
 after the exam, hand.in.INF the booklet to.the your teacher
- (416) Dopo l'esame, consegnare il libretto all'insegnante.
 after the-exam hand.in.inf the booklet to.the teacher
 'After the exam, hand in the booklet to the teacher'.

Restrictions on first and second-person pronouns are also visible when a Generic Imperative c-commands a relative clause and the subject is first or second-person. Observe how agreement of the verb in the relative clause is possible in a canonical imperative (417), but not in an infinitival one (418):

- (417) Porta una foto del posto in cui vivi/vivo.
 bring.IMP.2SG a picture of.the place in which live.2SG/1SG
 'Bring a picture of the place where you/I live.'
- (418) *Portare una foto del posto in cui vivi/vivo.
 bring.INF a picture of.the place in which live. .2SG/1SG
 [Examples by Pak et al. (2024), p. 646]

Concerning third-person pronouns, they are not allowed when used deictically (419). When they have a linguistic antecedent, instead, they can be accommodated (420):

- (419) *Dopo l'esame, consegnare il libretto al suo insegnante.

⁵⁴ Pak et al. (2024) discuss how sentences containing Generic Imperatives present a restriction w.r.t. indexicals in Kaplan's (1989) sense: "*The group of words for which I propose a semantical theory includes the pronouns 'I', 'my', 'you', 'he', 'his', 'she', 'it', the demonstrative pronouns 'that', 'this', the adverbs 'here', 'now', 'tomorrow', 'yesterday', the adjectives 'actual', 'present', and others. (Kaplan 1989:490)*". As shown in sentence (96), a definite noun phrase (*insegnante*, 'teacher') which refers to whoever meets the description is instead licit (Pak et al., 2024) in these constructions.

- after the-exam hand.in.INF the booklet to.the his teacher
- (420) Dopo l'esame, rimettere il dizionario al suo posto.
 after the-exam put.back.INF the dictionary to.the its.own place
 'After the exam, return the dictionary to its place.'
 [examples by Pak et al. (2024), p. 647]

Moreover, the use of expressions like *proprio* (one's own) or *ciascun(o)* (each-M.SG) is allowed in Generic Imperatives:

- (421) Consegnare l'articolo svolto al proprio insegnante.
 Submit.INF the article done to.the one's.own teacher
 'Submit the completed article to one's own teacher'.
- (422) Consegnare l'articolo svolto a ciascun insegnante.
 Submit.INF the article done to each-M.SG teacher
 'Submit the completed article to each teacher'.

Demonstratives and locative indexicals are generally not permitted in Generic Imperatives (423)-(424); core imperatives do not show such restriction (425)-(426):

- (423) *Usare questo
 Use.INF this
 'Use this!'
- (424) *Mettere una vite qui
 Put.INF a screw here
 'Put a screw here'.
- (425) Usa questo!
 Use-IMP.2SG this
 'Use this!'
- (426) Metti una vite qui
 Put.IMP.2SG a screw here
 'Put a screw here'.

Generic Imperatives in (423) and (424) are licit only if the indexical element *qui* (here) is accompanied by an arrow. Observe the sign in (423), translated into English in 0:



Figure 6: Generic Imperative in Italian on the right, on a public signs (generated with Claude AI).



Figure 7: Generic Imperative in English, on a public sign (generated with Claude AI).

Another interesting restriction concerns temporal indexical elements. Observe that a Generic Imperative cannot co-occur with temporal indexicals such as *domani sera* (tomorrow evening), as in (427). Like the other restrictions on indexicals discussed so far, this is peculiar because core imperatives are typically compatible with such temporal indexical expressions (428):

- (427) *Lasciare la camera entro domani sera⁵⁵
 leave.INF the room by tomorrow evening
 ‘Leave the room by tomorrow evening’.
- (428) Lascia la camera entro domani sera!
 leave.IMP.2SG the room by tomorrow evening
 ‘Leave the room by tomorrow evening!’

The same restriction is found with indexical adverbs such as *adesso* ‘now’:

- (429) *Sorridere adesso.
 smile.INF now

[Examples by Pak et al., 2024, p. 648]

(427) becomes acceptable if we substitute an indexical temporal expression with a fixed date:

⁵⁵ Two informants (Italian native speakers, 26 and 27 years old, both linguists) do not find (109) entirely unacceptable. While it seems that the restriction on temporal elements in Generic Imperatives holds, certain contextual cues (similar to the arrow example in the written sign in (105)) may help, to some extent, in salvaging the interpretation of the utterance.

- (430) Lasciare la camera entro il 3 aprile.
 Leave.INF the room by the 3 April
 'Leave the room by April 3rd'.

It could be that (430) is acceptable because the fixed date (April 3rd) functions like a definite description, indicating a specific moment in time, whereas 'tomorrow evening' is purely indexical.

It is worth noting that, following Portner (2004c), also vocatives are indexicals, since they refer to the addressee. Therefore, the restriction on vocatives in Generic Imperatives discussed in §4.2.2 is consistent with the restrictions on indexicals observed by Pak et al. (2024) summarized in this section.

Turning to *a*-Imperatives, temporal indexicals exhibit partially different behavior compared to Generic Imperatives. As with all imperative forms (see the next section), it is clear that they are incompatible with past adverbs. Interestingly, however, they also fail to accommodate indexical temporal elements that refer to a future time, including fixed future dates: this contrasts with Generic Imperatives:

- (431) *A mangiare domani!
 to eat.INF tomorrow
 (432) *A mangiare il 3 aprile!
 to eat.INF the 3 april

Another difference is that *a*-Imperatives are more compatible with temporal expressions referring to the present time. As mentioned earlier, the typical use of these expressions involves the configuration *a* + infinitival verb form (+full DP), without requiring an additional adverb. The interpretation that the command applies to the present time is already available without the need to add a further adverb, although such an adverb can still be accommodated:

- (433) A mangiare adesso! A lavorare subito!
 to eat.INF now! to work.INF now

Concerning indexical pronouns referring to first, second and third person, then the picture is less clear. All the following structures feel degraded but not completely out:

- (434) ? A restituir-mi le chiavi!
 To give.back.INF-to.me.CL.1SG.DAT the keys
 (435) ? A restituire le chiavi a me!
 To give.back.INF the keys to me
 (436) ? A restituir-ti le chiavi!
 To give.back.INF-to.you-CL.2SG.DAT the keys
 (437) ? A restituire le chiavi a te!
 To give.back.INF the keys to you
 (438) ? A restituir-le le chiavi!
 To give.back.INF-to.her-CL.3SG.DAT the keys
 (439) A restituire le chiavi a lei!

To give.back.INF the keys

4.2.5 Temporal Anchoring and Aspect

Imperatives are typically incompatible with past temporal expressions. This constraint holds not only for canonical imperatives (440), but also for the imperative forms examined in this chapter (441)-(443):

- (440) #Mangia ieri!
eat.IMP.2SG yesterday
- (441) #Non mangiare ieri!
NEG eat.INF yesterday
- (442) #Mangiare ieri!
eat.INF yesterday
- (443) #A mangiare ieri!
To eat.INF yesterday

Canonical imperatives are compatible with present-time and future adverbs (see also Chapter 1):

- (444) Fa-llo ora!
do.IMP.2SG-it.CL.3SG now
'Do it now!'
- (445) Fa-llo domani!
Do.IMP.2SG-it.CL.3SG tomorrow
'Do it tomorrow!'
- (446) Fa-llo tra un anno!
do.IMP.2SG-it.CL.3SG in one year
'Do it in a year!'

The same pattern holds for negated imperatives in the second-person singular, as seen in (447) and (449), which is expected, as they are simply the negative counterparts of the forms in (444) and (446):

- (447) Non far-lo ora!
NEG do.INF-it.CL.3SG now
'Don't do it now!'
- (448) Non far-lo domani!
NEG do.INF-it-CL.3SG tomorrow
'Don't do it tomorrow!'
- (449) Non farlo tra un anno!
NEG do.INF-it.CL.3SG in a year

'Don't do it in a year!'

In Generic Imperatives the temporal reference appears to be unspecified or interpreted as 'always': a written rule, such as '*Rispettare l'ambiente*' ('Respect.INF the environment'), is always valid. However, a temporal interpretation can be imposed from the moment of utterance if such a construction is spoken aloud. For instance, '*Allacciare le cinture!*' ('Fasten.INF your seatbelts!') is understood as 'fasten your seatbelts now', even if a temporal indexical expression like *ora* 'now' is not completely licit, as visible in (450) (see the previous section on the restriction of these imperatives with respect to indexicals). The same applies to *domani* (tomorrow) and *tra un anno* (in a year):

- (450)
- | | | | |
|----------------|-----|-------------|--------------|
| a. *Rispettare | l' | ambiente | ora. |
| respect.INF | the | environment | now |
| b. *Rispettare | l' | ambiente | domani. |
| respect.INF | the | environment | tomorrow |
| c. *Rispettare | l' | ambiente | tra un anno. |
| respect.INF | the | environment | in a year |
| d. Rispettare | l' | ambiente | ieri. |
| respect.INF | the | environment | yesterday |

A-Imperatives, by contrast, exhibit a different temporal interpretation. They are directives that require the addressee to begin acting immediately, not admitting that the action to be carried at a future time. This sets them apart from core imperatives, which, as mentioned, also allow for the ordered action to be carried out in the future:

- (451)
- | | | |
|----------------------------------|----------|------------------------|
| a. A | mangiare | adesso/immediatamente! |
| to | eat.INF | now/immediately |
| 'Go eat now!/Go eat right away!' | | |
| b. *A | mangiare | domani! |
| to | eat.INF | tomorrow |
| c. *A | mangiare | tra un anno! |
| to | eat.INF | in a year |
| d. *A | mangiare | ieri! |
| to | eat.INF | yesterday |

To sum up, the temporal anchoring of the imperative forms analyzed in this work can be summarized as follows:

- (DD) (Negated) core imperatives: compatible in the carrying out of the action in both a present and a future time;

- (EE) Generic Imperatives: temporally unbounded, interpreted as always valid if written on a sign. If uttered aloud, anchored to the immediate present;
- (FF) A-Imperatives: anchored to the immediate present, requiring action to begin now.

A further distinction should be made between (EE) and (FF). When a Generic Imperative is uttered aloud, the speaker typically expects the tents to be fully set up by the end of the action. In contrast, *a*-Imperatives require only the initiation of the action: the focus is on the starting point, not on the completion of the task, which may occur but is not necessarily expected. The following minimal pair illustrates this contrast:

(452) a. Montare le tende!

set.up.INF the tents!

‘Set up the tents!’

Paraphrase: the older scout leader exhorts all the younger scouts to set up the tents. She expects the tents to be set at the end.

[ex. by Valentina Bianchi, p.c.]

b. A montare le tende!

To set.up.INF the tents!

‘Get to setting up the tents!/Start setting up the tents!’

Paraphrase: the older scout leader orders all the younger scouts to start setting up the tents immediately, as it is time to do so.

4.2.6 Negation

The first imperative verbal form considered in this study is the negated version of the core Italian imperative, which resists negation. The incompatibility of true imperatives with negation arises exclusively with preverbal negative markers, which have been analyzed as heads (Zanuttini 1997; Poletto & Zanuttini 2003). No such issue occurs when the negative marker follows the imperative verb, as illustrated in 0:

(453) (Piedmontese, Northern Italian language variety)

a. Parla! (true imperative)

talk.IMP.2SG

‘Talk!’

b. Parla nen! (true imperative)

talk.IMP.2SG NEG

‘Don’t talk!’ (Zanuttini 1997, ex. (20))

Therefore, to negate a second-person singular imperative in Standard Italian (which has a preverbal negative marker), an infinitival verbal form is used instead (455):

(454) Parla!

talk.IMP.2SG

‘Talk!’

(455) Non parlare!

NEG eat.INF

‘Don’t talk!’

Generic Imperatives and *a*-Imperatives show interesting behavior concerning negation. A contrast involving the first ones is as follows: as anticipated in §4.1, when an infinitival verbal form is negated in Italian, and belongs to the imperative clause-type,⁵⁶ a possible ambiguity arises between a second-person singular negated imperative (456), and a negated Generic Imperative (457):

(456) Negative imperative (second person singular)

Non mangiare i funghi velenosi!

NEG eat.INF the mushrooms poisonous

‘Don’t eat the poisonous mushrooms!’

Context: Uttered by an older sister to her younger sister during a hike in the mountains.

(457) Generic Imperative (negated)

Non mangiare i funghi velenosi.

NEG eat.INF the mushrooms poisonous

‘Do not eat the poisonous mushrooms.’

Context: Found in hiking mountain guide intended for a general audience.

Speakers typically interpret the subject of an utterance like (456) and (457) as second-person singular. Contextual cues are therefore required to disambiguate between a second-person singular and a generic subject interpretation (e.g., spoken or written medium, presence of a single addressee, register). This contrast calls for an explanation: although the structures are superficially identical, they exhibit deep syntactic and interpretive differences, starting with the distinct nature of their subjects, some of which have already been discussed, and others that will be explored in more detail in the following sections.

A-Imperatives, instead, are totally incompatible with negation which precedes *a* and the infinitival verb. When the sentential negative marker follows *a*, then the sentence slightly improves and it may be used only with a very specific, rich supporting context:

(458) *Non a mangiare!

NEG to eat.INF

(459) ? A non mangiare!

to NEG eat.INF

(460) ? A non comprare una “Tesla”!

to NEG buy.INF a “Tesla”

⁵⁶ On the status of infinitival imperatives w.r.t clause-types, the reader is referred to §4.3.4 in the present chapter.

- Instead, the same string in angles brackets in (461) is licit in a declarative when functioning as a sentential subject or as the complement of an attitude verb such as *convincere* ('convince'):

- Concerning the partial compatibility of the *a*-Imperative with negation seen in (459) and (460), a comparable pattern has been observed in the domain of reduced participial constructions: Viganò et al. (2024), building on Cecchetto and Donati (2022), report experimental results showing that a non-negligible proportion of speakers accept bare participials both with and without negation (for more discussion on these structures, refer to Chapter 2).

4.2.7 Embedding

The well-known, cross-linguistically robust constraint on embedding in imperative clauses (465) (see Chapter 1, §1.2.3) applies also to those with infinitival morphology (466):

- ⁵⁷ This would correspond, in structural terms, to negation being merged below the jussive head, rather than above it. The implications for the syntactic analysis of *a*-Imperatives are discussed in §4.3.

- (466) You-CL.2SG.ACC have-AUX.1SG said/ordered to speak-IMP.2SG
 *Ti ho detto/ordinato di non parlare!
 You-cl.2sg.acc have-aux.1sg said/ordered to neg speak.inf

Sentence (466) is ungrammatical when interpreted as an imperative (i.e., with appropriate illocutionary force and prosody). The same structure becomes acceptable when interpreted as a declarative:

- (467) Ti ho detto/ordinato di non parlare
 You-CL.2SG.ACC have said/ordered to NEG speak.INF
 'I told/ordered you not to speak'.

Embedded Generic Imperatives are also not permitted unless, once again, the sentence is interpreted as a declarative:

- (468) Ho detto/ordinato di allacciare le cinture
 have.AUX.1SG said/ordered to fasten.INF the seatbelts
 'I said/ordered (someone) to fasten the seatbelts.'
- (469) *Ho detto/ordinato di allacciare le cinture!
 have.AUX.1SG said/ordered to fasten.INF the seatbelts

A-Imperatives cannot be embedded, even under a declarative structure. They are ungrammatical in both declaratives and imperative interpretations:

- (470) *Ho detto/ordinato a mangiare!
 Have.AUX.1SG said/ordered to eat.INF

4.2.8 Left-peripheral Elements

4.2.8.1 *Wh*-elements and *Why*

As it applies to canonical imperatives, also imperatives with infinitival morphology are incompatible with interrogative force. *Wh*-elements and *why* are not admitted, as shown in (471):

- (471) a. *Cosa non mangiare!
 What NEG eat.INF
- b. *Cosa allacciare le cinture!
 what fasten.INF the seatbelts
- c. *Cosa a mangiare!
 What to eat.INF
- d. *Perché non mangiare!
 why NEG eat.INF
- e. *Perché allacciare le cinture!
 why fasten.INF the seatbelts

f. *Perché a mangiare!

why to eat.INF

4.2.8.2 *Foci*

In Negative Imperatives (specifically second-person singular, which are the focus of this work), preposed focalized constituents generally appear to be disallowed, with the possible exception of (very) marginal cases involving proper nouns:

- (472) *LA CIOCCOLATA non mangiare a fine pasto

The chocolate NEG eat.INF to end meal

- (473) *LA VALIGIA non portare a Luca

THE SUITCASE NEG bring.INF to Luca

- (474) ACHILLE non salutare, non Luca

ACHILLE NEG greet.INF, NEG Luca

‘ACHILLE, don’t greet (him), not Luca’

- (475) LETIZIA non chiamare, Sarah sì

LETIZIA NEG call.INF, Sarah yes

In contrast, postverbal foci seem slightly more acceptable:

- (476) ? Non mangiare a fine pasto LA CIOCCOLATA!

NEG eat.INF to end meal THE CHOCOLATE

‘Don’t eat CHOCOLATE at the end of the meal!’

- (477) ? Non portare a Luca LA VALIGIA

NEG bring.INF to Luca THE SUITCASE

‘Don’t bring THE SUITCASE to Luca!’

This restriction on preposed focus appears to be linked to the imperative clause-type. When a similar structure also displays a deontic modal, as in a declarative clause, both preposed and postposed foci are allowed:

- (478) LA CIOCCOLATA non devi mangiare a fine pasto

THE CHOCOLATE NEG must eat.INF to end meal

‘THE CHOCOLATE you must not eat at the end of the meal’

- (479) Non devi mangiare a fine pasto LA CIOCCOLATA

NEG must eat.INF to end meal THE CHOCOLATE

‘You must not eat THE CHOCOLATE at the end of the meal’

Generic Imperatives display the same restriction concerning preposed foci, which are ruled out:

- (480) *I GUANTI mettere, non la sciarpa!

- (481) THE GLOVES put.on.INF, NEG the scarf
 *I POMODORI tagliare, non le cipolle!
 THE TOMATOES cut.INF, not the onions

Postverbal focalized constituents appear to be acceptable only under specific conditions, namely, when an explicit alternative is provided. When the focalized element stands alone, the sentence is degraded⁵⁸:

- (482) Mettere I GUANTI, non la sciarpa
 put.on.INF THE GLOVES, NEG the scarf
 'Put on THE GLOVES, not the scarf?'
- (483) Tagliare I POMODORI, non le cipolle!
 cut.INF THE TOMATOES, not the onions
 'Cut THE TOMATOES, not the onions!'
- (484) Tirare AI BERSAGLI ROSSI, non a quelli neri!
 aim.inf TO.THE TARGETS RED, neg to those black
 'Aim at THE RED TARGETS, not the black ones!'
 (e.g., uttered during an archery lesson)
- (485) *Mettere I GUANTI!
 put.on.INF THE GLOVES
- (486) *Tagliare I POMODORI!
 cut.INF THE TOMATOES
- (487) *Tirare AI BERSAGLI ROSSI!
 aim.INF to.the TARGETS RED

Turning now to A-Imperatives, one observes the same behavior found in Generic Imperatives. When an object is indeed expressed in this kind of imperative form, we once again find that a preposed focus generates ungrammaticality:

- (488) *LE UOVA, a mangiare!
 THE EGGS, to eat.INF!

When a focalized constituent is postposed, it seems that the utterance is marginally licit only in (489), when the alternative to the focalized constituent is explicitly and overtly stated. When the focalized constituent stands by itself, the sentence is ungrammatical:

- (489) ? A mangiare LE UOVA, non le caramelle!
 To eat.INF THE EGGS, NEG the candies!
 (Go) eat THE EGGS, not the candies!

⁵⁸ Grammaticality judgements concerning (postposed) foci in this section instantiate one of those cases in which they are gradient rather than categorical; see the TGRAL Project on the Graduality of Grammaticality Judgements (Chesi, Bianchi, Bocci) for a discussion on this theme: <https://www.nets.iusspavia.it/research/GRA2L/>.

- (490) *A mangiare LE UOVA!
To eat.INF THE EGGS

4.2.8.3 *Topics*

Concerning the information structure of Italian core imperatives in Chapter 3, the typology of topics proposed by Frascarelli and Hinterhölzl's (2007), Frascarelli and Jiménez-Fernández (2016; 2021) was discussed. They argue that Aboutness-Shift Topics are not licit in imperatives, whereby Contrastive Topics and Familiar/Given Topics are allowed:

- (491) Basta giocare: vai subito a finire i compiti!
'Stop playing: go and finish your homework immediately!'
- (492) Aboutness-Shift Topic
*Basta giocare: i compiti, vai subito a finirli!
*'Stop playing: your homework, go and finish it immediately!'
- (493) Contrastive Topics
A. Dove posso mettere questi fiori?
'Where can I put these flowers?'
- B. a. Le rose, mettile nel vaso, il girasole lascialo sul tavolo. (Italian)
b. Las rosas ponlas en el jarrón, el girasol déjalo sobre la mesa. (Spanish)
Lit. the roses put-them in the vase, the sunflower leave-it on the table)
- (494) Given Topic
a. La palla tirala./ Tírala, la palla.
b. La pelota tírala./ Tírala, la pelota.
Lit. the ball throw-it/throw-it the ball)
- [Examples from Frascarelli and Jiménez-Fernández 2016, p.1]

Turning now to negative imperatives in the second-person singular, the same topic typology applies. Given/Familiar Topics are licensed in both left- and right-dislocated positions:

- (495) La cioccolata, non mangiar-la a fine pasto!
The chocolate, NEG eat.INF-it.CL.3.F.SG to end meal
'The chocolate, don't eat it at the end of the meal!'
- (496) Non mangiar-la a fine pasto, la cioccolata!
NEG eat.INF-it.CL.3.F.SG to end meal, the chocolate
'Don't eat it at the end of the meal — the chocolate!'

Contrastive Topics are likewise permitted:

- (497) La cioccolata non la comprare, la frutta sì

the chocolate neg it.cl buy.inf, the fruit yes

‘Don’t buy chocolate; fruit, yes.’

As for Aboutness-Shift Topics, constructing a convincing example proves difficult, however, and this difficulty may not be accidental. In the example constructed in parallel to (492), the topic invariably appears to receive a Contrastive or Given reading rather than a genuine Aboutness-Shift interpretation:

(498) Siamo a dieta: i dolci, non comprar-li!

we.are on diet: the sweets NEG buy.INF-them.CL.3PL.ACC

‘We are on a diet: the sweets, do not buy them!’

The present author suggests that the resistance to Aboutness-Shift Topics in negative imperatives may follow from an independent property of negation itself: negation is inherently presuppositional in nature, in the sense that it requires the negated proposition or the negated referent to be *at-issue* in the discourse context (Beaver & Denlinger, 2020; Horn, 1989). A negative imperative therefore may need to operate only on at-issue content, yielding incompatibility with Aboutness-Shift Topics accordingly.

Concerning Generic Imperatives, the picture is more nuanced. A preposed topic is not licit:

(499) *Le cinture, allacciar-le!

The seatbelts, fasten.INF-them.CL.F.PL

(499) can become acceptable with a crucial change: if the topic is separated by the verb by a strong intonational break, therefore constituting a different speech act, whereby the first one introduced the object in the Common Ground, and then the command involving it is uttered afterwards:

(500) Le cinture! Allacciarle!

The seatbelts! fasten.INF-them.CL.F.PL!

‘The seatbelts! Fasten them!’

This pattern mirrors what happens with vocatives (§4.2.2), which are not admitted in Generic Imperatives and can be introduced in the discourse only as a separate, preceding speech act. It seems that the degree of acceptability increases when the topic is Contrastive and there is an explicit, overt continuation with a further imperative, but it still remains marginal:

(501) ? Le cinture allacciar-le, i telefoni silenziarli

The seatbelts fasten.INF-them.CL.F.PL, the telephones silence.INF=them.CL.M.PL

The seatbelts fasten them, the phones silence them

If the topic is right-dislocated, then the sentence improves:

(502) Allacciar-le, le cinture!

fasten.INF-them.CL.F.PL, the seatbelts

As for *a*-Imperatives, the presence of topics is generally marginal and the typical use of this structure would not include one. However, if a topic is there, there is a contrast between preposed ones (which are

admissible once again only if the intonational break is strong enough to signal a different speech act), and postposed ones, which are once again slightly better:

- (503) *Il libro, a restituirlo!
 The book, to return.INF=it.3SG
- (504) ? A restituirlo, il libro!
 The book, to return.INF=it.3SG

4.2.9 Verbal classes

Not all infinitival imperatives are compatible with the same verbal classes. In particular, *a*-Imperatives show an unexpected restriction in this respect: they are robustly incompatible with unaccusatives and psych-verbs. Refer to the next table for a preliminary overview, while illustrative examples will be discussed point by point below.

Verbal Class	Negative Imperative (2SG)	Generic Imperative	<i>a</i> -Imperative
Transitive	✓	✓	✓
Unergative	✓	✓	✓
Ditransitive	✓	✓	✗?
Unaccusative	✓	✓	✗
Weather verbs	✓	✗	✗
Psych-verbs	✓ (except <i>piacere</i> class)	? (except <i>piacere</i> class)	✗
Be, have, auxiliaries	✗	✗	✗

Table 19: Overview of which verbal classes are compatible with imperatives with infinitival morphology.

All imperatives with infinitival morphology are compatible with transitive and unergative verbs:

- (505) Negative Imperatives (second-person singular)
- a. Non mangiare la frutta! (transitive)
 NEG eat.INF the fruit
 'Don't eat the fruit!'
- b. Non telefonare! (unergative)
 NEG call.INF

- 'Don't call!
- (506) Generic Imperatives
- a. Allacciare le cinture! (transitive)
fasten.INF the seatbelts
'Fasten your seatbelts!'
- b. Parlare a bassa voce (unergative)
speak.INF at low voice
'Speak quietly'
- (507) *a*-Imperatives
- a. A montare le tende! (transitive)
to set-up.INF the tents
- b. A lavorare! (unergative)
to work.INF
'Start working!'⁵⁹

A clarification is necessary regarding *a*-Imperatives and unergative verbs. Only those unergative verbs that express intentional, controllable actions are felicitous in *a*-Imperative constructions. Verbs that denote bodily functions or reactions not consciously initiated by the speaker tend to be less acceptable in this context:

- (508) a. ? A russare!
to snore.INF
- b. ? A respirare!
to breathe.INF
- c. ? A piangere!
to cry.INF
- d. ? A ridere!
to laugh.INF
- e. ? A tremare!
to tremble.INF
- f. ? A sospirare!
to sigh.INF

⁵⁹ Other unergative verbs compatible with *a*-Imperatives are the following: *camminare* (walk.INF), *passaggiare* (wander.INF), *nuotare* (swim.INF), *ballare* (dance.INF), *cantare* (sing.INF), *parlare* (speak.INF), *combattere* (fight.INF), *brindare* (toast.INF).

Intuitively, these verbs are problematic in *a*-Imperatives because the command targets an action that the addressee may not be able to willfully perform. With the right contextual support, this restriction might be mitigated; however, a contrast remains between (507) and (508).

Moving on to ditransitive verbs, they are compatible with negative imperatives in the second-person singular and Generic Imperatives:

- (509) Negative Imperatives (second-person singular)
 Non regalare una bici a Luca! (ditransitive)
 NEG gift.INF a bike to Luca
 ‘Don’t give a bike to Luca!’
- (510) Generic Imperatives
 Consegnare l’articolo svolto al proprio insegnante. (ditransitive)
 submit.INF the article done to.the one’s.own teacher
 ‘Submit the completed article to one’s own teacher.’

As for *a*-Imperatives, it seems that ditransitives are not completely licit. 4 informants judge (511) as not totally acceptable and would rather prefer a canonical imperative (512) in the same context:

- (511) A portare il regalo alla zia! (ditransitive)
 to bring.INF the present to.the aunt
 ‘(Go) bring the present to your aunt!’
- (512) Porta il regalo alla zia!
 Bring.IMP.2SG the present to.the aunt
 ‘Bring the present to your aunt!’

As anticipated above, a peculiar restriction is the following: unaccusative verbs may appear in negative imperatives (second-person singular) and in Generic Imperatives, but not in *a*-Imperatives:

- (513) Non arrivare domani!
 NEG arrive.INF tomorrow
 ‘Don’t arrive tomorrow!’
- (514) Uscire senza far rumore.
 Exit.INF without make.INF noise
 ‘Exit (the room) without making any noise/quietly’.
- (515) A-Imperatives
 a. *A arrivare!
 To arrive.INF
 b. *A venire!
 To come.INF

- c. *A partire!
To leave.INF
- d. *A tornare!
To come.back.INF
- e. *A salire!
To get.up.INF
- f. *A cadere!
To fall.INF

Psych-verbs (Belletti & Rizzi, 1988) of the *temere* (516) and *preoccupare* (517) class are licit in a Negative Imperative (second person), while verbs of the *piacere*-class are not (518):

- (516) Non temere
NEG fear.INF
'Don't fret'
- (517) Non ti preoccupare
NEG REFL.2SG worry.INF
'Don't worry'
- (518) *Non ti piacere
NEG REFL.2SG like.INF

Generic Imperatives are marginally licit with verbs of the *temere* and *preoccupare* class, while totally out with *piacere*:

- (519) Temere l'impatto ambientale delle scelte quotidiane. (marginal)
Fear.INF the environmental impact of (one's) daily choices.
- (520) Preoccuparsi dell'ambiente.
Worry.INF consciously of.the environment
- (521) *Piacere la salvaguardia dell'ambiente
Like.INF the protection of the environment

Concerning *a*-Imperatives, they are homogeneously incompatible with all classes of psych-verbs in Belletti and Rizzi's (1988) sense:

- (522) *A temere!
to fret.inf
- (523) *A preoccupare!
to worry.INF

- (524) *A piacere!
to like.INF

Weather verbs are excluded in Generic Imperatives and *a*-Imperatives alike:

- (525) *Piovere!
Rain.INF
- (526) *Nevicare!
Snow.INF
- (527) *A piovere!
To rain.INF
- (528) *A nevicare!
To snow.INF

Weather verbs are permitted only in negative imperatives (second-person singular) specifically only in the so-called ‘wish-type uses’ (Condoravdi & Lauer, 2012, see also Chapter 1) of imperative clauses. In those uses, the utterance does not induce the addressee to act but rather expresses a desire on the part of the speaker. In the following examples, note that the subcategory of addressee-less wish (529) is indeed a negative imperative, whose Italian equivalent is given in 0; the arrow symbolizes a paraphrase:

- (529) Wish-type uses of Imperatives, adapted from Condoravdi & Lauer (2012, p. 39):
- a. Get well soon! (well-wish)
↪ He wished me to get well soon.
 - b. Drop dead! (curse)
↪ He cursed me to drop dead.
 - c. Please, don’t rain! (addressee-less wish)
↪ He expressed the wish that it not rain.
 - d. [on the way to a blind date] Be blond! (absent wish)
↪ He wished for his date to be blond
- Per favore, non piovere!
for favor, NEG rain.INF
‘Please, don’t rain!’
↪ The speaker expressed the wish that it not rain.

4.2.10 Adverbs

The data from infinitival imperatives follow the pattern observed for core imperatives in Chapter 3 (§1.4.2.6): preverbal adverbs without an intonational break are ungrammatical, postverbal adverbs are fully

licensed, and certain preverbal adverbs are licit only if they surface with a sufficient intonational break, suggesting their parenthetical nature.

Concerning Negative Imperatives (second-person), propositional adverbs (Ernst et al., 2002) are illicit in preverbal position:

- (530) *Sfortunatamente non mangiare!

unfortunately NEG eat.INF

‘Unfortunately don’t eat!’

- (531) *Sorprendentemente non bere!

surprisingly NEG drink.INF

‘Surprisingly don’t drink!’

Manner and prepositional adverbs are likewise excluded from preverbal position:

- (532) *Velocemente non correre!

Quickly neg run.INF

‘Don’t run quickly!’

- (533) *Immediatamente non farlo!

Immediately NEG do.INF-it.CL.M.2SG.ACC

‘Don’t do it immediately!’

Where a clear intonational break is present, still unacceptability is yielded; this may come from the fact that negative imperatives usually convey directives but also warnings, which in some way are endowed with some urgency and immediacy, therefore introducing a modifier before the command or warning is issues is infelicitous; it is proposed here of course that this is encoded in the syntax via the previously mentioned mechanism of radical reduction, as it will be further discussed in the analysis later.

- (534) a. # Velocemente, non correre!

quickly NEG run.INF

‘quickly, don’t run quickly!’

- b. # Preferibilmente, non correre!

NEG run.INF quickly

‘Don’t run quickly!’

A parenthetical adverb may be partially rescued if appear instead after the verb:

- (535) Non bere, preferibilmente, vino rosso tutti i giorni (marginal)

NEG drink.INF preferably red wine

‘Don’t drink, preferably, red wine.’

Postverbal adverbs, instead, are fully acceptable:

- (536) Non mangiare immediatamente!
NEG eat.INF immediately
'Don't eat immediately!'

The same pattern holds for Generic Imperatives:

- (537) *Obbligatoriamente allacciare le cinture!
Obligatorily fasten.inf the seatbelts
'*Fasten your seatbelts obligatorily!'
- (538) *Immediatamente indossare la mascherina protettiva!
Immediately wear.INF the protective mask
'*Immediately wear a protective mask!'
- (539) *Velocemente montare le tende!
Quickly set.up.INF the tents
'*Quickly set up the tents!'

Postverbal adverbs are licit:

- (540) Allacciare immediatamente le cinture!
fasten.INF immediately the seatbelts
'Fasten your seatbelts immediately!'
- (541) Rispettare sempre l'ambiente.
respect. INF always the environment
'Always respect the environment.'
- (542) Aprire la porta dolcemente.
open.INF the door sweetly
'Open the door gently.'

With a clear intonational break, preposed marginally licit, adverbs appearing after the verb are licit, and postverbal adverbs with an intonational break are licit as well:

- (543) a. Immediatamente, allacciare le cinture!
immediately fasten.INF the seatbelts
'Immediately, fasten your seatbelts!'
- b. Allacciare le cinture, immediatamente!
fasten.INF the seatbelts immediately
'Fasten your seatbelts, immediately!'
- c. Allacciare le cinture, immediatamente!

fasten.inf the seatbelts immediately
 ‘Fasten your seatbelts, immediately!’
 d. Indossare, preferibilmente, la mascherina protettiva.
 wear.INF preferably the protective mask
 ‘Wear, preferably, a protective mask.’

✓A-Imperatives, which carry a strongly peremptory flavor, exhibit the same restrictions:

- (544) *Immediatamente a mangiare!
 Immediately to eat.INF
 ‘*Immediately go eat!’
 (545) *Velocemente a montare le tende!
 Quickly to set.up.INF the tents
 ‘*Quickly start setting up the tents!’

With postverbal placement or a parenthetical break, the adverb is acceptable:

- (546) A mangiare, immediatamente!
 to eat.INF immediately
 ‘Go eat, immediately!’
 (547) A montare le tende, velocemente!
 to set.up.INF the tents quickly
 ‘Start setting up the tents, quickly!’

Adverbs expressing obligation are illicit in all positions across all three infinitival imperative types, as in canonical imperatives:

- (548) a. *Obbligatoramente non mangiare!
 obligatorily NEG eat.ING
 b. *Non mangiare obbligatoriamente!
 NEG eat.INF obligatorily
 ‘*Don’t eat obligatorily!’
 c. *Obbligatoramente allacciare le cinture!
 obligatorily fasten.INF the seatbelts
 d. *Obbligatoramente a mangiare!
 obligatorily to eat.INF

A further and revealing contrast emerges from the language of public signs. As noted above, generic imperatives constitute one of the syntactic forms available in this register, but they are the only one. Consider

the following example, attested on a sign at the local library of the present author (Biblioteca San Tommaso, Pavia, Italy):

- (549) Severamente vietato aprire queste porte. Utilizzare solo in caso di emergenza.
 strictly forbidden open.INF these doors. use.INF only in case of emergency
 ‘It is strictly forbidden to open these doors. Use only in case of emergency.’

In (549), the adverb *severamente* (‘strictly’) is fully licit. The crucial contrast arises when the same adverb is combined with a Generic Imperative:

- (550) a. *Severamente non aprire queste porte.
 strictly neg open.INF these doors
 ‘*Strictly do not open these doors.’
 b. *Severamente aprire queste porte.
 strictly open. INF these doors
 ‘*Strictly open these doors.’

This contrast is theoretically significant. It could be argued that Generic Imperatives might be derived as elliptical variants of structures involving a silent or overt *vietato* (‘forbidden’), that is, that *Non aprire queste porte* could be parsed as a truncated form of *È vietato aprire queste porte* (it is forbidden to open these doors). The contrast in (549) provides direct evidence against this view: if Generic Imperatives were elliptical reductions of *vietato*-constructions, the adverb *severamente* should be equally grammatical in both, since it would in both cases be modifying the same underlying structure. The ungrammaticality of (550) shows that this is not the case. Generic Imperatives are therefore not elliptical forms of a bigger structure.

4.2.11 Interim Summary

Before proceeding to the structural analysis, a summary of the empirical properties of Italian infinitival imperatives established in this chapter is provided below, alongside a brief recap of the corpus findings reported in Chapter 2.

4.2.11.1 *Morphosyntax and Interpretation*

- (GG) **Subjects:** The subject of negative imperatives is invariably second-person singular; while subjects of Generic Imperatives and *a*-Imperatives are underspecified with respect to both person and number. The subject of a Generic Imperative receives a genuinely universal or generic interpretation, i.e. ‘everyone in the relevant context’, and the speaker may or may not be included as an addressee depending on contextual factors; a marginal second-person singular reading is also available. The subject of an *a*-Imperative is likewise underspecified, but lacks the generic universal reading: *a*-Imperatives are more readily directed at specific, contextually salient addressees, and the speaker may or may not be included. In all three types, the covert subject is syntactically active, as evidenced by the licit binding of anaphors.

- (HH) **Sentential Force:** Negative Imperatives in the second person singular are the negated counterpart of core imperatives; therefore, their sentential force is PROHIBITION (or WARNING). Generic Imperatives express RULES and INSTRUCTIONS, while *a*-Imperatives instantiate an immediate imperative in Aikhenvald's (2010) sense, therefore they are a PEREMPTORY, IMMEDIATE DIRECTIVE to be complied with at the time of the utterance, not in the future, as it is instead possible with core imperatives and, as expected, negative imperatives in the second person singular.
- (II) **Vocatives:** Negative imperatives allow only second-person singular vocatives, consistently with their fixed subject specification. Generic imperatives systematically disallow vocatives within the same intonational unit; a vocative is licit only when it constitutes a separate, preceding speech act marked by a strong intonational break and distinct prosody. *A*-Imperatives freely allow vocatives referring to first, second, and third person, in both singular and plural, and in both preverbal and marginally postverbal position;
- (JJ) **Clitic placement:** All three types require enclisis when the verb is infinitival, consistently with the general behavior of Italian infinitives. Proclisis and clitic climbing under negation are available in negative imperatives but are categorically excluded in generic imperatives, even under negation. *A*-Imperatives also exclude proclisis, and enclisis, while in principle possible, is strongly degraded in practice, with speakers preferring a full DP object instead. Generic imperatives are restricted to the impersonal clitic *si*, excluding all person-specified clitic forms;
- (KK) **Indexicals:** Generic imperatives are systematically incompatible with indexical expressions of all types: first and second person pronouns, deictic third person pronouns, demonstratives, locative expressions, and temporal indexicals referring to both present and future time are all excluded. Fixed calendar dates are licit, plausibly because they function as definite descriptions rather than true indexicals. Pronouns with a purely linguistic antecedent and bound expressions such as *proprio* and *ciascuno* are permitted. *A*-Imperatives show a partially different pattern: future temporal indexicals are excluded, present-oriented temporal expressions are accommodated, and person-specified pronouns are degraded but not categorically ruled out.
- (LL) **Temporal anchoring and Aspect:** All four imperative types are incompatible with past temporal expressions. Beyond this shared restriction, there are further divergences. Negative imperatives pattern with core imperatives: both are compatible with present and future temporal adverbs. Generic imperatives are temporally unbounded when written, interpreted as 'always valid'; when spoken aloud, they are anchored to the immediate present, though they remain incompatible with overt temporal indexicals. *A*-Imperatives are strictly anchored to the immediate present and incompatible with future temporal expressions and fixed dates. A further aspectual distinction separates Generic Imperatives from *a*-Imperatives: generic imperatives, when spoken aloud, convey an expectation of completion of

the ordered action, whereas *a*-Imperatives require only the initiation of the action, with no necessary implication of completion;

- (MM) **Negation:** Negative imperatives are formed with preverbal *non* and are the suppletive strategy used precisely because core imperatives resist preverbal negation in Standard Italian. Generic imperatives may be negated, yielding a surface form ambiguous with the negative imperative; contextual and register cues are required for disambiguation. *A*-Imperatives are categorically incompatible with negation preceding *a*, and only marginally tolerate negation between *a* and the infinitive in very specific, richly supported contexts. When negation is marginally admitted in *a*-Imperatives, it scopes over the event rather than over illocutionary force;
- (NN) **Embedding:** All three infinitival imperative types are incompatible with embedding. The same surface string is acceptable when interpreted as a declarative: the restriction is tied to the imperative clause-type. *A*-Imperatives are further restricted in that they are ungrammatical even under declarative embedding structures, setting them apart from both negative and Generic Imperatives;
- (OO) **Left-peripheral elements:** *Wh*-elements and *why* are categorically excluded from all three types. Preposed focalized constituents are likewise disallowed; postverbal foci are marginally acceptable only when an overt alternative is explicitly provided. Concerning topics, Given/Familiar and Contrastive Topics are generally licensed in all three types, while Aboutness-Shift Topics are systematically excluded. In Generic Imperatives, preposed topics are illicit within the same intonational unit and are admitted only as a separate speech act with a strong intonational break between the two; right-dislocated topics are licit. *A*-Imperatives show a parallel pattern, with preposed topics marginal at best and postverbal topics slightly more acceptable. Right-dislocation is more natural than left-dislocation across all imperative types, an asymmetry that follows straightforwardly from the absence of the left periphery in a reduced vP structure;
- (PP) **Verbal classes:** All three types are compatible with transitive and unergative verbs, though *a*-Imperatives impose a further restriction on unergatives, admitting only verbs denoting agentive actions and excluding verbs expressing involuntary bodily reactions or states (e.g., *respirare* ‘to breath’). Ditransitive verbs are licit in negative and generic imperatives but yield degraded results in *a*-Imperatives. Unaccusative verbs are compatible with negative imperatives and Generic imperatives but are categorically excluded from *a*-Imperatives. Psych-verbs of the *temere* and *preoccupare* class are licit in negative imperatives and marginally so in Generic Imperatives, while they are uniformly excluded from *a*-Imperatives; verbs of the *piacere* class are excluded across all three types. Weather verbs are excluded from both generic imperatives and *a*-Imperatives, and are permitted in negative imperatives only in wish-type uses;
- (QQ) **Adverbs:** Across all three infinitival imperative types, the adverb distribution replicates the pattern observed for canonical imperatives. Preverbal adverbs without an intonational break are

ungrammatical; postverbal adverbs are fully licensed. Adverbs appearing with a clear intonational break are parenthetical elements external to the functional spine proper and do not constitute genuine counterevidence. Obligation adverbs are illicit in all positions across all three types. A revealing contrast emerges from the language of public signs: the adverb *severamente* ('strictly') is licit in *vietato*-constructions but ungrammatical in Generic Imperatives, providing direct evidence that Generic Imperatives are not elliptical reductions of *vietato*-structures but syntactically independent constructions;

4.2.11.2 *Acquisition*

For completeness, the main acquisition findings discussed in Chapter 2 and briefly summarized in the background section of Chapter 3 are repeated here. The corpus study was based on spontaneous production data from four Italian-speaking children drawn from the CHILDES database (MacWhinney 2000) and the Calambrone Corpus, covering the age range between 19 and 35 months.

The data reveal a striking asymmetry between positive and infinitival imperatives. While positive second-person singular imperatives are robustly attested in early child speech (519 occurrences; Rossi 2023), infinitival imperatives are almost entirely absent. Only five negative infinitival imperatives were identified, all produced by the child Diana, whereas Generic Imperatives and *a*-Imperatives are completely unattested.

This asymmetry cannot be fully reduced to processing or input-related factors. Infinitival imperatives are morphologically more complex than canonical positive imperatives, involving an additional syllable, but processing difficulty alone fails to account for the observed distribution. Crucially, the only infinitival imperatives attested are negative forms, despite the fact that negation itself is independently known to increase processing complexity (Dale & Duran, 2011, and related work). Moreover, children frequently employ impoverished or non-target verbal forms in creative and contextually flexible ways during spontaneous production, suggesting that the absence of Generic Imperatives and *a*-Imperatives cannot simply be attributed to contextual restrictions or insufficient exposure.

The acquisition data therefore point toward deeper structural asymmetries among imperative types, suggesting that infinitival imperatives involve non-trivial functional structure that is not equally accessible in early grammar. Two main conclusions emerge from the corpus findings:

- (RR) Positive imperatives vs. infinitival imperatives: infinitival imperatives (Generic Imperatives and *a*-Imperatives) are absent from child production. Input, contextual and/or processing accounts do not fully suffice to account for this: children's production often go beyond the available input in creative, non-target ways, and negative imperatives which would be harder to process are the only (rare) forms attested: this asymmetry between positive imperatives and infinitival ones thus calls for a syntactic explanation;
- (SS) Target vs. Non-target Negative Imperatives: negative imperatives are scarce in early Italian. When they appear, children also use non-target anaphoric negation (*no* instead of *non*), sometimes with a target infinitive or an impoverished verbal form, mirroring what has been observed for Root Infinitives (RIs) in Dutch and for prohibitive forms in Modern Hebrew. This pattern of *avoidance* of the full negative

imperative suggests that target negative imperatives involve additional functional structure beyond the positive form.

4.3 STRUCTURAL ANALYSES

The interim summary presented above highlights that, although Negative Imperatives, Generic Imperatives, and *a*-Imperatives all involve infinitival morphology and nearly identical surface structure, they differ systematically in many respects, while also sharing some core properties.

The aim for the structural analysis is therefore threefold. First, it must explain the properties shared by imperative clauses independently of verbal morphology, comparing infinitival forms with the core imperatives discussed in Chapter 3.

Second, it must account for the empirical asymmetries between core and infinitival imperatives, as well as the internal asymmetries among infinitival imperatives themselves. This issue emerges most clearly in the contrast between Negative Imperatives and Generic Imperatives: despite their identical surface form under negation, the former display a rigid second-person singular interpretation, whereas the latter receive a generic interpretation, with underspecified person features. Likewise, *a*-Imperatives differ minimally from Generic Imperatives at the surface level (only by the presence of *a*), yet exhibit sharply distinct temporal, aspectual, and verbal class restrictions. All of this suggests that something deeper and not superficially visible is at play, which a formal analysis must ultimately capture, also addressing the non-trivial question of whether these infinitival forms are in fact imperatives, given their differences among themselves and from core imperatives. In other words, where does an imperative end and another clause type begin? A related issue is that sentential forces (in Zanuttini et al.'s 2005 sense) vary systematically and robustly among these imperative types, ranging across prohibitions, instructions, and immediate directives.

Third, any explanatorily adequate account must consider not only the adult distribution of infinitival imperatives, but also the developmental asymmetries observed in acquisition: the absence of Generic Imperatives and *a*-Imperatives in spontaneous production in early Italian, together with the rarity of target Negative Imperatives and the emergence of non-target forms, further suggests that these constructions involve different structural configurations, as they are evidently not equally accessible in early grammar.

The theoretical assumptions adopted here are the same as those introduced in Chapter 3. In addition, it is assumed that infinitives check their morphology in a low functional position within the vP layer, following Kayne (1991).

It will be argued that infinitival imperatives are not elliptical sentences in which a silent modal or a silent *andare* (go.INF) verb has been deleted or is silent. It will be also shown how infinitival imperatives are radically reduced structures not involving the CP layer, like core imperatives. They share with them the presence of the Jussive Phrase; however, they differ from them with respect to their aspectual properties. Negative Imperatives in the second-person singular involve the same aspectual specification as core imperatives, namely the simple default *irrealis* aspect. Generic Imperatives and *a*-Imperatives, instead, involve arbitrary pronouns of the Quasi-Universal and Quasi-Existential type respectively. From this, their empirical asymmetries follow, as well as their aspectual specification, generic/habitual in the case of Generic Imperatives, and ingressive/andative in *a*-Imperatives. Therefore, minimal structural changes give rise to many empirical consequences on the morphosyntactic and interpretive level, with reflexes on acquisition, as it will be discussed later.

4.3.1 Ruling Out Ellipsis

One empirical property of infinitival imperatives that has not yet been discussed concerns their distribution with respect to auxiliaries and modals. It will be addressed here, as it directly relates to a question that may have occurred to the reader, namely whether the constructions considered so far might be analyzed as the result of ellipsis: of modal material in the case of Generic Imperatives and Negative Imperatives, and of a silent verb *andare* in the case of *a*-Imperatives. This is intuitively clear to native speakers. The analysis will proceed point by point, and it will be shown that an account built on ellipsis cannot be maintained. Instead, these constructions must be analyzed as different, separate syntactic configurations.

Concerning infinitival imperatives, the incompatibility with auxiliaries and modals parallels the situation in core imperatives only partially. Observe the following contrasts:

- (551) Core Imperatives
- a. Mangia!
- Eat-imp.2sg
- b. *Hai mangia!
- Have-aux.pres.ind.2sg eat-imp.2sg
- c. *Devi mangia!
- Must-pres.ind.2sg eat-imp.2sg
- (552) Negative Imperatives (second-person singular)
- a. *Non aver mangiare! / *Non avere mangiare!
- neg have.INF eat.INF
- (ungrammatical in the relevant interpretation with jussive force)
- b. Non devi mangiare. (declarative)
- neg must.PRES.IND.2SG eat.INF
- ‘You must not eat’ → Rule
- c. Non devi mangiare! (declarative used performatively)
- neg must.PRES.IND.2SG eat.INF
- ‘You must not eat!’ → Directive (strong prohibition; performative use)
- (553) Generic Imperatives
- a. *Hai allacciare le cinture!
- have.AUX.PRES.IND.2SG fasten.INF the seatbelts ‘*Have fastened your seatbelts!’
- (554) b. Bisogna allacciare le cinture. (declarative)
- must.IMPERS fasten.INF the seatbelts
- ‘One must fasten seatbelts.’ / ‘Seatbelts must be fastened. / It is required that seatbelts be fastened’ → Instruction
- c. Bisogna allacciare le cinture! (declarative used performatively)

must.IMPERS fasten.INF the seatbelts

‘One must fasten seatbelts!’ / ‘Seatbelts must be fastened!’ / ‘It is required that seatbelts be fastened’ →
Instruction with performative reading to interlocutor(s)

Differently from core imperatives, which completely ban modals, infinitives may accommodate modals, unsurprisingly, as showed by the modalized sentences in (552)b,c and (553)b,c. As anticipated, this raises the question of whether infinitival imperatives might be analyzed as elliptical sentences with a silent modal, rather than as syntactically independent constructions. The ellipsis view is empirically and theoretically untenable, and three converging arguments are offered against it.

The first argument is interpretative. Consider first the status of *bisogna allacciare le cinture* as a potential source structure for a Generic Imperative: ~~*bisogna*~~ *allacciare le cinture*. The two constructions are interpretively distinct in a fundamental way. *Bisogna allacciare le cinture* describes a state of necessity in the world: it says that a norm or obligation exists, that it is necessary for seatbelts to be fastened. It is not direct imposition of an action on an addressee. Even when uttered with strong, peremptory prosody, which forces a performative use of the utterance, it remains a description of a necessity at the sentential force level, what Portner (2007) would characterize as a statement about what is required, rather than a structure that directly adds content to the To-Do List of the interlocutor. Performativity arises as the result of prosody and pragmatic enrichment. The Generic Imperative *Allacciare le cinture!*, by contrast, is inherently directive: its jussive force is robustly associated with it and not easily cancellable, therefore encoded in the syntax and not derived from the context. The contrast is the same as that between *tu adesso mangi tutti i broccoli* — a declarative that can be used performatively as a command — and *mangia tutti i broccoli!* — a core imperative whose directive force is not pragmatically derived but structurally encoded. This is shown in the examples below: the latter is a core imperative, as signaled among other things by the core imperative morphology:

- (555) Tu adesso mangi tutti i broccoli.
you.2SG now eat.PRES.IND all the broccoli
‘You are now eating all the broccoli.’ → (performatively used as a command)
- (556) Mangia tutti i broccoli!
eat.IMP all the broccoli
‘Eat all the broccoli!’ → (core directive imperative)

Instead, a *bisogna*-construction, even when employed with directive intent, is at most an indirect reminder whose performative force is contextual. Native speaker judgements converge on this intuition: in a context requiring a genuine order, *Allacciare le cinture!* is the natural choice; *Bisogna allacciare le cinture* would be perceived as a direct command only if pragmatically enriched enough.

Moving on now to a syntactic argument, further evidence against the silent modal analysis comes from embedding. *Bisogna allacciare le cinture* is freely embeddable under attitude and speech predicates:

- (557) Luca dice/pensa/riferisce che bisogna allacciare le cinture.
Luca says/thinks/reports that must.IMPERS fasten.INF the seatbelts
‘Luca says/thinks/reports that one must fasten one’s seatbelts.’
- (558) Penso che tu debba allacciare le cinture.
think.PRES.IND.1SG that you must.SBJV fasten.INF the seatbelts

'I think you must fasten your seatbelts.'

Generic imperatives, as established above, are categorically incompatible with embedding:

- (559) *Luca dice/pensa/riferisce che allacciare le cinture.
Luca says/thinks/reports that fasten.INF the seatbelts
- (560) Penso che tu allacciare le cinture.
think.PRES.IND.1SG that you must.SBJV fasten.INF the seatbelts

If Generic Imperatives were derived from a structure containing a silent *bisogna*, embedding should be possible, but it is not. The two structures are therefore syntactically distinct, and the silent modal, ellipsis analysis is not adequate

A further diagnostic confirms this conclusion: tag questions in Italian signal a proposition with truth-values. Imperatives notoriously cannot be evaluated as true or false:

- (561) Bisogna allacciare le cinture, no? / vero?
must.IMPERS fasten.INF the seatbelts, right? / true?
'One must fasten one's seatbelts, right?'
- (562) *Allacciare le cinture, no?
fasten.INF the seatbelts, right?
- (563) *A mangiare, no?
to eat.INF right?

The grammaticality of (561) and the ungrammaticality of (562) and (563) are telling: *bisogna allacciare le cinture* admits a tag question because it expresses a proposition and is a declarative; *allacciare le cinture!* and *a mangiare!* do not. This holds regardless of the prosodic force with which *bisogna allacciare le cinture* is uttered: even with strong, peremptory intonation, the tag question remains acceptable (possibly a stronger intonational break is needed but it still seems to accept tag questions). Generic imperatives and *a*-Imperatives are therefore not elliptical reductions of any modal or *bisogna*-construction, but syntactically independent constructions whose directive force is inherently and structurally encoded.

A parallel argument applies to negative imperatives and the potential objection raised by the grammaticality of *non devi mangiare* in (552)b,c. Here too, three converging arguments demonstrate that the modalized declarative and the negative imperative are syntactically and interpretively distinct constructions.

(552)b,c is a declarative that describes an obligation. Crucially, this construction is ambiguous between these two readings: it can mean both 'you are not obliged to eat' and 'you are obliged not to eat', depending on the scope of negation with respect to the modal. The negative imperative *non mangiare!*, by contrast, is entirely unambiguous: it has invariably and exclusively prohibitive force, directly imposing a cancellation of the content in the To-Do List of the interlocutor in Portner's (2007) sense. This scopal ambiguity in the modalized declarative, absent in the negative imperative, is itself strong evidence that the two are distinct structures. A silent modal analysis would need to explain why the imperative systematically lacks the reading available to the overt modal construction.

As with the *bisogna*-construction discussed above, *non devi mangiare* is freely embeddable under attitude and speech predicates:

- (564) Ti ho detto che non devi mangiare.
 you.CL.2SG.DAT have.AUX.1SG told that NEG must.PRES.IND.2SG eat.INF

‘I told you that you must not eat.’ / ‘I told you that you don’t have to eat.’

- (565) Penso che tu non debba mangiare.⁶⁰
 think.PRES.IND.1SG that you NEG must.SBJV eat.INF
 ‘I think you must not eat.’ / ‘I think you don’t have to eat.’

The negative imperative, by contrast, is categorically incompatible with embedding under jussive force and appropriate prosody:

- (566) *Ti ho detto di non mangiare!
 you.CL.2SG.DAT have.AUX.1SG told to NEG eat.INF
 (intended: ‘I told you not to eat!’ with jussive force)

If the negative imperative contained a silent *devi*, embedding should be possible. It is not, and the two structures are therefore syntactically distinct. The tag question test yields the same diagnostic contrast observed for Generic Imperatives:

- (567) Non devi mangiare, vero? / no?
 NEG must.PRES.IND.2SG eat.INF right? / no?
 ‘You must not eat, right?’ / ‘You don’t have to eat, right?’
- (568) *Non mangiare!, vero?
 NEG eat.INF right?

Note moreover that the tag question in (567) inherits the ambiguity of the declarative, it can request confirmation of either the prohibitive or the permission reading, whereas no such ambiguity arises with the negative imperative in (568), which has exclusively prohibitive force. This further confirms that the two are distinct constructions, and that the negative imperative is not an elliptical reduction of a modalized declarative with a silent *devi*.

A further and independent argument against the silent modal analysis comes from the distribution of focus. As established in §4.2.8.2, preposed focalized constituents are categorically excluded from all infinitival imperative types. Example (472) is repeated below in (569): observe the contrast between the imperative, and the modalized sentences in (570) and (571), which admit preposed and postposed foci respectively:

- (569) *LA CIOCCOLATA non mangiare a fine pasto!
 (imperative, uttered with appropriate prosody)
 the chocolate NEG eat.INF to end meal
 (intended: ‘THE CHOCOLATE, don’t eat at the end of the meal!’)

⁶⁰ In this example the deontic modal takes subjunctive mood given the presence of the verb *pensare* (‘to think’); this detail is not central to the present discussion.

- (570) LA CIOCCOLATA non devi mangiare a fine pasto.
 the chocolate NEG must.PRES.IND.2SG eat.INF to end meal
 ‘THE CHOCOLATE you must not eat at the end of the meal.’
- (571) Non devi mangiare a fine pasto LA CIOCCOLATA.
 NEG must.PRES.IND.2SG eat.INF to end meal the chocolate
 ‘You must not eat THE CHOCOLATE at the end of the meal.’

The same contrast arises with *bisogna*-constructions and Generic Imperatives:

- (572) I GUANTI bisogna mettere, non la sciarpa!
 the gloves must.IMPERS put.on.inf neg the scarf
 ‘THE GLOVES one must put on, not the scarf!’
- (573) *I GUANTI mettere, non la sciarpa!
 the gloves put.on.INF NEG the scarf
 (intended: ‘THE GLOVES, put on, not the scarf!’)

The unavailability of preposed focus in negative imperatives is therefore a direct argument against the silent modal analysis, and also in favor of the reduced vP structure defended for core imperatives in Chapter 3: if the imperative clause genuinely lacks the higher functional projections associated with the CP domain and the upper TP layer, the absence of preposed focus follows straightforwardly, without any additional stipulation. The focalization data thus converge with the embedding and tag question evidence in demonstrating that infinitival imperatives in Italian are not elliptical reductions of modalized declaratives, but syntactically independent, genuinely reduced constructions.⁶¹

A parallel argument against the presence of a silent verbal head applies to *a*-Imperatives. The hypothesis under consideration is that *A mangiare!* might be derived from a structure containing a silent *andare* (‘to go’), given that the paraphrases of *a*-Imperatives naturally involve this motion verb:

- (574) (Vai / andate) a mangiare!
 go.IMP.2SG / go.IMP.2PL to eat.INF

⁶¹ At this point, one might object that, rather than assuming that imperatives occupy a low position, they could instead be analyzed as targeting High Focus (Rizzi, 1997; Rizzi & Bocci, 2017), given their incompatibility with preposed focus, as well as with questioning and *wh*-elements. However, such an analysis cannot be maintained. As shown, for instance, by Di Domenico (2004), the subject of an imperative can itself be focalized (see also Chapter 1 and 3), and when this occurs it appears postposed, in the same way as postverbal focalized subjects discussed by Belletti (2004).

(i) Porta lo zaino, non la tote bag!
 bring.IMP.2SG the rucksack, NEG the tote bag
 ‘Bring the rucksack, not the tote bag!’ (uttered for instance before a trail run)

More generally, postposed foci are fully compatible with imperatives. Since, at least since Rizzi (1997), it has been assumed that a clause can host only one Focus position, it follows that imperatives cannot themselves move to High Focus. Such an analysis would also conflict with the findings reported by Raffaello in Corpus Study 1 in Chapter 2, as well as with the results obtained for English by Robiatu (2025) and for French by Bressan (p.c., work in preparation), according to which imperatives instantiate structures associated with the first stage of the Growing Trees model proposed by Friedmann et al. (2021).

‘Go eat!’ (singular / plural)

Once again, two converging arguments demonstrate that no such silent *andare* is present in the structure of *a*-Imperatives. The first argument concerns negation. If *a*-Imperatives contained a silent *andare*, negation should behave exactly as it does when *andare* is overt. The relevant oppositions show that this is not the case:

- (575) Non andare a mangiare!
 NEG go.IMP.2SG to eat.INF
 ‘Don’t go eat!’
- (576) Non andate a mangiare!
 NEG go.IMP.2PL to eat.INF
 ‘Don’t go eat!’ (plural)
- (577) *Non a mangiare!
 NEG to eat.INF

When *andare* is overt, preverbal negation is fully grammatical. When the putative silent *andare* is present, preverbal negation is categorically excluded. If the two structures shared the same underlying syntax, this asymmetry would be entirely unexplained. The ungrammaticality of (577) is therefore a direct argument against the silent *andare* hypothesis.

As established above, *a*-Imperatives are categorically incompatible with embedding. Structures with overt *andare*, by contrast, are freely embeddable:

- (578) Luca dice che devo andare a mangiare.
 Luca says that must.PRES.IND.1SG go.INF to eat.INF
 ‘Luca says I should go eat.’
- (579) *Luca dice che a mangiare!
 Luca says that to eat.INF

If *a*-Imperatives contained a silent *andare*, embedding should be possible. It is not, and the two structures are therefore syntactically distinct.

The two arguments converge on the same conclusion: *a*-Imperatives do not contain a silent *andare* in their derivation. The preposition *a* is not the spell-out of a motion verb’s complement, but is plausibly the phonological realization of a low jussive or ingressive-andative aspectual head, in the spirit of Cinque’s (1999) hierarchy of functional projections, as it will be argued for later.

Summarizing, a range of non-negligible syntactic tests indicates that despite the intuitive appeal of an ellipsis analysis, the syntax and interpretation of infinitival imperatives cannot be accounted for via the hypothesis that they contain an elided modal or andative verb.

4.3.2 Ruling Out CP

Having ruled out the ellipsis analysis, the discussion now turns to the crucial point of the present thesis. In Chapter 3, it was argued that core imperatives do not comprise the CP layer and are radically reduced

structures. A natural question follows: do other imperative forms in Italian display the same configuration? In Chapter 3, it was argued that that is the case for suppletive imperatives which take the morphological shape of the second person plural indicative. This chapter deals with infinitival imperatives, however, so the question still definitely still stands, also in light of acquisition data.

Acquisition data clearly point to children's early preference for core imperatives, as evidenced by their early emergence in typologically diverse languages ranging from Italian to Tagalog (Belletti & Guasti, 2015; Garcia et al., 2021), and by their overproduction in null-subject languages (Rossi, 2023; Salustri & Hyams, 2003, 2006). Infinitival imperatives are instead a rare phenomenon. A first hypothesis might therefore be that only core imperatives are radically reduced, while other suppletive imperative forms, such as infinitival imperatives, are not, and instead comprise a fuller functional spine, possibly including the CP layer.⁶²

Despite their different developmental trajectory in child language, infinitival imperatives are argued here not to comprise the CP layer either. The question of how the acquisitional asymmetry between core and infinitival imperatives arises is addressed later in this section; the present discussion focuses on the structural argument for the exclusion of the CP layer.

A convergence comes from other independent proposals in the literature. Just as core imperatives and reduced participial constructions have been shown to converge in their radically reduced clausal size, the latter having been analyzed as reduced structures in the literature by Cecchetto and Donati (2022), as discussed in Chapter 3; it is noted here that the same convergence extends to infinitives. Infinitives may be reduced in a radical sense too, namely they do not comprise CP or are somewhat deficient (Cardinaletti & Shlonsky, 2004; Cinque, 1999, 2004, 2006; Fusco & Sgrizzi, 2026, 2026; Olivier, 2026; Olivier et al., 2023; Satik, 2024; Wurmbrand, 2003, 2014). Crucially for the purposes of the present work, when infinitives are reduced in clausal complements, only deontic modality is available in those complements (Hacquard 2006, 2010; Anand and Hacquard 2013: 839). Anand and Hacquard (2013) illustrate this contrast on the basis of French data, showing that while epistemic readings are available in finite complement clauses, they are systematically excluded in non-finite ones, where only the deontic reading is available, as shown by the contrast between (580) and (581).

- (580) Marie pense qu'elle doit être enceinte.
 Marie think.PRS.3SG that she must.PRS.3SG be.INF pregnant
 'Marie thinks that she must be pregnant.'
 ✓ epistemic: Marie infers that she is probably pregnant
 ✓ deontic: Marie has an obligation to be pregnant (contextually coerced)
- (581) Marie pense devoir être enceinte.
 Marie think.PRS.3SG must.INF be.INF pregnant
 'Marie thinks that she must be pregnant.'
 ✓ deontic: Marie considers it necessary/obligatory to be pregnant
 ✗ epistemic: Marie infers that she is probably pregnant
 [Examples from Anand and Hacquard 2013, p. 839]

⁶² The present chapter is concerned exclusively with Italian infinitival imperatives; no claim is advanced here regarding suppletive imperatives in Italian that take subjunctive verbal morphology, nor regarding parallel phenomena in other languages such as Spanish, which has subjunctive negative imperatives (Rivero 1994a).

Anand and Hacquard (2013) argue that this contrast follows from a structural asymmetry in the representation of modality: building on Cinque's hierarchy, epistemic modality is located above Tense, whereas root/deontic modality is located lower in the clausal spine, as argued by many others in the literature (Abraham, 1983; Abusch, 1997; Cinque, 1999; Hacquard, 2006, 2010; Iatridou, 1990; Picallo, 1990; Stowell, 2004; Tsai, 2015). If infinitival clauses are reduced structures corresponding roughly to TP-sized projections, the absence of the higher epistemic layer correctly predicts the impossibility of epistemic interpretations in (581), while allowing deontic interpretations to remain available.

The same contrast can be illustrated in Italian. In finite complements such as in (582), *dovere* ('must') is ambiguous between an epistemic and a deontic reading. By contrast, in infinitival complements such as (583), only the deontic reading is available, while the epistemic reading is unavailable:

- (582) Maria pensa che debba/deve essere incinta.
 Maria think.PRS.3SG that she must.subj.PRS.3SG be.INF pregnant
 'Maria thinks that she must be pregnant.'
 ✓ epistemic: Maria infers that she is probably pregnant
 ✓ deontic: Maria has an obligation to be pregnant
- (583) Maria pensa di dover essere incinta.
 Maria think.PRS.3SG of must.INF be.INF pregnant
 'Maria thinks that she must be pregnant.'
 ✓ deontic: Maria considers it necessary/obligatory to be pregnant
 X epistemic: reading strongly degraded

This mirrors the French pattern, and this observation is crucial here because it corresponds directly to the fact that when non-finite, infinitival forms appear in isolation in Italian, they automatically receive the sentential force of an imperative (Salvi and Borgato 1991; Di Domenico 2004; Rivero 1994a for Spanish), as seen before in this chapter. This distribution is consistent with the idea that reduced infinitival structures lack the higher functional space required for epistemic modality, thereby forcing an interpretation in terms of lower, root-related (directive/deontic) force. Therefore, if the CP layer is absent, and the other clause types (declarative and interrogatives especially) are encoded there (as extensively argued for instance on the literature on sentence final particles and the original Rizzi 1997 work), then this empirical pattern follows automatically.

The convergence with the low imperative analysis is therefore not negligible: if deontic force is universally encoded low in the functional spine, and if infinitival imperatives in isolation automatically receive a directive interpretation⁶³, and other imperative forms (core imperatives) have been argued to be radically reduced, all of these facts follow under, indeed, a reduced analysis (no CP layer).

⁶³ A possible objection is that infinitival forms in isolation in Italian are not exclusively compatible with a directive interpretation: under appropriate prosodic conditions, and with the addition of a preceding particle, they may also receive an optative reading, expressing the speaker's wish or desire:

(i) Oh, mangiare dei buoni funghi in montagna...
 oh eat.INF some good mushrooms in mountain
 'Oh, to eat some good mushrooms in the mountains...'

A further and independently motivated convergence emerges from the work of Pak et al. (2024). As discussed in §1.3.4, Generic Imperatives are incompatible with indexicals in Kaplan's (1989) sense. Pak et al. (2024, p. 655) observe this pattern in detail in an extended squib that surveys the theoretical issues raised by the data suggesting that the common property shared by all the proposals they advance is that Generic Imperatives have "a deficient context and/or clausal structure." The exact nature of this deficiency is explicitly left open for future research. It is precisely here that the present chapter, and this thesis more broadly, aim to contribute. Among other properties, they ground this claim about Generic Imperatives being deficient structures in their incompatibility of with first and second person pronouns, which are indexicals in Kaplan's sense, as illustrated by the examples discussed in §1.3.4 above. Crucially, these features are licensed by elements in the left periphery (Bianchi, 2006; Sigurðsson, 2004). These empirical data provide independent evidence that the left periphery is absent in these structures, precisely as predicted by the reduced vP analysis developed in this thesis.

Other properties, addressed also for core imperatives in chapter 3, once again support the view that also infinitival imperatives lack CP; they will be discussed in turn below.

Like core imperatives and second-person plural imperatives examined in the previous chapter, all three infinitival imperative types systematically display null subjects. No overt subject is licensed in any of these constructions under a non-contrastive, non-marked interpretation, a property that follows directly from the absence of the higher functional projections of the TP layer that would otherwise provide a position for the subject to surface overtly.⁶⁴

Moreover, interrogative force is uniformly unavailable in all three infinitival imperative types. *Wh*-elements and *why* are categorically excluded, as shown in §1.3.8.1, replicating the pattern observed for core imperatives. This follows directly from the absence of the CP layer: without ForceP and the associated functional projections, the structure has no position to host a *wh*-element or to encode interrogative force.

Preposed focalized constituents are systematically excluded from all three infinitival imperative types, while postverbal foci are marginally acceptable, and then only when an overt alternative is explicitly

In such cases, the optative interpretation is crucially dependent on two conditions that do not apply to infinitival imperatives: the presence of an introductory particle (*oh*, *ah*, and similar), and a prosodic profile that is categorically distinct from the peremptory or rule-stating intonation characteristic of imperative constructions. Absent these conditions, the first and default interpretation of an infinitival form in isolation in Italian remains deontic-directive, consistently with Salvi and Borgato's (1991) characterization. The observations made in the preceding sections therefore stand.

A related form worth noting is *a saperlo...*, (to know.INF-it.CL.3SG), an idiomatic expression in Standard Italian (colloquial register) which is formally similar to an *a*-Imperative but is once again optative rather than directive. Unlike *a*-Imperatives, it freely tolerates a clitic (*a saperlo-**lo***), where *a*-Imperatives strongly resist them, as established in §4.2.3. This difference might stem from the distinct verbal class involved, as *sapere* is stative. A parallel idiomatic form is attested in the Venetan variety spoken in Vicenza, where *saver...* (know.INF can be used in isolation as an optative with appropriate prosody; like *a saperlo...* These forms are idiomatic, and does not constitute a genuine counterexample to the generalization that the default interpretation of an infinitival form in isolation is directive (the author here wishes to warmly thank Guido Formichi and Asya Zanollo for teaching her the Vicenza language variety).

It is possible, however, that the balance between optative and directive interpretations of infinitival forms in isolation varies cross-linguistically. It is the present author's impression that in French, for instance, infinitival forms in isolation may more readily receive an optative reading than their Italian counterparts; consider the French parallel to (i): *manger de bons champignons à la montagne...*

⁶⁴ In this respect, observe the following example:

- (i) Non sta mangiare!
neg stay.IMP eat.INF
'Do not eat!'

Here, *sta* is the imperative form of the auxiliary *stare* 'stay' in Padovano, a Northern Italian variety. As in canonical non-negated imperatives, the subject clitic does not appear, even though it is otherwise required in declarative clauses in this variety. The absence of the subject clitic in the example above therefore suggests that SpecTP is not projected.

provided. This asymmetry between preverbal and postverbal focus replicates the pattern observed for core imperatives and follows from the same structural source: preposed focus requires access to a left-peripheral focus projection, which is unavailable in a reduced structure lacking the CP layer. Postverbal focus, by contrast, does not require such a projection and is therefore marginally tolerated, subject to the additional pragmatic requirement of an overt contrastive alternative.

The distribution of topics in infinitival imperatives displays a clear left-right asymmetry. Right-dislocated topics are freely licensed in all three types, consistently with the availability of low topic positions in the vP periphery (Belletti, 2001, 2004, 2005, 2006). Left-peripheral topics, by contrast, are subject to significant restrictions: Aboutness-Shift Topics are systematically excluded across all three types, while Contrastive and Given/Familiar Topics are in principle admitted but subject to positional constraints. In generic imperatives, a preposed topic is illicit within the same intonational unit and is tolerated only when it constitutes a syntactically and prosodically independent speech act, separated by a strong intonational break. *A*-Imperatives display a parallel pattern, with preposed topics marginal at best. This left-right asymmetry follows directly from the reduced structure analysis: the lower topic positions identified by Belletti (2004) within the vP periphery are available and license right-dislocated topics, while the high left-peripheral topic positions associated with the CP domain are absent, ruling out Aboutness-Shift Topics and strongly constraining the distribution of preposed topics more generally. It is worth noting in this connection that topics are well-known to be recursive: as established in the cartographic literature on the left periphery (Bianchi & Frascarelli, 2010; Frascarelli & Hinterhölzl, 2007; Rizzi, 1997) multiple topic projections may be stacked, each hosting a distinct topic type. The marginal acceptability of some preposed topics in infinitival imperatives, specifically Contrastive and Given/Familiar Topics under very specific prosodic conditions, is therefore not that surprising: these may exploit the recursive low topic positions available within the vP periphery.⁶⁵

Summarizing, a first and fundamental ingredient of the structural analysis developed in the following sections is that infinitival imperatives, like core imperatives, are radically reduced structures. In particular, it is proposed that negative imperatives, generic imperatives, and *a*-Imperatives comprise only vP and minimal structure above it, with infinitival morphology licensing sufficient structure to host negation, unlike the more meagre verbal stem and thematic vowel of core imperatives, which lack even this. The evidence converges from multiple independent diagnostics and the theoretical implications of this conclusion are non-trivial. If both core imperatives and infinitival imperatives are radically reduced, and if deontic modality is cross-linguistically encoded low in the functional spine (Anand & Hacquard, 2013; Hacquard, 2010; Tsai, 2015), then the imperative clause-type and deontic modality converge at the same low portion of the structure, a result that is not accidental but follows from the architecture of the grammar. This conclusion is furthermore fully in line with Portner and Zanuttini's (2003, and related work) view that clause types are marked in the syntax by encoding primitive components of the type's semantics: under the present analysis, the jussive force of infinitival imperatives is not contributed by a high functional head but is an inherent property of the reduced structure itself, encoded at the level where deontic modality is syntactically represented. The question of precisely how much structure each infinitival imperative type projects, and how this interacts with the properties that distinguish them, is the subject of the following sections.

⁶⁵ Whether Aboutness-Shift Topics are exclusively licensed in the CP layer remains an open question that requires independent empirical and theoretical support; what can be stated on the basis of the present data is that their categorical exclusion from infinitival imperatives converges with the broader pattern established here, and is consistent with the hypothesis that the higher portions of the functional spine are unavailable in these constructions.

4.3.3 Architecture and Ingredients

The preceding sections have ruled out an ellipsis analysis, as well as the presence of the CP layer. On these grounds, the present section thus develops the structural analysis of infinitival imperatives, which share a common core and differ minimally, as shown in the following configurations, which will be illustrated point by point, as well as the important consequences of these minimal differences.

- (IT) Negative Imperatives (second-person singular)
 [NegP [JussP [(clitic) [Asp_{Irrealis}P [InfP (clitic) [vP]]]]]]
- (UU) Generic Imperatives
 [(NegP) [JussP [Asp_{Generic/Progressive}P [InfP (clitic) [vP]]]]]
- (VV) *A*-Imperatives
 [JussP [Asp_{Ingressive/Andative}P [InfP (clitic) [vP]]]]

4.3.3.1 The Jussive Phrase

The first claim is that all three types of infinitival imperatives project a Jussive Phrase (JussP), like core imperatives. However, the featural content of JussP, and the aspectual projection it takes as its complement, vary across the three types. These structural differences derive the interpretive and syntactic asymmetries documented in §4.2.

Following Zanuttini et al. (2012), the Jussive head is understood as a feature bundle: rather than encoding a single primitive property, it accumulates the features of the functional projections it passes through in the course of roll-up movement, here assumed in the implementation of Schifano (2018) and Roberts (2019). On the basis of the discussion in the previous section, the Jussive head is a low head situated in the periphery of the vP. Roll-up movement in the sense of Roberts (2019) proceeds from within the vP upward through the functional sequence, with the Jussive head taking up the features of each projection it passes through. The features thereby bundled include person features, number features, and aspectual features. Crucially, what varies across the three infinitival imperative types is which features are available to be bundled, and this variation is directly tied to which functional projections are present in the structure of each type, with direct effects on the acquisition.

Before presenting the individual analyses, a potential objection must be addressed. One might argue that Generic Imperatives and *a*-Imperatives lack the Jussive head altogether, on the grounds that both are impersonal constructions and therefore lack the second-person specification that the Jussive head usually encodes. This objection, despite appealing as it could seem more economical at first glance, is not tenable. Consider the contrast between (584)a and (584)b, b':

- (584) a. Allacciare le cinture.
 fasten.INF the seatbelts
- b. Si devono allacciare le cinture.
 CL.IMPERS must.PRES.IND.3PL fasten.INF the seatbelts
- b'. Bisogna allacciare le cinture.
 must.IMPERS.PRES.IND.3PL fasten.inf the seatbelts

The infinitival imperative in (584)a is unambiguously addressed to the addressee or a set of addressees, in this case everyone who listens to the instruction or reads on a sign, or guide. The impersonal constructions in (584)b, by contrast, are not strictly addressee-oriented but they make a general statement expressing a necessity, obligation and/or rule; crucially, they do not target any participant in the speech event. This contrast cannot be captured without positing a dedicated head responsible for encoding [+addressee] in (584)a, instead of [+participant], as for core imperatives. It could be argued that it is a pragmatic effect that derives that the sentence is addressee-oriented, but this is not a satisfactory explanation in light of the deep syntactic differences seen so far between the forms shown in the examples above and in §4.3.1. Moreover, independent cross-linguistic evidence supports this conclusion: Pak et al. (2024, p. 649) observe that Generic Imperatives in Korean are marked by a dedicated particle that is distinct from the particle found on core imperatives, providing overt morphological evidence that the Jussive projection is present but carries different featural content in Generic Imperatives. Remember that indeed, in Korean, Zanuttini et al. (2012) individuate three different particles on the basis of the features the Jussive head has: second for imperatives, first singular for promissives, and first plural for exhortatives (see examples in Chapter 3).

- (585) Generic Imperative
 Chengnyentul-iyē, yelsimhi sal-la.
 Youth-VOC diligently live-IMP.PLAIN.INDIRECT
 ‘Boys, live diligently!’
- (586) Core imperative
 Atul-a, yelsimhi sal-ala.
 son-VOC diligently live-IMP.PLAIN.INDIRECT
 ‘Son, live diligently!’
 [Examples adapted from Pak et al. 2024, p. 649]

Example (585) is appropriate for contexts such as book titles or class mottos, and it displays the sentence-final particle *-la*. The vocative in this example is interesting: it signifies ‘youth’, while in the core imperative the vocative is directed at a specific addressee. Indeed, even in Italian, generic imperatives may (very) marginally include vocatives, but these typically denote kinds rather than specific individuals, as in *gente!* (‘people/guys!’) or *passaggeri!* (‘passengers!’), as shown below. Intuitively, genericity is at play here, as developed further later.

- (587) *Passeggeri! Allacciare le cinture!*
 passengers.VOC! fasten.INF the seatbelts!
 ‘Passengers! Fasten your seatbelts!’
- (588) *Gente! Allacciare le cinture!*
 people.VOC.! fasten.INF the seatbelts!
 ‘People/Guys! Fasten your seatbelts!’

Instead, negative imperatives, being restricted for second person like core imperatives, are straightforwardly derived as the negated counterpart of this same configuration. What changes is morphology: instead of the thematic vowel, negative imperatives display infinitival morphology, reasonably

triggered by a requirement of negation to attach to a fuller functional structure, since infinitival morphology involves at least one more functional projection encoding it, compared to core imperatives.

4.3.3.2 *Arbitrary Pronouns in the Imperative Clause-Type*

As for Generic Imperatives and *a*-Imperatives, instead, it will be argued that the two types of arbitrary pronouns attested in Italian (Cinque, 1999; I. G. Roberts, 2019) are involved in these constructions. Together with the two additional assumptions already motivated, namely the presence of a Jussive head and a reduced configuration lacking CP, as seen in the sections above, these elements derive the full range of properties associated with such imperatives in a comprehensive way. This analysis is further supported by its plausibility in light of acquisition data.

4.3.3.2.1 *Background: Two Kinds of Arbitrary Interpretation*

The theoretical background for the present analysis involving arbitrary pronouns is provided by seminal work Cinque (1988) and more recently Roberts (2019). Cinque (1988) distinguishes two interpretations of arbitrary *si* in Italian, calling them quasi-universal (Qu- $\forall$) and quasi-existential (Qu- $\exists$) respectively. The two types display systematically different distributional and interpretive properties, which Roberts (2019) summarizes as follows:

Qu- $\forall$ display:

- (i) incompatibility with specific or bounded time reference, including the present perfect;
- (ii) incompatibility with contexts in which a single individual satisfies the description;
- (iii) a typically inclusive interpretation;
- (iv) no restriction to the external argument position.

(589) Si deve bussare piano alla porta dopo le 22.

CL.IMPERS must.PRES.IND.3SG knock.INF softly to.the door after the 22

‘One must knock softly at the door after 10 p.m.’

Qu- $\exists$ arbitrary pronouns, instead, display the following properties:

- (i) compatibility with specific time reference;
- (ii) compatibility with the existence of a single individual satisfying the description;
- (iii) an exclusive interpretation;
- (iv) restriction to the external argument position.

A classic example is the following:

(590) Hanno bussato alla porta.

have.PRES.IND.3PL knock.PST.PRT to.the door

‘Someone knocked on the door’

Both types are pronouns characterized by indefinite D. Crucially, Roberts (2019), following Holmberg and Phimsawat (2017), takes these pronouns to lack a Person specification, having minimal Person as their default: they bear essentially [$\pm$ participant] and nothing more. This point is directly relevant to the analysis of infinitival imperatives developed here. The present work follows Roberts (2019) in this assumption but

extends it: in the imperative structures under analysis, the arbitrary pronoun lacks a Person specification in the sense of Roberts, and it is the Jussive head that shifts this specification to $[\pm\text{addressee}]$, (via the abstractor operator it contains, see Chapter 3 for further details). It is precisely the $[\pm\text{addressee}]$ feature, and the lack of other person features, that is responsible for the sentential force of these constructions and distinguishes them from non-directive impersonal structures such as *bisogna mangiare* or *si mangia*.

The formal mechanism Roberts (2019) proposes for Qu- $\exists$ is unselective local binding by an Aspectual (Asp) head: the arbitrary pronoun, originating in the external argument position, lacks a D-level Person feature and is unselectively bound by the Tense/Aspect features of an Asp head that c-commands it. Crucially, this mechanism is subject to Featural Relativized Minimality (Rizzi, 2013): in unaccusative configurations, the Event argument occupies a position between Asp and the internal argument, and since the Event argument bears temporal/aspectual features, it intervenes and blocks the Asp-binding relation. The arbitrary interpretation is therefore unavailable to the single argument of an unaccusative, which is an internal argument. This restriction to external arguments is a general property of Qu- $\exists$ arbitrary pronouns that extends beyond Italian *si* to null plural arbitrary subjects in Spanish and Hebrew, and to overt they in English arbitrary readings, as Roberts (2019) documents in detail.

The Qu- $\forall$ interpretation, instead, does not arise from unselective binding by Asp and is therefore not subject to the external argument restriction. Roberts (2019) notes this as a crucial prediction: any arbitrary element that is not restricted to the external θ -role will display the Qu- $\forall$ properties. As will now be shown, this prediction is precisely borne out by Generic Imperatives in Italian, where the arbitrary subject is not restricted to the external argument position and displays the full cluster of Qu- $\forall$ properties. This constitutes direct empirical evidence for Cinque (1988) and Roberts' (2019) distinction between these two kinds of arbitrary pronouns, and it is a fact that, to this author's knowledge, has not been previously observed in the literature on Italian imperatives, especially with respect to *a*-Imperatives. For the Qu- $\forall$ interpretation, Roberts (2019) proposes a structurally distinct mechanism, building on a family of similar approaches in Moltmann (2006), Chierchia (1995), D'Alessandro (2010), and Barbosa (2019): he takes the Qu- $\forall$ interpretation to arise from binding by a generic operator GEN located in the left periphery.

4.3.3.2.2 Qu- $\forall$ in Generic Imperatives

The claim advanced here is that the subject of Generic Imperatives in Italian involve a Qu- $\forall$ pronoun: all four Qu- $\forall$ properties identified by Roberts (2019) are instantiated in this construction, and further ones compatible with this view.

First, Generic Imperatives are incompatible with specific or bounded time reference, but it was discussed how they are compatible with an interpretation which amounts to 'always valid' (§4.2.5).

Second, Generic Imperatives are incompatible with contexts that single out a unique individual satisfying the description. The addressee is construed generically, as a representative instance of a type, in that all possible addressees are addressed. This is the Qu- $\forall$ property of incompatibility with a single individual satisfying the description. It was shown in the section about vocatives that only plural pronouns such as *voi* and kinds (Chierchia, 1998) such as *gente* or *passaggeri* are marginally compatible with such forms. The marginal compatibility stems from the reduced structural configuration not admitting the vocative position rather than interpretive properties of the construction itself since there is marginal compatibility with kinds.

Third, the interpretation is inclusive: Generic Imperatives do not exclude the speaker from the scope of the directive. A generic imperative such as *rispettare l'ambiente* (respect.INF the environment) is naturally read as a norm that applies to everyone, including the speaker. This is the typically inclusive interpretation characteristic of Qu- $\forall$.

Fourth, and most crucially, the arbitrary subject of Generic Imperatives is not restricted to the external argument position. This is demonstrated by the compatibility of Generic Imperatives with unaccusative predicates. Unlike *a*-Imperatives, Generic Imperatives impose no such restriction: a sentence such as *arrivare puntuali* under a generic directive reading is fully acceptable. Since unaccusatives lack an external argument, the arbitrary subject in this construction cannot be an external argument but is an internal argument that has undergone A-movement to subject position. The Qu- $\exists$ mechanism of unselective Asp-binding would be blocked by FRM in precisely this configuration, for the reasons established by Roberts (2019). The availability of the arbitrary interpretation in Generic Imperatives with unaccusatives therefore constitutes further evidence that the operative mechanism is not Asp-binding but some other mechanism. It is argued here, in line with Roberts and the above-cited literature, as well as Isac (2015), that a GEN operator in the sense of Chierchia (1995) is at play in Generic Imperatives.

Indeed, a further and, to this author's knowledge, previously unobserved diagnostic property of Generic Imperatives lends additional support to the analysis developed here. Generic Imperatives in Italian are compatible with the omission of determiners in noun phrases that would otherwise require an overt article:

- (591) Non spostare tavoli, divani e poltroncine.
 NEG move.INF tables, sofas and armchairs.
 'Do not move tables, sofas or armchairs.'
 [Written sign found in a library in Pavia, Italy]

(591) is not directed at any specific individual moving any specific piece of furniture: it is a standing norm addressed generically to all potential addressees. Bare plural and bare singular nouns of this kind are typically interpreted as kinds (Chierchia, 1998). The availability of such bare nominals in Generic Imperatives is fully expected under the present analysis: the GEN operator introduced by AspGeneric/Progressive quantifies over situations and, in so doing, licenses kind-level reference in the nominal domain, exactly as the generic operator does in generic declarative sentences (Carlson, 1979; Carlson & Pelletier, 1995; Chierchia, 1995; Filip & Carlson, 1997). This observation connects the analysis of Generic Imperatives to the broader literature on genericity and kinds and provides a further empirical argument for the presence of a generic operator in the structure of these constructions.

Before discussing the structural analysis further, a clarification is in order regarding the nature of the aspectual head posited in configuration (UU), namely the structural configuration of Generic Imperatives. One might wonder whether a habitual aspectual specification would suffice, without the need to invoke a dedicated generic operator. Cinque (1999) provides a direct argument against this reduction. As Cinque (1999) notes, drawing on Dahl (1995), generic and habitual sentences are not equivalent and should be kept separate: habitual sentences describe recurring events and lack the *lawlike* character of generic statements, which can hold of an entity even in the absence of any actual realization. A sentence such as *questa macchina fa i 280 km all'ora* ('this car reaches 280 km per hour') can be uttered appropriately even if the car in question has never been driven (Cinque's example, p. 99). Habitual adverbs are in fact typically incompatible with genuinely generic statements: *whales are usually mammals* is infelicitous precisely because the generic statement does not describe a habit but an inherent property. Following Cinque (1999), the generic operator is taken here to occupy the Specifier position of an aspectual head, whose default value is generic and whose marked value is episodic or progressive. This head is distinct from a habitual aspectual head, and the two should not be conflated. Cinque (1999) further notes that it is not straightforward to identify which adverb class

corresponds to this aspectual head. Possible candidates include *characteristically*, *inherently*, and *typically*. To the present author this difficulty is itself diagnostic of the non-habitual, operator-like nature of genericity.

The connection between genericity and progressive aspect, beyond being intuitively motivated (the progressive in some sense describes a state that holds across an extended stretch of time) finds direct cross-linguistic attestation in the English counterparts of Generic Imperatives. As discussed by Iatridou (2021), English constructions such as *No swimming* or *No smoking* constitute the counterparts of Italian Generic Imperatives: they express standing prohibitions addressed generically to all potential addressees, with no anchoring to a specific individual or time of utterance. Crucially, the verbal form involved is the *-ing* form, namely the English overt morphological realization of progressive aspect. The convergence is not accidental: it reflects the affinity between the generic operator and the progressive aspectual head that Cinque (1999) identifies, but instantiated in the imperative domain. Under the present analysis, the generic operator sits in the Specifier of AspGeneric/Progressive, and it is this configuration that derives the full cluster of properties associated with Generic Imperatives (i-iv).⁶⁶

Recall that infinitival imperatives lack the CP layer. The GEN operator associated with Qu- $\forall$ in these structures is therefore hosted not in CP (as proposed by Roberts 2019 for declaratives) but within the reduced structure available to infinitival imperatives, specifically, in AspGeneric/Progressive. This localization of the GEN operator in an aspectual head rather than in the clausal left periphery finds independent support in Chierchia (1998), who argues that the generic operator is licensed by an aspectual head. If Chierchia (1998) is correct, then the availability of Qu- $\forall$ interpretation in structures that lack a full CP, precisely the structures argued for in this thesis, is not merely consistent with the reduced-structure analysis but is in fact predicted by it: the GEN operator requires an aspectual licenser, and AspGeneric/Progressive provides exactly that, irrespective of whether a CP layer is projected above it. The absence of CP in Generic Imperatives is therefore not an obstacle to Qu- $\forall$ licensing.

This analysis therefore straightforwardly derives the incompatibility of Generic Imperatives with indexicals (Kaplan 1989), independently observed by Pak et al. (2024) and discussed in §§4.2.4 and 4.3.2. The GEN operator introduced by AspGeneric/Progressive universally quantifies over situations and thereby abstracts away from the specific context of utterance. The context parameters on which indexicals depend, namely speaker index, addressee index, world and time of utterance, are precisely the parameters that GEN-binding renders unavailable. The incompatibility with indexicals and the Qu- $\forall$ character of the arbitrary subject are therefore two reflexes of a single structural property: the presence of AspGeneric/Progressive and its role as the local GEN operator in the reduced structure of Generic Imperatives.

A broader theoretical observation emerges from this analysis. On the basis of previous literature (Chierchia 1995; Roberts 2019, *inter alia*), when a generic operator is present in a declarative sentence, the result is a generic sentence (sometimes also called habitual even if Cinque's position on distinguishing them is compelling and adopted here): a proposition that holds generally across situations rather than describing a single bounded event. The present analysis suggests that when a generic operator occurs in a jussive construction, the result is systematically different in illocutionary force but parallel in structural logic: rather than a habitual statement, the output is a general directive: an instruction or rule that holds universally, addressed to the addressee construed generically. This generalization can be stated as follows:

⁶⁶ It should be noted that English *No swimming* constructions (called by Iatridou 'negation-licensed commands', Iatridou, 2021) display further properties not addressed here, most strikingly, the obligatoriness of negation and the disputed nominal vs. verbal status of the *-ing* form (2022), but these fall outside the scope of the present analysis. What is relevant for present purposes is the cross-linguistic convergence between genericity and progressive aspect.

- (592) [+generic, +declarative] → generic assertions expressing a lawlike regularity
 (593) [+generic, +jussive] → instructions, general rules

This is a further instance of the broader principle, discussed in §1.4.6, that constructions are epiphenomenal (Chomsky 1995; Guasti 2017): the same primitive operation (biding by GEN) produces different surface interpretations depending on which functional heads are present in the structure: the Jussive Phrase is responsible for the belonging of the structure to the imperative clause type, and GEN for its generic, always valid interpretation; in this way the postulation of an *ad hoc* generic imperative projection or operator is avoided, a welcome consequence.

4.3.3.2.3 *Qu-∃ in A-Imperatives*

Now, moving on to *a*-Imperatives, the central and novel observation made here is that the other arbitrary pronoun available in Italian, namely *Qu-∃*, is involved: the arbitrary subject of *a*-Imperatives belongs to the *Qu-∃* type, and the evidence consists in the direct instantiation of the relevant cluster of *Qu-∃* properties (i-iv).

A-Imperatives are compatible with specific time reference: *a mangiare!* is directed at the addressee at the specific time of utterance, with no generic or habitual extension across situations. They are compatible with a single individual satisfying the description: the directive targets the contextually identified addressee as a specific individual; it was discussed how *a*-Imperatives are marginally compatible with second person singular and second person plural vocatives. The interpretation is more easily exclusive rather than inclusive: the speaker is not included within the scope of the directive, however the context can also force an inclusion of the speaker, but this is a property of imperatives clauses more generally (Condoravdi & Lauer, 2012). Crucially, the arbitrary subject is restricted to the external argument position, as shown by the incompatibility of *a*-Imperatives with unaccusative verbs (§4.2.9): because the *Qu-∃* mechanism requires an external argument as the target of unselective Asp-binding, and unaccusatives lack an external argument, the Event argument intervenes and blocks the binding relation.

A further diagnostic property distinguishes *a*-Imperatives from both Negative Imperatives and Generic Imperatives with respect to future temporal reference. *A*-Imperatives are incompatible with future-oriented temporal adverbials:

- (594) a. **A mangiare domani!*
 to eat.INF tomorrow
 b. *Non mangiare domani.*
 NEG eat.INF tomorrow
 c. **Rispettare l'ambiente domani.*
 respect.INF the environment tomorrow

Negative Imperatives, as shown in (594)b, freely combine with future-oriented adverbials: the directive can be directed toward an eventuality that is to be realized at a future time. Generic Imperatives, as shown in (594)c, are independently incompatible with future temporal anchoring, but for a different reason: the GEN operator introduced by AspGeneric/Progressive abstracts away from any specific time reference altogether, rendering the directive atemporal rather than future-oriented. *A*-Imperatives, instead, are incompatible with future adverbials not because they abstract away from time but because the AspIngressive/Andative head encodes an immediate, deictic anchoring of the initiation of the eventuality

to the time of utterance. The directive *a mangiare!* instructs the addressee to begin the activity now, and this immediacy is structurally encoded by the AspIngressive/Andative head. A future-oriented adverbial such as *domani* conflicts directly with this temporal anchoring, yielding ungrammaticality. Ingressive and/or andative aspect are one of those categories that are more elusive compared to other aspectual categories, as discussed by Cinque (1999, p. 105). He does not locate it in the Italian functional spine and notes that there are certain languages which mark such aspectual properties overtly. Notably such languages are not Indo-European, interestingly. What is argued here is that the *a* element of *a*-Imperatives is the overt realization of Ingressive/Andative aspect, that in Italian is seen in *a*-Imperatives and, as in those languages mentioned, exactly encoded the initiation of some action and also the distance required to overcome to bring out that action. Note that, as discussed also in Chapter 1, there are languages which mark proximal and distal imperatives, and also immediate, and non-immediate imperatives; *a*-Imperatives instantiate an Italian realization of immediate imperatives in Aikhenval's (2010) sense.

This is compatible with the Qu- $\exists$ mechanism, is compatible with a specific temporal context of utterance (D'Alessandro, 2010; I. G. Roberts, 2019). Instead, the Qu- $\forall$ mechanism operative in Generic Imperatives is not.

The structural analysis in §4.3.3 derives this result directly. The AspIngressive/Andative head in configuration (VV) is the relevant Asp head that licenses unselective binding of the external argument. The arbitrary pronoun bears minimal [$\pm$ participant] features in the sense of Roberts (2019), and it is the Jussive head that contributes [+addressee], ensuring that the sentence is indeed an imperative. The restriction to external arguments follows from FRM exactly as in the general Qu- $\exists$ cases analyzed by Roberts (2019).

The incompatibility of *a*-Imperatives with sentential negation deserves closer attention. As seen in §4.2.6, negation cannot appear above *ta* in declarative constructions either: **non a mangiare* is ungrammatical, while marginal acceptability is attested only when negation follows *a*. This parallelism between the imperative and the declarative domain suggests that the restriction is not an idiosyncratic property of the imperative structure but reflects a more general constraint on the structural position of AspInchoative/Ingressive itself. The inchoative-ingressive or andative aspectual head appears to occupy a position that is too low in the functional sequence to be c-commanded by a NegP: negation, which in Italian is generated in a position above the aspectual domain in the standard cases (Zanuttini, 1997), cannot scope over an element that sits below its base position. That negation is intuitively conceivable in this context (one can perfectly well instruct someone not to begin doing something) makes the ungrammaticality more telling: the restriction must be structural rather than semantic or pragmatic in nature. The precise place of AspInchoative/Ingressive in Cinque's hierarchy of functional heads (Cinque, 1999), and its interaction with the various positions available to negation in Italian and cross-linguistically (Poletto, 2016; Zanuttini, 1997; Zeijlstra, 2004), constitute a question that the present analysis identifies but leaves for future research.

4.3.3.2.4 Interim Summary and Theoretical Implications

The distribution of arbitrary pronouns in infinitival imperatives provides principled support for the structural analysis developed in §4.3 and independently supports Roberts' (2019) distinction between Qu- $\forall$ and Qu- $\exists$. Generic Imperatives involve a Qu- $\forall$ arbitrary subject licensed by the GEN operator introduced by AspGeneric/Progressive, consistently with the absence of an external argument restriction; this derives their incompatibility with indexicals, their inclusive and unbounded interpretation, and their compatibility with unaccusative predicates. *A*-Imperatives involve a Qu- $\exists$ arbitrary subject licensed by unselective Asp-binding of the external argument under AspIngressive/Andative; this derives their exclusive and contextually anchored interpretation, their incompatibility with unaccusative predicates. The two constructions thus instantiate, in a minimally contrastive pair, the two types of arbitrary pronoun distinguished by Cinque (1988) and formalized by Roberts (2019).

The theoretical contribution of this analysis goes beyond the description of Italian infinitival imperatives. The proposal that the arbitrary pronoun bears only [$\pm$ participant] while the Jussive head independently contributes [+addressee] identifies a structural dissociation between the impersonal subject and the directive force of these constructions. This dissociation is what makes Generic Imperatives and *a*-Imperatives imperatives: not the featural specification of their subject, which is by hypothesis no different from that of an arbitrary subject in a declarative, but the presence of the Jussive head encoding [+addressee] in the vP periphery. The sentential force of these constructions is therefore not a property of the pronoun or derived with other stipulative mechanisms but a property of the functional architecture in which it is embedded.

4.3.4 The Clause-Type Squish

So far, the chapter has established a number of syntactic and interpretive properties that characterize infinitival imperatives and distinguish them from (i) core imperatives; (ii) from one another; (iii) from declaratives and interrogatives. This brings us back to a question that has repeatedly surfaced throughout the chapter and that can now be addressed on empirical and theoretical grounds: whether infinitival imperatives are genuine imperatives at all, given their distinct sentential force and their hybrid syntax. It is argued here that the data motivate the rethinking of the relationship between core and infinitival imperatives in terms of a Clause-Type Squish: a continuum along which imperative forms are ordered, from a prototypical core to increasingly peripheral instantiations, rather than a discrete list of major and minor sentence types, as originally proposed in the first systematic work on this matter, namely Sadock and Zwicky (1985).

The notion of prototype adopted here builds on Lowe (2019), who applies a similar logic to finiteness. Lowe argues that finiteness, being notoriously hard to define especially at the cross-linguistic level, is best understood as a gradient property, anchored to a prototypical finite structure from which other forms progressively diverge. The present proposal extends this insight from the domain of finiteness to that of clause type. The intuition is not new: Pottier (1974) already argued for gradient category membership in natural language, and Ross (1972) proposed the well-known Category Squish to capture the fact that nominal categories do not fall into discrete classes but form a continuum. Crucially, however, Ross's squish concerned categories within D and V elements, what is proposed here is a squish across clause types, indeed a Clause-Type Squish.

The starting point is the observation that infinitival imperatives share a cluster of syntactic properties with core imperatives that clearly set them apart from declaratives and interrogatives. As established in the preceding sections, these include: non-finite morphology, incompatibility with embedding, incompatibility with auxiliaries, incompatibility with Tense, incompatibility with *wh*-elements and *why*, and a sentential force that is robustly directive (even with the differences derived from the structural analyses argued for in this chapter). These properties cannot be attributed to declaratives or interrogatives, and their presence in infinitival imperatives is precisely what justifies classifying the latter as imperatives in the first place. At the same time, as also established above, infinitival imperatives diverge from core imperatives along several dimensions: their sentential force shows interpretive nuances (discussed in §§1.4.2–1.4.5), their aspectual properties differ, Generic Imperatives are incompatible with indexicals (§1.3.4), and *a*-Imperatives exclude future reference (§1.4.3). These are not negligible differences. The picture that emerges is therefore one of hybrid syntax: infinitival imperatives are structures that retain core imperative properties while simultaneously displaying features that move them toward the declarative end of the clause-type continuum. It would be unwarranted to classify them as declaratives: the intuition that *A mangiare!* is not a declarative, still less an interrogative, is robust.

As seen in Chapter 1, this hybrid syntax is not an isolated phenomenon. Suppletive imperatives in Spanish, for instance, admit *que* ('that'), select the subjunctive, and allow embedding, properties that are altogether absent in core imperatives, yet they retain a directive force that is unambiguously imperative. The same logic applies: these forms too occupy a position along the squish, displaced from the core but not completely out from the imperative domain. That this 'hybrid syntax' pattern recurs cross-linguistically has been noted in the typological literature as well (Aikhenvald, 2010, 2017; Xrakovskij, 2001).

As anticipated, the clause-type squish connects to the broader question of major and minor sentence types raised by Sadock and Zwicky (1985):

"The description of a language should make mention of minor sentence types."

(Sadock & Zwicky, 1985, p. 157)

*"The significance of these interrelationships among the various families of sentence types is not well understood. It is clear that the prosodic, morphological, and syntactic resources of language are by no means fully utilized in distinguishing different sentence types, so that **there are frequently similarities among them**, and it is obvious that which types are similar differs to some extent from language to language. These relationships should be noted in any description of the sentence-type system of a language."* (Sadock & Zwicky, 1985, p. 160, my emphasis)

The present work is intended as a contribution in this spirit, namely understanding more about the relationships between clause-types and ultimately what our language faculty allows us to compute, with the aim also of also going beyond descriptive taxonomy. Rather than a stipulated list of major and minor sentence types, crucially a list whose principled basis remains unclear, the Clause-Type Squish is intended as a structured, modular representation of the relations among clause types. This has direct consequences for learnability: a continuum anchored to a prototype is a significantly more tractable object for acquisition than an unordered list of constructions, in accordance to current generative assumptions, *pace* constructivist approaches (Guasti, 2017). It is far more natural to assume that the child gains access to the core imperative first, given its impoverished morphosyntax (see §§1.1–1.2) and the peripheral forms along the squish are acquired subsequently, as the child extends its grammatical knowledge outward from the prototype. The acquisition data presented in Chapter 4 are consistent with precisely this prediction.

This is where the proposal acquires potential explanatory force, and not merely descriptive adequacy. Under the generativist framework adopted here, constructions are epiphenomenal: they do not have independent representational status but result from the selectional properties of lexical items and from the application of primitive combinatorial operations, namely Merge and Move (Chomsky 1995, 2001; see also Guasti 2017, pp. 34–35). As Guasti (2017) notes in discussing interrogatives and relative clauses, the operations that derive a given construction are not specific to that construction but are shared across the grammar. The same holds for imperatives: the mechanisms operative in core imperatives are also operative elsewhere in the grammar, and what distinguishes peripheral imperative forms from the core is the progressive enrichment of a radically minimal structure, not comprising the full TP and CP layer. In the case of imperatives, forms that are closer to the core retain the more minimal structure; forms that are more peripheral have progressively more material. The squish, in other words, falls out of the architecture of the grammar rather than being stipulated independently of it. This suggests a path toward explanatory adequacy, the goal of generative grammar in the sense of Chesi (2025a, 2025b) and it is a path that the learnability considerations outlined above help to motivate: if the child's grammar is structured around prototypes and extends outward along the squish, the acquisition trajectory is derived rather than learned by analogy from exposure to individual construction types, as usually assumed in usage-based and constructivist approaches to language acquisition.

4.4 CONCLUSIONS

The present chapter opened with an apparent puzzle: how can the same infinitival form, in isolation or combined with non or a, yield such systematically different interpretive and syntactic outputs? The three dimensions of variation identified at the outset, subject interpretation (A), illocutionary force (B), and syntactic asymmetries (C), have now received a unified structural derivation. The different subject interpretations follow from the interaction between the featural specification of the Jussive head and the type of arbitrary pronoun licensed in each configuration: a Qu- $\exists$ pronoun bound by unselective Asp-licensing in Negative Imperatives, a Qu- $\forall$ pronoun bound by the GEN operator in AspGeneric/Progressive in Generic Imperatives, and a Qu- $\exists$ pronoun with number-underspecified Jussive features in a-Imperatives. The different illocutionary forces in (B) follow from the aspectual head selected by the Jussive head in each configuration: AspIrrealis yields prohibition, AspGeneric/Progressive yields a standing rule or instruction, and AspInchoative/Ingressive yields an immediate exhortation anchored to the time of utterance. The syntactic asymmetries in (C), including the ban on indexicals in Generic Imperatives (Pak et al. 2024), the restriction on unaccusative predicates in a-Imperatives, the incompatibility of a-Imperatives with future-oriented adverbials, and the structural impossibility of sentential negation in a-Imperatives, all follow from independently motivated properties of the relevant aspectual heads and their position in the functional sequence, without any construction-specific stipulation. The puzzle is resolved: what appeared to be three unrelated surface patterns are the reflex of a single underlying architecture, in which a low Jussive head in the vP periphery bundles different sets of features through roll-up movement across three structurally minimal but interpretively distinct configurations.

This chapter took also took an empirical puzzle explicitly identified by Pak et al. (2024): Generic Imperatives are incompatible with indexicals and therefore have a deficient context and/or clausal structure, but that the exact nature of this deficiency had not yet been worked out. The present has addressed this puzzle: the three dimensions of variation identified at the outset (subject interpretation, illocutionary force, and syntactic asymmetries) have received a unified structural derivation from three independently motivated ingredients: a Jussive head located in the vP periphery, a reduced clausal domain lacking CP and TP, and the two types of arbitrary pronoun distinguished by Cinque (1988) and formalized by Roberts (2019). No construction-specific stipulations are required. The deficiency is not a theoretical residue but a structural property that is derived, and that derives in turn the full range of empirical properties documented in §§4.1–4.4.

Across all three infinitival imperative types, directive force is not introduced by an external modal or by a silent propositional operator: it is structurally encoded by a Jussive head that bundles person and aspect features through roll-up movement in the sense of Roberts (2019) and Schifano (2018), following the feature-bundle approach of Zanuttini et al. (2012). The variation among the three types reduces to the interaction between this head and three distinct aspectual projections: AspIrrealis in Negative Imperatives, AspGeneric/Progressive in Generic Imperatives, and AspInchoative/Ingressive in a-Imperatives. Each aspectual head independently licenses a different type of arbitrary pronoun, Qu- $\exists$ in Negative Imperatives and a-Imperatives, Qu- $\forall$ in Generic Imperatives, and it is this interaction that derives the attested subject interpretations, illocutionary forces, and syntactic restrictions without further stipulation. The analysis is deeply cartographic in its architecture, building on Belletti's (2004) low vP periphery and on Cinque's hierarchy of functional heads (Cinque 1999), while remaining fully compatible with minimalist concerns about economy and derivational simplicity (Chomsky 1995, 2001).

The structural analysis developed in this chapter also bears directly on the acquisition data discussed in Chapter 2 and in §4.2.11.2. The developmental trajectory observed across the three infinitival imperative types is not arbitrary: it follows from the relative structural complexity of each configuration, and the present

analysis provides a principled account of it. The core imperative constitutes the prototype in the sense of Lowe (2019): it is the structurally most impoverished form, involving only the Jussive head and a minimal vP complement, and it is the form that emerges earliest in acquisition and proves most diachronically stable (Aikhenvald 2010). Infinitival imperatives occupy progressively more peripheral positions along a Clause-Type Squish (§4.3.4), and their later and more variable acquisition follows from their greater structural complexity. Negative Imperatives involve an additional NegP projection above JussP and an irrealis aspectual specification: negation carries an independent processing cost (Dale and Duran 2011), and the infinitival desinence adds a syllable relative to the core imperative form, including the phonologically marked segment /r/, which is independently known to be challenging in early production (Guasti 2017). These two factors together account for the attested pattern whereby children produce Negative Imperatives later than core imperatives and occasionally with non-target negative and verbal forms, including reduced and impoverished morphology, during the relevant acquisition stage. Generic Imperatives present a further layer of complexity: AspGeneric/Progressive introduces a non-default, non-episodic aspectual specification and a generic operator that must be computed over properties rather than propositions, a more demanding interpretive operation than the *irrealis* specification of Negative Imperatives. The later emergence of Generic Imperatives in child Italian is therefore expected. A-Imperatives, finally, involve AspInchoative/Ingressive, which encodes a specific temporal anchoring, the immediate initiation of an eventuality at the time of utterance, that is absent from the core form and from the other infinitival types. This too predicts later acquisition relative to the core. The aspectual default in early acquisition appears to be a two-way contrast between perfective-*realis*, for descriptions of past completed events, and *irrealis*, for future-directed directives, as proposed in Chapter 2 on the basis of Salustri and Hyams' (2003, 2006) and Berger-Morales and Salustri (2003) data: these two values correspond to the structurally simplest aspectual specifications available in the system, and the more marked values (generic/progressive and inchoative/ingressive) are acquired as the child's grammar extends outward from the structural prototype. This developmental sequence thus follows the clause-type squish: the child does not acquire a list of imperative construction types, but builds incrementally outward from a minimal core, adding structural layers as the grammar matures.

The acquisition results are also relevant to the ongoing debate between the Growing Trees framework (Belletti et al., forthcoming; Friedmann et al., 2021) and the Neo-Emergentist approach (Bosch, 2023; Bosch & Biberauer, 2024), discussed in detail in Chapter 2. The two frameworks make divergent predictions about the availability of the CP layer in early child language: absent from the earliest stage under Growing Trees, present from the onset under Neo-Emergentism. A potential objection must be addressed at this point. One might ask: if the first Growing Trees stage already includes vP and TP, why do the more fine-grained aspectual distinctions instantiated by Generic Imperatives and *a*-Imperatives arrive even later still, even if technically they would be first stage structures in that they do not comprise the CP layer? The objection has force, but it is not unique to the present data. It is well established that the Italian imperfect, with its complex modal and temporal properties, arrives later in child Italian despite being a tense form (Belletti & Guasti, 2015; Ippolito, 2004). Likewise, as seen in Chapter 2, modals, usually associated with the TP layer, emerge after the overproduction stage in spontaneous production, namely when most children are beyond the first stage. The present proposal is that the Growing Trees framework and the Neo-Emergentist framework are not mutually exclusive with respect to this class of phenomena: the Growing Trees approach makes the precise and empirically well-supported prediction that CP arrives after vP and TP, which is the crucial structural difference relevant to the present analysis. But this does not preclude the possibility that, within the portions of the tree corresponding to each stage, finer-grained distinctions develop gradually as the child's grammar matures, as signaled by the acquisition of modals and imperfect

modality. It is argued here that this is the case for the more fine-grained aspectual distinctions instantiated by Generic Imperatives and *a*-Imperatives: they are not CP phenomena, but they involve structural and interpretive complexity, instantiated by a generic operator, and an inchoative-ingressive temporal anchoring, that is not available at the earliest stage of vP development and that is acquired incrementally.

The present chapter also contributes to a line of research (Radford, 2018; Rossi & Sgrizzi, 2025; Sadock & Zwicky, 1985) which suggests that peripheral and minor sentence types are important empirical domains in which theoretical predictions can be tested, refined, and sometimes revised in ways that the exclusive study of core constructions would not permit. Had the analysis stopped at core imperatives, the presence of two distinct types of arbitrary pronoun in the Italian imperative domain would have gone undetected. Had *a*-Imperatives been set aside as an idiosyncratic peripheral form, the structural and interpretive role of AspInchoative/Ingressive, and its interaction with the restriction on unaccusative predicates, would have remained invisible. Had Generic Imperatives been treated as a minor or marginal phenomenon, the connection between the generic operator, kind-level nominal reference, and the ban on indexicals, a connection that provides independent support for Roberts' (2019) theoretical distinction between $Qu-\forall$ and $Qu-\exists$, would not have been established. The study of these forms thus contributes not only to the description of Italian but to the theory of the grammar more broadly.

Chapter 5 - Conclusion

5 CONCLUSION

5.1 THE STARTING POINT: A TENSION BETWEEN THEORY AND DATA

A fundamental way in which science progresses is through discrepancies between theory and data. The present dissertation began from precisely a tension of this sort.

The dominant tradition in the generative analysis of imperatives locates the imperative verb in the CP domain, whether in Force (Belletti 1999; Platzack and Rosengren 1998; Rivero 1994; Rivero and Terzi 1995), in Top (Di Domenico 2004), or in some other left-peripheral position that is not otherwise specified (Rooryck, 1992), or generally C, in pre-cartographic analyses which predate Rizzi (1997). At the same time, the acquisition literature establishes, with considerable robustness and across typologically very diverse languages, that positive second person singular imperatives emerge among the very first verbal forms in child production. Imperatives appear at the onset of the two-word stage in Italian (Belletti and Guasti 2015; Salustri and Hyams 2003, 2006), in Spanish and Catalan (Grinstead 1998; Salustri and Hyams 2006), in Egyptian Arabic (Omar, 1973), in Hebrew (Berman, 1985), in Tagalog (Garcia et al., 2021), and in Ku Waru (Rumsey, 2003); as the empirical landscape widens, the prediction is that the same will apply to many other languages. Moreover, imperatives are structures children like: in Italian, Salustri and Hyams (2003, 2006) document an overproduction stage in the first half of the second year of age in which imperatives constitute approximately 40–78% of early verbal utterances in individual children, against 14.9% in child-directed speech and 5.6% in adult-directed speech.

The Growing Trees framework (Friedmann et al. 2021; Belletti et al. forthcoming) makes the above-mentioned-tension explicit and precise. Building on Rizzi's (1997) exploded articulation of the left periphery, and replicated across Italian (Moscati and Rizzi 2021; Casadei 2024), Czech (Matiasovitsová et al., 2022), Brazilian Portuguese (Meira & Grolla, 2023), Russian (Reznick & Friedmann, forthcoming), and English (Robiatu, 2025), the framework observes that syntactic acquisition proceeds in strictly bottom-up maturational stages: vP and IP are available at the first stage, the lower CP layer at the second, and the higher CP layer only at the third. These stages form Guttman scales (Guttman, 1944, 1950): the production of a third-stage structure does not occur before second-stage and first-stage structures are attested, and the developmental sequence is the same for every child. This is the crucial point; only the timing varies individually.

Three acquisition puzzles follow directly. First: if imperatives require CP, they should be third-stage structures, yet they are attested as first-stage structures in Italian, as seen in Chapter 2 of thesis. Second: the overproduction of imperatives in null-subject languages parallels the overproduction of RIs in non-null-subject languages at the same developmental stage and at comparable rates (Salustri & Hyams, 2003, 2006; Wexler 1994). RIs have been analyzed as truncated structures lacking the CP layer (Rizzi, 1993/1994), and imperatives share a remarkable cluster of morphosyntactic properties with them. If imperatives require CP while RIs lack it, this developmental and grammatical parallel is unexpected. Third, RRCs in Italian, which involve a Force head combined with the absence of intermediate TP projections, are virtually absent from children's spontaneous production even at ages 7 and 8 (Contemori & Belletti 2014; Belletti 2024, 2026). If imperatives instantiate a developmentally and grammatically parallel configuration (Salustri & Hyams, 2003, 2006) their very early overproduction is unaccounted for.

5.2 THE RESPONSE: A LOW ANALYSIS AND ITS EXTENSIONS

The response developed across Chapter 3 and 4 of this dissertation is a low analysis of Italian imperatives. The core proposal is that positive, second person singular imperatives, hence the *core* imperative form, are radically reduced structures: they do not project CP or TP, but consist of vP and a small set of

functional projections in the vP periphery in the sense of Belletti (2004). The structure of the core true imperative is:

- (595) [JussP [ImpP [TopP [FocP [vP...]]]]]

The CP layer is radically absent from the derivation in the technical sense of Cecchetto and Donati (2022). In this light, it follows that the three acquisition puzzles immediately dissolve: imperatives are attested before CP because they do not involve CP; they are developmentally parallel to RIs because both are low structures not involving higher layers; and they contrast with RRCs because the latter involve an internally reduced configuration (Force present, TP absent) that violates the implicational logic of bottom-up development (Belletti, 2024, 2026).

The full cluster of morphosyntactic properties established in Chapter 1, namely morphological impoverishment, null subject restricted to the addressee, enclisis, incompatibility with embedding, questioning, *wh*-elements, auxiliaries and modals, and the negation asymmetry between true and suppletive forms, therefore follow from the combination of this low structural analysis with the independently motivated ingredients. Such ingredients are: JussP, following Zanuttini et al. (2012), relocated to the vP periphery; ImpP, following Belletti (1999) and Kayne (1991), where imperatives check their (impoverished) morphology, and the low Topic and Focus projections of Belletti (2004). Imperative force is not encoded by a dedicated [imp] feature in C, as in Platzack and Rosengren (1998), but arises compositionally from the denotational type of the structure (a property of individuals rather than a proposition, in line with Portner, 2007) in interaction with the Jussive head, which restricts the subject to second person, namely the addressee.

In Chapter 4, the analysis is extended to the three types of infinitival imperatives: Negative Imperatives, Generic Imperatives, and *a*-Imperatives. It is argued that each instantiates very similar low structural architectures, but with different aspectual specifications. The structural configurations are:

- (4) Negative Imperatives: [NegP [JussP [(clitic) [AspIrrealisP [InfP (clitic) [vP]]]]]]]
 (5) Generic Imperatives: [(NegP) [JussP [AspGeneric/ProgressiveP [InfP (clitic) [vP]]]]]
 (6) *A*-Imperatives: [JussP [AspInchoative/IngressiveP [InfP (clitic) [vP]]]]

The variation among the three types reduces to the interaction between the Jussive head and three distinct aspectual projections, the latter two licensing a different type of arbitrary pronoun, Qu- $\exists$ in *a*-Imperatives, Qu- $\forall$ in Generic Imperatives, in the sense of Cinque (1988) and Roberts (2019). The distribution of arbitrary pronouns in the Italian imperative domain constitutes a novel empirical observation in the literature, and provides independent support for Roberts' (2019) theoretical distinction between the two types. No *ad hoc* stipulations for each construction are required: the full range of interpretive and syntactic properties documented in Chapter 4 follows from the interaction of these ingredients.

5.3 THE ACQUISITION TRAJECTORY AND THE CLAUSE-TYPE SQUISH

The core true imperative, the structurally most impoverished form, involving only the Jussive head and a minimal vP complement, constitutes the prototype in the sense of Lowe (2019). It is the form that emerges earliest in acquisition, that is diachronically most stable (Aikhenvald 2010), and places the minimal demand on the developing grammar. Infinitival imperatives occupy progressively more peripheral positions along a clause-type squish, a notion inspired by Ross's category squish and Lowe's notion of prototype. Later and more variable acquisition follows from their greater structural complexity: each involves an additional

functional projection, an additional aspectual specification, and in the case of Generic Imperatives a GEN operator.

The *passepartout* proposal advanced in Chapter 2 addresses the interpretive dimension of the overproduction stage. Positive imperatives are exploited since they are morphologically, and also structurally, minimal forms that are overextended across a wide and underspecified range of illocutionary forces, in a manner analogous to holophrastic speech in pre-verbal development. The end of the overproduction stage marks the beginning of a progressive redistribution of illocutionary forces across dedicated grammatical forms, with modal verbs taking over the expression of further directive and modal meanings. The child first acquires a single, computationally-light form and continues to overextend it across the full range of directive (and further) meanings; it then progressively restricts its use to the target illocutionary force as the modal system becomes available. A further point of tension emerged between participles and imperative: Bhatt et al. (2025) argued that perfective aspect in radically reduced bare participles is the default aspect, while the imperative overproduction stage would point towards imperatives being the default structures and their irrealis aspect being the default aspect (Cecchetto and Donati 2022; Viganò, Cecchetto and Donati 2025; Bhatt et al., 2025). It is proposed that the complementary distribution of imperatives and bare participles in early Italian are argued to be the two default forms of the child's early grammar, encoding the basic aspectual contrast between unrealized and realized events (*irrealis* vs. *realis*), as shown by data from Salustri and Hyams (2003, 2006 and Berger-Morales and Salustri (2003).

5.4 OPEN QUESTIONS AND FUTURE DIRECTIONS

Several questions identified in the course of the analysis remain open and constitute directions for future research.

The most technically immediate concerns clitic climbing in Negative Imperatives of the second person singular, discussed in §4.5. The asymmetry between them, which displays clitic climbing, and Generic Imperatives with negation, which do not, resists a straightforward derivation within the present framework and will require a detailed investigation of the syntax of clitics and negation in the imperative domain, including engagement with Tobler-Mussafia effects in Old Italian (Poletto, p.c.; Rivero and Terzi 1995).

The second concerns the status of the element *a* in *a*-Imperatives. Two analyses remain viable, *a* as the phonological realization of *AspInchoative/Ingressive*, and *a* as a low complementizer.

On the acquisitional side, the most immediate direction concerns experimental investigation of the production and comprehension of infinitival imperatives. The corpus data establish that Generic Imperatives and *a*-Imperatives are absent from spontaneous production at the overproduction stage; elicitation tasks and comprehension tasks across different imperative types, with the prediction that forms more distant from the core prototype emerge later in both production and comprehension, would provide the experimental complement to the corpus evidence presented in Chapter 2. A parallel investigation with children with Developmental Language Disorder (DLD) would be revealing: given Rice et al.'s (1995) Extended Optional Infinitive account, Italian-acquiring children with DLD are predicted to show a prolonged imperative overproduction stage, a hypothesis testable both via corpus analysis and via elicitation.

A further acquisitional direction concerns non-canonical imperatives: Rhetorical Imperatives, and other non-canonical uses of the imperative (Holvoet, 2020; Rossi & Formichi, forthcoming). These are entirely absent from the corpus data and, under the clause-type squish, are predicted to emerge considerably later than core imperatives, requiring not only the structural prototype but also pragmatic and interpretive machinery that develops later in the child's grammar. Elicitation and comprehension tasks targeting these forms, across different age groups including adolescents, would constitute a significant extension of the empirical base.

The cross-linguistic dimension of both the structural analysis and the acquisition trajectory deserves systematic investigation. The clause-type squish has been developed here on the basis of Italian data, with extensions to Spanish and French; a cross-linguistic investigation of how different languages instantiate the continuum between core and peripheral imperative types, including languages with overt morphological markers of the distinctions analyzed here test the generality of the proposal. The acquisition data are similarly restricted in their empirical base: as Singh et al. (2025) note, approximately 90% of children in the world are outside the experimental samples currently available in the acquisition literature, and the robustness of the cross-linguistic claims made here would be strengthened by data from typologically diverse and currently underrepresented languages, including those from low-to-middle-income countries.

Moreover, a further direction concerns ergativity and the diachronic dimension of imperatives. Imperatives tend to be diachronically conservative structures over time, often preserving ergative case distinctions that are otherwise lost in the verbal paradigm (Aikhenvald, 2010; Dench, 1991, p. 204; R. M. Dixon, 1972, pp. 135–136). This observation could be fruitfully connected to recent proposals that identify reduced VPs as an ergative core of grammar (Bhatt et al., 2025), even in languages that otherwise display a nominative–accusative case system.

Finally, the language model investigation presented in Chapter 2 is preliminary and points toward a productive direction for future work. Generic Imperatives are the least predictable imperative type for the models; the model trained on child-directed speech shows the most consistent alignment with the Growing Trees developmental stages. These results invite a more systematic investigation with more cognitively plausible architectures, and longitudinal evaluation across training epochs for individual imperative subtypes.

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7 APPENDICES

7.1 APPENDIX A

7.1.1 Yes/No questions

Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19	x	2			
20		4 + 10F		2 + 1F	
21	x	2 + 3F			
22	1F	4 + 6F		13	
23	2	7+ 8F	x	3 + 1F	
24	2		2F	5	
25	2 + 4F	5 + 1F	19 + 8F	8 + 3F	
26					
27	3	20 + 6F			
28	6 + 5F		x		
29	17 *		24 + 16F	8	
30	9				
31	31		2		
32	22		10 + 1F		
33					
34			3 + 7F		

Table 20: Occurrences of yes/no questions in the data. A number followed by ‘F’ represents the fragments of yes/no questions with the appropriate illocutionary force. Where an ‘x’ is present, no relevant structure appeared in the transcript. A blank space, instead, specifies the absence of data.

Yes/no questions were looked at as they are manifestation of the Q/Foc head (Rizzi & Bocci 2017), hence indication that the child is in her second Growing Trees stage. In the data, two kinds of yes/no questions emerged: full-fledged ones (like 9 and 10), and others that carry the appropriate illocutionary force, but consists only of a fragment of what would be a full question, hence displaying only of one or two morphemes at best, as in 11):

(596) Diana, 22 months (full yes/no question):

‘Luca hai visto la mosca?’

Luca-VOC have-AUX.PRES.IND.2SG seen-PART.PST the fly?

‘Luca have you seen the fly?’

you-CL-2SG stop-IMP=you-CL-2SG

Above, in (596), Diana produces a full yes/no question, also endowed with the vocative ‘Luca’, before her second year. Another example from Viola is reported below:

(597) Viola, 32 months (full y/n Q):

‘va via?’

goes-IND.PRES.3SG away

‘Is he going away?’

Now, an instance of a “fragment question” is reported below (598). The interactional setting has been inquired by reading the relevant part of the transcript and is the following: Raffaello has just bitten into a strawberry and his mother is encouraging him to ask the investigator if the latter wants some of it (599):

(598) Raffaello, 22 months (fragment of a Y/N Q):

‘po?’

some-QNT

‘Some?’

(599) Context:

*MOT: senti se ne vuole un po’ .

*CHI: po’ ?

%act: va verso OBS e gliela mostra

*INV sì .

*MOT: senti se ne vuole un po’ .

hear-IMP if he wants some of it

*CHI: po’ ?

some?

%act: va verso OBS e gliela mostra

action he goes towards the observator/investigator and shows it to him

*INV sì .

yes.

It emerges from the immediate context and by reading the relevant transcript that the child is uttering a fragment with interrogative force. He is well aware of the interactional setting he is in: he understands that his mother is requesting him to ask the investigator if he wants some strawberry. In fact, he goes towards the addressee and shows the bitten strawberry to him, while asking (as denoted by the dependent tier “%act”). He

produces only the morpheme *po'* ('some'), instead of the full question which would be *ne vuoi un po'?* ('do you want some?'). Another index of the fact that the utterance is indeed a primitive yes/no question is provided by the addressee himself: the investigator answers 'yes'.

However, it is not clear if such fragments indeed activate the Q/Foc head, hence they are signaled in this appendix for completeness, without considering them as proper manifestations of Q. It is interesting to notice that in Raffaello and Viola's production these interrogative fragments emerge before full Yes/No questions (respectively at 22 and 24 months), while for the other children we find emergence of both at the same time.

7.1.2 Wh-questions

Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19	X	1			1
20		4		2	6
21	X	x			
22	X	3		3	6
23	X*	7	1	2	11
24	X		1	2	3
25	3	5	6	15	29
26					
27	2	9			11
28	5		2		7
29	8		18	6	32
30	15				15
31	11		10		21
32	9		23		32
33					
34			1		1

Table 21: Occurrences of wh-questions in the data. Where an ‘x’ is present, no relevant structure appeared in the transcript. A blank space specifies the absence of data for that month.

The manifestation of the Q/Foc head was inquired by looking at *wh*-questions as well. We can appreciate how every child except Raffaello utters a *wh*-question in the very first transcript available for inquiry. Therefore, Diana is already in her second Growing Trees stage at 19 months, Viola at 23 months, and Martina at 20 months. Notice that Viola’s data is available from 23 months onwards, a little later compared to the other children, so we do not know whether she had already acquired such questions before her 23rd month or if indeed she enters her 2nd stage a little later compared to Martina and Diana.

A couple occurrences found in the data are worth mentioning. Diana at 23 months utters the following question, where *la palettina* (the small shovel) has been topicalized:

(600) Diana, 23 months (*wh*-question with a preposed topic):

‘La palettina dov’ è?’

the-DET small shovel where is-IND.PRES.3SG

‘The small shovel, where is it?’

Another aspect worth signaling is the following: notice that Raffaello's 23rd month has an asterisk in the table. In this month an unclear *wh*-question was found. It will be mentioned here but is has not been counted.

(601) Raffaello, 23 months (unclear *wh*-question)

'Che è?'

that is-IND.PRES.3SG

From the context it would seem that the child was actually trying to say *chi è* (who is it), however one cannot be completely sure:

(602) Context of 13

*CHI: *che è ?*

*ALE: *chi è?*

*MOT: *oh , scemo !*

*MOT: *batto nel pavimento anche se non dici chi è .*

*MOT: *non importa (.) .*

*CHI *è duro .*

%act *vuol girare una manopola del video , non ci riesce*

*CHI: *che è ?*

that is?

*ALE: *chi è?*

who is it?

*MOT: *oh , scemo !*

oh, silly !

*MOT: *batto nel pavimento anche se non dici chi è .*

I hit the floor even if you don't say who it is.

*MOT: *non importa (.) .*

doesn't matter

*CHI *è duro .*

it is hard

%act *vuol girare una manopola del video , non ci riesce*

he wants to turn a control knob of a video, he does not succeed

On the one hand Ale and the mother utter *chi è?* a couple of times, with the mother explicitly saying that she will hit the floor if Raffaello does not ‘say who it is’. Probably they refer to someone in a video, maybe even Raffaello himself. In this light, Raffaello’s *che è* utterance could seem like a primitive *wh*-question, with *che* (‘that’) acting as a sort of *chi* (who) precursor. However, as the reader will appreciate, in order to interpret this particular context one must really fill in the blanks and it is not easy to interpret what the interlocutors really mean. On these grounds, this possibly ‘primitive’ *wh*-question has not been counted.

7.1.3 Why questions

Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19	X	1			1
20		4		2	6
21	X	x			
22	X	3		3	6
23	X*	7	1	2	11
24	X		1	2	3
25	3	5	6	15	29
26					
27	2	9			11
28	5		2		7
29	8		18	6	32
30	15				15
31	11		10		21
32	9		23		32
33					
34			1		1

Table 22: the occurrences of why questions attested in the data. BC indicates occurrences of ‘because’, EMB encodes embedded occurrences of because. Where an ‘x’ is present, no relevant structure appeared in the transcript. A blank space specifies the absence of data.

Why questions were taken into account to see at which point children showed manifestation of the Int head (Rizzi & Bocci, 2017). In Italian, both why and because are expressed by the same lexical entry, i.e. *perché*. We counted all occurrences of *perché* when it was clear that they were i. why questions uttered with the appropriate interrogative force, ii. because uttered as an answer, iii. because in embedded contexts.

Why questions are attested first in Martina’s files, at 22 months, followed by Viola (23 months), then Raffaello (28 months) and finally Diana (29 months). Concerning *perché* used as why, i.e. the occurrences on which we focus on this thesis project, occurrences were counted of *perché* by itself as legit why questions, if they had the appropriate interrogative force from the context. Of course, also full-fledged why questions were counted.

Viola’s case is worth mentioning here. She produces only 4 occurrences of *cheché* (non-target phonological realization of *perché*) during the 23rd month, then no other why question is attested in the data. It is peculiar that these 4 occurrences of *cheché* are all produced one after another, and no full why question is attested in all of her files. The question arises of if these *cheché* occurrences are actual manifestations of the Int head. They could be a mere repetition of *perché*, but one cannot be sure. Reading the relevant transcript it looks like adults

around Viola answer her *cheché* utterances interpreting them as *why*. For this reason, we counted those occurrences were counted, but added an asterisk was added as well to indicate caution in this regard .

7.1.4 Structures involving Fin

Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19	x	x			
20		1		x	
21	x	x			
22	x	x		x	
23	x	1	x	x	
24	x		x	x	
25	x	x	x	4 + 1	EMB
26					
27	x	4 EMB			
28	1		x		
29	4		x	x	
30	x				
31			1 EMB		
32	2 + 1 EMB		x		
33					
34			4 + 1 EMB		

Table 23: Occurrences of structures involving Fin attested in the data. Where a number is followed by EMB, it denotes embedded occurrences of Fin structures. Where an ‘x’ is present, no relevant structure appeared in the transcript. A blank space specifies the absence of data.

Table 23 reports occurrences of structures involving Fin. In Moscati and Rizzi (2021), activation of the Fin head was inquired through the search of control structures involving the complementizer *di* in Italian. As working hypothesis, it was assumed that also *a* and *per* activate the Fin head. In the data, only occurrences of the latter two prepositions were found: *di* structures are absent. Remember this research focuses on young children whose functional spine development is the slowest, following Moscati and Rizzi (2021). Hence, we focused on early spontaneous production and we stopped analyzing the transcript once we found manifestation of all the left periphery heads. Therefore, we missed Diana’s production of such control structures with *di* were missed, as are attested at 2;6, according to Moscati and Rizzi (2021). We only found occurrences of *a* and *per*, respectively 19 and 6. We counted both full-fledged embedded clauses like (605) and fragments of the kind in (603). Full structures of this kind emerge later than reduced ones for all children except Diana, in whose data they appear at the same time at 25 months.

(603) Raffaello, 28 months (non-embedded occurrence of *per*):

*CHI: pe' mangia'
to eat-INF

(604) Context:

*INV: chi è questo ?

*CHI: un chiappa mali .

%err <2w> chiappa = acchiappa \$PHO <3w> mali = animali \$PHO

*INV: è un acchiappa animali .

*CHI: sì .

*INV: e perché li acchiappa ?

*CHI: pe' mangia' 0w .

*INV: per mangiarli e quali gli piacciono per mangiarli ?

*CHI: 0 .

*INV: chi è questo ? (gloss)
who is this?

*CHI: un chiappa mali .

a take animals (i.e a hunter)

%err <2w> chiappa = acchiappa \$PHO <3w> mali = animali \$PHO

*INV: è un acchiappa animali .

he is a hunter

*CHI: sì .

yes.

*INV: e perché li acchiappa ?

And why does he take them?

*CHI: pe' mangia' 0w .

to eat-INF

*INV: per mangiarli e quali gli piacciono per mangiarli ?

to eat them and which ones does he like to eat?

*CHI: 0 .

pause – no answer

(605) Viola, 31 months (embedded occurrence of *a*):

*CHI: oh bimba te [/] te vai a comprare uno &ro cosa e poi vieni qui oh .

oh kid you go to buy one thing and then come here oh.

7.1.5 Relatives

Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19	X	x			
20		x		x	
21	X	x			
22	X	x		1?	
23	X	x	x	x	
24	X		x	1	
25	X	x	x	x	
26					
27	X	2			
28	X		x		
29	X		x	1	
30	X				
31	X		x		
32	2		x		
33					
34			x		

Table 24: occurrences of relative clauses in the data. When a question mark is present, it denotes an unclear case. Where an ‘x’ is present, no relevant structure appeared in the transcript. A blank space specifies the absence of data for that month.

Few occurrences of relative clauses are attested in the data. It was assumed that relatives involve the Force Phrase at the top of the left periphery (Rizzi & Bocci, 2017). In total, 8 occurrences of relative clauses were found; 7 if one excludes the unclear one that is indicated in the table with a question mark. The relative clause at issue has been counted by Moscati and Rizzi (2021) in their corpus study; however, it seems quite unclear. As observable in the relevant transcript, Diana produces this structure while singing and both the investigator and the mother ask Diana to repeat because they did not understand what Diana was saying. Nonetheless, a complementizer *che* (that) is present and it looks like it refers to *manina* (‘little hand’). Overall, the utterance does not have a clear meaning hence we cannot be sure that this is actually a relative clause. On these grounds, it was discarded, but still signaled as an ambiguous case, also for illustrative purposes of the difficulty of interpreting children’s utterances.

(606) Diana, 22 months (unclear relative clause):

le dà no [: una] manina che &andà vicino .

le dà no [: una] manina che andà vicino .

her-CL.DAT.F.3SG give-PRES.IND.3SG one little hand that-COMP go-UNCLEAR
INFLECTION close

‘to her give a little hand that goes close’.

(607) Context:

*CHI: ciao , ninna@f oh e@i Diana .

%act: si stende sul divano e canta

*CHI: diapo@wp giù .

%act: si stende sul divano e canta

*CHI le dà no [: una] manina che &andà vicino .

%act: si stende sul divano e canta

*INV: com’ è questa canzoncina che non la capisco ?

*MOT: digliela per benino a Luca , su !

*CHI i sandalini .

*CHI: ciao , ninna@f oh e@i Diana . (gloss)

hello, lullaby GIBBERISH Diana

%act: si stende sul divano e canta

she lies on the sofa and sings

*CHI: diapo@wp giù .

GIBBERISH down

%act: si stende sul divano e canta

she lies on the sofa and sings

*CHI le dà no [: una] manina che &andà vicino .

to her give a little hand that goes close

%act: si stende sul divano e canta

she lies on the sofa and sings

*INV: com’ è questa canzoncina che non la capisco ?

how does this little song go that I do not understand it?

*MOT: digliela per benino a Luca , su !

say it well to Luca, come on!

*CHI I sandalini .

the little sandals

7.1.6 Embedded clauses

Age in months	Children				Total
	Raffaello	Martina	Viola	Diana	
19					
20				x	
21					
22				x	
23		1 CAUS		x	
24				x	
25		1 CAUS		1 CAUS + 2 FIN EMB	
26					
27	1	2 CAUS + 2 FIN EMB			
28					
29				1 IND Q, 6 CAUS	
30					
31					
32	2 FIN EMB				
33					
34					

Table 25: occurrences of embedded clauses attested in the data. Where an ‘x’ is present, no relevant structure appeared in the transcript. A blank space specifies the absence of data for that month. CAUS stand= causal embedded clause. FIN EMB = structures involving FIN that are embedded, as seen also in 7.1.4. IND Q = indirect question.

Also embedded clauses were attested. Since they belong to the third Growing Trees stage (Friedmann et al., 2021), the prediction was that they would be found later than other second stage structures in the data. The prediction is borne out. All children produce some kind of embedded structure with the exception of Viola, in whose files there are none. Three types of embedded clauses were found: causal/consecutive clauses, structures involving Fin with embedding (as seen in §7.1.4), and an indirect question. Concerning the latter, Rizzi and Bocci (2017) argue that its *wh* element occupy a low position, presumably immediately higher than Fin, called Qemb. In any case, it is assumed here that in all embedded clauses ForceP is active. A few examples are reported below:

(608) Martina, 27 months (causal/consecutive clause):

voio la salciccia che poi ci faccio +...
want-IND.PRES.1SG the sausage that then with it make- IND.PRES.1SG
'I want the sausage so that then I make with it...'

(609) Diana, 29 months (indirect question, Qemb head):

non lo so chi è
not-NEG it-CL.M.3SG know-IND.PRES.1SG who be-IND.PRES.3SG
'I don't know who it is.'

7.2 APPENDIX B

Table 26. Negative imperatives, 2nd person singular

Child	1;03	1;04	1;05	1;06	1;07	1;08	1;09	1;10	1;11	2;0	2;1	2;2	2;3	2;4	2;5	2;6	2;7	2;8	2;9	2;10	2;11	3;0	3;1	3;2	3;3	3;4	3;5
Camilla (Antelmi)											0		1		0			0			6			0			0
Diana (Calambrone)					0			0	0	0	0				1	4											
Guglielmo (Calambrone)											0	0	0	0		1		0	0	1							
Martina (Calambrone)				0	0	0	0	0	0	0		0	0	0	0	0											
Raffaello (Calambrone)				0			0	0	0	0	0		0	0	0	0	0	0	0	0							
Rosa (Calambrone)				0			0	0	0		0	0		0	0	0	0	2	0	0	0	0	2		0		0
Viola (Calambrone)									0	0	0		0	0		0	0		0								
Claudia (D'Odorico)									0	0					0												
Davide (D'Odorico)				0					0																		
Federica (D'Odorico)			0		0				0																		
Linda (D'Odorico)		0			0				0																		
Lorenzo (D'Odorico)				0					0																		
Veronica (D'Odorico)				0	0				0																		
Delfina (Klammler)				0	0	0	0			0																	
Francesco (Roma)		0	0	0	0	0																					
Elisa (Tonelli)						0	0		0																		
Gregorio (Tonelli)				0	0	0	0			0																	
Marco (Tonelli)		0	0	0	1	0	0	0	0	0	0	1	2	1													

Table 26: Negative imperatives (2nd person singular) produced by Italian-acquiring children across CHILDES corpora, organized by age in months. Orange shading proportional to number of occurrences. Grey cells = 0 occurrences; blank cells = no data available.

Table 27. Negative imperatives, 2nd person plural

Child	1:03	1:04	1:05	1:06	1:07	1:08	1:09	1:10	1:11	2:0	2:1	2:2	2:3	2:4	2:5	2:6	2:7	2:8	2:9	2:10	2:11	3:0	3:1	3:2	3:3	3:4	3:5
Camilla (Antelmi)										0			0		0			0			0		0			1	
Diana (Calambrone)				0			0	0	0	0					0	0											
Guglielmo (Calambrone)											0	0	0	0		0		0	0	0							
Martina (Calambrone)			0	0	0	0	0	0		0		0	0	0		0											
Raffaello (Calambrone)			0			0	0	0	0	0			0	0	0	0	0	0	0	0	0						
Rosa (Calambrone)			0			0	0	0		0	0		0	0	0	0	0	0	0	0	0	0	1		0		
Viola (Calambrone)								0	0	0			0	0		0	0		0								
Claudia (D'Odorico)								0	0						0												
Davide (D'Odorico)			0						0																		
Federica (D'Odorico)		0		0					0																		
Linda (D'Odorico)	0			0					0																		
Lorenzo (D'Odorico)			0						0																		
Veronica (D'Odorico)			0	0					0																		
Delfina (Klammler)			0	0	0	0				0																	
Francesco (Roma)	0	0	0	0	0																						
Elisa (Tonelli)						0	0		0																		
Gregorio (Tonelli)			0	0	0	0				0																	
Marco (Tonelli)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												

Table 27: Negative imperatives (2nd person plural) produced by Italian-acquiring children across CHILDES corpora. Blue shading proportional to number of occurrences. Grey cells = 0 occurrences; blank cells = no data available.