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**Italian-Friulian children:
an investigation into their bilingualism**

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Recede in te ipse quantum potes; cum his versare qui te meliorem facturi sunt, illos admitte quos tu potes facere meliores. Mutuo ista fiunt, et homines dum docent discunt.

Seneca, *Epistulae ad Lucilium*, I, 7.8

SUMMARY

The present thesis investigates the bilingualism involving Italian majority language and Friulian minority language. Preschool children aged 4 to 6 years old from the town of Gemona del Friuli in the Friuli Venezia Giulia region were tested through a picture supported elicited production experiment designed to investigate relative clauses acquisition (cf. COST Action 33, Friedmann et al. in prep.). Two research questions were addressed: the first concerned the acquisition of relative clauses, in order to verify whether the Italian-Friulian children productions would be comparable with the related cross-linguistic literature; the second question concerned the type of bilingualism found, in order to provide a characterization of its peculiarities: the results were then analysed also with respect to specific bilingual factors as cross-linguistic influence, language dominance and input role. As far as the first research question is concerned, the data presented in this thesis confirm that Italian-Friulian children's performance is in line with cross-linguistic results in all conditions, namely for SRCs, ORCs, and PPRCs. Specifically, in line with the predictions made following the Relativized Minimality approach (Rizzi 1990, 2004; Friedmann et al. 2009), results support both the subject-object asymmetry and the ORCs and PPRCs performance similarity. Moreover, through a further investigation of PPRCs, an effect of the type of prepositions was found: in the case of PPRCs with lexical prepositions children produced more target-like structures than with PPRCs with functional prepositions. However, it should be added that PPRCs are still scarcely investigated and further research would be needed to better understand the issue. Turning to the second research question, results were analysed comparing the Italian and the Friulian experimental session, also with respect to specific bilingual factors such as cross-linguistic influence, language dominance and input role (Mioni 1979; Meisel 2004; Gorsjean 2011; Rowe and Grohmann 2013). Having considered that the children's production was essentially in Italian regardless of the language of elicitation being Friulian or Italian, and the ameliorating role played by Italian in influencing the children's results, it can be said that the Italian-Friulian bilingualism is unbalanced with Italian being the strongly dominant language and Friulian being the weak one. Nonetheless, even if Italian is certainly the dominant language, it should be noted that specific influences of Friulian on Italian were indeed present in the children's production, regardless of the children being described by their parents as receiving or not receiving a minimum Friulian input. This suggests that even if it is not clear to which extent, still Friulian is alive and productive in those contexts in which the children grow.

GLOSSARY

In order to facilitate the reading, a list of the abbreviation used throughout the thesis is here presented:

ADJ: adjective

ADV: adverb

CL: clitic pronoun

COMP: complementizer

CONJ: conjunction

CP: complementizer phrase

DAT: dative

DEF: definite determiner

DEM: demonstrative

DET: determiner

DP: determiner phrase

ENCL: enclisis

F: feminine

FUT: future tense

INDEF: indefinite determiner

INF: infinite mode

INT: interrogative

M: masculine

N: neuter

NEG: negation

NP: noun phrase

OBJ: object

ORC: object relative clause

PL: plural

POR: passive object relative

POSS: possessive

PP: prepositional phrase

PPRC: prepositional relative clause

PRES: present tense

PRO: pronoun

PST.PTCP: past participle

RC: relative clause
REL: relative
RM: relativized minimality
SBJ: subject
SBJV: subjunctive
SG: singular
SRC: subject relative clause

INTRODUCTION

Following the multilingual development of contemporary society, the importance and the interest in bilingualism and bilingual acquisition and development has constantly grown, together with the related body of research. In recent years, the bilingual research field has further expanded to also take into account those peculiar contexts in which a majority and a minority language or a dialect are involved. The aim of this thesis is precisely to investigate a linguistic context of this type, specifically the one where Italian majority language and Friulian minority language are involved, focusing on language acquisition.

Preschool children aged 4 to 6 years old from the town of Gemona del Friuli in the Friuli Venezia Giulia region were tested through a picture supported elicited production experiment designed to investigate relative clauses acquisition: both the specific syntactic phenomenon and the experimental procedure and design had already been widely studied cross-linguistically (cf. COST Action 33, Friedmann et al. in prep.), guaranteeing me with a sound basis on which to build my research on the almost uncharted territory represented by the Italian-Friulian bilingualism.

Two research questions were addressed: the first concerned the acquisition of relative clauses, in order to verify whether the Italian-Friulian children productions would be comparable with the related cross-linguistic literature; the second question concerned the type of bilingualism found, in order to provide a characterization of its peculiarities: the results were then analysed also with respect to specific bilingual factors as cross-linguistic influence, language dominance and input role.

The thesis is organised as follows. In the first chapter, a presentation of bilingualism is given considering various specific aspects: definitions, role of age of acquisition, role of dominance, competence, proficiency and role of input. Cross-linguistic influence through transfers is also analysed. The final part focuses on the specific instance of bilingualism of reference for this work: bilectalism involving a majority and a minority language or a dialect, with a review of the previous studies in Europe and in Italy. In the second chapter, the specific syntactic phenomenon investigated in this thesis is described and analysed, namely Relative Clauses.

After having exemplified relative clauses construction for both Italian and Friulian, their syntactic configuration is delineated. Lastly, the acquisition of relative clauses is illustrated both cross-linguistically and specifically for Italian. In the third chapter Friulian language is analysed in detail. After describing a geo-linguistic background, the Friulian linguistic profile, comprehensive of phonology, morphology and syntax is given. The socio-linguistic and political-administrative context is then illustrated together with a specific focus on Gemona del Friuli, the town in which the research has taken place. In the fourth chapter, the research project is described: research questions and predictions are illustrated. Then the operational part, consisting of participants, design, materials and methods, is outlined. In the fifth chapter, the experiment results are illustrated for both the languages investigated, and the statistical analysis on the data is then shown. In the last part of the chapter, specific linguistic phenomena found in the children's productions are presented, with a specific focus on the relation between the input and the Friulian productions. The sixth and final chapter is dedicated to a discussion of the results in relation to the theoretical and linguistic framework presented in the previous chapters in order to try and answer the research questions that guided the thesis and also verify the predictions made with respect to both relative clauses acquisition and the Italian-Friulian type of bilingualism.

1. BILINGUALISM

This chapter presents the breeding ground from which this thesis developed, namely bilingualism and bilingual acquisition (section 1.1). It will not be an exhaustive presentation of the subject articulated in all its domains and perspectives, but rather a specific overview of those aspects that are most relevant in order to provide a useful framework for this research. The second part of the chapter will be dedicated to a further focus on the specific instance of bilingualism of reference for this work: the one involving a majority and a minority language or a dialect (section 1.2).

1.1. Bilingualism: a varied landscape

In the world, in around 200 sovereign states, approximately 7000 languages are spoken (Eberhard, Simons, Fennig, 2019). Europe alone has 24 official and working languages and more than 60 recognised regional and minority languages. Migratory movements also come into the picture, bringing more and more people in contact with different languages, across different age groups and in different cultural contexts. These considerations make the point that multilingualism, namely the presence of more than one language in one social context or geographical area, and plurilingualism, namely the use of more than one language by one speaker, are nowadays a way of life for most of the world population; for this reason the study of multilingualism and plurilingualism is extremely interesting for today's society. Being very complex phenomena, multilingualism and plurilingualism concern different fields: from sociology and anthropology to law and pedagogy, by way of neuroscience, psychology, and linguistics. Specifically, when plurilingualism is addressed linguistically, it includes bilingualism, second (and third or more) language acquisition and learning, bimodal acquisition and bimodal bilingualism, also in relation to immigrant languages, heritage languages, minority languages.

The aim of linguistic research is to deepen the knowledge of bilingual competence and performance, better understand the capacity of the mind to acquire more than one language, understand bilinguals' educational needs and distinguish between the language-related difficulties of those acquiring more than one language and those having deficits. Research on these topics has constantly grown in the last forty years and in the following paragraphs I will try and explore some of the most discussed issues that are particularly significant for my work.

1.1.1 Bilingualism: definitions and the role of age of acquisition

The first issue that needs to be addressed concerns the term “bilingualism”. Even if the terminology used to refer to people and processes involved in multilingualism is mostly shared by scholars, it is not always the case that the same terms are used to refer to the same concepts. For this reason, I will here list and define those notions that are fundamental in order to be able to talk about bilingualism sharing a lexical common ground.

The term *bilingual* is normally used to refer to those who use two languages, although it can also be used to describe a person that speaks even more than two languages, multilingual people in general (Grosjean 2011)¹. *First language*, or *L1*, refers to the first language acquired by a person, namely her native language or mother tongue (Meisel 2004). *Simultaneous bilinguals* are those bilinguals that acquire more than one language from birth, having two (or more) first languages, indicated as *2L1* (Meisel 2004, Grosjean 2011). *Second language*, or *L2*, refers instead to those languages acquired after the first language (Meisel 2004). *Successive* or *sequential bilinguals* are those bilinguals that first acquired a first language and later started learning an L2, during childhood or as adults (Meisel 2004, Grosjean 2011). Among those that learned a second language during childhood, a distinction can be made considering once again the age at which acquisition took place: the term *early bilinguals* indicates those children that started acquiring a second language after birth but before age 3;00, whose acquisitional path has been proved to resemble that of simultaneous bilinguals (Meisel 2004). When *child second language acquisition* is mentioned, it usually refers to those children acquiring a second language after age 3;00 but before puberty

(Meisel 2004). When second language acquisition takes place after puberty, the process is usually indicated as *adult L2 acquisition* (Meisel 2004). Children and adults learning an L2 can be also addressed as *late bilinguals*.

What all the aforementioned acquisition types have in common is the crucial role that age plays in defying and distinguishing them. The reason why age is an essential factor for language acquisition is rooted in the Critical Period Hypothesis. This hypothesis was originally developed by Lenneberg (1967), and stated that the automatic acquisition of a language in a natural setting takes place only during a critical time span, which ends with puberty. If the language is acquired during that period, the attainment of native competence is possible. After that period, language learning proceeds more slowly, and ultimately proves less successful, at least in some domains. This classical version of the Critical Period Hypothesis has subsequently been updated and improved (Johnson and Newport 1989, among others). The originally suggested age ranges of the critical period have been modified and reduced on the basis of the new evidence available. The critical period has also been re-defined as not having a sharp boundary before which performance is uniformly good and after which performance is uniformly bad, but rather as having a relatively short onset, an optimal period, and a gradual offset. Moreover, the effects of age of acquisition have also been related to individual variability, language-specific characteristics and cross-language interactions. Nonetheless the hypothesis has proven to be correct in its core, assigning an essential role to age and maturation for language development (Long 1990; Hyltenstam and Abrahamsson 2003; Meisel 2004; Grosjean 2011).

1.1.2. Bilingualism: language dominance, competence and proficiency

Another relevant issue when investigating bilingualism is language *dominance*: this complex term can refer to the language that is overall more used by the speaker, the language in which the speaker is overall more fluent, the language that covers more domains in the setting, or a combination of all three (Grosjean 2011). Building on dominance, a distinction can be made between *balanced* and *dominant* bilinguals. The term *balanced bilinguals* indicates those bilinguals

¹ From now on throughout this chapter and the entire thesis, I will use the terms *bilingual* and *bilingualism* with

that appear to have equal and simultaneous knowledge of both their languages (Meisel 2004, 2007). The term *unbalanced* or *dominant bilinguals* refers instead to speakers that have more knowledge of one language with respect to the other (Meisel 2004, 2007). This terminology takes the moves from the “classic” idea that a bilingual person should have a monolingual-like acquisition and knowledge of both her languages, being able to use them and behave exactly like a monolingual (Bloomfield 1933; Davies 1991). But bilinguals are not expected to be like two monolinguals in one person anymore (Grosjean, 1989), because even if they use their two languages regularly, they do it for different purposes, in different contexts, communicating with different partners, at different ease, and not equally frequently in all domains. This makes it difficult for truly balanced bilinguals to exist (Cutler, Mehler, Norris & Segui 1989), and the notion has evolved to indicate a bilingual who has enough knowledge and general use of both her languages. Moreover, it is now clear that dominance is not fixed but variable: it can change repeatedly with time and according to the contexts during a bilingual’s lifetime (Valdés & Figueroa 1994; Meisel 2004; Baker 2011).

When considering language dominance, the distinction between competence and proficiency also plays a role. Language *competence* concerns the formal knowledge of the abstract rules of the languages’ grammar. Language *proficiency* refers instead to the communicative capacity and the appropriate use of those languages. It is important to consider that competence and proficiency may vary depending on the skills in place: a speaker may be able to understand much more of her less dominant language than she is able to show in production. The so-called *passive* or *receptive bilinguals*, who can understand a language but not speak it, represent an example of this kind of scenario (Grosjean 2010).

1.1.3 Bilingualism: the role of input

Together with age (paragraph 1.1.1), another crucial factor for language development, especially relevant in the context of bilingualism and bilingual acquisition, is input.

reference to the first definition, thus indicating the acquisition/presence/use of two languages.

Three words are usually associated with the concept of input: quantity, quality and consistency. *Quantity* refers to the amount of input that is made available for children during the process of language acquisition (Meisel 2004; Paradis 2011). In the bilingual context quantity is particularly important in connection with dominance (cf. 1.1.2). The ideal situation would imply providing the children with a similar amount of input for each language, a condition that would result in a balanced bilingualism. However, input is rarely equal in both languages: usually the language in which the child receives more input becomes the dominant one, while the one with limited input will remain weaker. When input is too little, it can also negatively influence the child linguistic and cognitive development.

Quality refers to the kind of input that children receive: it can range from rich, heterogeneous, and strong, to poor, exiguous or weak (Meisel 2004; Paradis 2011). For example, consider bilingual situations in which a majority language and a dialect are involved: the two languages have different contexts of use, different status, different spreading, and generally different support by law and education. Similar conditions can easily impact the quality of the input available for children in the two different languages. Consider also contexts in which parents are L2-speakers: children will then receive primary input from non-native speakers, influenced by their native language. A similar condition can certainly impact input quality too. Together with quantity, also input quality can then influence dominance and linguistic development.

Consistency relates quantity and quality of input with time: input can be constant and lasting but it can also be transitory or ambiguous (Meisel 2004). For example, consider children of parents speaking a language different from the one of the country where they live. The family can go back to the country of origin for the holidays and there the child can receive a significant amount of rich and lively input. However, that kind of input will last just as long as the holidays, making quality and quantity of input in that language inconsistent in time. Consistency of input also relates with choice: consider for example children whose parents have each a different mother language. If they choose to speak their respective languages to the child, in order for the child to be able to learn and speak both languages, they need to be coherent in always using their language with the child; otherwise the child output will be inconsistent (Lanza 2004).

With reference to the aforementioned examples, another factor to consider when discussing input is the *source*. Parents usually provide the first and primary input to the children, followed by family and friends. The surrounding educational and social environment is also relevant in

providing input to the children. Sources, their languages, their variability and their availability can then influence input too (Place and Hoff 2011).

In language acquisition, the role of input has been largely investigated (Kupisch and Rothman 2016; Treffers-Daller et al. 2007; Tsimpli 2014). In bilingual acquisition specifically, the relation between input, linguistic development and output has been studied in different linguistic domains: phonetics and phonology (Mora and Nadeu 2012), vocabulary (Daller, van Hout & Treffers-Daller 2003; Gathercole & Thomas 2009; Thordardottir 2011), morphosyntax (Chondrogianni & Marinis 2011; Paradis 2010; Unsworth 2013) and discourse (Bongartz & Torregrossa 2017; Paradis & Navarro 2003). The role of input for the bilingual development has also been studied in combination with language dominance, competence and proficiency, and the contexts of language use: these factors have been proved to be extremely relevant for bilingual acquisition processes results (Unsworth 2013; Tsimpli 2014; Rinke and Flores 2014; Kupisch and Rothman 2016; Torregrossa et al. 2017).

1.1.4 Bilingualism: cross-linguistic influence

Another relevant issue for bilingualism is cross-linguistic influence, namely how the two languages can and do influence each other. Transfers, a process of language use relying on previously acquired grammatical knowledge (Meisel 2011), represent the way in which cross-linguistic influence habitually appears in bilingual acquisition and are characteristic throughout the bilingual lifespan (Döpke 2000; Montrul 2010; Sorace 2004). When transfers happen, the knowledge about one language is applied to the other one. This mechanism can affect every level of linguistic analysis: the following list presents the possible instances of transfer.

- Phonological transfer

When phonological transfer happens, phonemes of one language are used in the other. Generally this kind of transfer is more frequent in second language learners and strongly unbalanced bilinguals.

Example: consider the sound [θ] present in the English inventory and absent from the Italian one.

English pronunciation: [θ] as in [θ]ink ('think')

Italian pronunciation: [t] as in [t]etto ('tetto')

Phonological transfer from Italian on English: [t]ink

- Morphological transfer

When morphological transfer happens, a word of one language's vocabulary is modified in order to adapt it to the other's language morphological system.

Example: consider the diminutive suffixes *-chen* for German and *-etto* for Italian

German: kind ('child') > kindchen ('kiddy')

Italian: bambino ('child') > bimbetto ('kiddy')

Morphological transfer from German on Italian: 'bambinchen'

- Syntactic transfer

When syntactic transfer happens, the constituent order and the syntactic rules of a language are applied when using the other language.

Example: consider the following participial construction in German and Italian

German sentence: Ich habe das Buch gelesen.

PRO.SUBJ.1SG have:PRES.1SG DEF.N.SG book:N.SG read:PST.PTCP

Italian sentence: Ho letto il libro.

have:PRES.1SG read:PST.PTCP.M.SG DEF.M.SG book:M.SG

Syntactic transfer from Italian on German: 'Ich habe gelesen das Buch.'

- Semantic transfer

When semantic transfer happens, the meaning of a word in one language is ascribed to another word of the other language.

Example: consider the following words in English and Italian

English words: 'camera' (camera:SG) ; 'room' (room:SG)

Italian words: 'camera' (room:F.SG); 'macchina fotografica' (camera:F.SG)

Semantic transfer from Italian to English: using the term 'camera' to indicate a 'room' when speaking English.

- Lexical transfer

When lexical transfer happens, a word in one language is inserted in a sentence otherwise completely in the other language.

Example: consider the following Italian sentence with a French lexical insertion

French word for 'car': 'voiture'

Italian word for 'car': 'macchina' or 'automobile'

Lexical transfer from French to Italian: 'Il mio papà ha una nuova voiture blu.'

There are various mechanisms that allow or hinder cross-linguistic influence: languages distance, languages status, speaker's dominance and input in the two languages. For example, the direction of cross-linguistic effects has been studied as determined by which language is more underspecified with respect to a certain linguistic feature: for example, if a syntactic construction in language A allows for more than one grammatical analysis from the perspective of child grammar and language B contains positive evidence for one of these possible analyses, language A is likely to be influenced by language B (Müller and Hulk 2001; Serratrice and Sorace 2009).

Transfers have also been characterised as positive or negative. *Positive* transfers are those that facilitate the acquisition of a linguistic element: since a mechanism is already mastered in one language, this can boost the acquisition of the corresponding one in the other language (an example of positive transfer is represented by linguistic cognates). This kind of transfer can result in a developmental acceleration in the linguistic knowledge of the bilingual child. *Negative* transfers are instead those that make the acquisition of a linguistic element more difficult: a mechanism of one language is inappropriately applied to the other, going against its rules (an example of negative transfer is represented by linguistic false friends). In this case, transfers can determine a delay in the linguistic development of the bilingual child. Anyway, accelerations

and delays in the pace of bilingual linguistic development, which are influenced also by other factors like input and language status among others, usually remain within the range of what counts as a normal for monolingual children, and influence quantitatively rather than qualitatively the properties of bilingual linguistic development (Meisel 2004).

1.2. Bilingualism and Bilectalism

When discussing bilingualism, the most common and usual approach is to think about two ‘standard’ languages, two majority languages, two national languages. However, also minority languages and dialects can play a role in a bilingual setting. In order to refer to this peculiar kind of bilingualism, the term *bilectalism* was coined (Rowe & Grohmann, 2013). In the following paragraphs I will illustrate how bilectalism and bilectal acquisition are characterised with respect to the standard bilingual counterpart and present some interesting and recent case studies of bilectal populations.

1.2.1 Bilectalism and bilectal acquisition

The distinction between ‘standard’ bilingualism and non-standard bilingualism or bilectalism responds to the need to draw attention on those specific context in which not only ‘standard’ languages are involved, but also minority languages or dialects.

The difference between a majority and a minority language or a dialect is not linguistic in nature, therefore in principle there should be no difference with respect to the linguistic and cognitive development of bilingual and bilectal speakers, as far as grammar and morpho-syntax are concerned. However, majority and minority languages or dialects differ with respect to the political and social context in which they are set, and this can play a relevant role for the linguistic and cognitive development of the speakers, for language acquisition and use.

In order to understand how the peculiar bilectal context is characterised and differs from the

‘standard’ bilingual one, input and dominance need to be considered once again.

When analysing input, as previously seen in paragraph 1.1.3, the crucial factors are quantity, quality, consistency and source. The bilectal context can influence all of them.

Minority languages and dialects are usually spoken by a limited number of people and concern only part of the community. As a consequence, children can receive less input in the minority language or dialect compared to the amount of input they can receive in the majority language from the environment: society, school, the media.

Minority languages and dialects are often bound to specific and limited contexts of use, like familiar affection, home language. It can also be the case that parents and other speakers may be second language speakers/learners themselves. As a consequence, input results less rich and less varied: also its quality is then affected.

Quantity and quality of input in bilectal context are also influenced by the political status of the languages and the attitude towards them. In fact, minority languages and dialects can lack an official recognition as languages: this could imply less support at the administrative and educational level. Moreover, it is often the case that speaking those languages is associated with a low social and cultural status, which can lead to concerns and disapproval by the speakers themselves (Grosjean 2011). Minority languages can also be perceived as useless, if not damaging. Similar conceptions can lead parents to be discouraged about inter-generational transmission (Garraffa et al. 2015). These factors, together with the great degree of variability usually characterising the spoken language and the frequent absence of a written standard, can negatively influence also input consistency.

As far as sources are concerned, it is often the case that the native speakers of the minority language or dialect are only the parents and grandparents, sometimes followed by family friends and rarely teachers. This means that input sources can be very limited.

All these considerations make it clear that bilectal input can be substantially different from ‘standard’ bilingual input. As a consequence, language competence, proficiency and dominance are also affected (cf. paragraph 1.1.2).

The native speakers of a minority language or a dialect may not be equipped to convey their grammar to the children, and explicit teaching in schools is usually very little, if not non-existent: these factors can make it difficult for children to deepen their linguistic competence.

The limited number of speakers and contexts of use of the minority languages and dialects usually create an environment in which children have less opportunities to both be exposed to

those languages and practicing them. This implies that also proficiency can be limited.

It appears clear that these factors, together with the input-related ones, can also influence language dominance in bilectal contexts, with the minority language or dialect more likely to become the weaker language.

All these peculiar characteristics can influence language acquisition, development and use differently from ‘standard’ bilingualism: this is the reason why in recent years scholars have broadened the investigation of bilingualism in order to include the new line of research on bilectalism², its peculiarities and its comparison with ‘standard’ bilingualism.

² As it appears clear from the above description, dialectal and minority language bilingual contexts have much in common with heritage language bilingual contexts: in both scenarios the language is mostly learned and spoken in familiar contexts and is not the dominant language of the larger national society; also there can be quantitative and qualitative differences in input, literacy and formal education compared to both monolingual context and ‘standard’ bilingual contexts. Speakers usually gain fluent command of the dominant language and are comfortable using it in formal settings, while their command of the weak language can vary widely in both knowledge and use (Rothman 2009; Kupisch and Rothman 2018). However, dialectal and minority language bilingual contexts also differ from heritage language bilingual contexts: in the latter, the heritage language is usually strictly bound to the speakers’ home and family, its use clearly defined and narrowed. Quite the opposite, in the majority and minority language or dialect context, the languages usually coexist without a sharp and rigid boundary, both within the speaker and in the community, not at national level but at local level. The languages are in fact placed in a continuum that the speaker navigates adapting with respect to age, education, personal experience, community practises, the addressee, the communicative context, the subject of the conversation. Within the same conversation, in a similar context, the speaker can and usually does go back and forth between the two languages without jeopardizing communication and outcome, whether it be personal chatter or work place communication. This is the kind of input generally available for children growing up in these contexts, also predictably originating an acquisition mode different from the one available for heritage language learners.

1.2.2 Bilectalism: previous studies in Europe

There are many questions yet to be answered concerning bilectal speakers, their bilingual status, the contexts in which their bilingualism develops, how their language acquisition process is characterised and the role that education does or can play. Nevertheless several studies dealing with bilectal scenarios are already available and will be briefly mentioned here.

In Norway, Vangsnes, Söderlund, and Blekesaune (2015) investigated the effect of bidialectal literacy on school achievement in reference to Norwegian's two written standards: Bokmål, the majority variety, and Nynorsk, the minority variety. The data show that the tested children perform better than average in national tests of English, reading and arithmetic, once socio-economic factors are controlled for.

In Cyprus, various studies have been carried out about the two co-spoken varieties of Cypriot Greek, the local vernacular, and Standard Greek, the official language.

Rowe and Grohmann (2013) examined the linguistic situation of the island and proposed a characterization as diglossic with discrete bilectal speakers.

Antoniou, Katsos, Grohmann, and Kambaranos (2014) explored the linguistic and cognitive effects of the aforementioned bilectalism through the study of children's vocabulary and executive control skills. They found that bilectal children outperformed age-matched monolingual children on all measures of cognitive control, although not on all vocabulary measures. The same authors further investigated executive control in bilectal children, confirming the similarities with standard bilinguals (Antoniou, Grohmann, Kambaranos, Katsos 2016). Other investigations in the same bilectal context were also made by Kambaranos, Grohmann, Michaelides (2013); Tsiplakou (2017); and Leivada, Papadopoulou, Kambaranos, Grohmann (2017), among others.

In Wales, Gathercole, Thomas, Kennedy, Prys, Young, Guasch, Roberts, Hughes and Jones (2014) examined language dominance and cognitive performance of English – Welsh bilingual children and adults compared to English monolinguals. In this case the minority language has an officially recognised and protected status, yet no differences were reported across groups.

In Scotland, Lauchlan, Parisi and Fadda (2012) investigated cognitive control, problem-solving ability, metalinguistic awareness and working memory in Scottish Gaelic – English bilingual children compared to English monolinguals. The results show a global advantage of bilinguals over monolinguals in two of the four measures used. They also investigated the same abilities in

another bilingual context involving Italian – Sardinian bilinguals and Italian monolingual children, obtaining the same results pattern.

In the Netherlands, Cornips (2014) explored vocabulary and some specific Dutch constructions with Dutch – Limburgish bilingual children compared to Dutch monolingual children and bilingual children with majority languages. Results show that bilingual children performed better than monolingual speakers in all the investigated domains. Bosma, Blom, and Versloot (2017) studied the influence of language balance and proficiency on executive functions in Dutch – Frisian, Dutch – Limburgish and Dutch – Polish bilingual children compared to monolinguals. Even with differences among the bilingual groups, they generally performed better than monolinguals on selective attention; bilingual children also showed an effect of response competition more often than the monolingual children.

In Spain, different bilingual combinations have been considered. Duñabeitia, Hernández, Antón, Macizo, Estévez, Fuentes and Carreiras (2015) investigated the inhibitory skills of Spanish – Basque bilinguals compared to Spanish monolinguals. The data show an equal performance of the two groups. Costa, Hernández and Sebastián-Gallés (2008) investigated efficiency and independence of attentional networks in Spanish – Catalan bilinguals. The results reveal that bilinguals were faster and more efficient, better at resolving conflicting information, and experienced a reduced switching cost compared to monolinguals. Hernández, Martín, Barceló and Costa, (2013) also investigated task-switching mechanisms in the same bilingual context. Results showed faster performance of bilinguals overall, even if reduced switch costs did not show in any experiment.

1.2.3 Bilingualism: previous studies in Italy

Focusing specifically on Italy, it appears clear that it represents a particularly fertile context for bilingual studies: in a rather small geographical area there is profusion of linguistic variation involving Italian, Italian regional variants, regional dialects and minority languages.

In this regard it is interesting to consider the sociolinguistic characterisation of the Italian setting made by Mioni (1979). He investigated Italian and dialectal varieties in order to understand how they interacted with each other and whether a hierarchy was in place. In

particular, he identified four varieties of Italian (common Italian, common regional Italian, regional Italian, working class Italian) and four dialectal varieties (regional koinè dialect, province dialect, district dialect, local dialect). These varieties are not considered as rigid, their boundaries are not sharp and unchangeable, but rather blurry, with the varieties distributed on a gradual scale that accounts for different degrees of cross-linguistic influence and interference between the two systems. In this scenario, the speaker chooses which variety to speak depending on social factors like age, education, personal experience, community practices, but also the addressee, the communicative context, the subject of the conversation. On the basis of these observations, Mioni also described the linguistic configuration of Italy as characterised by *social bilingualism* (a bilingual context in which the majority of the population knows two different languages, both actively and passively) and by *diglossia* (there is a functional hierarchy of use between the two languages of the community: Italian for formal contexts and the dialect for the familiar and colloquial contexts). On the basis of the presence or absence of social bilingualism and diglossia, Mioni also determined five linguistic configurations:

- Dialectal monolingualism: the community exclusively speaks the dialect and there is no common language. This configuration was common in past centuries, before the Italian unification.
- Diglossia without social bilingualism: only the ruling class, which is a minority in the community, knows Italian. Also this configuration mostly refers to past centuries, with the exception of some rural areas and the high mountains.
- Diglossia with social bilingualism: the population knows both Italian and the dialect; their use is regulated by social norms.

In this configuration, the concepts of *micro-diglossia* and *macro-diglossia* also play a relevant role (Mioni, Trumper 1977). Micro-diglossic contexts are those in which there is little overlapping of functional use between the two languages. Macro-diglossic contexts are those in which in addition to the standard (Italian) and the dialect, there is also a dialectal koinè, which increases the range of varieties from which the speaker can draw.

- Social bilingualism without diglossia: speakers know both Italian and the dialect, but the dialect is so different that it can only be integrated in groups use, not by the whole community. The areas that are destinations for migratory movements represent an example of this configuration: even if the native population speaks the dialect, immigrants are more likely to learn the local variety of Italian.
- Standard monolingualism: middle and upper class only know the standard variety. Also this configuration mostly refers to past centuries, and mostly to central Italy.

Even if the Italian linguistic situation has obviously continued to evolve from Mioni's studies, nonetheless the dialects continue to be part and parcel of the community linguistic repertoire in many Italian regions. For this reason, the Italian context can safely be described as bilingual and bilectal, thus qualifying as an optimal ground also for the investigation of bilectal acquisition and development. In this respect, some recent studies will be here summarised.

As far as dialects are concerned, Colonna Dahlman and Kupisch (2016) investigated attrition in subordinate clauses in Italian – Gallipolino migrant bilectals, with Gallipolino being the dialect spoken in the Gallipoli town area in the Puglia region. Results show that migrant bilectals performance is significantly different from the one of non-migrant bilectals. Interestingly, no difference was found between active and passive migrant bilectals.

Klaschik and Kupisch (2016) investigated overt and null subjects in Italian – Venetian children, where “venetian” here refers to the dialect spoken in two towns in the province of Padua city in the Veneto region. Children were divided in strong and weak bilectals and compared with monolingual Italian speakers. Results showed that bilectal speakers, probably because of the Venetian influence, performed differently from monolinguals; nonetheless strong dialect speakers outperformed weak dialect speakers both in Venetian and Italian.

Turning to minority languages, a few studies have been carried out in the Sardinia region. Lauchlan, Parisi and Fadda (2012), as already seen in paragraph 1.2.2, examined cognitive control, problem-solving ability, metalinguistic awareness and working memory in Italian - Sardinian children compared to Italian monolinguals. The results show a global advantage of bilinguals over monolinguals in two of the four measures used. These results were also compared to the results from English – Scottish Gaelic children who were administered the same tests: data show that English – Scottish Gaelic bilinguals significantly outperformed Italian – Sardinian, and this difference is interpreted as a consequence of the fact that Scottish

children received Gaelic-medium education, in contrast to Sardinian children who mostly speak the minority language only at home.

Italian – Sardinian children were also tested by Garraffa, Beveridge and Sorace (2015). Their study concerned receptive grammatical competence of Italian and general cognitive abilities in comparison with monolingual Italian children. Results show that bilingual performance is in most cases indistinguishable from that of monolinguals, both for Italian language skills and general cognitive abilities. Where there were differences, they emerged gradually over time and were mostly in favour of bilingual children. Garraffa, Obregon and Sorace (2017) also tested adult Italian – Sardinian speakers investigating their working memory, attentional control and Italian sentence comprehension and compared the results with the ones of adult monolingual Italian speakers. No difference was found in the cognitive control of attention, bilinguals performed better on working memory tasks. The type of language experience and education background were also taken into account: bilinguals with lower education show positive effects of active bilingualism on the dominant language, while the effects of higher literacy in Italian seem to cancel those of active bilingualism.

Lastly, Mauro and Burelli (2002) studied Italian – Friulian children in the Friuli Venezia Giulia region. They assessed the children linguistic development in both languages through comprehension and production tests. Results show that the majority of children could be considered balanced bilinguals with a tendency towards mixing and switching. The influence of Italian on Friulian is very strong at the lexical level, and the Italianization of Friulian lexicon can be assumed to be a widespread phenomenon not only for children but also for the whole linguistic community. Friulian instead does not show traces of Italian influence at the syntactic level, and actually Friulian sometimes influences Italian at the syntactic level.

The research presented in the following chapters of this thesis will concern precisely the same linguistic context in which Mauro and Burelli operated (cf. chapter 3).

2. RELATIVE CLAUSES

In this chapter I will present the specific type of subordinate clauses that were investigated in this thesis experiment: relative clauses. The first section will present a description of their grammatical configuration in Italian (section 2.1). The second section will specifically describe how relative clauses are constructed in Friulian (section 2.2). The third section will then focus on the syntax of relative clauses (section 2.3). The fourth and last section will be dedicated to the acquisition of relative clauses by children (section 2.4).

2.1. Italian relative clauses³

A relative clause is a subordinate clause that modifies a nominal element, which is called antecedent or relative head. In order to properly modify the nominal element, the relative clause needs to predicate something about it; inside the relative clause there needs to be another nominal element that can be interpreted as identical to the antecedent (Cinque 2001).

Examples:

1.a. La ragazza che canta è una mia
DEF⁴.F.SG girl:F.SG that:PRO.REL sing:PRES⁵.3SG be:PRES.3SG INDEF.F.SG ADJ:POSS.F.SG

amica.

friend:F.SG

The girl who is singing is a friend of mine.

³ For more a detailed and comprehensive exposition, see Cinque 2001.

⁴ When ‘DEF’ or ‘INDEF’ are used for glossing, ‘DET’ is always implied.

⁵ When no verbal mood is explicitly mentioned, ‘INDICATIVE’ mood is always implied.

1.b. Questa è la cartolina che mi
PRO:DEM.F.SG be:PRES.3SG DEF.F.SG postcard:F.SG that:PRO.REL CL:DAT.1SG

hai spedito.

have:PRES.2SG send:PST.PTCP.M.SG

This is the postcard you sent me.

1.c. *La canzone che Maria ha un nuovo paio
DEF.F.SG song:F.SG that:PRO.REL Mary have:PRES.3SG INDEF.M.SG new:ADJ.M.SG pair:M.SG

di occhiali è alla radio.

di=of glasses:M.PL be:PRES.3SG alla=on the radio:M.SG

**The song that Mary has a new pair of glasses is on the radio.*

In example 1.a. the relative clause predicates on the nominal element ‘the girl’ which is the relative head; in example 1.b. the antecedent is ‘the postcard’. Example 1.c. is ungrammatical because there is no nominal element inside the relative clause that can be interpreted as identical to the nominal head ‘the song’.

A distinction can be made concerning the relative clauses function. Restrictive relative clauses (section 2.1.1) restrict the domain identified by the antecedent and its possible interpretations, giving essential information to determine that reference; appositive relative clauses (section 2.1.2), instead, predicate information on the antecedent, but this information is additional and not essential for the identification of the reference, which is already determined independently (Cinque 2001). These two types of relative clauses differ not only in syntax and semantics but also in their intonational contour and punctuation custom.

2.1.1. Restrictive relative clauses

Restrictive relative clauses limit the class of referents defined by the antecedent. When considered together, the antecedent and the restrictive relative clause make it possible to univocally identify a referent otherwise undetermined (Cinque 2001).

In restrictive relative clauses, both definite and indefinite articles can introduce the antecedents (example 2.a. and b.). Also demonstratives and quantifiers can precede the antecedents (examples 2.c. and d.).

Examples:

2.a. Ho ascoltato **la** canzone che mi
Have:PRES.1SG listen:PST.PTCP.M.SG DEF.F.SG song:F.SG that:PRO.REL PRO:DAT.1SG

hai suggerito.

have:PRES.2SG suggest:PST.PTCP.M.SG

I listened to the song you suggested me.

2.b. Cerco **un** libro che parli di
look for:PRES.1SG INDEF.M.SG book:M.SG that:PRO.REL talk:SBJV.3SG di=about

giardini.

garden:M.PL

I am looking for a book about gardens.

2.c. **Quella** ragazza che hai conosciuto è
ADJ.DEM.F.SG girl:F.SG that:PRO.REL have:PRES.2SG meet:PST.PTCP.M.SG be:PRES.3SG

amica di Maria.

friend:F.SG di=of Mary.

That girl you met is a friend of Mary.

2.d. **Alcuni** amici che sono venuti a
Alcuni=some friend:M.PL that:PRO.REL be:PRES.3PL come:PST.PTCP.M.PL a=to

trovarmi me lo hanno
visit:INF.-PRO:ENCL.OBJ.1SG PRO:DAT.1SG PRO:OBJ.M.SG have:PRES.3PL

regalato.

donate:PST.PTCP.M.SG

Some friends that came to visit have given it to me as a gift.

As far as relative pronouns are concerned, ‘che’ is used for subjects (example 3.a) and complements that are not introduced by prepositions, such as objects (example 3.b).

Examples:

3.a. La ragazza **che** ha parlato è molto
DEF.F.SG girl:F.SG that:PRO.REL have:PRES.3SG speak:PST.PTCP.M be:PRES.3SG molto=very

preparata.

prepare:PST.PTCP.F.SG

The girl that spoke is very prepared.

3.b. La sorpresa **che** avete organizzato è
DEF.F.SG surprise:F.SG that:PRO.REL have:PRES.2PL organise:PST.PTCP.M.SG be:PRES.3SG

meravigliosa.

wonderful:ADJ.F.SG

The surprise you organised is awesome.

The other pronouns ‘cui’⁶ and ‘quale’⁷ are used for those complements that are introduced by a preposition.

Examples:

4.a. Il negozio **in cui** ho comprato questo
DEF.M.SG shop:M.SG in cui=in which have:PRES.1SG buy:PST.PTCP.M.SG ADJ.DEM.M.SG

vestito chiuderà.

close:PRES.3SG

The shop in which I bought this dress will close.

4.b. La ragazza **alla quale** ho chiesto aiuto
DEF.F.SG girl:F.SG alla quale=to which have:PRES.1SG ask:PST.PTCP.SG help:M.SG

è stata disponibile.

be:PRES.3SG be:PST.PTCP.F.SG helpful:ADJ.

The girl I asked for help has been helpful.

4.c. Maria è l’ amica **con cui** sono andata
Mary be:PRES.3SG DEF.F.SG friend:F.SG con cui=with which be:PRES.1SG go:PST.PTCP.F.SG

in vacanza.

in=on holiday:F.SG

Mary is the friend with which I went on holiday.

⁶ In literary Italian the ‘cui’ pronoun could also be used without prepositions.

Example: L’autore cui hanno assegnato il premio ...

The author who has been assigned the prize ...

⁷ The paradigms of ‘cui’ and ‘quale’ are symmetrical with the exception of their behaviour with the pied-piping phenomenon (Cinque 1978)

Example: I tuoi amici, molti dei quali sono maschi, ...

*I tuoi amici, molti di cui sono maschi, ...

Your friends, most of which are males, ...

4.d. L' amico **dal quale** ho preso
def.m.sg friend:m.sg dal quale=from which have:pres.1sg take:pst.ptcp.m.sg

in prestito questa felpa è modaiolo
in=as loan:m.sg adj.dem.f.sg sweatshirt:f.sg be:pres.3sg fashionable:ADJ.M.SG
The friend from which I borrowed this sweatshirt is taller than me.

In informal and colloquial Italian, prepositional restrictive relative clauses can also be constructed without using relative pronouns, using the 'che' complementizer instead (Cinque 2001), as the examples in 5 show (where example 5.a. would usually be constructed with 'in cui', 5.b. with 'dove' and 5.c. shows the use of a resumptive clitic pronoun).

Examples:

5.a. Il giorno che sei partito...
DEF.M.SG day:M.SG that:COMP be:PRES.2SG leave:PST.PTCP.M.SG
The day you left...

5.b. Il ristorante che andremo domani...
DEF.M.SG restaurant:M.SG that:COMP go:FUT.1PL tomorrow:ADV
The restaurant in which we will go tomorrow...

5.c. Quello che puoi dirgli tutto
PRO.DEM.M.SG that:COMP can:PRES.2SG tell:PRES.2SG-PRO:ENCL.DAT.3SG everything:M.SG
è Giovanni.
be:PRES.3SG John.
The one you could tell everything to is John.

2.1.2. Appositive relative clauses

As said in paragraph 2.1., appositive relative clauses are different from restrictive relative clauses with respect to the predication they provide on the relative head. The appositive predication is relevant but it is not needed in order to determine the referent, which is already identified autonomously. Appositive relative clauses have also peculiar characteristics: when uttered, they generally have a lower intonation and/or a pause after the antecedent; when written, a comma is usually inserted between the antecedent and the relative clause (Cinque 2001).

As for the relative pronouns constructions, usually ‘che’ is used for subjects and objects (examples 6.a. and b.), while ‘quale’ and ‘cui’ combined with articles are used for prepositional complements (example 6.c.). Occasionally ‘quale’ can be used for subjects and objects too.

Examples:

6.a. Maria, **che** è molto precisa,
Mary that:PRO.REL be:PRES.3SG very:ADJ precise:ADJ.F.SG

ha redatto la lista.
have:PRES.3SG compile:PST.PTCP.M.SG DEF.F.SG list:F.SG
Mary, who is very precise, has compiled the list.

6.b. Il film, **che** tu non hai
DEF.M.SG film:M.SG that:PRO.REL PRO:SBJ.2SG NEG have:PRES.2SG

apprezzato, è recensito come ottimo.
appreciate:PST.PTCP.M.SG be:PRES.3SG review:PST.PTCP.M.SG come=as excellent:ADJ.M.SG
The film, which you didn't appreciate, has excellent reviews.

6.c. La festa, **alla quale** sono stati invitati
 DEF.F.SG party:F.SG alla quale=at which be:PRES.2PL be:PST.PTCP.M.PL invite:PST.PTCP.M.PL
 anche altri amici, è stata un
 anche=also other:ADJ.M.PL friend:M.PL be:PRES.3SG be:PST.PTCP.F.SG INDEF.M.SG
 vero successo.
 true:ADJ success:M.SG

The party, at which other friends were also invited, has been a real success.

As already seen for prepositional restrictive relative clauses at the end of paragraph 2.1.1, in informal and colloquial contexts also prepositional appositive relative clauses can be constructed without relative pronouns. Examples in 7. illustrate some examples of this kind of construction, which also favours the use of resumptive pronouns.

Examples:

7.a. Se inviti Maria, che non la sopporta nessuno,
 se=if invite:PRES.2SG Mary that:COMP NEG PRO.OBJ.F.SG stand:PRES.3SG nobody:M
 dovrai invitare anche ...
 must:FUT.2SG invite:INF anche=also

If you invite Mary, which no one can stand, you'll have to invite also...

7.b. Questo coltello, che ci ho tagliato
 PRO.DEM.M.SG knife:M.SG that:COMP PRO.CL. have:PRES.1SG cut:PST.PTCP.M.SG
 la torta prima, è sporco.
 DEF.F.SG cake:F.SG before:ADV be:PRES.3SG dirty:ADJ.M.SG

This knife, with which I cut the cake before, is dirty.

7.c. La sua tesi, che ora non ne vuole
 DEF.F.SG ADJ.POSS.F.SG thesis:F.SG that:COMP now:ADV NEG PRO.CL. want:PRES.3SG

più parlare, riguarda...
 anymore:ADV talk:INF concern:PRES.3SG

His thesis, about which he doesn't want to talk about anymore, concerns...

2.1.3. 'Dove' relative pronoun

In addition to 'che', 'cui' and 'quale', there are also other pronouns that can be used to produce relative clauses. The one used to relativize locative antecedents is 'dove'. It can be used both in restrictive and appositive relative clauses (examples 8.a. and b.), and it can be combined with prepositions (example 8.c.).

Example:

8.a. Il luogo **dove** andremo è molto bello.
 DEF.M.SG place:M.SG where:PRO.REL go:FUT.1PL be:PRES.3SG very:ADJ beautiful:ADJ.M.SG
The place where we are going is very nice.

8.b. Questa casa, **dove** vissero i miei genitori,
 ADJ.DEM.F.SG house:F.SG where:PRO.REL live:PST.3PL DEF.M.PL ADJ.POSS. parent:M.PL
 ha uno stile particolare.
 have:PRES.3SG INDEF.M.SG style:M.SG peculiar:ADJ
This house, where my parents used to live, has a peculiar style.

8.c. La località **per dove** siamo passati
 DEF.F.SG locality:F.SG per dove=through which be:PRES.1PL pass:PST.PTCP.M.PL

ha origini medioevali.
 have:PRES.3SG origin:M.PL medieval:ADJ.PL
The locality we passed through has medieval origins.

2.2 Friulian relative clauses

This section is dedicated to a description of relative clauses in the Friulian language⁸⁹. Specifically, the description will concern those characteristics in which Friulian relative clauses differ from the Italian ones (section 2.1).

The first peculiarity concerns the distinction between different types of relative clauses based on the way they are constructed. The previous paragraphs have shown that the main structural distinction in Italian depends on the function that relative clauses have in identifying the antecedent reference, namely if they are restrictive or appositive. In Friulian, the main structural distinction depends instead on the antecedent role: namely, if the relative clause is constructed on the subject or on the direct object. In particular, relative clauses on the subject always have a clitic subject as a copy of the relativized element, regardless of them being restrictive (example 9.a) or appositive (example 9.b).

Examples:

9.a. Il fantàt ch' **al** è
 DEF.M.SG boy:M.SG that:PRO.REL pro:CL.CBJ.M.3SG be:PRES.3SG

⁸ For more an accurate and exhaustive exposition, see Benincà 2015, Benincà & Vanelli 2015.

⁹ This description is to be considered within the Friulian grammatical profile described in chapter 3, section 3.1.

rivât ué...
 arrive:PST.PTCP.M.SG today:ADV
The boy that has arrived today...

9.b. Pieri, ch' al è un bon frut, ...
 Peter that:PRO.REL PRO:CL.SBJ.M.3SG be:PRES.3SG INDEF.M.SG good:ADJ.M.SG boy:M.SG
Peter, who is a good boy, ...

(examples from Benincà 2015: page 111)

Relative clauses on the object, instead, never take an object clitic copy of the antecedent, regardless of them being restrictive (example 10.a) or appositive (example 10.b).

10.a. Il fantât che tu (*lu) âs
 DEF.M.SG boy:M.SG that:PRO.REL PRO.SBJ.2SG (PRO:CL.OBJ.M.3SG) have:PRES.2SG
 viodût ué...
 see:PST.PTCP.M.SG today:ADV
The boy you saw today...

10.b. Pieri, che tu (*lu) cognosis ben, ...
 Peter that:PRO.REL PRO.SBJ.2SG (PRO:CL.SBJ.M.3SG) know:PRES.2SG well:ADV
Peter, who you know well, ...

(examples from Benincà 2015: page 111)

Another difference between Italian and Friulian relative clauses concerns those relatives constructed on complements introduced by prepositions. As the paragraphs in section 2.1 have shown, Italian uses pronouns ‘cui’ and ‘quale’, also in combination with articles and

prepositions, in order to relativize prepositional complements. Friulian instead does not use relative pronouns for this kind of constructions: it uses the ‘che’ (*that*) complementizer. The relevant grammatical function is either expressed in the clause with a clitic pronoun (example 11.a) when otherwise not deducible, or it needs to be reconstructed on the basis of the verb semantics and the sentence context (example 11.b).

Examples:

11.a. Il fantàt che tu i âs
 DEF.M.SG boy:M.SG that:COMP PRO.SBJ.2SG PRO:CL.DAT.M.3SG have:PRES.2SG

dât il libri al è
 give:PST.PTCP.SG DEF.M.SG book:M.SG PRO:CL.SBJ.M.3SG be:PRES.3SG

lât vie
 go:PST.PTCP.M.SG away:ADV

The boy to whom you gave the book has gone away.

11.b. Il treno che tu sês rivât...
 DEF.M.SG train:M.SG that:COMP PRO.SBJ.2SG be:PRES.2SG arrive:PST.PTCP.M.SG

The train with which you arrived...

(examples from Benincà & Vanelli 2015: page 408)

2.3 Relative clauses syntax

From a syntactic perspective, relative clauses have been extensively investigated since the seventies. Defined as subordinate clauses containing a complementizer or a relative pronoun linked to an antecedent in the main clause, relative clauses can be distinguished based on the function that the antecedent plays in the relative clause: Subject Relative Clauses (SRCs) are

those in which the antecedent is the subject of the relative clause; Object Relative Clauses (ORCs) are those in which the antecedent is the object of the relative clause; Prepositional Relative Clauses (PPRCs) are those in which the antecedent is the oblique complement in the relative clauses (see section 2.3.1). All relative clauses are instances of embedded A' movement, namely a movement in which a constituent is moved to a non-argument position inside a subordinate. In the following paragraphs the different RCs will be described together with the theoretical framework in which they will be considered, namely Relativized Minimality.

2.3.1. Subject Relative Clauses, Object Relative Clauses and Prepositional Relative Clauses

Starting from NP relatives, that is SRCs and ORCs, they differ with respect to the extraction site, namely the position from which the movement takes place. According to the Raising analysis of relative clauses¹⁰ (Kayne 1994, Bianchi 1999), in SRCs the movement originates from the embedded subject position. Consider the following example:

12. The dog that/who ____ chased the cat.

a. [DP the [CP dog [C that [IP ~~dog~~ chased the cat]]]]



b. [DP the [CP [dog [who ~~dog~~] [C [IP [who ~~dog~~] chased the cat]]]]]



In 12.a the subject relative clause is introduced by a complementizer base-generated in C and the subject directly raises to the specifier of CP. Hence, the derivation involves only a one-step

¹⁰ The Raising analysis of RCs will be adopted throughout this thesis. As for the Matching analysis of Relative clauses, see Sauerland 1999, 2004; for a detailed discussion of the two accounts, see Cinque 2015.

movement, namely the movement of the subject to the specifier of CP. In 12.b. the subject relative clause is introduced by a relative pronoun: two steps characterize the syntactic derivation. First, the DP [who dog] is moved to the CP layer and second, the NP [dog] is moved to the specifier of the DP [who dog].

Consider now Object Relative Clauses: in this case the constituent moves from the object position and crosses the subject DP (*the dog* in example 13.).

13. The cat that/who the dog chased_____.



a. [DP the [CP cat [C that [IP the dog chased ~~eat~~]]]]

b. [DP the [CP [cat [which ~~eat~~]] [C [IP the dog chased [which ~~eat~~]]]]



As for SRCs, example 13.a. shows the derivation with a complementizer while 13.b. shows the derivation with a relative pronoun.

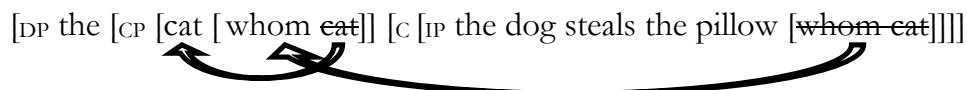
Having considered the previous examples, it is important to focus on two considerations. First, since relative clauses are instances of embedded A' movement, their derivation is possible only if the mechanism responsible for embedding and/or for triggering A' movement is active. This observation is particularly interesting if language acquisition is considered, because there may be a stage in which that mechanism is not yet acquired, as supported by the literature showing that children produce and comprehend main clauses before they acquire embedded structures (de Villiers et al. 1979; Rothweiler 1993; Diessel and Tomasello 2000). Second, it is well documented in the literature that SRCs are produced, comprehended and processed earlier, more frequently and more accurately than ORCs, and ORCs have been argued to be problematic in both children (cf. de Villiers et al. 1979; Tavakolian 1981; Hamburger & Crain 1982; Diessel & Tomasello 2005; Belletti, Friedmann, Brunato & Rizzi 2012, among many others) and adults (cf. Frauenfelder, Segui & Mehler 1980; Clifton & Frazier 1989; King & Just 1991; Gordon, Hendrick & Levine 2002; Traxler, Morris & Seely 2002, among many others).

This asymmetry between difficult ORCs and easier SRCs has been argued to be related to frequency, word-order pattern, cognitive demands, movement span, intervention, and discourse requirements (cf. Bever 1970; MacWhinney 1977, 1982; de Vincenzi 1991; Gibson 1998, 2000; Diessel & Tomasello 2000; Mak et al. 2002; O’Grady, Miseon & Miho 2003; Rizzi 2004, among others). Moreover many theoretical accounts have been proposed to explain this subject/object asymmetry, its causes and its ameliorations, with the support of much empirical research (processing accounts: MacWhinney 1982; Clifton & Frazier 1989; de Vincenzi 1991; Gordon, Hendrick & Levine 2002; usage-based approaches: Tomasello 2003, Diessel 2004; grammatical approaches: O’Grady 1997; Rizzi 1990, 2004).

Ameliorating factors identified for ORCs are the following: different DPs, with the head of the ORC lexically specified and a pronoun or a proper name as the RC-internal subject (Gordon et al. 2001); a mismatch in animacy (animate vs. inanimate) or discourse-properties (old vs. new information) between the RC-internal subject and the moved object DP (Mak, Vonk & Schriefers 2002, 2006); mismatch in number and mismatch in case marking between the RC-internal subject and the moved object DP (e.g., Adani, van der Lely, Forgiarini & Guasti 2010 for number mismatch; Guasti, Stavrakaki & Arosio 2008 for case marking mismatch).

Considerably less research has been carried out on Prepositional Relative Clauses instead. Their configuration is similar to the one for ORCs: the constituent moves from the oblique position and crosses the subject DP (but also the object DP when present), as example 14 shows.

14. a. The cat to whom the dog steals the pillow _____.



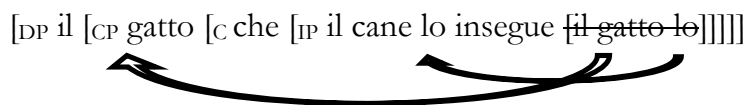
b. The garden where the dog runs _____.



In this case, example 14.a. shows the derivation with an inflected relative pronoun while 14.b. shows the derivation with an uninflected relative pronoun.

What is common to both ORCs and PPRCs, in addition to the crossing of the subject in the movement derivation, is the possible use of resumption (rf. section 2.1.1. and 2.1.2.). Resumption is used to fill the space that the antecedent has left empty. Two analysis have been proposed: one states that resumption is not involved in movement operations (McCloskey 2001, 2002; Friedmann, Costa 2011), the other instead considers resumption as part of a bigger DP together with the antecedent, and a double movement is then associated with that DP, with the antecedent moving to the main clause and the resumption moving within the relative clause (Cecchetto 2000; Boeckx 2003; Kayne 2005; Belletti 2005), as example 15 shows.

15. Il gatto che il cane lo insegue _____.



I will remain neutral with respect to the movement or non-movement approach to resumption (Bianchi 2004).


2.3.2 Relativized Minimality

In this thesis, Relative Clauses will be analysed within the Relativized Minimality framework (Rizzi 1990, 2004; refined in Friedmann et al. 2009). This approach states that a chain cannot be formed between two elements X and Z if an intervening element Y has the same properties as the target X. If only some morpho-syntactic characteristics are shared between the intervener and the target X, a chain can be formed but it will be difficult to process in adults and to

interpret and produce for children. If the features are instead completely different, the relation between the trace and the target will not create raise any problem.

Applying this approach to Relative Clauses, it can be stated that there is no intervention in SRCs, while intervention is present in both ORCs and PPRCs. Focusing on ORCs, there is always intervention and there is partial feature sharing, as example 16 shows:


16.	Target	Intervener	Trace
	X	Z	Y
	The cat that the dog chased _____		
	[+NP, +wh]	[+NP]	<[+NP, +wh]>



As example 16. shows, both the moved object DP and the intervening subject DP, being full lexical elements, share the [NP] feature. For this reason, sentences of this kind are difficult to process and produce. Reducing the overlap between the features of the moved object and the RC-internal subject should then reduce also the difficulty for ORCs productions. These considerations suggest that not all ORCs are then equally difficult to process (rf. section 2.3.1.).

Focusing then on PPRCs, the intervention is similar to the one occurring in ORCs, or double, as example 17 shows.

17.	Target	Intervener	Trace
	X	Z	Y
	The cat to whom the dog steals the pillow. _____		
	[+PP, +wh]	[+NP]	[+NP] <[+PP, +wh]>



In this case, phrases differ in that one has [NP] while the other is [PP], but inside the PP there is also a [NP], so there is still some sharing.

For the interventions configurations exemplified above for both ORCs and PPRCs, Relativized Minimality predicts that feature-mismatches between X and Z should improve processing and interpretation of the filler-gap-dependencies (Friedmann et al. 2009).

2.4 Relative clauses acquisition

The acquisition of relative clauses occurs around the third year of life (see Gvozdev 1961 for Russian; Goodluck and Stojanovič 1996 for Serbo-Croatian; Hamburger & Crain 1982, Diessel & Tomasello 2000, for English; Guasti and Cardinaletti 2003 for Romance; Friedmann & Novogrodsky 2004, Arnon 2005 for Hebrew; Goodluck, Guilfoyle & Harrington 2006 for Irish; Tjung 2006 for Indonesian; Hsu, Hermon & Zukowski 2009 for Mandarin; Kim 2013 for Korean). However, there are differences with respect to RC types: SRCs appear earlier, are produced more frequently, and cause fewer comprehension errors than ORCs (de Villiers, Tager-Flusberg, Hakuta, & Cohen 1979; Tavakolian 1981; Hamburger & Crain 1982; Corrêa 1995; Diessel 2004; Diessel & Tomasello 2005; Belletti et al. 2012; Friedmann et al. 2009, among others).

Cross-linguistic research has also shown that when children do not produce target-like RCs, they produce types of non-target-like RCs comparable across age and languages. Non-target-like responses include the production of main clauses, fragments, or pointing if pictures are provided in the experiment (e.g., Diessel & Tomasello 2005, Novogrodsky & Friedmann 2006, Adani *et al.* 2010). These non-target-like responses can be taken as evidence that the necessary mechanism of the CP layer responsible for embedding and/or A' movement is not yet acquired or fully mastered.

In addition, children have been shown to have a preference for uninflected complementizers in place of relative pronouns marked for gender, number and/or case features. This preference

may be interpreted as evidence that children prefer a derivation involving only a one-step movement, namely only the movement of the head noun. Moreover, the use of uninflected complementizers may indicate that children master a CP-layer that is unspecified for certain features before a fully specified one (Guasti & Cardinaletti 2003).

Other non-target productions can be seen when children want to avoid the production of ORCs containing two lexical DPs. One frequently reported strategy is the production of RCs with a reversed thematic role or reversed head of the relative clause (example: target-like ORCs “the cat that the dog chases”; non-target productions: “the cat that chases the dog”, “the dog that chases the cat”). Applying this strategy, children do not preserve the intended meaning of the clause, but producing inappropriate SRCs they manage to circumvent the intervention problem (e.g., Pérez-Leroux 1995 for Spanish; Diessel & Tomasello 2000 for English; Håkansson & Hansson 2000 for Swedish; Guasti & Cardinaletti 2003 for Italian and French; Arnon 2005 for Hebrew; Gavarró, Cunill, Mutané & Reguant 2012 for Catalan; Kim 2013 for Korean; Jensen de Lopez, Sundahl Olsen & Chondrogianni 2014 for Danish).

Another non-target production used in order to circumvent the intervention problem implies the use of resumption: using resumptive pronouns or resumption of the head noun children result in a correct response. The resumption strategy is attested in languages with uninflected complementizers (Guasti & Cardinaletti 2003 for French and Italian, Utzeri 2007 for Italian, Friedmann & Lavi 2006 for Hebrew, Pérez-Leroux 1995 Spanish and English, Gavarró et al. 2012 for Catalan, Hsu et al. 2009, Hu, Gavarró & Guasti 2015 for Mandarin, and Goodluck et al. 2006 Irish). Resumption has been interpreted as either requiring no movement at all or involving non-operator movement similar to clitic left dislocation (cf. paragraph 2.3.1) and this is the reason why it helps solving the intervention difficulty.

Lastly, another non-target-like production used to avoid intervention in ORCs implies the production of SRCs in passive voice. In languages with SRCs in passive voice, children aged 5 and older as well as adults have been found to frequently produce these structures instead of ORCs (Contemori & Belletti 2014 for Italian; Tjung 2006 for Indonesian; Kim 2013 for Korean; Jensen de Lopez et al. 2014 for Danish). Passive Object Relatives have been interpreted as a way of avoiding intervention via smuggling (following Collins 2005; Belletti & Contemori 2010).

As far as PPRCs acquisition is concerned, very little research has been carried out: Costa, Friedmann, Silva & Yachini (2014, 2015) compared PPRCs with ORCs in European

Portuguese and Hebrew, showing that children show comprehension and production levels for PPRCs similar to those of ORCs; the similarity concerned also non-target productions, which included role and/or head reversal errors and the use of resumption.

Cardinaletti & Giusti (2003) investigated PPRCs in Italian and French focusing specifically on the absence of prepositional pied-piping and the alternative strategies which implies the production of complementizer relatives combined with resumption. Further research should be carried out in order to better investigate and understand PPRCs acquisition.

2.4.1. Italian Relative Clauses Acquisition

After having considered RCs acquisition in general, a specific focus on Italian will be here illustrated¹¹, discussing the main studies investigating Italian RCs production and comprehension by children. Italian experimental literature is in line with cross-linguistic literature in concentrating on SRCs and ORCs and the subject-object asymmetry investigation (with the only exception of Guasti and Cardinaletti 2003, which also considered PPRCs).

As far as production is concerned, Utzeri (2007) made the first adaptation of Novogrodsky and Friedmann (2006). Children between 6 and 11 years old were tested through a Preference Task and a Picture Description Task. Results strongly confirmed the cross-linguistic findings on the subject-object asymmetry. The data also showed that children tended to not produce ORCs, and the strategies adopted to cope with the related difficulty: transforming ORCs in SRCs, changing the verb to preserve the meaning, producing Passive Object Relative and ‘si-causative’ type of structure.

Belletti & Contemori (2010), and Contemori & Belletti (2014) tested children aged 3;4 to 8;10 readapting the previously mentioned Preference Task and Picture Description Task, also adding a number mismatch condition between the target and the intervener to avoid the ambiguity related to post verbal noun phrases (which in Italian can be interpreted as both the post verbal direct object or the post verbal subject of the relative clause). Results showed that ORCs

¹¹ For a more complete and thorough discussion, see Belletti & Guasti 2015

remained nonetheless significantly smaller compared to SRCs; and confirmed the widespread use of various forms of Passive Object Relatives in place of ORCs, the production of which rose with age.

Other studies by Guasti et al. (2012) and Belletti & Contemori (2012) further investigated some specific aspects ORCs acquisition like the role of animacy mismatch between the target and the intervener and the position and nature of the subject in the produced RCs, respectively.

Moving on to the investigation of RCs acquisition in comprehension, Adani (2011) building on Adani (2008) tested children aged 3 to 7 years old with a Preference Task modelled on De Vincenzi et al. (1999). The experiment investigated SRCs and ORCs with number mismatch between the target and the intervener, both with preverbal and post-verbal subjects. Results confirmed the subject-object asymmetry and also showed that post-verbal subject ORCs are more complex than pre-verbal subject ORCs.

Arosio et al. (2009) tested children aged 5 to 11 with a Picture Selection Task: together with SRCs also two types of ORCs were investigated, one with number mismatch with post-verbal subject and one with number match and preverbal-subject. Results confirmed the subject-object asymmetry and also showed that ORCs with pre-verbal subject were better comprehended than post-verbal subject ORCs regardless of the number mismatch.

Also other studies investigated the ameliorating role in comprehension played by gender and number mismatch (Adani et al. 2010).

Contemori & Belletti (2014) tested children aged 6 to 8;10 through a binary Picture Matching Task for the comprehension of ORCs as found in children's spontaneous and elicited production, namely with gaps and with resumptive pronouns, and compared that results with those for Passive Object Relatives. Results showed that ORCs either with gap or with resumption remained significantly harder to comprehend than Passive Object Relatives.

As already said at the beginning of this paragraph, there is only one study available which also included PPRCs in the investigation: Guasti and Cardinaletti (2003) tested children aged 5;2 to 10 through an Elicitation Task adapted from Hamburger and Crain (1982) for SRCs, ORCs and PPRCs (for indirect object, locative and genitive). Results showed that children do not produce prepositional pied-piping relatives and mostly prefer to use Resumptive Relatives instead; relative pronouns start to rarely emerge only in the oldest children's production.

3. FRIULIAN

In this chapter I will focalise on Friulian language, framing it in its geographical background. I will delineate a linguistic profile comprehensive of a macro level, namely the other languages with which Friulian is in contact; and a micro level, looking at the dialectal areas and varieties within Friulian. I will also provide an overview of the phonological, morphological and syntactic characteristics of the language (section 3.1). Then the sociolinguistic and political – administrative context will be illustrated (section 3.2). Lastly, I will further develop the geo-linguistic profile of Gemona del Friuli, the town in which the research has taken place (section 3.3).

3.1 Geo-linguistic profile

In this section the geographical and linguistic profiles will be portrayed.

3.1.1 Friuli Venezia Giulia

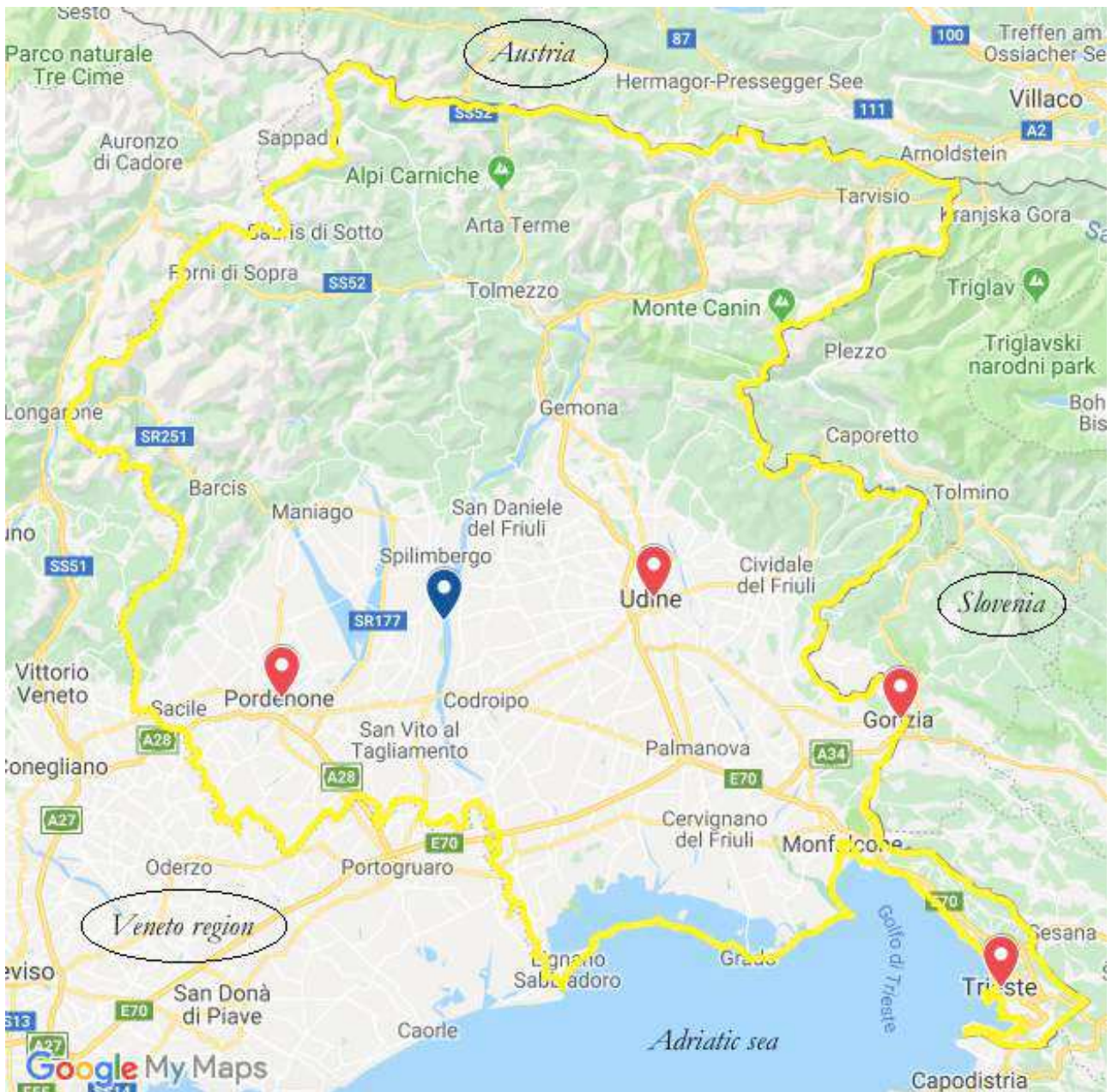


Fig. 3.i Friuli Venezia Giulia region (GoogleMaps - MyMaps)

Friuli Venezia Giulia is one of the 20 regions of Italy, and one of five autonomous regions with special statute. It consists of two historical-geographical regions: Friuli, which covers the provinces of Udine, Pordenone and part of Gorizia; and Venezia Giulia, which covers the provinces of Trieste and part of Gorizia. Overall, Friuli Venezia Giulia has an area of 7,924 square kilometres (fifth smallest region of the country) and about 1.2 million inhabitants. It is Italy's north-easternmost region: it borders Austria to the north and Slovenia to the east, it

faces the Adriatic Sea to the south and to the west there is the internal border with the Veneto region.

The primary official language of the region is Italian; Friulian, Slovenian and German are allowed to be local secondary official languages in their historic areas¹². Their related varieties are spoken in the region as well.

Venetian and Venetian dialects are usually spoken on the western border (e.g. Pordenone province) and in some places along the Adriatic coast (Monfalcone, Grado, Marano, Trieste) and the “bisiaco” territory (the southern area of the Gorizia province).

Slovene and Slovene dialects are spoken in the provinces of Gorizia and Udine, in Resia, Torre and Natisone valleys and the *Collio* area (the eastern area of the Gorizia province).

German and German dialects are spoken in Val Canale (Pontebba, Tarvisio) and in several ancient mountain enclaves like Timau – Tischelwang, Sauris – Zahre and Sappada – Plodn¹³

¹² For a more extensive and accurate description of the Friulian historical profile, see Francescato & Salimbeni 2004; Frau 2015a, 2015b

¹³ The mountain town of Sappada is part of the ‘Cadore’ area in the Eastern Dolomites. It has been part of the administrative province of Belluno in the Veneto region for many years before being incorporated to the province of Udine in late 2017.

3.1.2 Friuli and Friulian

As it was mentioned in the previous paragraph, Friuli comprises the areas of the provinces of Udine, Pordenone and Gorizia¹⁴. It has a total territory of 7,646 square kilometres and about 900,000 inhabitants. It corresponds more or less to Roman municipia of Concordia, Aquileia, *Forum Iulii* and *Iulium Carnicum*.

This is the area in which, in addition to Italian, Friulian is mostly spoken.

From a linguistic perspective, Friulian represents a peculiar variety within the Romance context: it is part of the northern Italian dialectal area, but it also shows some characteristics that are not shared by the other varieties. It is part of the Ladin (or Rhaeto-Romance) linguistic group, together with Dolomitic Ladin, spoken in the provinces of Trento, Bolzano and Belluno, and Romansh, spoken by the Grisons in Switzerland. It is also part of the Gallo-Italic family, with which it shares most of the distinctive linguistic phenomena but not all of them. For these reasons Friulian occupies a peripheral position within the group, and the peripherality is also confirmed by the presence of linguistic phenomena straddling between western and central – eastern Romania (for a more detailed discussion see Vanelli 2005; Iliescu 2015).

Considering then its linguistic features as a whole, Friulian (*Furlan* or *marilenghe*, ‘mother tongue’, as Friulian people affectionately call it) could be considered a fairly unitary and homogeneous variety. Nonetheless, internal varieties can easily be distinguished, and their geographical distribution is closely related to the organisation of the old Roman municipalities. The main partition is in fact marked by the Tagliamento River: in the past it separated the municipia of Aquileia to the east and Concordia to the west; today it divides central – eastern Friulian on one side of the river (as Friulian people call it: *furlan di ca da l’aghe* ‘Friulian on this side of the water’) and western Friulian on the other side (as Friulian people call it: *furlan di là da l’aghe* ‘Friulian on that side of the water’). Another division separates the northern mountainous area where Carnic Friulian (*Cjargnel* in Friulian) is spoken from the rest of the central – eastern Friulian area. That territory was once under the municipium of Iulium Carnicum. In the following map, these dialectal macro-areas are illustrated (from Benincà & Vanelli 2016).

¹⁴ Trieste province is excluded, as it is instead part of the ‘Venezia Giulia’.

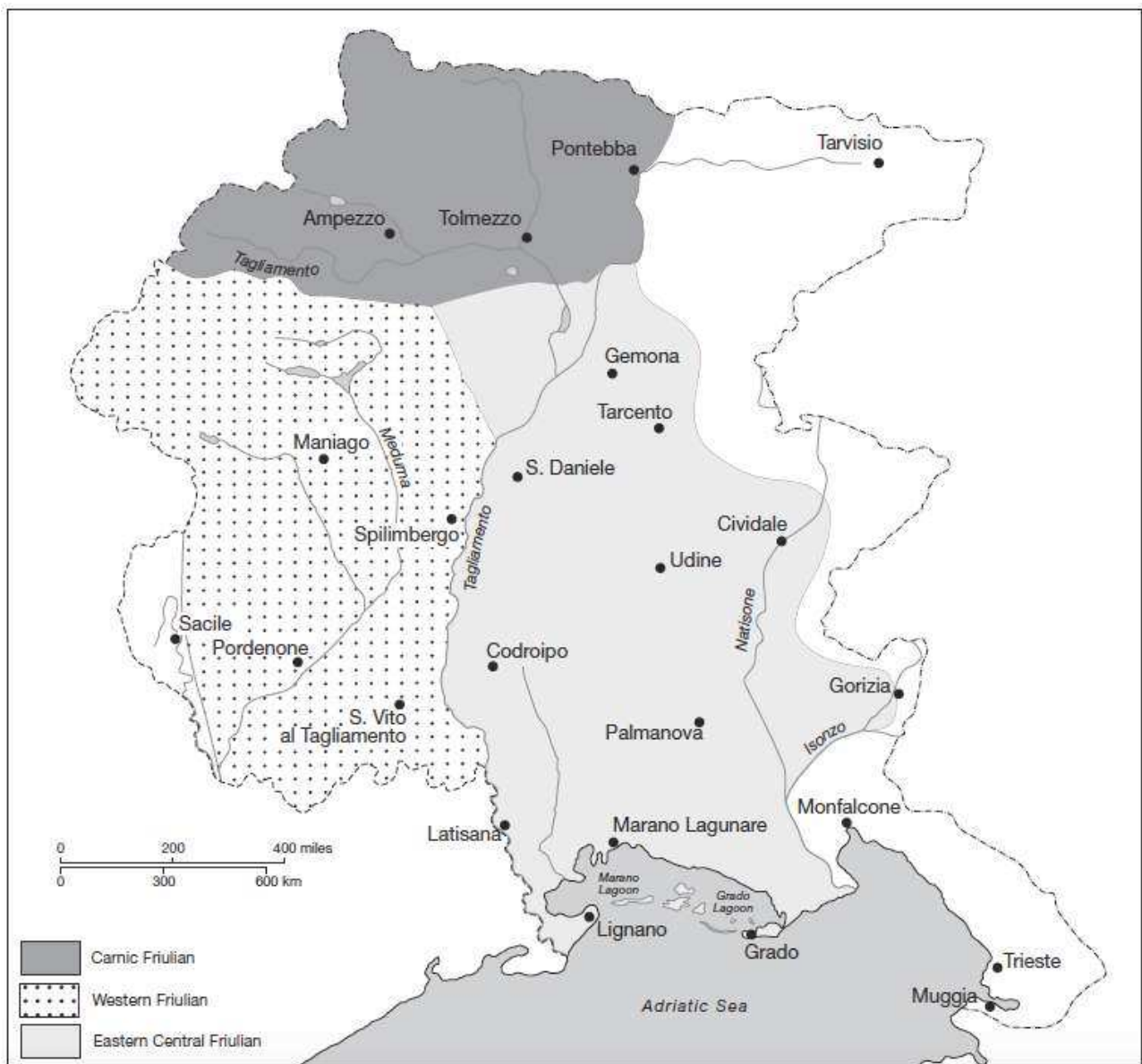


Fig. 3.ii Friulian dialectal macro-areas (Benincà & Vanelli 2016: page 140)

A further division can be found within the central-eastern area: on one hand there is central Friulian, that is the ground on which literary and official languages¹⁵ are based; and on the other hand there is eastern Friulian. Central Friulian consists of the area from the Tagliamento river to Gorizia, from the Prealps to the sea; eastern Friulian is spoken in the province of Gorizia down to Cervignano and Aquileia, with the exception of the area around Monfalcone. For each of these major areas, further internal distinctions can be identified (see also section 3.3)¹⁶.

¹⁵ A standard orthography for Friulian language was approved with the Regional Law number 15 of 1996. It represents the basis for the common variant that should be used in toponyms, official acts and written documents. For a detailed discussion see Cisilino 2015; Turello 2015.

¹⁶ For a more exhaustive analysis on Friulian dialectal areas and local varieties, see Francescato 1966; Pellegrini

3.1.3 Phonology

In this section, I will illustrate the main phonological features of Friulian. The following general description makes reference to central Friulian, and presents a concise overview of the relevant and most common phonological characteristics of the language.¹⁷

3.1.3.1. Vowel system

The vowel system of Friulian consists of two series of seven phonemes in stressed position, one long and one short, with four degrees of aperture. It also includes a series of five phonemes in unstressed position, with three degrees of aperture.

stressed				unstressed	
<i>short</i>		<i>long</i>			
/i/	/u/	/i:/	/u:/	/i/	/u/
/e/	/o/	/e:/	/o:/		
/ɛ/	/ɔ/	/ɛ:/	/ɔ:/	/e/	/o/
	/a/		/a:/		/a/

Fig. 3.iii Friulian vowel system (Finco 2015: page 31)

Among stressed vowels, the short ones are the same as in Italian and can be found in every context. The long ones are limited to some specific phonological environments: in final closed syllable ending with a single consonant (e.g. [ri:t] ‘laugh:PRES.3SG’); in final open syllable for few monosyllables (e.g. [je] ‘PRO.F.SG’) or the infinitives of 1st, 2nd and 4th conjugation. In these positions there is quantitative contrast with the corresponding short vowels (e.g. [la:t] ‘go:PST.PTCP.M.SG’ vs. [lat] ‘milk:M’). The occurrence of long vowels is easily predictable from the surrounding context: when a word presents V:C#, the postvocalic obstruent surfaces as

1972; Frau 1984; Roseano 2015; Vicario 2015a, 2015b.

¹⁷ For more detailed studies, also comprehensive of the local variability, see Benincà 2005; Finco 2015; Benincà & Vanelli 2016.

voiced in non-final position (e.g. [ˈla:t]/[ˈlade] ‘go:PST.PTCP.M.SG/F.SG’). If a word presents VC# instead, the obstruent surfaces as voiceless in non-final position (e.g. [pas]/[paˈsa] ‘step:M.SG/pass:INF’). This holds for all their morphophonologically related forms.

As for unstressed vowels, Friulian has five short vowels, and their distribution in word-final position is limited due to diachronic processes common in the Gallo-Romance area and the majority of northern Italian dialects. Latin unstressed final vowels other than -A are lost in Friulian; Latin unstressed final -A has developed into -e (e.g. UNA(M) > [ˈune] ‘one:F.SG’) in most varieties.

3.1.3.2. Consonant system

The consonant system of Friulian presents only singleton consonants. While Italian and central-southern varieties preserve Latin geminate consonants, Friulian is aligned with northern Italian dialects and shows degemination.

	bilabial	labio-dental	dental	alveolar	post alveolar	palatal	velar	labio-velar
nasals	/m/			/n/		/ɲ/		
plosives	/p/ /b/		/t/ /d/			/c/ /ɟ/	/k/ /g/	
affricates			/tʃ/ /dʒ/		/tʃ/ /dʒ/			
fricatives		/f/ /v/		/s/ /z/				
approximants						/j/		/w/
rhotics				/r/				
laterals				/l/				

Fig. 3.iv Friulian consonant system (Finco 2015: page 38)

Another characteristic is the presence of the palatal stops /c/ and /ɟ/, which originated through a process of palatalization affecting the Friulian velar consonant before -A in initial or post-consonant position (e.g. CANE(M) > [caɲ] ‘dog:M.SG’).

Another typical Friulian phenomenon consists in contrasting the tendency towards final nasal weakening with the insertion of an epenthetic consonant after the nasal, preserving its nasal articulation (e.g. [omp] ‘man:M.SG’). This process is widespread throughout the Friulian area, but its degree of application varies across the different varieties.

3.1.4 Morphology

In this section, the main morphological features of Friulian will be illustrated. As for the previous section about phonology, also here I will outline a general description keeping central Friulian as the point of reference, and present a concise overview of the relevant and most common morphological characteristics of the language.¹⁸

3.1.4.1. Inflectional nominal morphology

Friulian inflectional system requires that nouns and adjectives inflect for gender (masculine and feminine) and for number (singular and plural). Masculine forms mostly have no inflectional dedicated morpheme, thus having the same structure as the lexical stem. Usually they end in a consonant (e.g. [frut] ‘child:M.SG’); vowel endings are instead rare (e.g. [a'mi] ‘friend:M.SG’). Feminine forms are usually created by adding -e to the lexical morpheme (e.g. ['frute] ‘child:F.SG’). Adjectives generally belong to the unmarked class with a masculine ending \emptyset and a feminine ending -e (e.g. [bjel] ‘beautiful:ADJ.M.SG’; ['bjɛle] ‘beautiful:ADJ.F.SG’).

In order to generate the plural, the unmarked and most used strategy is the addition of a -s ending to the singular form ([caŋ]/[cans] ‘dog:M.SG/M.PL’); when words are feminine, thus

¹⁸ For more accurate discussions, also with reference to the local variability, see Benincà 2005; Vanelli 2015; Benincà & Vanelli 2015; Benincà & Vanelli 2016.

ending in -e, the addition of -s is usually accompanied by a raise of the singular -e- to -i (e.g. ['caze]/['cazis] 'house:F.SG/F.PL').

Another plural formation strategy is also in place: the so-called 'palatal plural'. This system is subject to phonological, morphological, and lexical constraints: it concerns a closed class of masculine words ending with an alveolar consonant (except for -r). In order to form the plural, the alveolar consonant is substituted with the corresponding palatal segment, namely [ç], [ʝ], [ɲ], [ʎ], [j] (e.g. [dut]/[duc] 'all:M.SG/M.PL').

As for personal pronouns, Friulian has a series of free tonic pronouns and another series of unstressed clitics. Free pronouns have three distinct forms of first and second singular differentiated by case, a difference that does not hold for the other grammatical persons. This feature distinguishes Friulian not only from Italian, which only differentiate nominative (io 'I'; tu 'you') and oblique (me 'me'; te 'you') first and second person singular, but also from the other northern Italian dialects that usually have just one single free pronominal form per grammatical person for all grammatical functions (Renzi & Vanelli 1983).

<i>Nominative</i>		
	Singular	Plural
1.	<i>iò</i>	<i>no</i>
2.	<i>tu</i>	<i>vualtris (vo)</i>
3.	<i>lui (m.), jé (f.)</i>	<i>lôr</i>

Fig. 3.v Friulian nominative free pronouns (Vanelli 2015: page 72)

<i>Accusative</i>		
	Singular	Plural
1.	<i>me</i>	<i>no</i>
2.	<i>te</i>	<i>vualtris (vo)</i>
3.	<i>lui (m.), jé (f.)</i>	<i>lôr</i>

Fig. 3.vi Friulian accusative free pronouns (Vanelli 2015: page 72)

Dative

	Singular	Plural
1.	<i>mi</i>	<i>no</i>
2.	<i>ti</i>	<i>vualtris (vo)</i>
3.	<i>lui (m.), jé (f.)</i>	<i>lôr</i>

Fig. 3.vii Friulian dative free pronouns (Vanelli 2015: page 73)

As for clitic pronouns, Friulian has accusative clitics, datives clitics and also a complete series of nominative clitics used as subjects. In addition to these clitics, Friulian also has reflexive clitics used as direct and indirect objects, an impersonal clitic for generic indeterminate or passive subjects and a partitive clitic. Unlike Italian, Friulian is missing a locative-existential clitic (the equivalent of Italian *ci/vi* ‘there’). Consider the example ‘*al è un om*’ (CL:SBJ.M.3SG be:PRES.3SG one:M.SG man:M.SG): it can mean ‘he is a man’ but also ‘there is a man’.

Friulian varieties can exhibit little differences in the clitic form (e.g. eastern Friulian: first and second plural in [i] or [a]).

	Singular			Plural		
	1.	2.	3.	1.	2.	3.
Nom.	<i>o</i>	<i>tu</i>	<i>al (m.), e (f.)</i>	<i>o</i>	<i>o</i>	<i>a</i>
Acc.	<i>mi</i>	<i>ti</i>	<i>lu (m.) / la (f.)</i>	<i>nus</i>	<i>us</i>	<i>ju (m.) / lis (f.)</i>
Dat.	<i>mi</i>	<i>ti</i>	<i>i</i>	<i>nus</i>	<i>us</i>	<i>ur (i)</i>
Refl.	<i>mi</i>	<i>ti</i>	<i>si</i>	<i>si</i>	<i>si</i>	<i>si</i>
Impers.	<i>si</i>					
Part.	<i>(a)nd</i>					

Fig. 3.viii Friulian clitic pronouns (Vanelli 2015: page 74)

3.1.4.2. Inflectional verbal morphology

Friulian verbal system consists of three inflectional classes: they are distinguished by the thematic vowel: -a- for the first conjugation ([kla'ma] 'call:INF'), -e- for the second conjugation ([ta'ze] 'shut up:INF'), and -i for the third conjugation [sin'ti] 'feel/hear:INF'). However, these thematic vowels do not surface in every form of the paradigm.

As for the tenses, Friulian has synthetic present, imperfect and, future. The synthetic perfect is still preserved only in the most conservative varieties in the Carnia area. Where synthetic perfect is not preserved, its functions are carried out with the analytic perfect, as it is the case also for the rest of northern Italy. Analytic perfect has a periphrastic form: it is composed by the auxiliary 'have' or 'be' [ve; 'jesi] and the past participle, as it happens also for pluperfect and future perfect.

As for moods, Friulian has finite indicative, imperative, subjunctive, and conditional; and non-finite infinitive, gerund and participle. Unlike non-finite moods that have no person endings, finite moods have different endings for persons.

3.1.4.3. Word formation

Friulian shares with the other Romance varieties most of the common strategies to form words.

As for the derivational processes, Friulian shares with Romance the primary use of suffixes, most of the inventory of those suffixes, and the unpredictability of the compatibility with a given nominal or an adjectival base. The most productive ones are: -ôś, added to nominal bases to form adjectives (cragne¹⁹ > cragnôś 'dirty:ADJ.M.');

-tât, added to adjectival bases to form nouns (bon > bontât 'goodness:F.');

-mentri, added to adjectival bases to form adverbs (vêr > veramentri 'truly:ADV');

-dôr, -ârt, -ùm, -òn, -òt added to verbal bases to form nouns (lavorà > lavoradôr 'worker:M.SG'; bussâ > bussârt 'kiss:M.SG'; messedâ > messedùm 'mix:M.SG'; sburtâ >

¹⁹ For all the examples in this section I will set aside the phonetical transcription in favour of the graphic transcription.

sburtòn ‘shove:M.SG’; vai > vaiòt ‘crier:M.SG’); -âr, -âl, -êt added to noun bases to form other nouns (gjaline > gjalinâr ‘hen-house:M.SG’; nêf > nevâl ‘snowfield:M.SG’; nojâr > nojarêt ‘walnut grove:M.SG’).

There are also alterative suffixes: diminutives -ût, -ît, -ùz (grant > grandût ‘quite big:ADJ.M.SG’), with -ût being the most typical and productive one, only attested in Friulian; augmentatives -òn, -òt (grant > grandon ‘very big:ADJ.M.SG’); pejorative -ât (om > omenât ‘bad man:M.SG’); verbal modifiers -inà, -ignà, -izzà, -uzzà (sgrifâ ‘grab:INF’ > sgrifignà ‘steal:INF’). Most of the suffixes can also cumulate, and their order is predictable (cjase ‘house:F.SG’ > cjas-ine > cjas-ute > cjas-in-ùte).

As for the compounding processes, Friulian strategies are also consistent with typical Romance patterns: lexical elements like nouns, adjectives, verbs and adverbs are combined and between these elements different relations can exist (appositive, predicative, attributive).

There can be compounds made of verbs and nouns (gjave ‘remove:INF’ + stropul ‘cork:M.SG’ > gjavestropui ‘corkskrew:M.SG’); verbs and prepositions (sore ‘above:PREP’ + sere ‘evening:F.SG’ > soresere ‘dusk:F.SG’); adjectives and nouns (galant ‘gallant:ADJ.M.SG’ + om ‘man:M.SG’ > galantom ‘gentleman:M.SG’); nouns and nouns (mari ‘mother:F.SG’ + lenghe ‘language:F.SG’ > marilenghe ‘mothertongue:F.SG’). There can also be compounds with prepositional phrases or conjunctions (arc-di-sanmàrc ‘rainbow:M.SG’ lit. S. Mark’s arch; pan-e-vìn ‘wood sorrel:M.SG’ lit. bread and wine). The compounding process is particularly productive in some lexicon sectors like animals and plants names.

3.1.5 Syntax

In this section, the main syntactical features of Friulian will be illustrated. As for the previous sections about phonology and morphology, also here I will outline a general description keeping central Friulian as the point of reference, and present a concise overview of the relevant characteristics of the language.²⁰

²⁰ For more thorough examinations, also comprehensive of the local variability, see Poletto 2000; Benincà 2005; Benincà 2015; Benincà & Vanelli 2015, 2016.

1.b. *no tu vègnis*
NEG CL:SBJ.2SG come:PRES.2SG
'you are not coming.'

1.c. **tu no vègnis*
PRO:SBJ.2SG NEG come:PRES.2SG

2.a. *il fantàt al ven*
DET:M.SG boy:M.SG CL:SBJ.M.3SG come:PRES.3SG
'the boy is coming'

2.b. **il fantàt ven*
DET:M.SG boy:M.SG come:PRES.3SG

2.c. *lis fantatis a vègnin*
DET:F.PL girl:F.PL CL:SBJ.F.1PL come:PRES.3PL
'the girls are coming'

2.d. **lis fantatis vègnin*
DET:F.PL girl:F.PL come:PRES.3PL

3.a. *al ven il fantàt*
CL:SBJ.M.3SG come:PRES.3SG DET:M.SG boy:M.SG
'the boy is coming'

3.b. *a vègnin lis fantatis*
CL:SBJ.F.1PL come:PRES.3PL DET:F.PL girl:F.PL
'the girls are coming'

4.a. *al plúf*
CL:SBJ.M.3SG rain:PRES.3SG
'it's raining'

4.b. **plúf*
rain:PRES.3SG

5.a. *al pâr che...*
CL:SBJ.M.3SG seem:PRES.3SG that:COMP
'it seems that...'

5.c. **pâr che..*
seem:PRES.3SG that:COMP

(examples from Benincà 2015: pages 97 - 98)

There is an exception represented by verbs accompanied by an object clitic (example 6) or the negation (example 7): in this case subject clitics, except the second person singular, can or must be dropped depending on the variety.

Examples:

6.a. *lu vin cantât*
CL:OBJ.M.3SG have:PRES.1PL sing:PST.PTCP
'(we) have sung it'

(example from Benincà 2015: page 98)

6.b. % *o lu vin cantât*
CL:SBJ.1PL CL:OBJ.M.3SG have:PRES.1PL sing:PST.PTCP
'we have sung it'

7.a. *no lu vin cantât*
NEG CL:OBJ.M.3SG have:PRES.1PL sing:PST.PTCP
'(we) did not sung it'

(example from Benincà 2015: page 98)

7.b. *% o no lu vin cantât*
CL:SBJ.1PL NEG CL:OBJ.M.3SG have:PRES.1PL sing:PST.PTCP
'we did not sung it'

Another clitic that shares the above mentioned subject clitic properties is the “si” clitic, used in impersonal and passive constructions.

3.1.5.2. Interrogative clauses

Main interrogative clauses have obligatory enclisis of the subject clitic to the inflected verb, being it auxiliary (example 9) or lexical (example 10). This is also known as ‘interrogative inflection’ and holds for both polar direct questions, requiring a yes or no answer (example 8) and for wh- pronoun direct questions.

Examples:

8. *As-tu* *viodût?*
have:PRES.2SG-CL:ENCL.SBJ.2SG see:PST.PTCP
‘Have you seen?’

9. *Cui as-tu viodût?*
who:PRO.INT have:PRES.2SG-CL:ENCL.SBJ.2SG see:PST.PTCP
‘Who have you seen?’

(example from Benincà 2015: page 103)

10. *Cui viodis-tu?*
who:PRO.INT see:PRES.2SG-CL:ENCL.SBJ.2SG
‘Who do you see?’

11. *Di ce fevelàjs-o?*
di=of what:PRO.INT TALK:PRES.2PL-CL:ENCL.SBJ.2PL
‘What are you talking about?’

(example from Benincà 2015: page 103)

It is compulsory to have a subject clitic in enclisis position even when the interrogative pronoun is already the subject of the sentence:

Example:

12. *Cui* *vegnj-al?*
who:PRO.INT come:PRES.3SG-CL:ENCL.SBJ.M.3SG
'Who is coming?'

(example from Benincà 2015: page 104)

Embedded interrogatives represent an exception and do not exhibit the interrogative inflection. They are characterised by a complementizer of the form 'che' (but also *co/cu/ca* depending on the variety) that introduces the interrogative: the presence of the complementizer makes it impossible for the subject clitic enclisis to happen (Benincà 2015).

Example:

13. *Di-mi* *cui* *cb(e)* *al* *ven.*
tell:PRES.2SG-CL:ENCL.DAT.2SG who:PRO.INT that:COMP CL:SBJ.M.3SG come:PRES.3SG
'Tell me who is coming'

(example from Benincà 2015: page 104)

In some varieties, mainly in the northern Carnia area, the above mentioned structure with the complementizer is also used for direct questions. In this scenario, subject clitic enclisis does not happen even if a direct question is in place.

Example:

14. *Cui* *cb(e)* *al* *ven?*
who:PRO.INT that:COMP CL:SBJ.M.3SG come:PRES.3SG
'Who is coming?'

(example from Benincà 2015: page 104)

3.1.5.3. Other structures with subject clitic enclisis

There are also other structures that show subject clitic enclisis: an example can be seen in optative clauses, in which the verb occurs in the subjunctive tenses.

Example:

15. (*to fradi*) *Sunas-jal* *il violin!*
(ADJ.POSS.2SG brother:M.SG) play:SBJV.3SG-PRO:ENCL.SBJ.M.3SG DET violin:M.SG
'If he played the violin!'

(example from Benincà 2015: page 105)

Another example can be seen in the protasis of the if-clauses, with the same subjunctive tenses.

Example:

16. *Vignissi-al* *to pari, ...*
come:SBJV.3SG-PRO:ENCL.SBJ.M.3SG ADJ.POSS.2SG father:M.SG
'Would your father come, ...?'

(example from Benincà 2015: page 106)

Both optative clauses and if-clauses have a possible variant that implies the use of the conjunction 'se', 'if'. When this variant is in place, subject clitic inversion is not possible (examples 17, 18).

Examples:

17. (*to fradi*) *s al sunàs il violin!*
(ADJ.POSS.2SG brother:M.SG) if:COMP CL:SBJ.M.3SG play:SBJV.3SG DET violin:M.SG
'If he played the violin!'

(example from Benincà 2015: page 105)

18. *S al vignìs to pari, ...*
 if:COMP CL:SBJ.M.3SG come:SBJV.3SG ADJ.POSS.2SG father:M.SG
 ‘Would your father come, ...?’

Subject clitic inversion can also be found when subjunctive tenses are used in imperatives (example 19), conjoined alternatives (example 20), rhetorical questions used as exclamatives (example 21), exclamatives with negation (example 22).

Examples:

19. *Ses-tu benede!*
 be:SBJV.2SG-CL:ENCL.SBJ.2SG bless:PST.PTCP
 ‘God bless you!’

20. *Rivi-al prest o*
 arrive:SBJV.3SG-CL:ENCL.SBJ.M.3SG early:ADV or:CONJ

rivi-al tard ...
 arrive:SBJV.3SG-CL:ENCL.SBJ.M.3SG late:ADV

‘Whether he arrives early or late, ...?’

21. *Ce mi tocj-al di vjod!*
 what:PRO.INT CL:DAT.1SG happen:PRES.3SG-CL:ENCL.SBJ.M.3SG di=OF see:INF
 ‘What I happen to see!’

22. *No is-al lát istés!*
 NEG be:PRES.3SG-CL:ENCL.SBJ.M.3SG go:PST.PTCP anyway:ADV
 ‘Didn’t he go anyway?’

(examples from Benincà 2015: pages 106 - 107)

For imperatives and conjoined alternatives, if the ‘che’ complementizer introduces the clauses, the subject clitic inversion does not happen, as already seen for optative clauses and if-clauses with ‘se’ construction.²¹

As for subject clitics and Relative clauses, see chapter 2, section 2.2.

3.2 Socio-political framework

In this section I will illustrate the context in which Friulian language is spoken from the socio-political point of view. I will report the results of the most recent sociolinguistic study available for Friulian language and I will also outline the legislative apparatus that regulates the use and protection of minority languages and specifically Friulian in the Friuli Venezia Giulia region.

3.2.1 Sociolinguistic profile

Since the ‘70 several studies have been conducted in Friuli on the sociolinguistic state of Friulian language (among others Francescato 1974, 1976; Francescato and Salimbeni 2004; Picco 2001, 2013; and by institutions such as the International Sociology Institute of Gorizia ISIG; the University of Udine and its Interdepartmental Research Centre on the Culture and Language of Friuli CIRF).

These studies share the purpose of identifying the number of Friulian-speaking people, the contexts in which the language is used, and the opinions and attitudes of the speakers towards Friulian.

²¹ For a detailed description of all the above-mentioned configurations, see Munaro (2010).

The most recent study was carried out in 2014 under the coordination of C. Melchior, as a result of the collaboration between the University of Udine and the Regional Agency for Friulian Language ARLeF (Agjenzie Regionâl pe Lenghe Furlane).

The research shows that the community of Friulian speakers in the Friuli area (cf. section 3.1.2) consists of 600,000 people: among them 420,000 declared to speak it regularly while 180,00 only occasionally. The total community number grows if also those who do understand Friulian even if they do not speak it are taken into account.

Focusing specifically on the province of Udine, where the experimental work for this thesis has taken place, the data show that 57.6% of the population regularly speaks the language and an additional 19.6% speaks Friulian occasionally. Thus the total number of active Friulian users amounts to 77.2% of the province population. If we also consider those who do not speak Friulian but understand it, this percentage reaches 96%. It comes as no surprise that out of the total 600,000 people who actively speak Friulian in the Friuli area, more than 400,000 are located in this province.

These numbers from the 2014 survey, when compared to the ones from previous studies, show that the loss in the number of speakers over time seems to be decreasing, mostly due to the younger generations (those born after 1985) who appear to speak Friulian more actively compared to their closest peers age-wise.

The 2014 study also investigates the people's attitude towards the language, considering both speakers and non-speakers. For example, if the laws and policies protecting Friulian are considered, about 80% of the population supports their presence and consider them fair. When the generational transmission of the language is considered, the percentage of the people in favour reaches 90%.

In general, researchers observe that the negative opinions and stereotypes linked to the Friulian language have decreased over time. Friulian used to be considered a downgrading language accounted for a difference in prestige compared to Italian, associated with a low or popular socio-cultural status. On the other hand, Friulian was also the object of ideological claims associating the use of the language to some cultural and identity advantage. The most recent data show that these ideas are giving way to a more positive attitude, which considers Friulian as a 'regular' language, with its linguistic and cultural status, important for human relationships, spoken by 'friendly' people, related to the local environment.

Supporting evidence for this claim also comes from the data regarding Friulian in the school system. The 2014 survey shows in fact that the large majority of the population considers the presence of the Friulian language in schools as a positive aspect. These data are also aligned with the high percentages that are actually found in schools when it comes to choosing whether to study Friulian.

3.2.2 Legislative framework

The bases for the official recognition of Friulian as a minority language are rooted in the European context in which it is based. Since the '90, bodies such as the Council of Europe and the European Parliament have indeed worked on regulating the protection of cultural and linguistic minorities and international treaties and conventions have been debated, approved and spread around the Member States. Among others, a prominent position is occupied by the European Charter for Regional or Minority Languages (1992). Its aim is the protection and promotion of historical regional and minority languages in Europe in public and private life, for written and oral communication, and contains adoptable social and economic measures. Likewise important is the Framework Convention for the Protection of National Minorities (1995) for the protection of the rights of minorities, with reference to cultural identity, linguistic and educational rights.

Following this line of work, in 1996 the Regional Council of the Autonomous Region Friuli Venezia Giulia approved the Regional Law number 15, named “Norme per la tutela e la promozione della lingua e della cultura friulana e istituzione del servizio per le lingue regionali e minoritarie (‘legal regulation for the protection and the promotion of Friulian language and culture and establishment of the regional and minority languages service’ – my translation). This law was the first legislative provision that officially recognised Friulian as a language and delineated a number of prospective language policy activities. For the first time, authorities and associations, municipalities and provinces in the Friuli area benefited from a specific regional

funding devoted to Friulian language and culture protection and development. For example, local authorities gained the possibility of using Friulian in their relationships with the citizens (committees discussions, municipal toponyms). A linguistic policy body was also identified: the Osservatori pe lenghe e pe culture furlanis ('Observatory for Friulian language and culture' - my translation), which has been replaced in 2004 by an autonomous agency: the Agenzie regional pe lenghe furlane (Regional agency for Friulian language). Moreover, the law outlined the first actions to be undertaken in the fields of public education, radio-television system, printing and publishing, and Friulian language promotional campaigning.

After the Regional Law number 15 of 1996, the State Law number 482 was introduced in 1999. It regulated the introduction of Friulian language in the school system, in the radio-television system and in public administration. As for the school system, the law states that Friulian should be integrated at the kindergarten, primary and middle school. The presence of the language should be articulated in two ways: Friulian as a teaching medium and as a curricular teaching subject, not only linguistically but framed within Friulian culture and history. As for the radio-television system, the law states that public service television has to make specific commitments to protect minority languages through the implementation of programs that actively use the minority language. As for public administration, the law establishes the citizens' right to use Friulian language for written and oral communication in all public offices in the Friuli area. Local administrations are then required to ensure the presence of Friulian-speaking staff.

Finally, in 2007 the Regional Law number 29 was promulgated, named "Norme per la tutela e la valorizzazione e promozione della lingua friulana" ('legal regulation for the protection, value-enhancement and promotion of Friulian language'). The aim of this law was to broaden and modernise what already established by the Regional law number 15/1996 and the State law number 482/1999. This law has been largely repealed after the declaration of constitutional illegitimacy acknowledged by the Constitutional Court in 2009. Nonetheless the main features concerning Friulian in the school system remained a central issue and were also implemented in 2011 by the Decree of the President of the Region number 204. These provisions strengthen the regulation and application of a clear plan for Friulian language at school with the allocation

of a specific funding devoted to Friulian language teaching, the production of appropriate teaching materials, the establishment of adequate training courses in order to supply a secure number of Friulian teachers, and the creation of a regional register of Friulian teachers with recognised expertise. Friulian teaching initiatives were also recommended for adults, immigrants and schools located in the non-delimited territories.

3.3 Gemona del Friuli

This last section of the chapter focuses specifically on the place in which the experimental work for this thesis has been carried out, namely the town of Gemona del Friuli (*Glemone*).

Gemona is located in the Udine province, on the slopes of the Julian Pre-Alps (see figures 3.ix and 3.x). It is a municipality of 56 square kilometres and it has a population of about 11,000.

Linguistically, Gemona is located within the eastern-central macro-area. In order to better localise and identify the reference micro-area, consider the following figures (from Roseano 2015) and focus on the letter “B”.

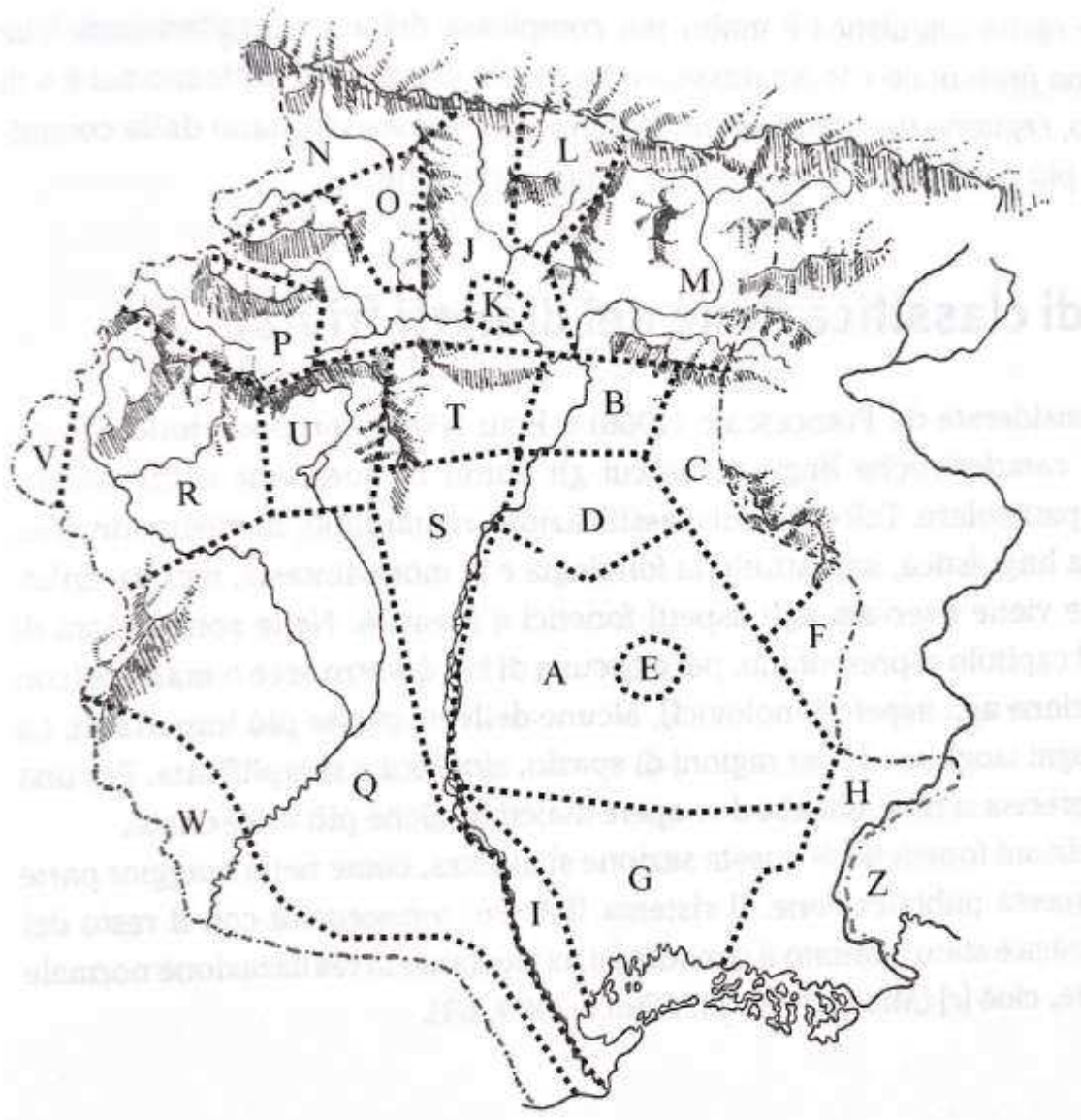


Fig. 3.ix Friulian micro-areas (Roseano 2015: page 163)

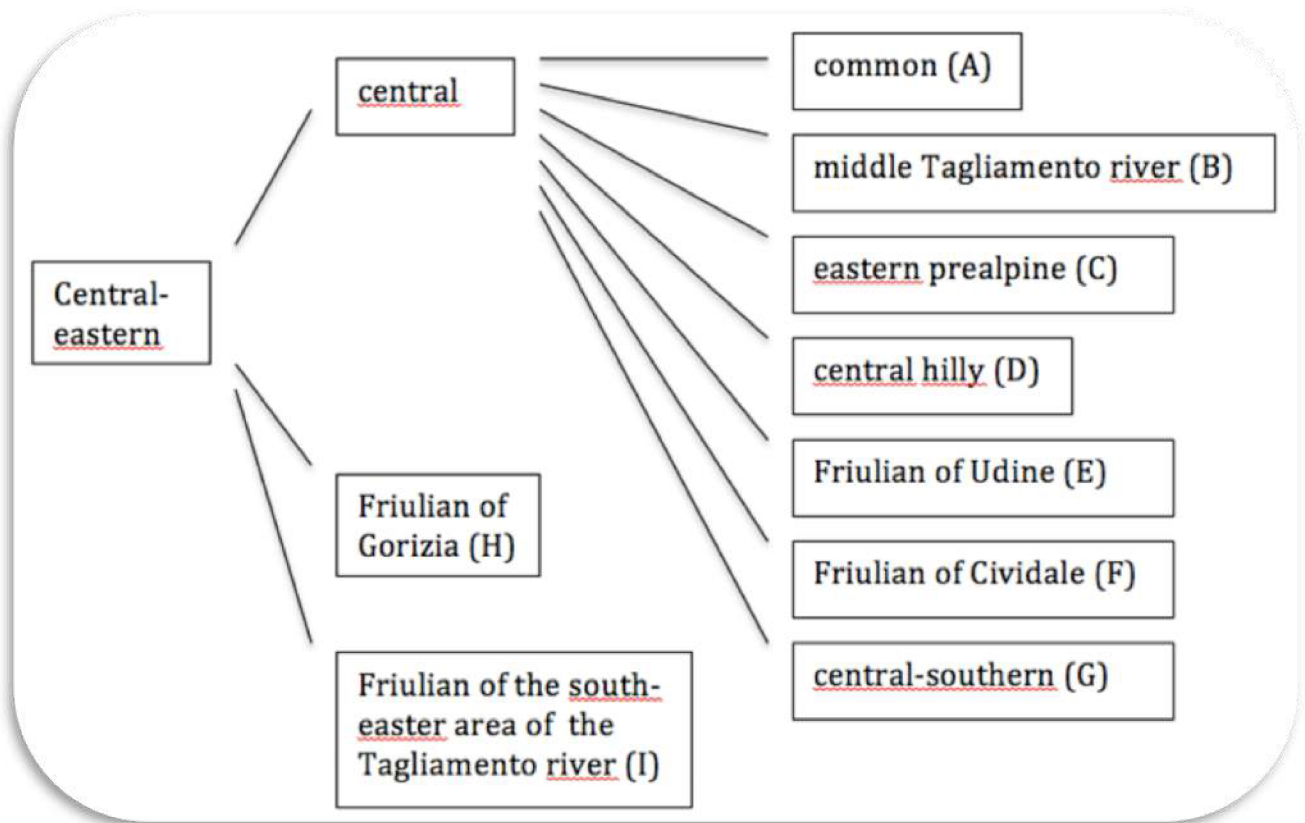


Fig. 3.x Friulian micro-varieties within the eastern-central macro-area (adapted from Roseano 2015: page 162; my translation)

As the graph shows, Gemonese variety is part of the “Middle Tagliamento river” area: this means that its Friulian variety is of the conservative kind, even if over time it is giving in to the central type (cf. Francescato 1965, 1966; Frau 1984; Vicario 2015a, 2015b; Roseano 2015).

The choice of Gemona as the location for this thesis investigation is motivated by two considerations. The first concerns the variety of Friulian spoken in the area (cf. Francescato 1966; Pellegrini 1972; Frau 1984; Roseano 2015; Vicario 2015a, 2015b; but also Picco 2001, 2013; Iannàccaro, Dell’Aquila 2015): in order to avoid too peripheral dialectal areas but also main cities where Friulian is minimally spoken while Italian is the most used language, the choice needed to look for central areas in which central Friulian varieties of the conservative kind are spoken. The second consideration concerns the fact that in order to investigate Friulian language acquisition, a lively community of Friulian speakers was needed as the background for children to possibly be Friulian speakers and learners themselves.

For these reasons, the ‘Gemonese’ variety, of the central and widespread Friulian type, in the town of Gemona del Friuli, with its strong Friulian identity and bound community, resulted in the perfect context for the this thesis research.

4. RESEARCH PROJECT

This chapter focuses on the research project: first I will outline the objectives and the research questions and predictions that guided this work (section 4.1), then the operational part will be analysed and participants (section 4.2), design, materials and methods (section 4.3) will be described.

4.1 Research questions and predictions

Starting from the specific target of this thesis investigation, namely the acquisition of relative clauses (cf. chapter 2) by Italian-Friulian children, the related research question developed as follows:

- 1) When the acquisition of relative clauses is investigated, do Italian-Friulian children performance pattern alike to what is known from cross-linguistic literature on SRC, ORC and PPRC acquisition?

Focusing then on the framework of bilingual and bilectal acquisition (cf. chapter 1) in which this research has developed, and contextualising these topics in the Friulian reality (cf. chapter 3), the fundamental questions to try and answer have been the following:

- 2) What kind of Italian-Friulian bilingualism is found?
 - a) Does the language of elicitation, namely Italian, the majority language, or Friulian, the minority language, influence differently children's relative clauses production?
 - b) What is the relationship in terms of input between Italian and Friulian?

Having then considered the theoretical reference framework in which the previous questions developed and the literature already available on the topics, the following predictions, that will be confirmed or denied by this research results, have been made:

- Considering the results known from the literature on RC acquisition (among many others: Tavakolian 1981; Hamburger & Crain 1982, De Vincenzi 1991, de Villiers et al. 1994, Novogrodsky and Friedmann, 2006, Friedmann et al., 2009, Contemori and Garaffa 2010, Adani 2011, Belletti and Contemori, 2012, Contemori and Belletti 2014), also Italian-Friulian children should exhibit the well known and cross-linguistically attested subject-object asymmetry. That is, they should produce considerably more target-like SRCs than ORCs.
- Considering Costa, Friedmann, Silva and Yachini (2014, 2015) also Italian-Friulian children could be expected to show a production performance for PPRCs similar to the one for ORCs, that is considerably less target-like production with respect to SRCs.
- With specific regard to PPRCs, with respect to Costa, Friedmann, Silvia and Yachini (2014, 2015), the additional condition of distinguishing between functional and lexical PPRCs was in place. Following Svenonius (2010) and Cinque (2010) in considering functional prepositions as case markers attributing +DP feature to their target, while lexical prepositions attribute +PP feature to their target, in the framework of Relativized Minimality (Rizzi 1990, 2004; Friedmann, Belletti, Rizzi 2009) the prediction is that children should perform better and produce more target-like sentences when lexical PPRCs are elicited than when functional PPRCs are elicited, since in the derivation of lexical PPRCs there is no crossing of the same feature (+PP vs. +DP), while the crossing of the same features happens in the derivation of functional PPs (+DP vs. +DP).
- Regarding the Italian-Friulian children results in the Italian session, following Garraffa, Beveridge, Sorace (2015) and Klaschik, Kupisch (2016) a bilingual context should not hinder the development of linguistic competence in the majority/standard/dominant language, namely Italian. Hence, the children results for the Italian session should be comparable with those of Italian monolingual children (Utzeri 2007; Belletti and Contemori 2010, 2013)

- Regarding the Italian-Friulian children results in the Friulian session, there is more than one possible scenario:
 if the Italian-Friulian bilingualism should resemble a ‘standard’ bilingualism, children should be able to use also Friulian appropriately enough to perform in the Friulian session similarly to the Italian one;
 if the Italian-Friulian bilingualism should resemble a ‘bilectal’ bilingualism, children could show different performances for the Friulian and the Italian session, depending on the input and dominance relations between the two languages (cf. chapter 1):
 should Friulian result as the dominant language, children should show a good performance in the Friulian session; should Italian result as the dominant language instead, children should show a rather strong influence of Italian also in the Friulian session.

4.2 Participants

The children participating in the study were recruited at the kindergarten of Piovega, a borough of Gemona del Friuli.

The group of recruited children consisted of a total of 34 (mean = 5;4, SD = 7,5 months), 14 males and 20 females between the age of 4 and 6. The following table summarizes the characteristics of the initial group of participants.

<i>Participants</i>	<i>Total number</i> (N=34)	<i>Mean age</i>	<i>SD</i>	<i>Number by gender</i>	
				<i>Females</i>	<i>Males</i>
4 years old	11	4;7	2,8 months	8	3
5 years old	15	5;6	4 months	7	8
6 years old	8	6;1	1 month	5	3

TABLE 4.i: Overview of the recruited children

The language of instruction at the kindergarten is Italian, but Friulian is also present. Every class has a 30-hour program of Friulian language to fulfil during the year. The language is taught through playful activities: children learn songs to sing and nursery rhymes to recite; they also play games and listen to storytelling. In this way also the visual and gestural languages are integrated for a more rounded experience. In addition to these activities, teachers also develop interactive linguistic workshops for the children to learn new words, their pronunciation and use, familiarising with the peculiar sounds of the Friulian language. In this way children can also try and explore communication in Friulian (greetings, small interactions). Teachers sometimes also use Friulian for routine activities, for example during school welcoming and meals. All these activities are organised and elaborated at different levels of complexity to conform to the different children ages.

In this kindergarten teachers frequently happen to speak Friulian also outside the aforementioned specific educational spaces, but this comes as no surprise since it is the language more commonly used by the adult population in the area in which the kindergarten is located.

Despite this lively context of Friulian use and teaching, when the tests were administered using Friulian, 11 children did not perform the test. Hence, the further analyses are based on a total of 23 children (mean = 5;5, SD = 7 months), 10 males and 14 females. Table 4.ii presents the characteristics of the analysed group of participants.

	<i>Total number</i> (N=23)	<i>Mean age</i>	<i>SD</i>	<i>Number by gender</i>	
				<i>Females</i>	<i>Males</i>
4 years old	6/11	4;8	2,1 months	4	2
5 years old	12/15	5;6	4 months	7	5
6 years old	5/8	6;1	0,8 month	3	2

TABLE 4.ii: Overview of the analysed children

4.3 Materials and procedure

This section focuses on the operational part of the research and methods and materials will be accurately described.

4.3.1 Parental questionnaire

In order for the data collection to start, in agreement with the School director, I illustrated my research project to the teachers and proceeded to request the parents' authorization for their children to participate in the study. To those parents who agreed to let their children engage in the research I also asked to fill in a questionnaire. The questionnaire was modelled on the one specifically created for bilingual children by M. Roch, E. Florit, and C. Levorato from the School of Developmental Psychology and Socialisation of the University of Padua. The questions, after a first part gathering general information and personal data regarding the parents (level of education, type of employment), aimed at outlining a linguistic background and profile of the children. For this reason, parents were asked about the linguistic exposure of their children with them, grandparents, friends and in other contexts like the kindergarten. They were asked to indicate whether in their perception the children heard more Italian or Friulian in those contexts, and the following table summarizes that information.

<i>children INPUT languages</i>	<i>At home</i>		<i>With others</i>		<i>At the kindergarten</i>	
	<i>mother's perception</i>	<i>father's perception</i>	<i>mother's perception</i>	<i>father's perception</i>	<i>mother's perception</i>	<i>father's perception</i>
ID 2	Italian	Italian	Friulian	Friulian	Italian	Italian
ID 3	Friulian	Friulian	Friulian	Friulian	Italian	Italian
ID 5	Friulian	Friulian	Friulian	Italian	Italian	Italian
ID 6	Italian	Italian	Friulian	Italian	Italian	Italian
ID 9	Italian	Italian	Italian	Italian	Italian	Italian
ID 12	Friulian	Friulian	Italian	Italian	Italian	Italian
ID 13	Italian	Italian	Friulian	Italian	Italian	Italian
ID 14	Italian	Italian	Friulian	Friulian	Italian	Italian
ID 15 ²²	Italian	-	Italian	-	Italian	-
ID 16	Italian	Italian	Italian	Italian	Italian	Italian
ID 17	Friulian	Friulian	Friulian	Friulian	Italian	Italian
ID 18	Italian	Italian	Friulian	Italian, Friulian	Italian	Italian
ID 19	Italian	Italian	Friulian	Friulian	Italian	Italian
ID 21	Italian	Italian	Friulian	Friulian	Italian	Italian
ID 22	Italian	Italian	Italian, Friulian	Italian, Friulian	Italian, Friulian	Italian, Friulian
ID 24	Italian	Italian	Italian	Italian	Friulian	Friulian
ID 26	Italian	Italian	Friulian	Friulian	Italian	Italian
ID 27	Friulian	Friulian	Friulian	Friulian	Italian	Italian
ID 28	Italian, Friulian	Friulian	Italian, Friulian	Italian	Italian, Friulian	Italian
ID 30	Friulian	Friulian	Friulian	Friulian	Italian	Italian
ID 31	Italian	Italian	Friulian	Friulian	Italian	Italian
ID 32	Friulian	Italian	Friulian	Friulian	Italian	Italian
ID 34	Italian	Italian	Italian	Italian	Italian	Italian

Table 4.iii Parents perception: different input languages in different contexts

Parents were also asked about various activities and the languages used while carrying them out with the children: both more general activities like reading tales, singing songs, media exposure, playing games; and more language-related activities like teaching new words, teaching to read them and write them, teaching letters and numbers. Specifically, they were asked to indicate how often they performed the aforementioned activities with their children using Friulian. The answering scale ranged from ‘almost always’ to ‘almost never’, by way of ‘often’ and ‘sometimes’. In order to be able to quantify that information, every frequency was assigned a corresponding number and the following coding scheme was designed.

²² For ID 15, only the mother’s questionnaire was available. This holds for all the tables in 4.3.1.

<i>Friulian frequency</i>	<i>Assigned number</i>
Almost always	1
Often	2
Sometimes	3
Almost never	4

Table 4.iv Coding scheme for quantifying Friulian frequencies

On the basis of the coding scheme presented in 4.iv, the parents' indications were quantified in order to obtain a Friulian input measure. The following table shows the obtained values.

In order to be able to interpret it correctly, it is important to keep in mind that it is based on the coding in table 4.iv: the more Friulian input the children received in the various activities ('almost always', number '1'), the smaller will be the measure in 4.v.; the less Friulian input the children received in the activities ('almost never', number '4'), the bigger will be the measure in 4.v.

<i>children Friulian INPUT</i>	<i>from activities with their mother</i>	<i>from activities with their father</i>	<i>parents' total</i>
ID 2	34	34	68
ID 3	32	30	62
ID 5	23	30	53
ID 6	31	26	57
ID 9	27	24	51
ID 12	28	34	62
ID 13	33	36	69
ID 14	35	30	65
ID 15	26	-	26
ID 16	33	34	67
ID 17	24	24	48
ID 18	28	28	56
ID 19	29	29	58
ID 21	30	18	48
ID 22	32	32	64
ID 24	35	35	70
ID 26	31	28	59
ID 27	18	20	38
ID 28	36	31	67
ID 30	21	23	44
ID 31	36	36	72
ID 32	31	35	66
ID 34	27	30	57

Table 4.v Parents perception: Friulian input measure

In order to discriminate between those children that received at least some Friulian input and those that did not receive enough Friulian input, a threshold level was established at 27 points (because 27 is the product of the coding number 3 for ‘sometimes’ multiplied by 9, which is the number of parent-child activities investigated in the questionnaire).

A score that ranges from 9 to 27 indicates that the children received at least some Friulian input (in orange); a score that ranges from 28 to 36 indicates that the children did not even receive a minimum Friulian input. The rightmost column represents the Friulian input measure of both parents combined: in this case the threshold level is set at 54 points (because 54 is the sum obtained if the child received the minimum input of 27 from both parents). Those children who reach those threshold are highlighted in orange in table 4.v.

It is interesting to note that in this case ID 6 and ID 34 scored slightly above the threshold (57 points): this result is due to the fact that the Friulian input received by the child was unequal between the parents.

Parents were also asked about their perception about how much Friulian did their children speak, namely they were asked to quantify their children Friulian output. The following table presents that information.

Table 4.vi Parents perception: children Friulian output

<i>children Friulian OUTPUT</i>	<i>Almost always</i>	<i>Often</i>	<i>Sometimes</i>	<i>Almost never</i>
ID 2			both parents' perception	
ID 3			both parents' perception	
ID 5	father's perception		mother's perception	
ID 6			both parents' perception	
ID 9			both parents' perception	
ID 12			both parents' perception	
ID 13			both parents' perception	
ID 14			father's perception	mother's perception
ID 15			mother's perception	
ID 16				both parents' perception
ID 17			both parents' perception	
ID 18			mother's perception	father's perception
ID 19			both parents' perception	
ID 21			both parents' perception	
ID 22				both parents' perception
ID 24				both parents' perception
ID 26			both parents' perception	
ID 27			both parents' perception	
ID 28			both parents' perception	
ID 30			both parents' perception	
ID 31			mother's perception	father's perception
ID 32			both parents' perception	
ID 34			mother's perception	father's perception

At the end of the questionnaire, questions concerning the linguistic and cognitive development of the children were also included. This information was checked with the teachers too.

4.3.2 Preliminary test

The information gained from parents and teachers concerning the cognitive and linguistic development of the children did not report anything out of the ordinary: all children were described as typically developing.

Nonetheless, before starting the experimental task, I wanted to integrate that information with a brief additional checking for possible disorders in the children's communicative and linguistic domain. In order to do so, I administered two tests from the "BVL", a test battery for language evaluation specifically designed for children from 4 to 12 years old (Marini, A., Marotta, L., Bulgheroni, S. and Fabbro, F. 2015). These tests consisted in oral repetition of words and non-words. As it can be seen from the table below, all the children performed at ceiling level in the word repetition task. As for the non-word repetition task, there is a little more variability (with ID 16 and ID 3 showing a slightly poorer performance compared to the other children), but overall the results are very good also for this second test. Having considered also these results, all children were included in the following experimental session.

<i>Children</i>	<i>Age</i>	<i>Word repetition</i>	<i>Non-word repetition</i>
ID 2	4	15/15	15/15
ID 3	4	15/15	12/15
ID 5	4	15/15	15/15
ID 6	4	15/15	15/15
ID 9	4	15/15	14/15
ID 12	5	15/15	14/15
ID 13	5	15/15	15/15
ID 14	5	15/15	15/15
ID 15	5	15/15	14/15
ID 16	5	14/15	11/15
ID 17	5	15/15	14/15
ID 18	5	15/15	15/15
ID 19	5	15/15	15/15
ID 21	5	15/15	15/15
ID 22	5	15/15	15/15
ID 24	5	15/15	15/15
ID 26	6	15/15	15/15
ID 27	6	15/15	15/15
ID 28	6	15/15	13/15
ID 30	6	15/15	14/15
ID 31	6	15/15	13/15
ID 32	6	15/15	15/15
ID 34	6	14/15	13/15

Table 4.vii Word and non-word repetition results

4.3.3 Test design

The experiment is a picture supported elicited production task adapted from the German design in Thiel, Sanfelici, Koch, Schulz (2014), which in turn is an adaptation of Friedmann & Novogrodsky (2004, 2006). Specifically, the sentence design was adapted from Thiel, Sanfelici, Koch, Schulz (2014), and the picture design from Trabandt, Thiel, Sanfelici, Schulz (2017). The choice of using an adapted experiment was carefully considered in relation to the fact that, as far as is known, the Italian – Friulian children population had never been investigated before, with the only exception of Mauro and Burelli 2002 (cf. chapter 1, section 1.2.3). Since I was entering an almost uncharted territory, adapting an already existing experiment granted me a tested and reliable protocol and comparable results. These reasons were powerful enough to make acceptable also the problematic sides of the original experiment.

As for the modifications made, I operated on two points: first, I reduced the original number of items from twenty to ten sentences per condition, in order to be able to add a new condition without overwhelming the children with a too long and demanding test. Second, I had to change some of the actors in the contexts of elicitation in order to make the experiment plausible for the Friulian reality. For example, there are no such animals as rhinos or tigers in the Friuli area: this means that children do not associate them with a Friulian language context. Moreover, in order to name them, Friulian language has no proper names and resorts to a ‘friulanization’ of the corresponding Italian name. In order to avoid a similar scenario and make the children feel familiar with the contexts’ actors, I decided to use farm animals instead. They are part of the cultural and geographical Friulian background and more easily known by children even in Friulian.

4.3.4 Test materials

The design was a 3x2: three conditions were in place regarding the relative clauses type, namely Subject Relative Clauses, Object Relative Clauses and Prepositional Relative Clauses; and two languages, Friulian and Italian, were involved. For every condition, ten experimental items were

designed: each item was composed of a context of elicitation and a picture. These items were exactly the same in both languages; the only difference concerned the language in which both the contexts of elicitation and the test administration were delivered to the child.

The elicitation contexts presented two scenes and asked the children to choose one; their construction entailed that the choice would have to be formed as a relative clause. The pictures were specifically designed for the experiment in order to represent the contexts of elicitation and contained both the possible referents of the corresponding contexts. Examples of the different items in the two languages are illustrated below, accompanied by the corresponding picture.

I. SRC: Subject Relative Clauses

Example 1.a.: Context of elicitation in the Italian session

Ci sono due bambine. Una bambina raccoglie le carote. Una bambina mangia le carote.
Quale bambina scegli?

There are two girls. A girl is picking up carrots. A girl is eating carrots. Which girl do you like best?

Expected answer:

La bambina che raccoglie le carote.

DEF²³.F.SG girl:F.SG COMP pick up:PRES.3SG DEF.F.PL carrot:F.PL

The girl that is picking up the carrots.

Example 1.b.: Context of elicitation in the Friulian session

A son dôs frutis. Une frute a cjape sù lis carotis. Une frute a mangje lis carotis. Cuale frute sielzistu?

There are two girls. A girl is picking up carrots. A girl is eating carrots. Which girl do you like best?

²³ When 'DEF' or 'INDEF' are used for glossing, 'DET' is always implied.

Expected answer:

La frute che a mangje lis carotis.

DEF.F.SG girl:F.SG COMP CL:SBJ.F.3SG eat:PRES.3SG DEF.F.PL carrot:F.PL

The girl that is eating the carrots.



Fig. 4.i Example of the pictures used for the SRC elicitation

II. ORC: Object Relative Clauses

Example 2.a.: Context of elicitation in the Italian session

Ci sono due topi. Un gallo guarda un topo. Un gallo becca un topo. Quale topo scegli?

There are two mice. A rooster is looking at a mouse. A rooster is pecking a mouse. Which mouse do you like best?

Expected answer:

- Il topo che il gallo guarda.

DEF.M.SG mouse:M.SG COMP DEF.M.SG rooster:M.SG look at:PRES.3SG

The cat that the rooster is looking at.

- Il topo che lo guarda il gallo.

DEF.M.SG mouse:M.SG COMP CL:OBJ.M.3SG look at:PRES.3SG DEF.M.SG rooster:M.SG

The cat that the rooster is looking at him.

Example 2.b.: Context of elicitation in the Friulian session

A son doi surîs. Un gjal al cjale une surîs. Un gjal al beche une surîs. Cuâle surîs sielzistu?

There are two mice. A rooster is looking at a mouse. A rooster is pecking a mouse. Which mouse do you like best?

Expected answer:

- La surîs che la beche il gjal.

DEF.F.SG mouse:F.SG COMP CL:OBJ.F.SG peck:PRES.3SG DEF.M.SG rooster:M.SG

The mouse that the rooster pecks.

- Chele che il gjal (a) la beche. ‘

that:F.SG COMP DEF.M.SG rooster:M.SG (CL:SBJ.1SG) CL:OBJ.F.3SG peck:PRES.3SG

The one that the rooster pecks her.

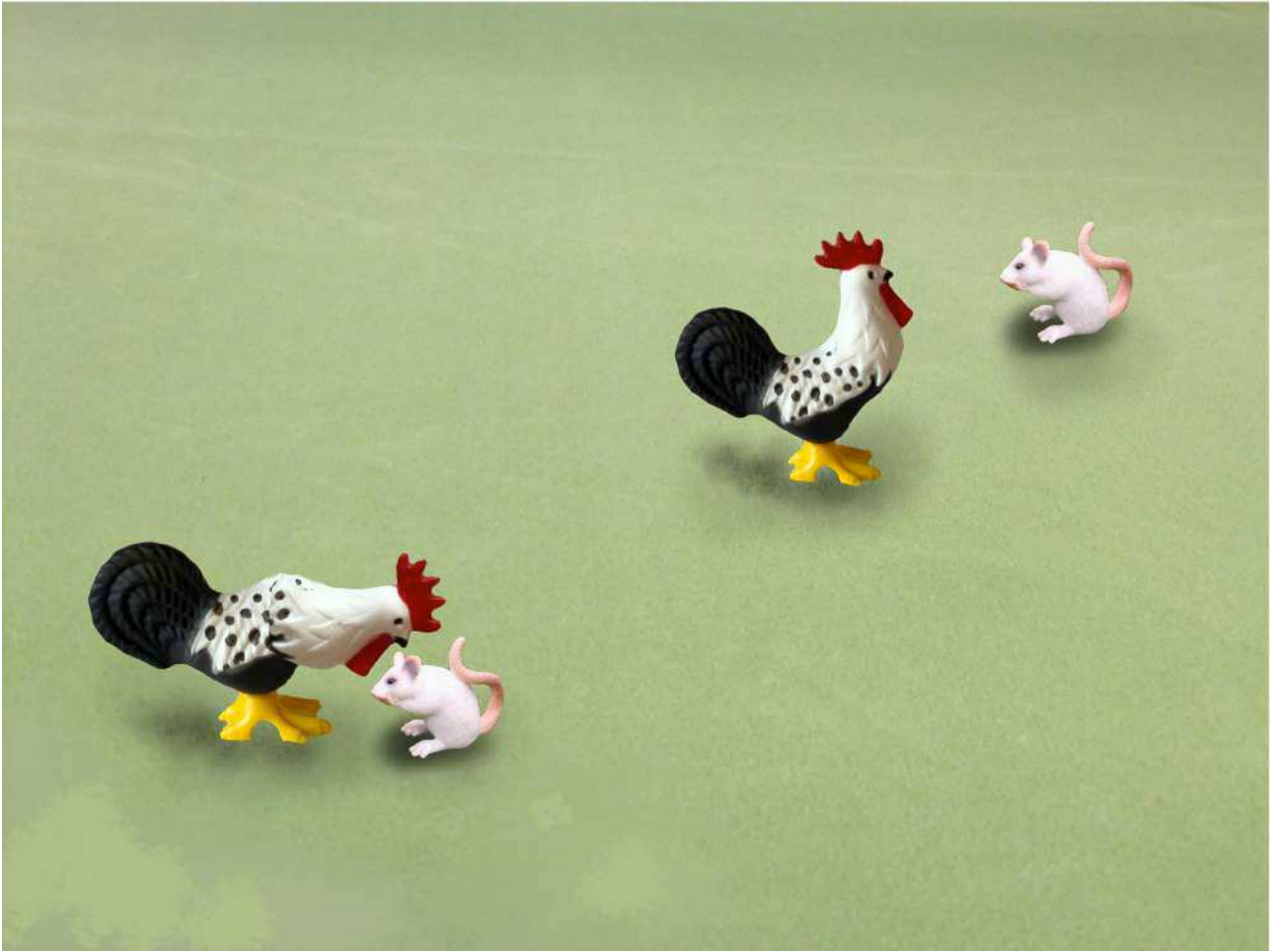


Fig. 4.ii Example of the pictures used for the ORC elicitation

III. PPRC: Prepositional Relative Clauses

Example 3.a.: Context of elicitation in the Italian session

Ci sono due alberi. Un gatto scende da un albero. Un gatto sale su un albero. Quale albero scegli?

There are two trees. A cat is climbing down a tree. A cat is climbing up a tree. Which tree do you like best?

Expected answer:

L' albero dal quale il gatto scende.

DEF.M.SG tree:M.SG from which:PREP.M.SG DEF.M.SG cat:M.SG climb down:PRES.3SG

The tree from which the cat is climbs down.

Example 3.b.: Context of elicitation in the Friulian session

A son doi arbui. Un gjat al ven jù dal arbul. Un gjat al vâ sul arbul. Cuâl arbul sielzistu?

There are two trees. A cat is climbing down a tree. A cat is climbing up a tree. Which tree do you like best?

Expected answer:

L' arbul che al vâ su il gjat.

DEF.M.SG tree:M.SG COMP CL:SBJ.M.SG climb up:PRES.3SG DEF.M.SG cat:M.SG

The tree that the cat is climbing up.



Fig. 4.iii Example of the pictures used for the PPRC elicitation

As for PP relatives, an additional variable was in place. Following Cinque (2010) and Pilli (2018), the contexts of PPRCs elicitation were characterised by the use of functional prepositions, such as for example ‘to’ and ‘from’ (in four items out of ten); or lexical prepositions, such as for example ‘over’ and ‘under’ (in six items out of ten).

Following Contemori & Belletti (2013), which in turn followed Novogrodsky & Friedmann (2006), there was also another variable in place in the elicitation contexts design, in this case not limited to the PPRCs but extended also to SRCs and ORCs. It concerned the possibility of having a contrast between the participants in the sentences (example 4.a) or between the actions taking place in the sentences (example 4.b). Consider the following examples:

Example 4.a.: Context of elicitation with contrast on the action

There are two girls. A girl is picking up carrots. A girl is eating carrots. Which girl do you like best?



Fig. 4.iv Example of a picture representing the “contrast on the action” variable

In this case the participants are the same, since both girls are dealing with carrots. The contrast is on the action that takes place in the scene: namely the act of picking up vs. the act of eating those carrots.

Example 4.b.: Context of elicitation with contrast on the participants

There are two girls. A girl is watering flowers. A girl is watering carrots. Which girl do you like best?



Fig. 4.v Example of a picture representing the “contrast on the participant” variable

In this case, the action that is taking place in the scene is only one: both girls are described in the act of watering. The contrast is instead on the object participant of the action: flowers vs. carrots.

For each RC condition there were sentences with contrast on the participants and sentences with contrast on the action.

Twelve more items were added to the list as fillers. They were similar in structure to the experimental contexts but they elicited simple and unmarked SVO declarative clauses.

4.3.5 Test procedure

The experimental session, which took place in a separate and quiet room at the kindergarten, started with a little pre-test. With the aid of a computer, the children were presented with the various actors of the elicitation scenes in order to make sure they recognised them and knew their names. This pre-test was meant to check for children's lexical assessment and also make them feel comfortable and familiar with the experimental setting.

After this initial phase, the elicited production experiment truly began. The contexts of elicitation were presented to the children in the form of an audio recording. In the meantime, the corresponding pictures gradually appeared on the computer screen. Each time, after the audio-picture pair presentation was completed, the child could try and utter a sentence and her answer was recorded. The experimental items were organized in a pseudo-randomized order and interposed by the fillers. No time limit was imposed during testing, and the experimenter gave no response-contingent feedback.

The experimental sessions were two separated ones: both were absolutely identical except for the language involved. All the children participated in both sessions. First I carried out the Friulian session: both the test administration and the experiment itself were exclusively in Friulian. Then there was the Italian session, during which the language of administration and testing was Italian. Between the two testing sessions a time span of not less than one week and not more than two weeks passed. This plan was designed in order to limit the interference from Italian on Friulian.

All the audio files were recorded by the same speaker, an adult Friulian-Italian proficient bilingual. This allowed the recordings to be controlled for both languages: Friulian sentences were guaranteed by the Friulian native speaker and also Italian sentences were coherent with the appropriate regional Italian accent.

4.3.6 Coding scheme

All the recorded elicited productions were then transcribed. In order to be able to analyse those productions effectively and also to compare data that could seem too different at first sight due to individual variability, a coding scheme was created. The following table illustrates that scheme and how it takes into account the sentences' structure. The examples provided in the third column are in English only for explanatory purposes.

Number	Description	Examples
1	Target Relative Clause	a. (expected SRC) Production example: <i>The girl that waters the flowers.</i>
		b. (expected ORC) Production example: <i>The flowers that the girl waters.</i>
		c. (expected PPRC) Production example: <i>The boy to whom the girl gives the dog as a gift.</i>
2	Relative Clause but incorrect extraction site	a. (expected SRC: <i>The girl that waters the flowers.</i>) Production example: <i>The flowers that the girl waters.</i>
		b. (expected ORC: <i>The flowers that the girl waters.</i>) Production example: <i>The girl that waters the flowers.</i>
		c. (expected PPRC: <i>The boy to whom the girl gives the dog as a gift.</i>) Production example: <i>The boy that gives the gift.</i>
3	DP type structures	a. Modifier + Lexical DP (adj.; ppt) Production example: <i>The black dog.</i>
		b. Modifier + Demonstrative (adj.; ppt) Production example: <i>The black one.</i>
		c. Lexical DP + PP Production example: <i>The dog with the leash.</i>
		d. Demonstrative + PP Production example: <i>The one with the leash</i>
		e. Demonstrative + PP + SRC Production example: <i>The one with the leash that is going inside.</i>
4	Other structures	a. Fragments Production example: <i>Kik.s.</i>

		b. Main Clause Production example: <i>The girl waters the flowers.</i>
		c. Ambiguous RC Context: A goose is being washed and a goose is being dried. Production example: <i>The one that is washing.</i> ⇒ the one that the girl is washing or the girl that is washing?

Table 4.viii Coding scheme for sentences structure

It is important to clarify that I decided to code and plot children's productions regardless of the language they used. When I designed the Friulian experimental session and created the Friulian input items I hoped to obtain also a Friulian output from the children. Nevertheless the collected data presented a more complicated scenario, with the children's output being mostly in Italian. These results could be related to a variety of reasons. First, the testing took place at the kindergarten, an educational environment strictly associated with Italian language as the predominant one, as it is for schooling in general. Since this feature is common knowledge within the community, it is likely that also children have assimilated it and acted accordingly (Oller et al. 2007). Second, the experimenter, even if she presented herself as a Friulian native speaking Friulian, still was an outsider both with respect to the kindergarten community and the local community, and children had never seen her before. Since adults frequently use Friulian in familiar contexts and/or with known speakers, also children could have felt uncomfortable speaking it with a stranger. Third, it could be the case that since input appears to be unbalanced in favour of Italian, children do not feel at ease with speaking Friulian in general, being insecure about the grammar or missing vocabulary, at least at this young age. These are just some of the main possible and plausible reasons that could have influenced the children's output in the experimental sessions, but finding a definitive answer to this issue goes beyond the means of this research work. This is the reason why I decided to meticulously apply the coding scheme considering the produced sentences in relation with their context of elicitation, without taking into account their language. This information should be kept in mind throughout the 5th chapter where results will be described and quantitatively analysed. A qualitative analysis of the results that takes into consideration the languages involved will also be provided at the end of next chapter.

5. RESULTS

In this chapter I illustrate the results from the elicited production experiment. The analysis will include the results for both the Friulian (section 5.1) and Italian (section 5.2) sessions, and will be developed at group level and individual level. It will also show the outcome of the statistical analysis that has been carried out (section 5.3). At the end of the chapter I will discuss the specific linguistic phenomena found in the children productions (section 5.4) and lastly a specific focus on the role of input in Friulian productions will be discussed (5.5).

5.1 Friulian session results

The first part of this chapter is dedicated to analysing all the data coming from the elicited production session administered in Friulian. Children productions were coded and plotted on the basis of the input language, regardless of the output being in Italian or Friulian.

5.1.1 Subject Relative Clauses: accuracy of production

In this section I will focus on the results for the elicitation of Subject Relative Clauses.

5.1.1.1 Subject Relative Clauses: analysis of production at group level

The following table illustrates the results for the elicitation of SRCs in the Friulian session. It is organized to show the different answering strategies used by the children considered as a group.

SRC	1 <i>The girl that waters the flowers</i>	2 <i>(expected: 1) The flowers that the girl waters</i>	3 ²⁴ <i>DP-type structures</i>	4 ²⁵ <i>Other</i>
4 y.o.	43 95,56%	0 0,00%	2 4,44%	0 0,00%
5 y.o.	81 81,82%	1 1,01%	14 14,14%	3 3,03%
6 y.o.	41 65,08%	5 7,94%	12 19,05%	5 7,94%
Children as a group	165 79,71%	6 2,90%	28 13,53%	8 3,86%

TABLE 5.i Accuracy of SRC production: raw numbers and percentages

As table 5.i shows, when SRCs are elicited, children as a group perform well. They produce target-like structures 79% of the time. The only construction that plays a role as an alternative is the DP-type one (14%).

Example 1.

Context: A son dôs fantatis. Une fantate a bagne lis rosis. Une fantate a bagne lis carotis. Cuale fantate sielzistu?

Answer: “Quella con le carote.” (ID16, 5 y.o.)

There are two girls. A girl is watering flowers. A girl is watering carrots. Which girl do you like best?

The one with the carrots.

²⁴ In this case: all DP-type structures are of the “Demonstrative + PP” type.

Table 5.i also shows that if age groups are considered, the SRC production seems to be declining from 4 y.o. to 6 y.o. It should be noticed that while target-like SRCs production declines, the alternative production of DP-type structure rises (column “3”).

5.1.1.2 Subject Relative Clauses: analysis of production at individual level

Next table follows on from the previous one and considers the elicitation of SRCs in the Friulian session: in this case the focus is on the children’s individual performances.

²⁵ In this case: 2,42% “Fragment”; 1,45% “Main Clause”

SRC	Age	1 <i>The girl that waters the flowers</i>	2 <i>(expected: 1)</i> <i>The flowers that the girl waters</i>	3 <i>DP-type structures</i>	4 <i>“Other”</i>
ID 2	4	9	0	0	0
ID 3	4	9	0	0	0
ID 5	4	8	0	1	0
ID 6	4	9	0	0	0
ID 9	4	8	0	1	0
ID 12	5	8	0	1	0
ID 13	5	7	0	1	1
ID 14	5	9	0	0	0
ID 15	5	9	0	0	0
ID 16	5	4	0	4	1
ID 17	5	8	0	1	0
ID 18	5	8	0	0	1
ID 19	5	8	0	1	0
ID 21	5	8	0	1	0
ID 22	5	6	0	3	0
ID 24	5	6	1	2	0
ID 26	6	8	0	1	0
ID 27	6	6	0	3	0
ID 28	6	7	0	2	0
ID 30	6	3	3	3	0
ID 31	6	5	0	1	3
ID 32	6	6	0	2	1
ID 34	6	6	2	0	1
Total		165	6	28	8

TABLE 5.ii Accuracy of SRC production: individual raw numbers

Table 5.ii shows that there is a homogeneous performance within the children group and SRCs are consistently produced across children.

Note that the performances of ID 16, ID 30 and ID 31 are worse compared to the other children: their production of target-like sentences is poorer.

5.1.2 Object Relative Clauses: accuracy of production

In this section I will focus on the results for the elicitation of Object Relative Clauses.

5.1.2.1 Object Relative Clauses: analysis of production at group level

The following table presents the results for the elicitation of ORCs in the Friulian session. It displays the different answering strategies used by the children examined at group level.

ORC	1 <i>The flowers that the girl waters</i>	2 <i>(expected: 1)</i> <i>The girl that waters the flowers.</i>	3 ²⁶ <i>DP-type structures</i>	4 ²⁷ <i>Other</i>
4 y.o.	20 40,00%	20 40,00%	4 8,00%	6 12,00%
5 y.o.	37 33,64%	47 42,73%	19 17,27%	7 6,36%
6 y.o.	25 35,71%	22 31,43%	17 24,29%	6 8,57%
Children as a group	82 35,65%	89 38,70%	40 17,39%	19 8,26%

TABLE 5.iii Accuracy of ORC production: raw numbers and percentages

As table 5.iii shows, in the case of ORCs elicitation target-like sentences are produced only around one third of the times (35%) and this RC construction is clearly demanding for every age group. In order to overcome the difficulty of ORCs construction, children mostly use the strategy of producing easier RCs with a different extraction site, like SRCs. This is their most frequent answer-type.

²⁶ In this case: 0,87% “Demonstrative + modifier”; 0,43% “Lexical DP + PP”; 13,04% “Demonstrative + PP”; 3,04% “Demonstrative + PP + SRC”

²⁷ In this case: 5,22% “Ambiguous RC”; 2,17% “Fragment”; 0,87% “Main Clause

From note 3 and 4 it appears clear that the increased difficulty of producing target-like ORCs gives rise to a wider range of possible alternative productions (cf. Note 1 and 2 for SRC production)

Example 2.

Context: A son d'ôs ocjis. Un fantat a lave une ocje. Une fantate a lave une ocje. Cuale ocje sielzistu?

Answer: La bambina che lava la oca. (ID6, 4 y.o.)

*There are two geese. A boy is washing a goose. A girl is washing a goose. Which goose do you like best?
The girl that is washing the goose.*

There is also another strategy in place to produce an alternative answer: the DP-type construction.

Example 3.

Context: A son d'ôs ocjis. Un fantat a lave une ocje. Une fantate a lave une ocje. Cuale ocje sielzistu?

Answer: Quella della bambina. (ID15, 5 y.o.)

*There are two geese. A boy is washing a goose. A girl is washing a goose. Which goose do you like best?
The one of the girl.*

As already seen in table V.1, also here the production of DP-type structures increases with age (see column “3”).

5.1.2.2 Object Relative Clauses: analysis of production at individual level

This table follows on from the previous one and presents the productions of ORCs in the Friulian session: here the children’s individual performance is displayed.

ORC	Age	1 <i>The flowers that the girl waters</i>	2 <i>(expected: 1) The girl that waters the flowers</i>	3 <i>DP-type structures</i>	4 <i>“Other”</i>
ID 2	4	3	3	0	4
ID 3	4	2	5	2	1
ID 5	4	6	4	0	0
ID 6	4	4	6	0	0
ID 9	4	5	2	2	1
ID 12	5	7	3	0	0
ID 13	5	6	3	1	0
ID 14	5	0	8	0	2
ID 15	5	3	4	3	0
ID 16	5	2	4	2	2
ID 17	5	3	6	1	0
ID 18	5	1	8	1	0
ID 19	5	8	0	1	1
ID 21	5	4	4	2	0
ID 22	5	1	2	7	0
ID 24	5	2	5	1	2
ID 26	6	3	5	1	1
ID 27	6	4	1	5	0
ID 28	6	3	2	5	0
ID 30	6	6	1	2	1
ID 31	6	3	3	2	2
ID 32	6	4	3	2	1
ID 34	6	2	7	0	1
Total		82	89	40	19

TABLE 5.iv Accuracy of ORC production: individual raw numbers

Table 5.iv shows that the production of target-like ORCs is difficult for all children in every age group: this construction remains demanding even for 6 y.o.

For this reason the production of easier but incorrect RCs (column “2”) is very high and almost equal to the one of target-like sentences.

This is evident considering the performance of ID 3, 17, 18, 24, 26 and 34, whose data show a similar pattern: they systematically produce more non-target-like than target-like RCs.

The two extremes of the group are ID 14 on one hand, who seems to be unable to produce target-like ORC at all; and ID 19, on the other hand, who is the only child that does not produce non-target-like RCs and manages to consistently produce target-like ORCs instead.

The strategy of producing the alternative DP-type structures is also in place and seems to rise with age.

Finally, it is important to notice that target-like ORCs, even when produced in small numbers, are still produced: this should mean that this RC structure is difficult but nevertheless available already at 4 y.o.

5.1.3 Prepositional Relative Clauses: accuracy of production

In this section I will focus on the results for the elicitation of Prepositional Relative Clauses.

5.1.3.1 Prepositional Relative Clauses: analysis of production at group level

The following table summarizes the results for the elicitation of PPRCs in the Friulian session. Children are considered as a group and their different answering strategies are exposed.

PPRC	1 <i>The boy to whom the girl gives the gift.</i>	2 <i>(expected: 1) The boy that gives the gift.</i>	3 ²⁸ <i>DP-type structures</i>	4 ²⁹ <i>“Other”</i>
4 y.o.	17 37,78%	17 37,78%	6 13,33%	5 11,11%
5 y.o.	32 32,32%	24 24,24%	37 37,37%	6 6,06%
6 y.o.	24 38,10%	11 17,46%	25 39,68%	3 4,76%
Children as a group	73 35,27%	52 25,12%	68 32,85%	14 6,76%

TABLE 5.v Accuracy of PPRC production: raw numbers and percentages

Looking at table 5.v it is evident that also this construction is very difficult for the children to produce and this results holds for every age group. They are able to produce target-like sentences only around one third of the times (35%).

²⁸ In this case: 0,48% “Demonstrative + modifier”; 29,47% “Demonstrative + PP”; 2,90% “Demonstrative + PP + SRC”

²⁹ In this case: 1,93% “Ambiguous RC”; 2,42% “Fragment”; 2,42% “Main Clause

From note 5 and 6 it appears clear that the increased difficulty of producing target-like PPRCs gives rise to a wider range of possible alternative productions, as it was for ORC production (cf. Note 1 and 2 for SRC production; Note 3 and 4 for ORC production)

Notably the constructions used instead of target-like PPRCs are the same as for ORC elicitation (cf. Table V.3): easier RCs with a different extraction site, like SRCs:

Example 4.

Context: A son dôs bancjutis. Un gjat al è scrufuiât sot di une bancjute. Un gjat al è scrufuiât parsore une bancjute. Cuale bancjute sielzistu?

Answer: Il gatto che è sopra la panchina. (ID13, 5 y.o.)

There are two benches. A cat is crouched over a bench. A cat is crouched under a bench. Which bench do you like best?

The cat that is over the bench.

And DP-type structures:

Example 5.

Context: A son doi cjasis. Un purcit al ven fûr di une cjase. Un cjava al ven fûr di une cjase. Cuâle cjase sielzistu?

Answer: Quella del cavallo. (ID21, 5 y.o.)

There are two houses. A pig is leaving a house. A horse is leaving a house. Which house do you like best?

The one of the horse.

In the case of PPRCs elicitation, the use of DP-type constructions is the most productive strategy (32,85%).

A resemblance with table V.1 and V.3 can be seen in the fact that the production of DP-type structures rises with age.

5.1.3.2 Prepositional Relative Clauses: analysis of production at individual level

Following on from the previous table, the production of PPRCs in the Friulian session is illustrated here: in this case the children's individual performances are taken into account.

PPRC	Age	1 <i>The boy to whom the girl gives the gift</i>	2 <i>(expected: 1) The boy that gives the gift.</i>	3 <i>DP-type structures</i>	4 <i>"Other".</i>
ID 2	4	3	2	1	3
ID 3	4	3	3	3	0
ID 5	4	6	2	0	1
ID 6	4	0	8	0	1
ID 9	4	5	2	2	0
ID 12	5	3	1	5	0
ID 13	5	6	2	0	1
ID 14	5	0	9	0	0
ID 15	5	3	1	5	0
ID 16	5	5	0	3	1
ID 17	5	4	2	1	2
ID 18	5	1	4	2	2
ID 19	5	5	0	4	0
ID 21	5	5	2	2	0
ID 22	5	0	0	9	0
ID 24	5	0	3	6	0
ID 26	6	7	1	1	0
ID 27	6	1	1	6	1
ID 28	6	3	1	5	0
ID 30	6	1	2	5	1
ID 31	6	3	3	2	1
ID 32	6	3	0	6	0
ID 34	6	6	3	0	0
Total		73	52	68	14

TABLE 5.vi Accuracy of PPRC production: individual raw numbers

As Table 5.vi shows, the children's performance with PPRCs is poor and even 6 y.o. children have difficulty in producing this kind of RC.

Children use two strategies to deal with the difficulties of this elicitation: they produce easier but incorrect RCs instead (column “2”); and they use DP-type structures (column “3”). This latest strategy is the most used in the case of PPRCs and is in place here more than with other RC types.

Within the group, it is interesting to look at ID 6, ID 14, ID 22, and ID 24 performances: they seem to be completely unable to produce target-like PPRCs. ID 18, ID 27 and ID 30 are also very bad at producing target-like PPRCs. It could be the case that these children do not master the production of PPRCs yet.

As already noted for ORCs, also target-like PPRCs are produced in small numbers, but still they are produced: this should mean that also this structure, even if difficult, is nevertheless available for some children already at 4 y.o.

5.1.4. Overview of the results for the Friulian session

The following graph summarizes the results of the Friulian elicitation session. From left to right, the data for SRCs, ORCs and PPRCs productions are illustrated, taking into consideration the children's different answering strategies.

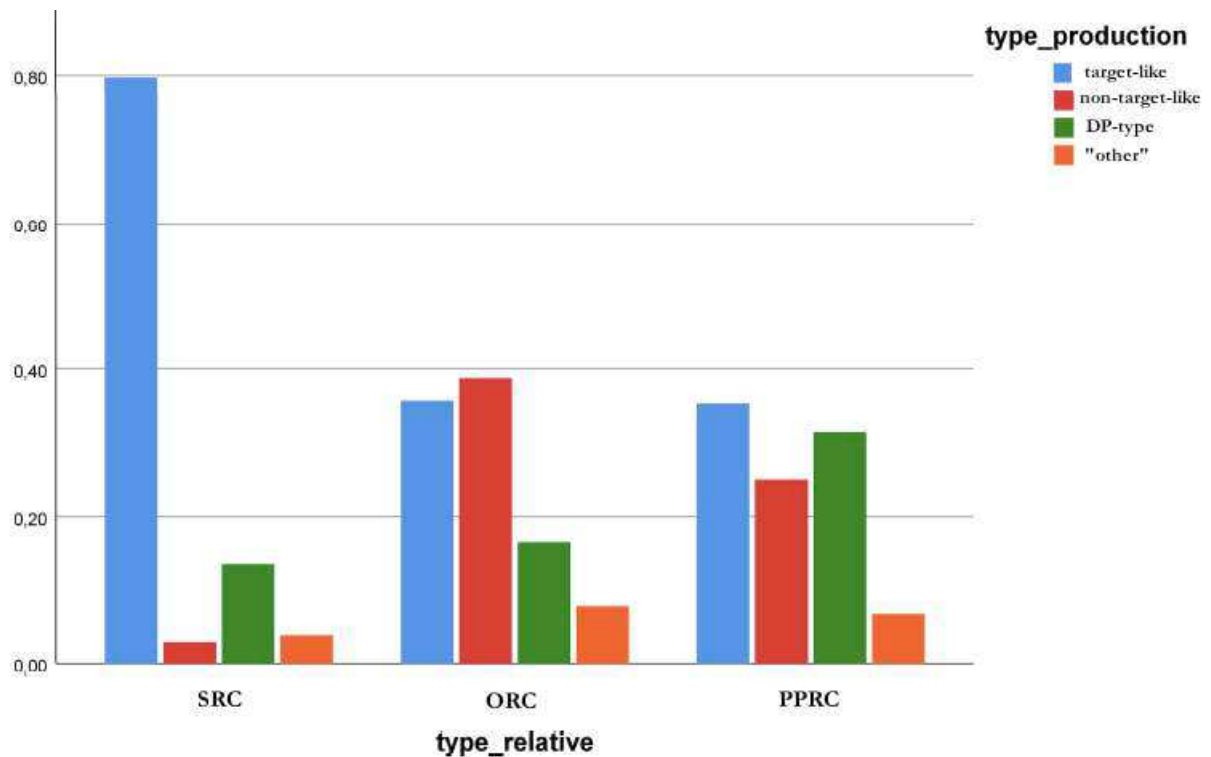


FIG. 5.i Friulian session results: percentages

As figure 5.i shows, in the case of SRCs children perform well: they produce target-like sentences almost 80% of the times (the bar in blue). The only other relevant option is the DP-type strategy (the bar in green). In the case of ORCs, the production of target-like sentences is descriptively worse compared to the one in the SRCs condition ($t(22) = 7.59$, $p < .001$). Children produce non-target sentences (the bar in red) almost as much as they produce target-like sentences. The DP-type strategy is also used, but considerably less than the non-target-like option. In the case of PPRCs the production of target-like sentences is similar to the one for ORCs ($t(22) = -.07$, $p = .94$). The difference w.r.t. ORCs is that the DP-type strategy (the bar in green) seems to be the preferred alternative when PPRCs are elicited, more than the non-target type of production.

5.2 Italian session results

The second section of this chapter is dedicated to analysing all the data coming from the elicited production session administered in Italian. Children productions were coded and plotted on the basis of the input language, regardless of the output being in Italian or Friulian.

5.2.1. Subject Relative Clauses: accuracy of production

In this section I will focus on the results for the elicitation of Subject Relative Clauses.

5.2.1.1 Subject Relative Clauses: analysis of production at group level

The following table presents the results for the elicitation of SRCs in the Italian session. It is organized to display the different answering strategies used by the children considered as a group.

SRC	1 <i>The girl that waters the flowers</i>	2 <i>(expected: 1)</i> <i>The flowers that the girl waters</i>	3 ³⁰ <i>DP-type structures</i>	4 <i>“Other”</i>
4 y.o.	44 97,78%	1 2,22%	0 0,00%	0 0,00%
5 y.o.	93 93,94%	0 0,00%	6 6,06%	0 0,00%
6 y.o.	61 96,83%	0 0,00%	2 3,17%	0 0,00%
Children as a group	198 95,65%	1 0,48%	8 3,86%	0 0,00%

TABLE 5.vii Accuracy of SRC production: raw numbers and percentages

³⁰ In this case: 3,38% “Demonstrative + PP”; 0,48% “Demonstrative + PP + SRC”

As Table 5.vii shows, when SRCs are elicited, children as a group perform very well. They produce target-like structures 95% of the time. The other constructions do not seem to play an important role as alternatives when this type of RCs is elicited.

5.2.1.2 Subject Relative Clauses: analysis of production at individual level

This table follows on from the previous one exploring the elicitation of SRCs in the Friulian session. In this case the children's individual performances are considered.

SRC	Age	1 <i>The girl that waters the flowers</i>	2 <i>The one with the leash</i>	3 <i>DP-type structures</i>
ID 2	4	8	1	0
ID 3	4	9	0	0
ID 5	4	9	0	0
ID 6	4	9	0	0
ID 9	4	9	0	0
ID 12	5	8	0	1
ID 13	5	9	0	0
ID 14	5	9	0	0
ID 15	5	9	0	0
ID 16	5	8	0	1
ID 17	5	9	0	0
ID 18	5	9	0	0
ID 19	5	9	0	0
ID 21	5	9	0	0
ID 22	5	5	0	4
ID 24	5	9	0	0
ID 26	6	9	0	0
ID 27	6	9	0	0
ID 28	6	9	0	0
ID 30	6	7	0	2
ID 31	6	9	0	0
ID 32	6	9	0	0
ID 34	6	9	0	0
Total		198	1	8

TABLE 5.viii Accuracy of SRC production: individual raw numbers

Table 5.viii shows that there is an extremely homogeneous performance within the children's group and SRCs are produced accurately.

Only ID 22 presents a slightly poorer production compared to the other children.

5.2.2 Object Relative Clauses: accuracy of production

In this section I will focus on the results for the elicitation of Object Relative Clauses.

5.2.2.1 Object Relative Clauses: analysis of production at group level

Next table illustrates the results for the elicitation of ORCs in the Italian session. Children are grouped for age.

ORC	1 <i>The flowers that the girl waters</i>	2 <i>(expected: 1)</i> <i>The girl that waters the flowers.</i>	3 ³¹ <i>DP-type structures</i>	4 ³² <i>“Other”</i>
4 y.o.	27 54,00%	20 40,00%	1 2,00%	2 4,00%
5 y.o.	61 55,45%	34 30,91%	13 11,82%	2 1,82%
6 y.o.	44 62,86%	19 27,14%	6 8,57%	1 1,43%
Children as a group	132 57,39%	73 31,74%	20 8,70%	5 2,17%

TABLE 5.ix Accuracy of ORC production: raw numbers and percentages

As Table 5.ix shows, this kind of RC is clearly difficult for every age group (column “1”) and target-like sentences are produced around half of the times (57%). In order to overcome the difficulty of ORC production, the most productive alternative strategy, used around one third of the times (31%), consists of producing an easier RC with a different extraction site, like SRCs:

³¹ In this case: 1,30% Demonstrative + modifier; 4,35% Demonstrative + PP; 3,04 Demonstrative + PP + SRC

³² In this case: 0,87% “Fragment”; 1,30% “Main Clause”

As already seen for Friulian in note 3 and 4, from note 8 and 9 it appears clear that the increased difficulty of producing target-like ORCs gives rise to a wider range of possible alternative productions (cf. Note 7 for SRC production)

Example 6.

Context: Ci sono due vitelli. Una mucca allatta un vitello.

Una mucca bacia un vitello. Quale vitello scegli?

Answer: Quello che beve. (ID3, 4 y.o.)

There are two calves. A cow is breastfeeding a calf. A cow is kissing a calf. Which calf do you like best?

The one that drinks.

5.2.2.2 Object Relative Clauses: analysis of production at individual level

This table follows on from the previous one and summarizes the productions of ORCs in the Italian session: here the table focuses on the children's individual performance.

ORC	Age	1 <i>The flowers that the girl waters</i>	2 <i>(expected: 1) The girl that waters the flowers</i>	3 <i>DP-type structures</i>	4 <i>"Other"</i>
ID 2	4	6	3	0	1
ID 3	4	5	4	1	0
ID 5	4	4	6	0	0
ID 6	4	6	4	0	0
ID 9	4	6	3	0	1
ID 12	5	7	3	0	0
ID 13	5	5	4	0	1
ID 14	5	1	9	0	0
ID 15	5	8	0	2	0
ID 16	5	3	7	0	0
ID 17	5	10	0	0	0
ID 18	5	4	5	0	1
ID 19	5	9	1	0	0
ID 21	5	9	1	0	0
ID 22	5	0	2	8	0
ID 24	5	5	2	3	0
ID 26	6	1	9	0	0
ID 27	6	5	2	2	1
ID 28	6	9	1	0	0
ID 30	6	5	1	4	0
ID 31	6	10	0	0	0
ID 32	6	8	2	0	0
ID 34	6	6	4	0	0
Total		132	73	20	5

TABLE 5.x Accuracy of ORC production: individual raw numbers

Table 5.x shows that target-like ORCs are difficult for all children and results are not homogeneous within the group. This is true for every age group, since ORCs remain demanding even for 6 y.o. children.

The most used strategy to overcome this difficulty is the production of easier but incorrect RCs like SRCs. ID 14, ID 16 and ID 26 use this strategy systematically and produce more non-target-like than target-like ORCs.

ID 22 seem to be unable to produce any target-like ORC at all, but mostly uses the DP-type strategy instead.

However, there are also children that perform effectively: ID 15, ID 17 and ID 31 do not produce non-target-like RCs, and also ID 19, ID 21, ID 28, and ID 32 perform better than the other children.

As already noted in 5.1.2.2 for the Friulian session, it is important to consider that target-like ORCs are produced less than target-like SRCs, but still they are produced: this supports the idea that the structure is difficult but nevertheless already available from 4 y.o.

5.2.3 Prepositional Relative Clauses: accuracy of production

In this section I will focus on the results for the elicitation of Prepositional Relative Clauses.

5.2.3.1 Prepositional Relative Clauses: analysis of production at group level

The following table presents the results for the elicitation of PPRCs in the Italian session. The different answering strategies are reported considering the children as a group.

PPRC	1 <i>The boy to whom the girl gives the gift.</i>	2 <i>(expected: 1) The boy that gives the gift.</i>	3 ³³ <i>DP-type structures</i>	4 ³⁴ <i>“Other”</i>
4 y.o.	32 64,00%	15 30,00%	2 4,00%	1 2,00%
5 y.o.	47 42,73%	31 28,18%	30 27,27%	2 1,82%
6 y.o.	49 70,00%	12 17,14%	9 12,86%	0 0,00%
Children as a group	128 55,65%	58 25,22%	41 17,83%	3 1,30%

TABLE 5.xi Accuracy of PPRC production: raw numbers and percentages

Looking at Table 5.xi it appears clear that also this construction is very difficult for the children to produce at every age. As a group, they are able to produce target-like sentences only around half of the times (55%). Notably, the most frequent construction used instead of target-like PP RC is the same as for ORC elicitation (cf. Table V.9): easier RCs with a different extraction site, like SRCs:

Example 7.

Context: Ci sono due alberi. Un topo sale su un albero.
Un gatto sale su un albero. Quale albero scegli?

³³ In this case: 0,87% Demonstrative + modifier; 13,91% Demonstrative + PP; 3,04% Demonstrative + PP + SRC

³⁴ In this case: 0,43% “Fragment”; 0,87% “Main clause”

From note 10 and 11 it appears clear that the increased difficulty of producing target-like PPRCs gives rise to a wider range of possible alternative productions, as it was for ORC production (cf. Note 7 for SRC production; Note 8 and 8 for ORC production)

Answer: Il topo che va sull'albero. (ID6, 4 y.o.)

*There are two trees. A mouse is climbing a tree. A cat is climbing a tree. Which tree do you like best?
The mouse that is climbing the tree.*

This type of production declines with age (see n. 2 column).

Another strategy used when PPRCs are elicited is the DP-type structure, used in this condition more than with any other RC (column "6"):

Example 8.

Context: Ci sono due bambini. Una bambina regala un'oca ad un
bambino. Una bambina regala un cane ad un bambino. Quale
bambino scegli?

Answer: Quello col cane. (ID11, 5 y.o.)

*There are two boys. A girl is giving a goose to a boy. A girl is giving a dog to a boy. Which boy do you
like best?
The one with the dog.*

5.2.3.2 Prepositional Relative Clauses: analysis of production at individual level

The productions of PPRCs in the Italian session at the individual level are shown here.

PPRC	Age	1 <i>The boy to whom the girl gives the gift</i>	2 <i>(expected: 1) The boy that gives the gift.</i>	3 <i>DP-type structures</i>	4 <i>“Other”.</i>
ID 2	4	8	1	1	0
ID 3	4	5	4	1	0
ID 5	4	7	3	0	0
ID 6	4	5	5	0	0
ID 9	4	7	2	0	1
ID 12	5	3	2	5	0
ID 13	5	7	3	0	0
ID 14	5	0	10	0	0
ID 15	5	2	1	7	0
ID 16	5	5	3	2	0
ID 17	5	9	0	0	1
ID 18	5	2	7	0	1
ID 19	5	8	2	0	0
ID 21	5	5	2	3	0
ID 22	5	0	0	10	0
ID 24	5	6	1	3	0
ID 26	6	9	1	0	0
ID 27	6	5	0	5	0
ID 28	6	9	1	0	0
ID 30	6	7	1	2	0
ID 31	6	7	3	0	0
ID 32	6	6	2	2	0
ID 34	6	6	4	0	0
Total		128	58	41	3

TABLE 5.xii Accuracy of PPRC production: individual raw numbers

Table 5.xii confirms that the production of target-like PPRCs is challenging. In order to cope with the difficulties of this RC type elicitation, children produce easier but incorrect RCs instead (column “2”); ID 14 only produces non-target-like SRCs and also ID 18 uses this strategy systematically.

Children also use DP-type structures and this strategy is in place here more than with other RC types. Notably, ID 22 only produces DP-type structures and also ID 15 uses this strategy consistently.

As noted for ORCs in 5.2.2.2, PPRCs are already produced by 4 y.o. children, even if not always and in small numbers: this should mean that also this structure, even if difficult, is nevertheless already available at 4 y.o.

5.2.4. Overview of the results for the Italian session

The following graph outlines the results of the Italian elicitation session. From left to right, the data for SRCs, ORCs and PPRCs productions are displayed, taking into account the children's different answering strategies.

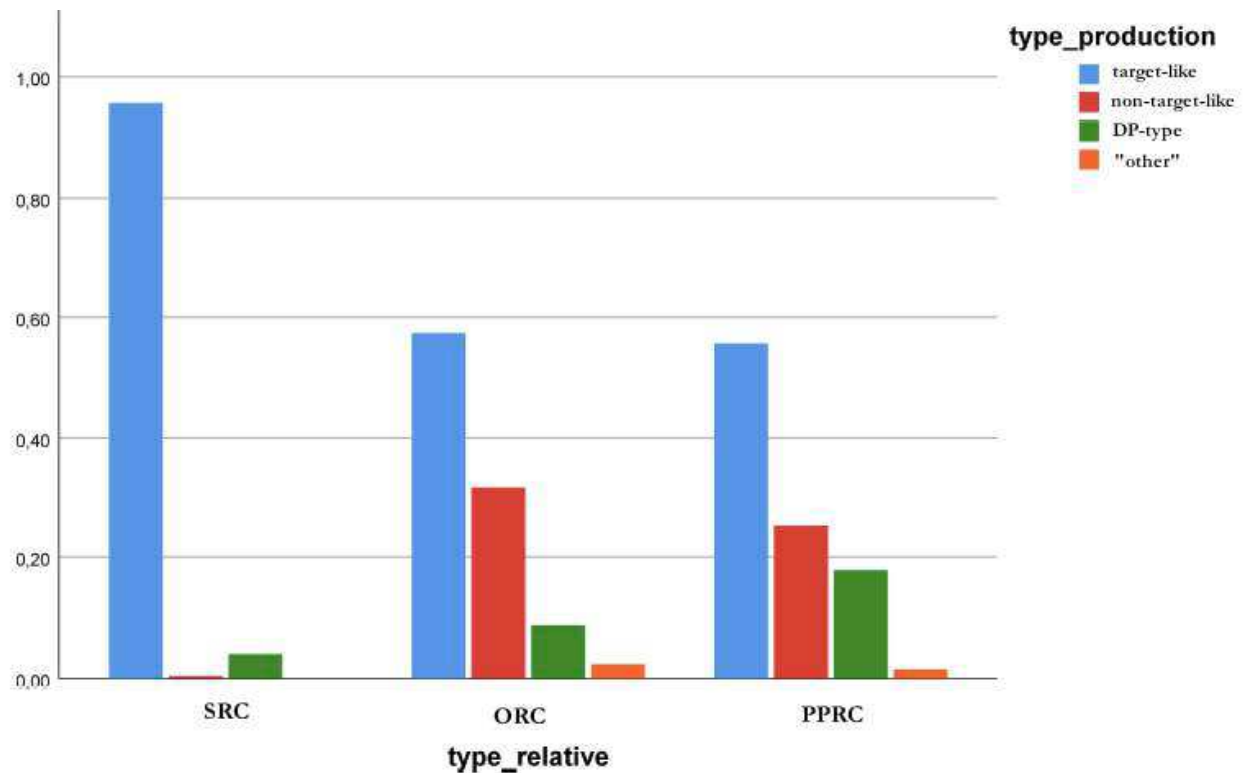


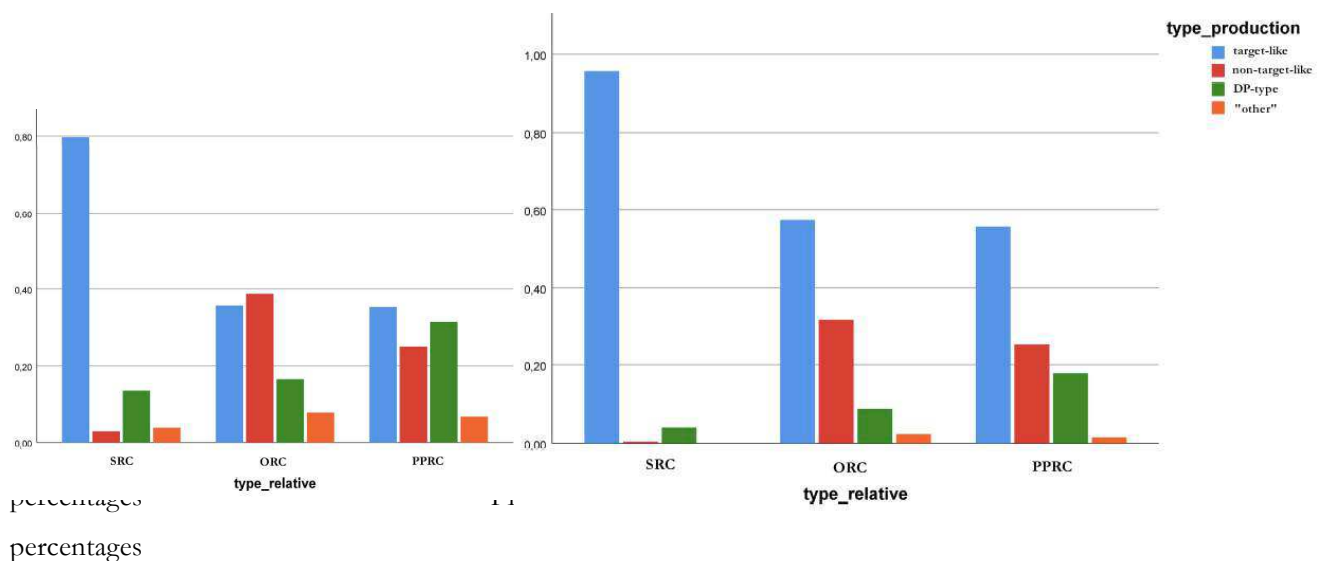
FIG. 5.ii Italian session results: percentages

As figure 5.ii shows, in the case of SRCs children perform very well: they almost always produce target-like sentences (the bar in blue), all other kinds of produced structures are almost absent. In the case of ORCs, the production of target-like sentences is worse compared to SRCs (paired sample t-test: subject_target vs. object_target: $t(22) = 7.24$, $p < .001$). The most used alternative structure is of the non-target type (the bar in red). In the case of PPRCs, the production of target-like sentences is also worse compared to SRCs (paired sample t-test: subject_target vs. PP_target: $t(22) = 7.80$, $p < .001$), similarly to ORCs production ($t(22) = -.29$, $p = .77$). Children also produce non-target like sentences and DP-type structures, and both strategies represent actual alternatives if a PPRC is elicited.

5.3 Friulian session vs. Italian session: statistical analyses

In this section, the observations made in the previous paragraphs will be verified through statistical analyses.

5.3.1 Friulian session vs. Italian session: general observations



The first general observation is that language is a factor that plays an important role: as can be seen from the figures above, target-like productions (the bar in blue) appear considerably more frequently when Italian is used, regardless of the type of relative clause considered. Moreover, when the language is Italian, the “other” type of production (the bar in orange) almost disappears. These results show that Italian has a crucial ameliorating effect on the children’s performance.

Another general observation is that the production of target-like sentences in the case of ORCs and PPRCs is substantially less frequent compared to the production of target-like sentences when SRCs are elicited, and this holds for both languages. These results are consistent with what is known from the literature about the Subject-Object asymmetry and the similar difficulties related to ORCs and PPRCs. Another observation supporting this claim comes from the production of non-target-like sentences (the bar in red): it only

happens when ORCs and PPRCs are elicited, and this suggests that their production is more difficult and demanding for children compared to that of SRCs.

The last general observation concerns the DP-type structures: this construction is used remarkably more often in the Friulian session. In addition to this observation, if both the Friulian and the Italian session are considered, it can be seen that DP-type sentences production is higher when ORCs and PPRCs are elicited compared to when SRCs are elicited. These observations seem to corroborate the idea that this construction is used as a strategy to overcome the difficulties of demanding processing.

5.3.1.1 Friulian session vs. Italian session: SRCs strategies

Considering figures 5.i and 5.ii and focusing specifically on the SRC type of relative, it appears evident, in line with the results from the literature, that children manage to perform really well with this construction, regardless of the language in which the experiment was conducted. When the language used is Italian, however, children perform better and produce more target-like sentences, almost reaching the ceiling level. When the language is instead Friulian, in addition to target-like sentences, children also produce structures of the DP-type, considerably more w.r.t. the Italian session.

A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of Structure* (Target-like, Non-target like, DP-type and “Other”) as independent ones, reveals a significant effect of *Type of Structure* $F(3, 20) = 466,65, p = <.001$. I also found a significant *Language * Type of Structure* interaction ($F(3, 20) = 6,52, p = .003$).

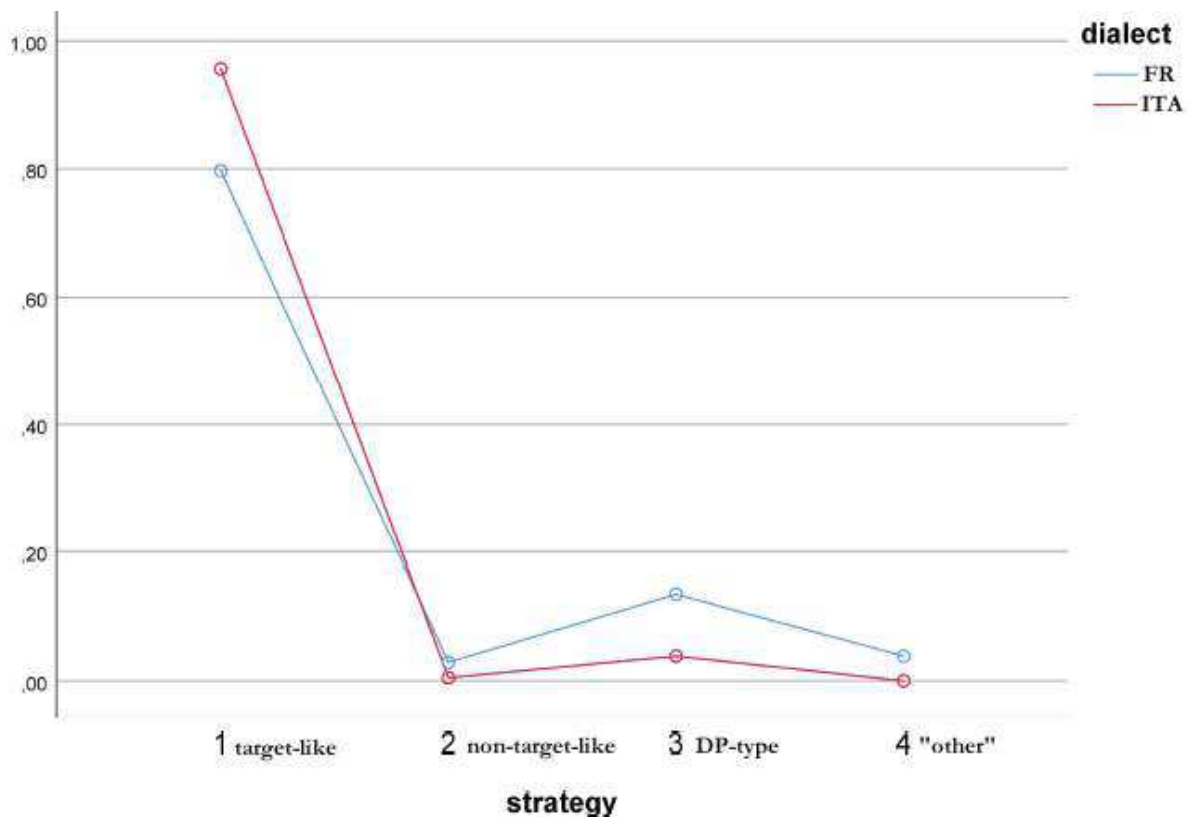


FIG. 5.iii SRCs: strategy*language.

5.3.1.2 Friulian session vs. Italian session: ORCs strategies

Considering again figures 5.i and 5.ii and targeting specifically the ORC type of relative, it appears clear that this construction is more demanding for the children with respect to SRCs, regardless of the language of elicitation. Nonetheless the factor *Language* plays a significant role in the children's performance: when Friulian is used, the production of target almost equals the production of non-target-like sentences. When Italian is used instead, target-like sentences are produced conspicuously more than non-target ones.

A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of Structure* (Target-like, Non-target like, DP-type and "Other") as independent ones, reveals a significant effect of *Type of Structure* ($F(3, 20) = 100,80, p = <.001$). I also found a significant *Language * Type of Structure* interaction $F(3, 20) = 7,01, p = .002$.

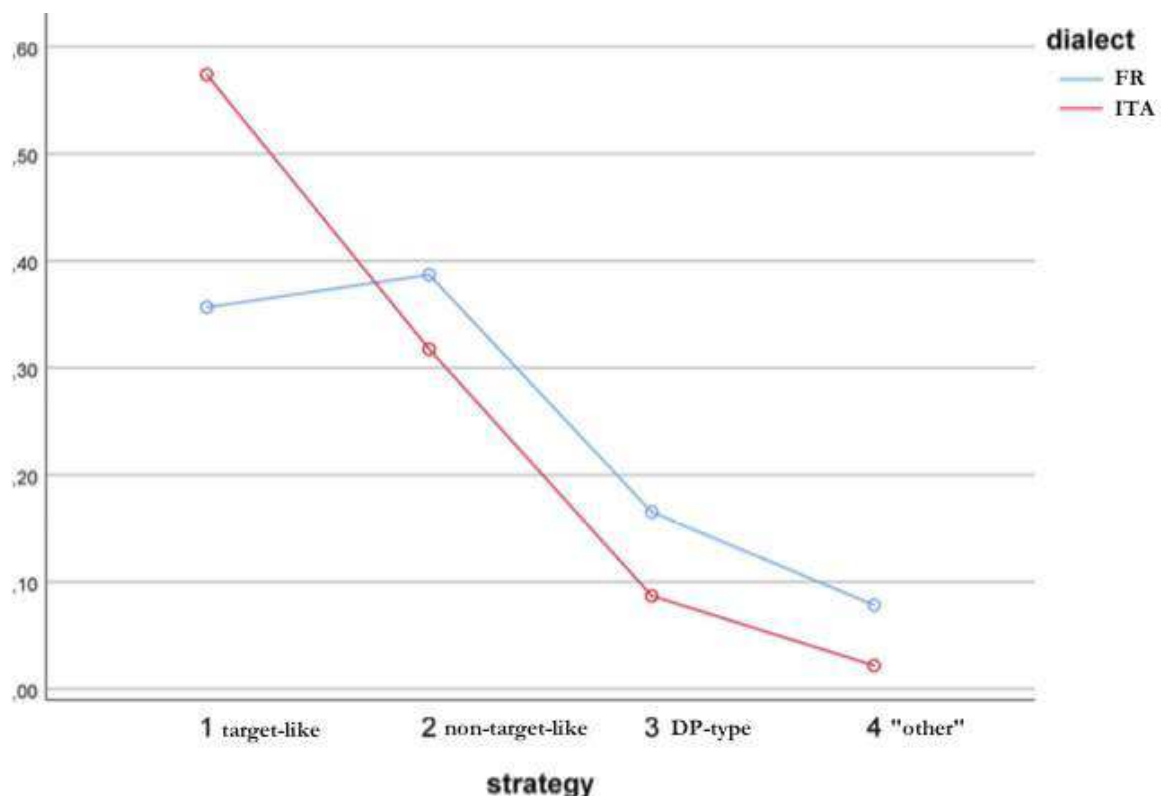


FIG. 5.iv ORCs: strategy*language.

5.3.1.3 Friulian session vs. Italian session: PPRCs strategies

Looking at figures 5.i and 5.ii and concentrating specifically on the PPRC type of relative, it appears clear that this construction is demanding for the children, regardless of the language in which the experiment is administered, as it was seen for ORCs. Nonetheless, also for this type of relative clause, the language used plays a significant role with respect to the strategies used by the children. When the language is Italian, they mostly produce target-like sentences, followed by non-target-like sentences and DP-type structures, respectively. The situation is different when we consider the Friulian session: not only target-like sentences are produced less than in the Italian session, but also DP-type structures are produced substantially to a greater extent. In fact this strategy seems to play a crucial role in coping with the difficulty of PPRCs elicitation in Friulian.

A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of Structure* (Target-like, Non-target like, DP-type and “Other”) as independent ones, reveals a significant effect of *Type of Structure* ($F(3, 20) = 120,18, p = <.001$). I also found a significant *Language * Type of Structure* interaction $F(3, 20) = 8,51, p = .001$.

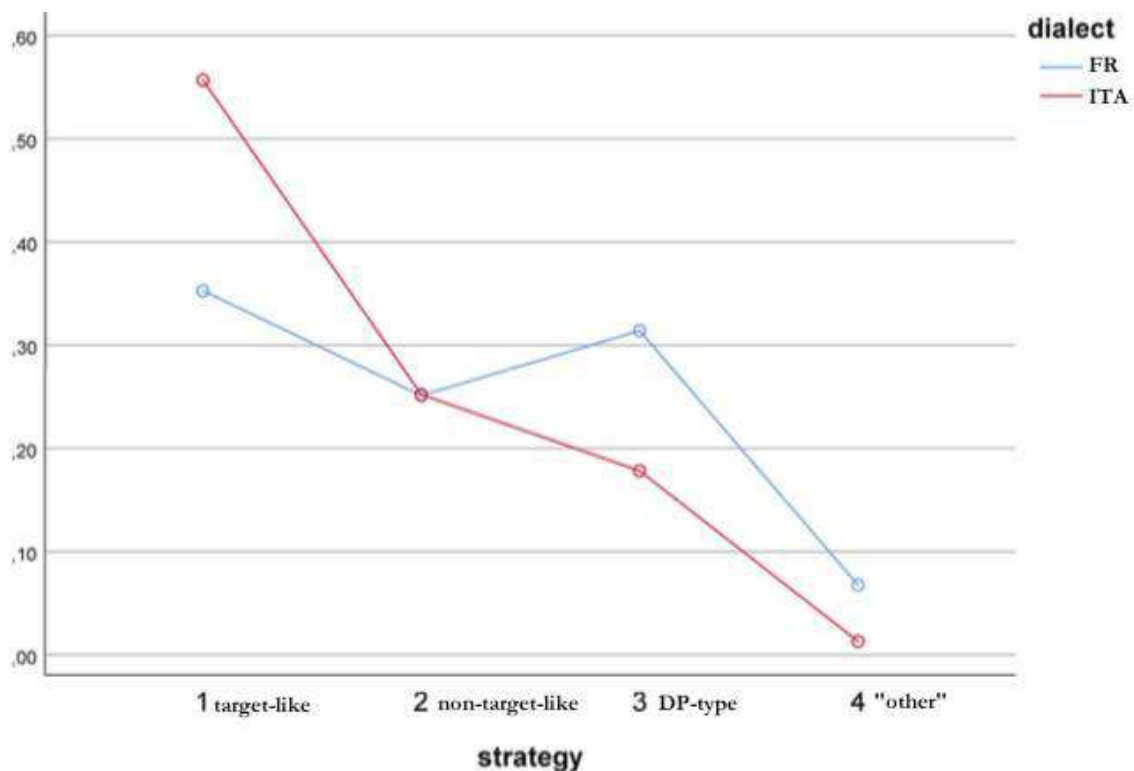


FIG. 5.v PPRCs: strategy*language

5.3.2 Further investigation on PPRCs

As previously explained in chapter 2 section 2.4., little work has been done in the investigation of the construction and the acquisition of PPRCs.

The results from this thesis are in line with what Costa and colleagues have found (Costa, J., Friedmann, N., Silva, C., Yachini, M. 2013; 2014): the production of PPRCs is demanding and children's performance when facing this construction is similar to the one for ORCs, considerably worse compared to SRCs.

In addition to this observation, in this work I wanted to make a step further in the knowledge of PPRCs and the factors that could play a role in making this construction problematic for children. In the following paragraphs I will illustrate the results of a further analysis of the data, for which functional and lexical PPRCs were considered separately and compared.

5.3.2.1 Friulian session: overview of the PPRCs results

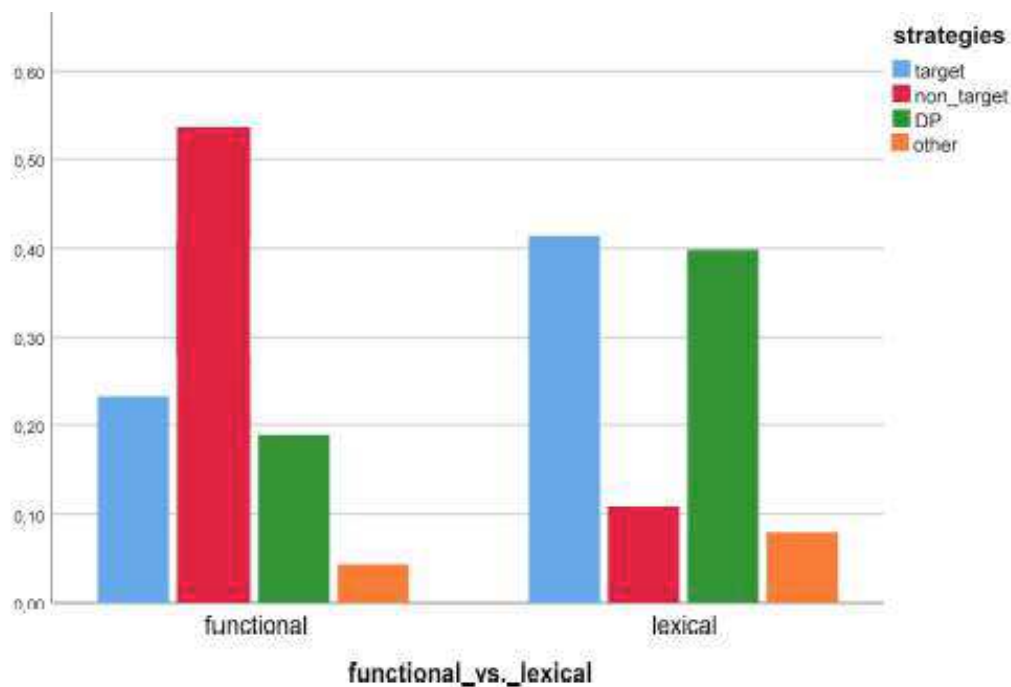


FIG. 5.vi Friulian session results: PPRCs percentages

As fig. 5.vi shows, children use different strategies to produce PPRCs depending on whether the prepositions are of the functional or lexical type. When functional PPRCs are elicited, they mostly produce non-target-like sentences. The production of target-like sentences is very limited, and the same can be observed about the DP-type of structures. When lexical PPRCs are elicited, the picture is quite the opposite. Children mostly produce target-like sentences and DP-type structures, to a similar extent. The production of non-target-like sentences is very low.

5.3.2.2 Italian session: overview of the PPRCs results

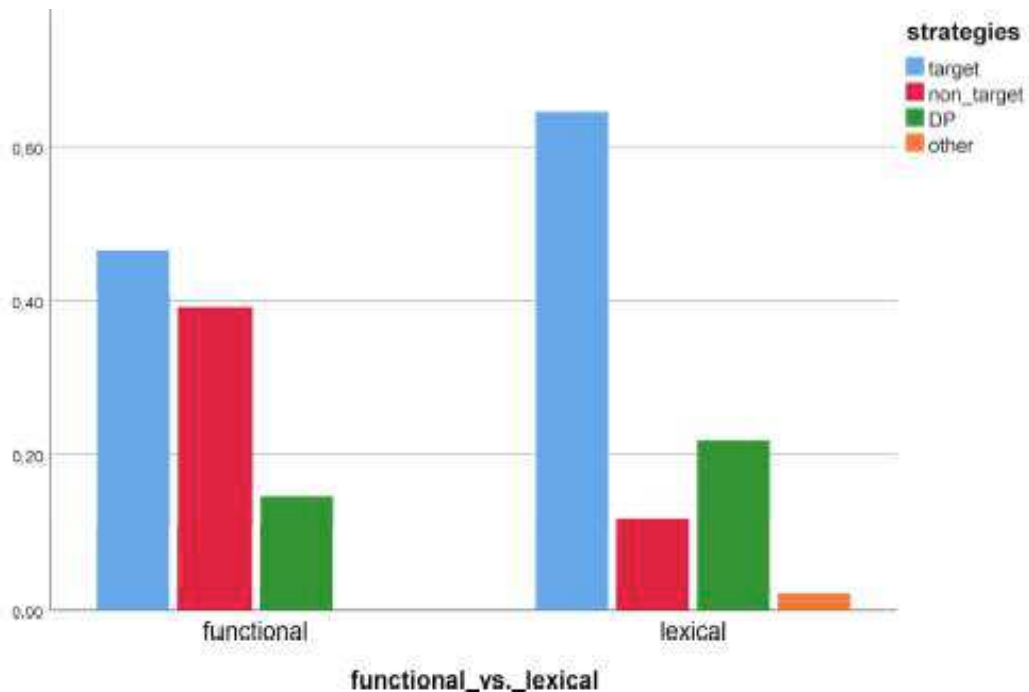


FIG. 5.vii Italian session results: PPRCs percentages

As fig. 5.vii shows, also during the Italian session children show a different performance pattern depending on the type of PPRCs (lexical vs. functional). When functional PPRCs are elicited, they have difficulties in producing target-like sentences and they produce non-target-like sentences almost to the same extent as the target-like ones. When lexical PPRCs are elicited, children perform better and produce a considerable number of target-like sentences. The production of DP-type structures and non-target-like sentences is instead very low.

5.3.2.3 Friulian session vs. Italian session: general observations

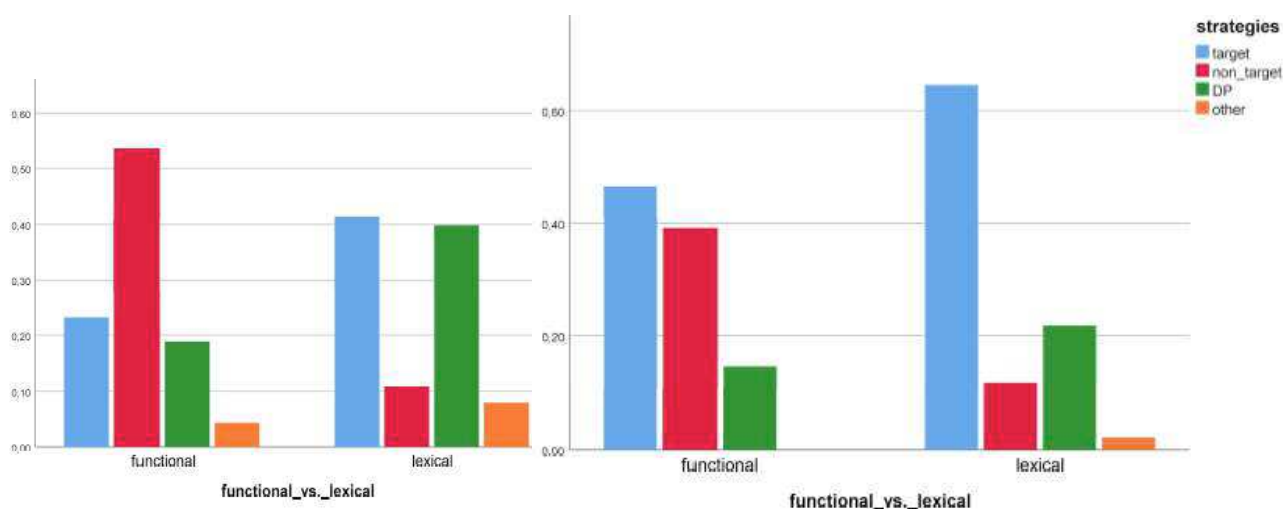


FIG. 5.vi Friulian session: PPRCs percentages

FIG. 5.vii Italian session: PPRCs percentages

The first general observation is that target-like constructions (the bar in blue) are produced more when lexical PPRCs are elicited, regardless of the languages of elicitation. This result seems to indicate that this kind of PPRCs is easier for children to produce compared to functional PPRCs. Also, the production of non-target-like sentences (the bar in red) considerably raises only when functional PPRCs are elicited, regardless of the language. These data support the claim that functional PPRC are more demanding for children than lexical PPRC.

The last observation concerns the ameliorating effect of the Italian language on the children's performance: it holds for both lexical and functional PPRCs.

5.3.2.4. Friulian session: the interaction strategy*type of PPRC

As previously seen for the Friulian session in figure 5.vi, the data show two different and opposite patterns for the elicitation of functional or lexical PPRCs. As confirmed in figure 5.viii, when lexical PPRCs are elicited (in red), children mostly produce target-like sentences, and a similar amount of DP-type structures. Non-target-like sentences and “other” structures production is instead limited. When functional PPRCs are elicited (in blue), children have a major production of non-target-like sentences, while the production of target-like sentences, DP-type and “other” structures production is considerably lower. A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Type of PPRC* (functional vs. lexical) and *Type of Structure* (Target-like, Non-target like, DP-type and “Other”) as independent ones, reveals a significant effect of *Type of Structure* ($F(3, 20) = 34,78, p < .001$). I also found a significant *Type of PPRC * Type of Structure* interaction $F(3, 20) = 21,12, p < .001$.

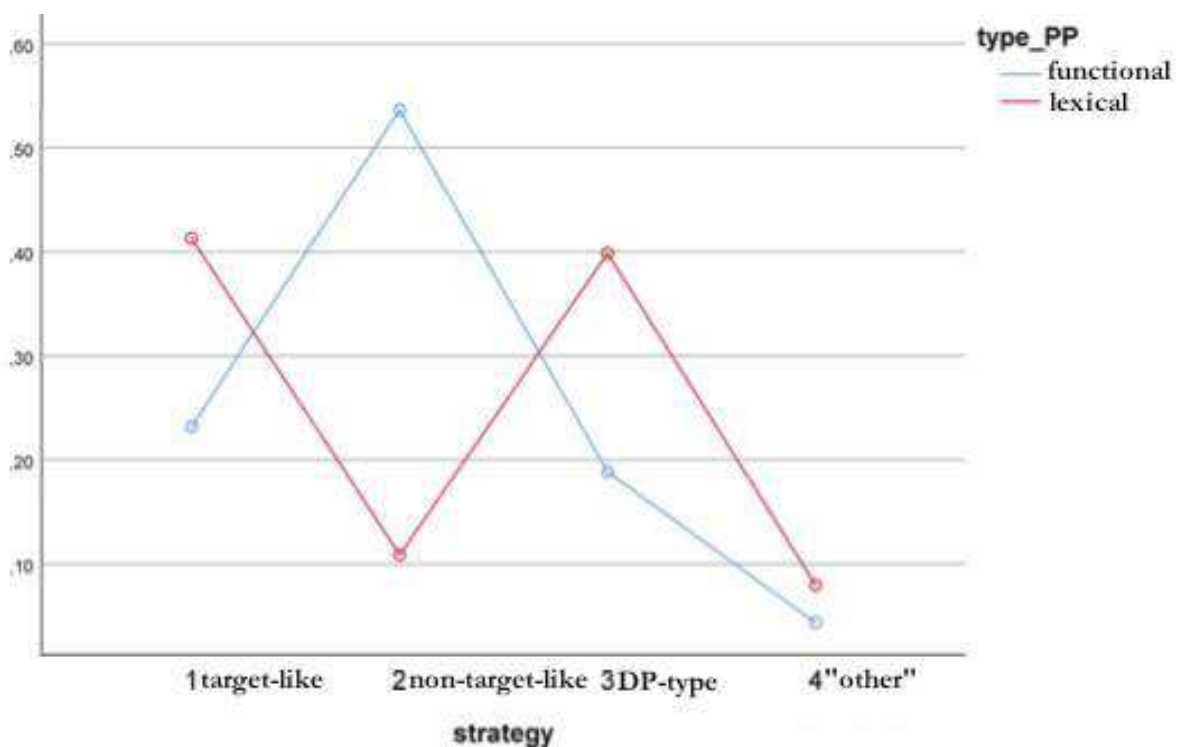


FIG. 5.viii Friulian PPRCs: strategy*type of PP

5.3.2.5. Italian session: the interaction strategy*type of PPRC

As previously seen for the Italian session in figure 5.viii, the data show a different picture w.r.t. the Friulian one. As confirmed in figure 5.ix, when functional PPRCs are elicited (in blue), children produce a similar number of target and non-target-like sentences. When lexical PPRCs are elicited (in red), children perform well with target-like sentences, which means that non-target-like sentences are very few. The production of DP-type structures is larger compared to the production of the same structure when functional PPRCs are elicited.

A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Type of PPRC* (functional vs. lexical) and *Type of Structure* (Target-like, Non-target like, DP-type and “Other”) as independent ones, reveals a significant effect of *Type of Structure* ($F(3, 20) = 534,87, p < .001$). I also found a significant *Type of PPRC * Type of Structure* interaction $F(3, 20) = 8,95, p = .001$.

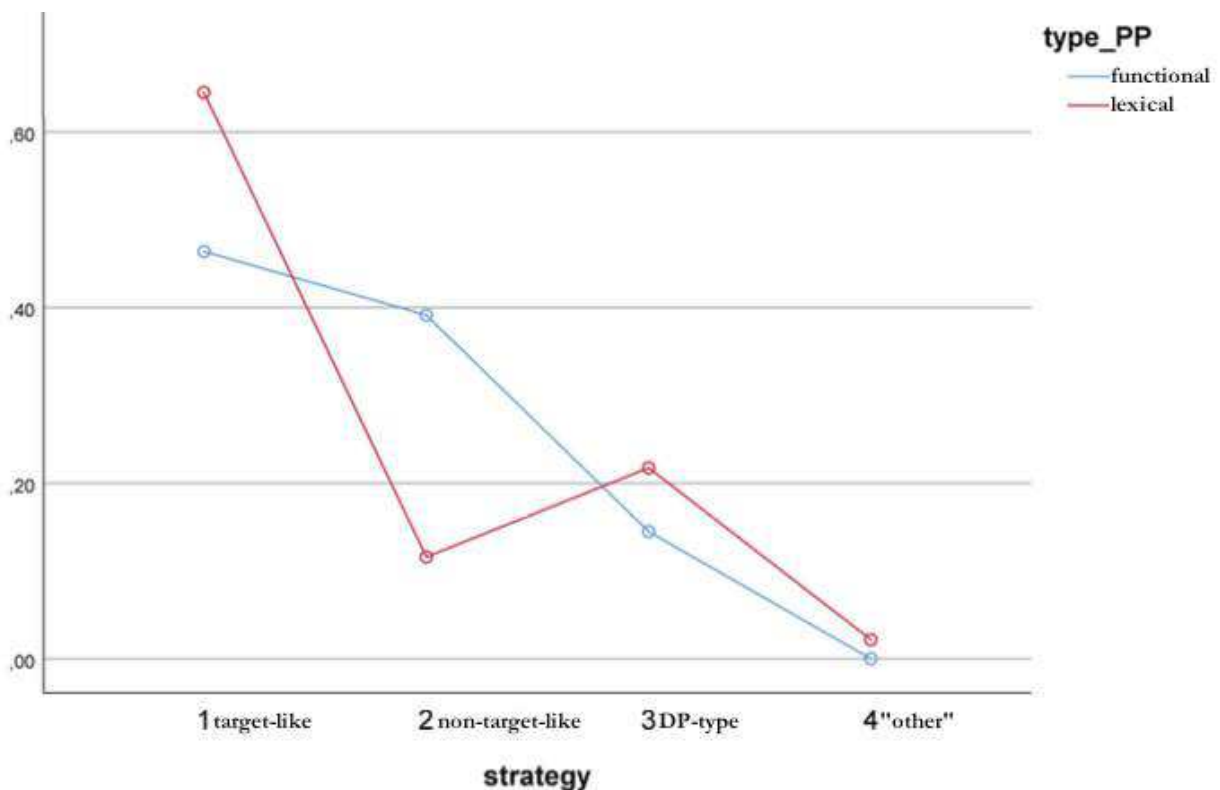


FIG. 5.ix Italian PPRCs: strategy*type of PP

5.3.2.6. Friulian session vs. Italian session: functional PPRCs

In order to control for the effects of the different languages on the strategies used by the children, PPRCs with functional prepositions were considered separately. As can be seen in figure 5.x, this kind of PPRC remains difficult for the children regardless of the language used. Nonetheless the production of target-like sentences considerably improves when Italian is the language of elicitation (in red). When Friulian is used instead, children mostly produce non-target-like sentences, while the production of other alternative constructions is quite limited.

A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of Structure* (Target-like, Non-target like, DP-type and “Other”) as independent ones, reveals a significant effect of *Type of Structure* ($F(3, 20) = 123,98, p = <.001$). I also found a significant *Language * Type of Structure* interaction $F(3, 20) = 4,97, p = <.01$.

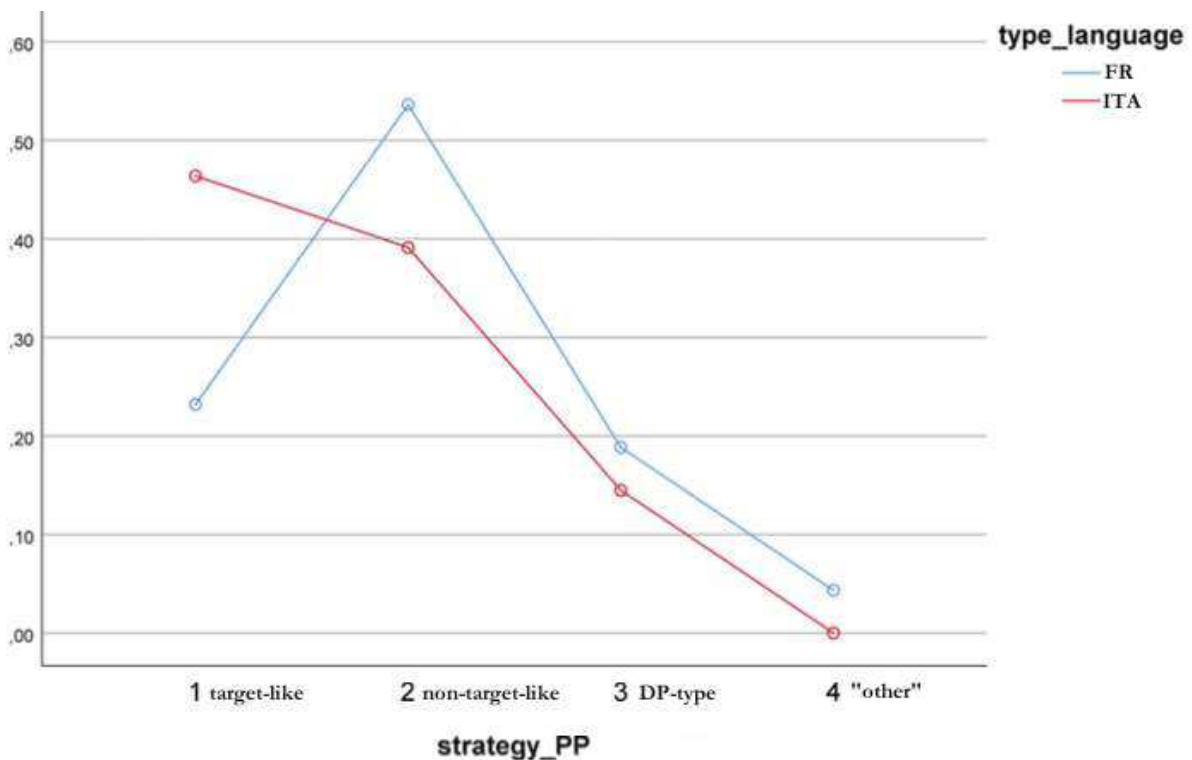


FIG. 5.x Functional PPRCs: strategy*language.

5.3.2.7. Friulian session vs. Italian session: lexical PPRCs

The same analysis of the effect of the languages on the strategies used by the children was done for lexical PPRCs. As can be seen from the comparison between figure 5.x and figure 5.xi, this kind of PPRC appears easier for the children to produce regardless of the language. Nonetheless the production of target-like sentences considerably improves when Italian is the language of elicitation. When Friulian is used instead, in addition to the production of target-like sentences, children also produce a similar amount of DP-type structures.

A 2x4 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of Structure* (Target-like, Non-target like, DP-type and “Other”) as independent ones, reveals a significant effect of *Type of Structure* ($F(3, 20) = 54,58, p = <.001$). I also found a significant *Language * Type of Structure* interaction $F(3, 20) = 6,99, p = .002$.

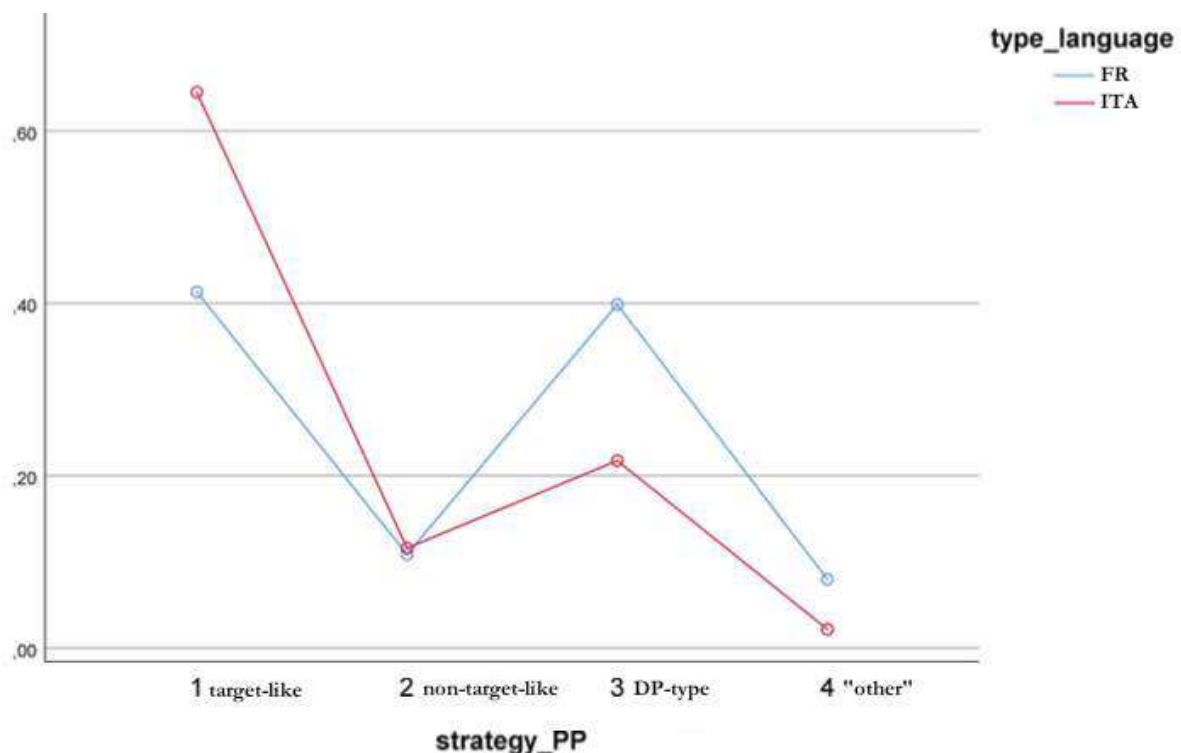


FIG. 5.xi Lexical PPRCs: strategy*language.

5.3.2.8. Target-like PPRCs

Having considered all the figures from the previous paragraphs, there are two general patterns that hold stable: the fact that children always perform better with lexical PPRCs than with functional PPRCs; and the fact that the Italian language has always an ameliorating effect on the children performance with PPRCs.

These observations are made even clearer by considering only target-like productions alone, as shown in figure 5.xii.

A 2x2 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of PPRC* (functional vs. lexical) as independent ones, reveals a significant effect of *Language* $F(1, 22) = 21,78, p < .001$; and a significant effect of *Type of PPRC* $F(1,22) = 8,04, p = .01$. No significant interaction *Language * Type of Structure* was found.

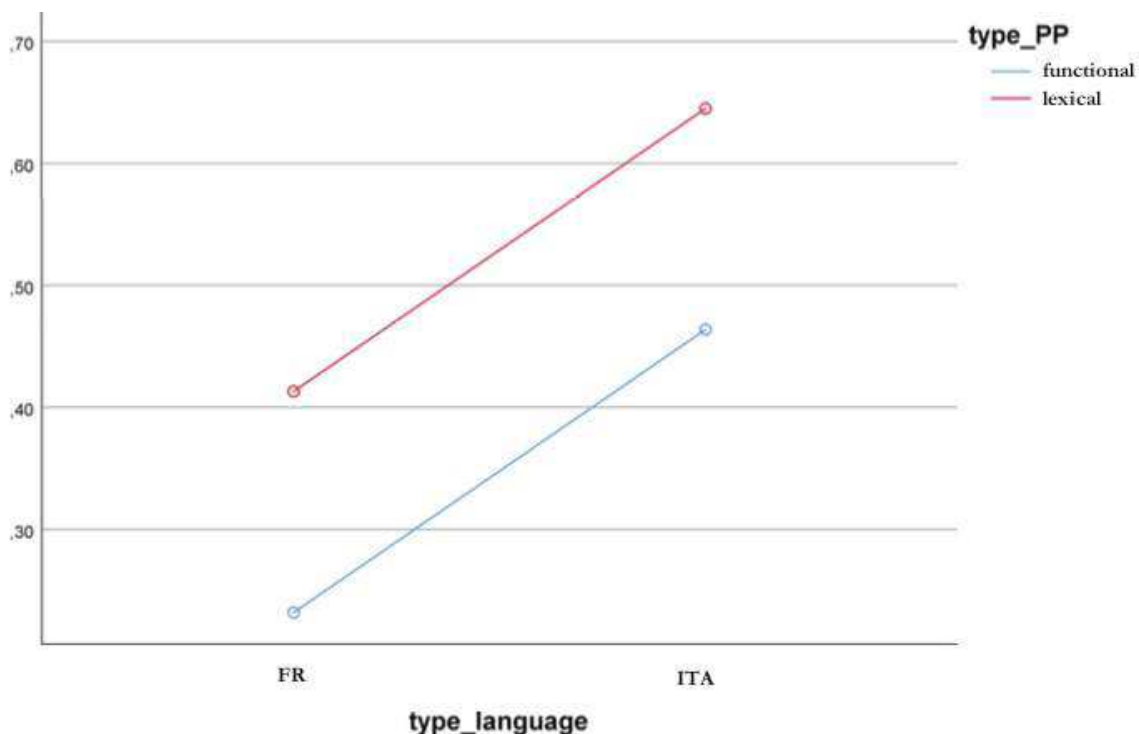


FIG. 5.xii. Target-like PPRCs: type of PPRC*language.

5.3.2.9. DP-type structures

There is another pattern that was observed throughout the figures from the previous paragraphs: the use of the DP-type structure. Children use it more often during the Friulian session than during the Italian one, as a tool to overcome the increased difficulty related to the language of elicitation. Interestingly, they also resort more to this structure when lexical PPRCs are elicited than when functional PPRCs are elicited, probably because functional PPRCs are too difficult anyway. These observations are evident considering only DP-type structures alone, as shown in figure 5.xiii.

A 2x2 Repeated Measures ANOVA with the normalized number (percentage) of produced structures as dependent variable and *Language* (Friulian vs. Italian) and *Type of PPRC* (functional vs. lexical) as independent ones, reveals a significant effect of *Language* $F(1, 22) = 9,08, p = .006$; and a significant effect of *Type of PPRC* $F(1, 22) = 21,13, p < .001$. I also found a significant *Language * Type of Structure* interaction $F(1, 22) = 5,46, p = .029$.

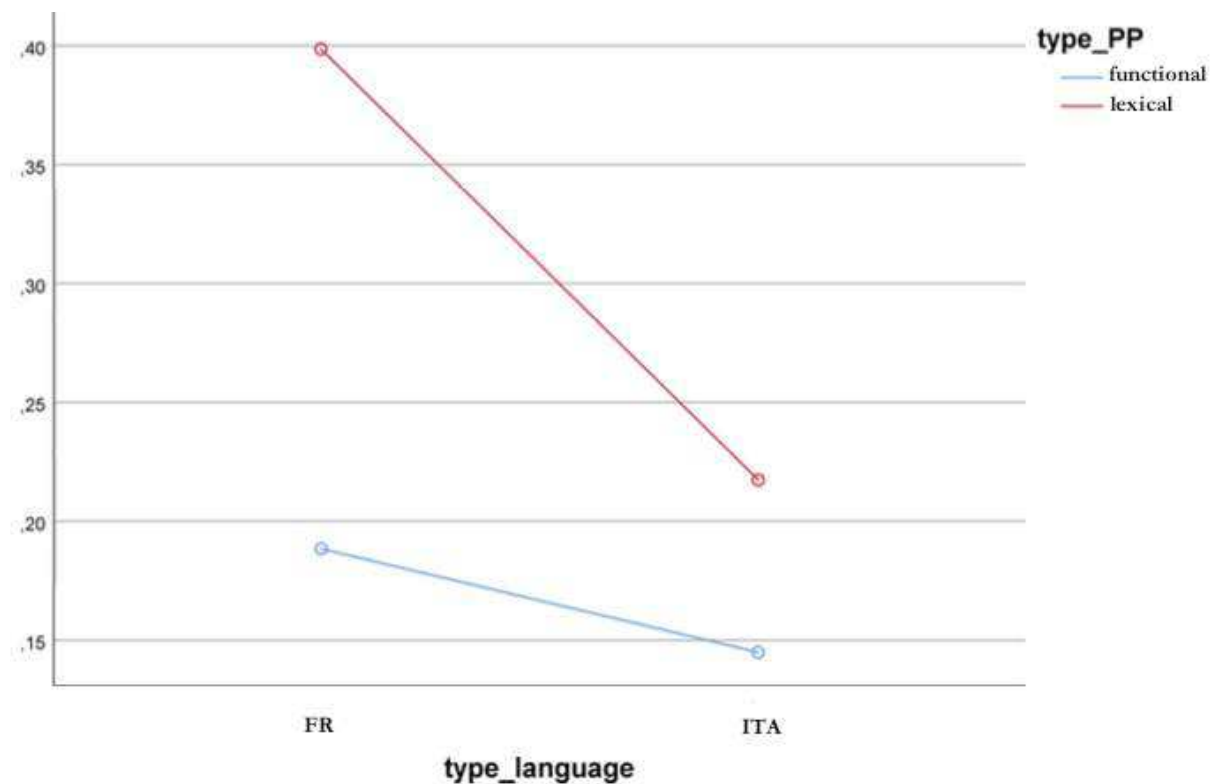


FIG. 5.xiii DP-type structures: type of PPRC*language.

5.3.2.10. Productive strategies for PPRCs production: a scale

During the analysis of the results for the PPRC production, it appeared that a scale of difficulty in the children production of PPRCs was in place. At one end of the scale there is the least productive structure, the Friulian functional PPRC, and at the other end of the scale there is the most productive structure, the Italian lexical PPRC. In between are located the Italian functional PPRC and the Friulian lexical PPRC, that seem to be produced by children at the same rate.

In order to verify this scale, three paired samples T-Tests were conducted to establish comparisons between conditions. The first T-Test verified that there was no significant difference between Friulian lexical PPRC and Italian functional PPRC ($t(22) = -.61, p = .55$). The second T-Test verified that there was a significant difference between Friulian lexical PPRC and Friulian functional PPRC ($t(22) = 3.16, p = .005$). The third T-Test verified that there was a significant difference between Italian lexical PPRC and Italian functional PPRC ($t(22) = 2.07, p = .05$).

The scale of productivity for PPRCs can then be delineated in the following way:

Italian lexical PPRC > Italian functional PPRC = Friulian lexical PPRC > Friulian functional PPRC.

5.4 Specific linguistic phenomena

In this last section I will describe some specific linguistic phenomena found in the children's production. These observations will become relevant for the theoretical discussion in chapter 6.

5.4.1. On the gender of RCs head

When the heads of the RCs are considered, it is interesting to examine the RCs heads' gender. Most of the times the reference to the participants in the elicitation contexts was plain and unambiguous: children used masculine gender for masculine names and feminine gender for feminine names. Nonetheless there were two mismatch exceptions: the first case concerns the contexts in which one of the participants is a mouse. The mouse in fact has masculine gender in Italian ('il topo:M.SG') and feminine gender in Friulian ('la surîs:F.SG'). Children frequently used the Friulian gender in the Friulian session (example V.i) and the Italian gender in the Italian session (example V.j), regardless of their productions being in Italian or Friulian. There is also a little number of cases of Friulian gender in the Italian session and Italian gender in the Friulian session. The following table summarizes the occurrences of gender mismatch for the mouse referent in the two languages sessions:

<i>The 'mouse' case</i>	Friulian gender (<i>f</i>)	Italian gender (<i>m</i>)
Friulian session	23	9
Italian session	2	10

Table 5.xiii RCs heads gender mismatch: the 'mouse' case

As for the use of the feminine Friulian gender in the Friulian session, consider the following example:

Example 9.

Context: A son dôs suris. Une surîs a mangje une carote. Une surîs a mangje un miluç. Cuâle **surîs** sielzistu?

Answer: **Quella** che mangia le mele. (ID5, 4 y.o.)

that:F.SG COMP eat:PRES.3SG DEF³⁵.F.PL apple:F.PL

There are two mice. One mouse is eating a carrot. One mouse is eating an apple. Which mouse do you like best?

The one that is eating the apples.

As for the use of the masculine Italian gender in the Italian session, consider instead next example:

Example 10.

Context: Ci sono due topi. Un gallo guarda un topo. Un gallo becca un topo. Quale **topo** scegli?

Answer: **Quello** che il gallo lo guarda. (ID28, 6 y.o.)

that:M.SG COMP DEF.M.SG rooster:M.SG him:CL.OBJ.M.SG watch:PRES.3SG

There are two mice. One rooster is looking at a mouse. One rooster is pecking a mouse. Which mouse do you like best?

The one that the rooster is watching.

Another gender peculiarity is represented by cases of apparently unjustified mismatch. After a careful consideration, it seems plausible that these cases can be explained as limits of the design. When referents are masculine and children use a feminine pronoun

³⁵ When ‘DEF’ or ‘INDEF’ are used for glossing, ‘DET’ is always implied.

(example 11.), it looks like they could probably be referring to the scene instead (implying “l’immagine” ‘the image:F.SG’ or “la foto” ‘the picture:F.SG’). Also when referents are feminine and children use a masculine pronoun (example 12.), it looks like they could probably still be referring to the scene (implying “il posto” ‘the spot:M.SG’ or “il luogo” ‘the place:M.SG’).

Example 11.

Context: Ci sono due cavalli. Un bambino spazzola un cavallo. Una bambina spazzola un cavallo. Quale **cavallo** scegli?

Answer: **Quella** che spazzola la bambina. (ID18, 5 y.o.)
that:F.SG COMP brush:PRES.3SG DEF.F.SG girl:F.SG

There are two horses. A boy is brushing a horse. A girl is brushing a horse. Which horse.M do you like best?

The one.F.SG that the girl is brushing.

Example 12.

Context: Ci sono due case. Un maiale esce da una casa. Un cavallo esce da una casa. Quale **casa** scegli?

Answer: **Quello** che il maiale esce. (ID13, 5 y.o.)
that:M.SG COMP DEF.M.SG pig:M.SG come out:PRES.3SG

There are two houses. A pig is coming out of a house. A horse is coming out of a house. Which house.F do you like best?

The one:M.SG from which the pig is coming out.

Further evidence for the proposed interpretation of these mismatch cases comes from a peculiar production made by the children: headless relatives introduced by the locative complementizer “dove” ‘where:COMP’ (example 13.). Also these constructions could imply a head referring to the scene, like the aforementioned ‘the place’ or ‘the image’.

Example 13.

Context: Ci sono due bambini. Un bambino dipinge una capra. Un bambino lava una capra. Quale bambino scegli?

Answer: **Dove** disegna una capra. (ID31, 6 y.o.)

where:COMP paint:PRES.3SG INDEF.F.SG goat:F.SG

There are two boys. A boy is painting a goat. A boy is washing a goat. Which boy do you like best?

The one where (he) is painting a goat.

5.4.2. On the complementizers

When the complementizers are considered, the data show that children produce only two types of them. The first one is the most common: “che” (‘that’), which is used almost the totality of the times both in the Friulian and the Italian session.

Example 14.

Context: Ci sono due vitelli. Una mucca bacia un vitello. Un cavallo bacia un vitello. Quale vitello scegli?

Answer: Quello **che** bacia la mucca. (ID12, 5 y.o.)

that:M.SG that:COMP kiss:PRES.3SG DEF.F.SG cow:F.SG

There are two calves. A cow is kissing a calf. A horse is kissing a calf. Which calf do you like best?

The one that is kissing the cow.

The other complementizer produced by children is “dove” (‘where’). It is used considerably less but there are two children among others that seem to preferably resort to it.

Example 15.

Context: Ci sono due oche. Una bambina lava un’oca. Una bambina asciuga un’oca. Quale oca scegli?

Answer: Quella **dove** la bambina l’ asciuga. (ID31, 6 y.o.)
 that:F.SG where:COMP DEF.F.SG girl:F.SG her:CL.OBJ.F.SG dry:PRES.3SG

There are two geese. A girl is washing a goose. A girl is drying a goose. Which goose do you like best?

The one where the girl is drying her.

The following table presents a summary of the children’s use of complementizers in both the Friulian and the Italian sessions.

Table 5.xiv The use of complementizers

<i>Complementizers</i>	COMP	SRC	ORC	PPRC	total
Friulian session	<i>‘that’</i>	169	159	107	435
	<i>‘where’</i>	2	12	18	32 <i>(ID 12, 14, 15, 26, 31, 34)</i>
Italian session	<i>‘that’</i>	185	184	161	530
	<i>‘where’</i>	14	21	25	60 <i>(ID 12, 15, 26, 31, 32)</i>

It is also interesting to note that prepositional relative pronouns like “a cui” or “al quale” (‘to whom’, ‘to which’) are completely absent from the children production, regardless of their age or the language of elicitation.

5.4.3. On the resumption

Another interesting phenomenon to consider is represented by resumption. Children considerably produce it with ORCs and PPRCs. As far as complementizers are concerned, resumption combines with both the complementizers used by the children (see section 5.4.2). A difference can be found if the language of the experimental session is considered: when the elicitation happens in Italian, the use of resumption is remarkably higher compared to the Friulian session. The following table summarizes the data regarding the children use of resumption:

<i>Resumption</i>	COMP	ORC	PPRC	total
Friulian session	<i>'that'</i>	57	34	91
	<i>'where'</i>	10	10	20
Italian session	<i>'that'</i>	83	81	164
	<i>'where'</i>	19	13	32
total		169	138	

Table 5.xv The use of resumption in combination with complementizers

There are different ways in which resumption can be expressed: the collected data show that children applied different strategies to produce it. For example, they frequently used a clitic to resume an object (example 16.) or a dative (example 17.):

Example 16.

Context: Ci sono due cavalli. Un bambino spazzola un cavallo. Una bambina spazzola un cavallo. Quale cavallo scegli?

Answer: Quello che **io** spazzola la bambina.

(ID32, 6 y.o.)

That:M.SG COMP him:CL.OBJ.M.SG brush:PRES.3SG DEF.F.SG girl:F.SG

There are two horses. A boy is brushing a horse. A girl is brushing a horse. Which horse do you like best?

The one that the girl is brushing.

Example 17.

Context: Ci sono due bambini. Una bambina regala un’oca ad un bambino.
Una bambina regala un cane ad un bambino. Quale bambino
scegli?

Answer: Quello che **gli** ha regalato
that:M.SG COMP him:CL.DAT.M.SG have:AUX.PRES donate:PST.PTCP.M.

il cane. (ID19, 5 y.o.)
DEF.M.SG dog:M.SG

*There are two boys. A girl is giving a goose as a gift to a boy. A girl is giving a dog as a gift to a boy.
Which boy do you like best?*

The one to whom (the girl) has given a dog as a gift.

Building on example 16., the hypothesis of children using resumption in order to avoid subject/object ambiguity generated by post-verbal subjects was considered. The following table presents the data concerning the correlation between the use of resumption and the subjects’ position. The discussed strategy does not seem to be productive.

	<i>Subject position</i>	Resumption	No resumption	total
Friulian session	Pre-verbal	29	23	52
	Post-verbal	32	47	79
Italian session	Pre-verbal	98	19	117
	Post-verbal	55	66	121
Total		217	155	

Table 5.xvi The use of resumption in combination with pre- and post-verbal subjects

Going back to resumption instances, another clitic used for resumption by the children is the existential-locative one, namely “ci” (‘there’):

Example 18.

Context: Ci sono due alberi. Un topo sale su un albero. Un gatto sale su un albero. Quale albero scegli?

Answer: Quello che c'è il gatto. (ID28, 6 y.o.)

that:M.SG COMP there:CL be:PRES.3SG DEF.M.SG cat:M.SG

There are two trees. A mouse is climbing a tree. A cat is climbing a tree. Which tree do you like best?

The one where there is the cat.

The existential-locative clitic is sometimes also combined with locative adverbs like “sopra” (‘over’) and “sotto” (‘under’).

Example 19.

Context: Ci sono due panchine. Un cane è accovacciato sotto una panchina. Un gatto è accovacciato sotto una panchina. Quale panchina scegli?

Answer: Quella che c'è sotto il cane. (ID34, 6 y.o.)

that:F.SG COMP there:CL be:PRES.3SG under:ADV DEF.M.SG dog:M.SG

There are two benches. A dog is crouched under a bench. A cat is crouched under a bench. Which bench do you like best?

The one under which there is the dog.

Another combined resumption produced by children involves the use of a clitic pronoun together with a lexical DP or PP. Consider the following example where the dative is expressed both by the clitic pronoun “gli” (‘him:CL.DAT.M.SG’) and the lexical PP “al bambino” (‘to the boy’):

Example 20.

Context: Ci sono due bambini. Una bambina regala un'oca ad un bambino.
Una bambina regala un cane ad un bambino. Quale bambino
scegli?

Answer: Quello che **gli** regala il cane
that:M.SG COMP him:CL.DAT.M.SG donate:PRES.3SG DEF.M.SG dog:M.SG

al **bambino.** (ID5, 4 y.o.)
TO-DEF.M.SG boy:M.SG

*There are two boys. A girl is giving a goose as a gift to a boy. A girl is giving a dog as a gift to a boy.
Which boy do you like best?
The one to whom (the girl) gives the dog as a gift.*

Lastly, lexical DPs and PPs can also be used singularly in order to produce resumption.

Example 21.

Context: Ci sono due panchine. Un gatto è accovacciato sotto una
panchina. Un gatto è accovacciato sopra una panchina. Quale
panchina scegli?

Answer: **La** **panchina** che un gatto è
DEF.F.SG bench:F.SG COMP INDEF.M.SG cat:M.SG be:PRES.3SG

sopra **la** **panchina.** (ID6, 4 y.o.)
over:ADV DEF.F.SG bench:F.SG

*There are two benches. A cat is crouched under a bench. A cat is crouched over a bench. Which bench do
you like best?
The bench over which there is a cat.*

Concluding the section on resumption, it is also interesting to consider those scenarios in which resumption would be expected but instead children did not produce it. Consider the following example:

Example 22.

Context: A son dôs bancjutis. Un cjan al è scrufuiât sot di une bancjute.
Un gjat al è scrufuiât sot di une bancjute. Cuale bancjute
sielzistu?

Answer: Quella che è sotto il gatto. (ID2, 4 y.o.)
that:F.SG COMP be:PRES.3SG under:ADV DEF.M.SG cat:M.SG

There are two benches. A dog is crouched under a bench. A cat is crouched under a bench. Which bench do you like best?

The one under which there is the cat.

The sentence uttered by the child is ungrammatical in Standard Italian because of the absence of the locative-existential clitic. The expected sentence would sound more like: “quella che c’è sotto il gatto” (that:F.SG COMP there:CL be:PRES.3SG under:ADV DEF.M.SG cat:M.SG). However, as previously noted during the description of the Friulian pronominal system (see chapter 3, section 3.1.4.a), Friulian language is missing a locative-existential clitic equivalent to the Italian “ci” (‘there’). This might be the reason for the production of sentences like the one in example V.v.: they work fine if the Friulian system is considered as the background of reference for the child production.

5.4.4. On the position of the subject

For this section, in order to analyse the subjects of the RCs and their position within the clause, only Object Relative Clauses and Prepositional Relative Clauses will be considered. The first observation about subjects concerns their nature. When designing the

experiment, I considered as probable a first distinction between lexical subjects (a category of which are part also demonstrative pronouns) and clitic pronoun subjects. Given the nature of Friulian language (see chapter 3 section 3.1.4.a.) I was expecting to find at least some clitic subjects in the children productions for the Friulian session. Surprisingly, there were no subject clitics, except for one single production:

Example 23.

Context: A son doi vidiei. Une vacje a busse un vidiel. Un cjavâl al busse un vidiel. Cuâl vidiel sielzistu?

Answer: Quello che **al** busse il cjavâl.³⁶ (ID3, 4 y.o.)
that:M.SG COMP CL.SBJ.M.SG kiss:PRES.3SG DEF.M.SG horse:M.SG

There are two calves. A cow is kissing a calf. A horse is kissing a calf. Which calf do you like best?

The one that the horse kisses.

This is the only sentence where a child produced a clitic subject within all the collected data.

Another distinction that can then be applied to subjects concerns their position within the clause: they can be pre-verbal (example 24.) or post-verbal (example 25.).

Example 24.

Context: Ci sono due cavalli. Un bambino cavalca un cavallo. Un bambino spazzola un cavallo. Quale cavallo scegli?

Answer: Quello che **il bambino** lo galoppa. (ID15, 5 y.o.)
that:M.SG COMP DEF.M.SG boy:M.SG him:CL.OBJ.M.SG ride:PRES.3SG

There are two horses. A boy is riding a horse. A boy is brushing a horse. Which horse do you like best?

The one that the boy is riding.

³⁶ This sentence, however, poses a problem of ambiguity. As a matter of fact, the masculine singular clitic subject could refer both to the calf or the horse. For this reason, even if the horse in the utterance is more

Example 25.

Context: Ci sono due maiali. Una mucca calcia un maiale. Una capra calcia un maiale. Quale maiale scegli?

Answer: Quello che lo calcia **la capra.** (ID19, 5 y.o.)

that:M.SG COMP him:CL.OBJ.M.SG kick:PRES.3SG DEF.F.SG goat:F.SG

There are two pigs. A cow is kicking a pig. A goat is kicking a pig. Which pig do you like best?

The one that the goat is kicking.

The following table summarizes the productions of pre- and post-verbal subjects in both the Friulian and the Italian sessions. It also takes into account a variable present in the elicitation contexts: it concerns the contrast on the participants or the actions in the sentences (see chapter 4, paragraph 4.3.4.).

	<i>Subject positions</i>	Contrast on the participants	Contrast on the actions	total
Friulian session	Pre-verbal	20	35	55
	Post-verbal	47	32	79
Italian session	Pre-verbal	67	57	124
	Post-verbal	75	50	125
total		209	174	

Table 5.xvii The use of pre- and post-verbal subjects

As table 5.xvii shows, the condition of contrast on the actions in the elicitation contexts does not seem to play a role in determining a preference for pre- or post-verbal subjects; instead, when contrast on the participants is present in the elicitation contexts, it seems to favour the production of post-verbal subjects, especially in the Friulian session.

likely to represent the object of the sentence, it cannot be excluded an interpretation in which the horse is a post-verbal lexical subject combined with the clitic subject.

5.4.5 Friulian transfers in the produced RCs

This last paragraph is dedicated to the description of those productions in which Friulian language plays a visible role. As already mentioned before in this chapter, the majority of the children's productions were in Italian regardless of the experimental session being administered in Italian or in Friulian. Nonetheless, during the Friulian session some Friulian surfaced in the children sentences in various ways.

Children, for example, created lexical transfers from Friulian to Italian. Consider the following example: the child takes the name “purcit” (‘pig:M.SG’) from the Friulian vocabulary and inserts it in an otherwise entirely Italian sentence.

Example 26.

Context: A son dôs frutis. Une frute a lave un vidiel. Une frute a lave un purcit. Cuale frute sielzitu?

Answer: Quella che lava **il purcit**. (ID21, 5 y.o.)

There are two girls. A girl is washing a calf. A girl is washing a pig. Which girl do you like best?

The one that is washing the pig.

In the following example, within the same word there is lexical transfer from Friulian and also Italian agreement morphology. The child refers to the girl in the sentence as “fruta”, taking the Friulian lexical stem (“frut / frute” ‘boy:M.SG / girl:F.SG’) and adding the Italian suffix –a. This is an agreement morpheme, in this case for feminine gender and singular number³⁷.

Example 27.

Context: A son dôs frutis. Une frute a cjape sù lis carotis. Une frute a mangje lis carotis. Cuale frute sielzistu?

Answer: La **fruta** che mangia delle carote. (ID6, 4 y.o.)

³⁷ The morpheme for feminine gender and singular number agreement in the Friulian variety spoken in the area of Gemona is –e. For this reason, there is no ambiguity problem with the alternative morpheme –a which is used in other Friulian varieties. In this case the use of the –a morpheme is definitely Italian.

*There are two girls. A girl is picking up carrots. A girl is eating carrots. Which girl do you like best?
The girl that is eating some carrots.*

In the next example both the lexical transfer and the agreement morphology are from Friulian. In an otherwise entirely Italian sentence, the child takes the verb “bussâ” (‘to kiss’) from the Friulian vocabulary and adds the third person singular –e suffix, from the Friulian inflectional morphology inventory.

Example 28.

Context: A son doi vidiei. Une vacje a dâ di lat a un vidiel. Une vacje a busse un vidiel. Cuâl vidiel sielzistu?

Answer: Quello che lo **busse**. (ID30, 6 y.o.)

*There are two calves. A cow is breastfeeding a calf. A cow is kissing a calf. Which calf do you like best?
The one that (the cow) is kissing.*

There are also sentences in which the aforementioned lexical and morphological transfers are combined and originate more complex outputs. Consider the following example:

Example 29.

Context: A son doi cunins. Un cunin al bêf aghe. Un cunin al mangje jerbe. Cuâl cunin sielzistu?

Answer: Il cunin che mangje la jerbe. (ID27, 6 y.o.)

*There are two rabbits. A rabbit is drinking water. A rabbit is eating grass. Which rabbit do you like best?
The rabbit that eats the grass.*

To an inexperienced ear, the sentence in the example above could seem to work perfectly in Friulian. Both names are Friulian (il cunin ‘the rabbit:M.SG’; la jerbe ‘the grass:F.SG’) and also the verb is Friulian and inflected accordingly (mangje ‘eat:PRES.3SG’). The problem of this utterance lies in the absence of a clitic subject, which instead is compulsory in Friulian (see chapter 3 paragraph 3.1.5). This is the reason why the previous sentence would be ungrammatical for a proficient Friulian speaker who would never omit the clitic subject.

To conclude this overview of Friulian transfers, syntactic structure transfers need to be considered. In the following example the Italian preposition “per” (‘for:PREP’) is used as the similar Friulian preposition “par” (‘through:PREP’) would be used.

Example 30.

Context: A son doi arbui. Un gjat al ven jù dal arbul. Un gjat al vâ sul arbul. Cuâl arbul sielzistu?

Answer: Quello che il gatto va giù
 that:M.SG COMP DEF.M.SG cat:M.SG goes:PRES.3SG down:PREP

per l’albero. (ID28, 6 y.o.)
 through:PREP DEF.M.SG tree:M.SG

*There are two trees. A cat is climbing down a tree. A cat is climbing up a tree. Which tree do you like best?
 The one where the cat climbs down the tree.*

In Standard Italian the sentence should have sounded more like “quello che il gatto scende dall’albero” (that:M.SG COMP DEF.M.SG cat:M.SG climb:PRES.3SG down:PREP from:PREP DEF.M.SG tree:M.SG), where the simple verb “scendere” means ‘climb down’. In Friulian, however, it is perfectly fine to combine the corresponding verb “la sù /jù” (constructed as in English with the preposition ‘climb up / down’) with another preposition: “par” (‘through’). Consider the following examples supporting this claim:

Example 31.

- Al vâ sù par lis montagnis
CL:SBJ.M.3SG go:PRES.3SG up:PREP through:PREP DEF.F.PL mountains:F.PL
‘he is going up the mountains’
- Al vâ sù pe San Denêl
CL:SBJ.M.3SG go:PRES.3SG up:PREP through:PREP San Daniele
‘he goes to San Daniele’ (from somewhere lower or southern)
- Al vâ jù par il troi
CL:SBJ.M.3SG go:PRES.3SG down:PREP through:PREP DEF.M.SG trail:M.SG
‘he takes the trail (to go down)’
- Il dolôr mi vâ jù par la
DEF.M.SG pain:M.SG CL:DAT.1SG go:PRES.3SG down:PREP through:PREP DEF.F.SG

gjambe
leg:F.SF

‘the pain runs down the leg’

5.5 The role of input in the Friulian productions

Building on the children's Friulian productions just described in paragraph 5.4.5, the relation between those productions and the Friulian input, as perceived and described by the children's parents (cf. chapter 4, section 4.3.1), was investigated.

In order to do that, the children's Friulian productions needed to be quantified. For this purpose, a specific coding scheme was designed, based on the types of transfer presented in chapter 1 (cf. section 1.1.4). Two peculiar cases were also included: one concerns a type of gender mismatch previously presented in paragraph 5.4.1; one concerns the absence of the existential-locative clitic 'ci' in PPRCs, as exemplified in paragraph 5.4.3. The following table illustrates that scheme.

<i>Coding number</i>	<i>Type of Transfer</i>	<i>Examples</i>
1	Morphological	pidate (fr. pidadis, it. pedate, 'kick:F.PL'); banchina (fr. bancjute, it. panchina, 'bench:F.SG'); bussa (fr. busse, it. bacia, 'kiss:PRES.3SG'); balone (fr. balon, it. pallone, 'ball:M.SG'); fruta (fr. frute, it. bimba, 'girl:F.SG'); Friulian head-gender (fr. la surís 'mouse:F.SG'), it. il topo 'mouse:M.SG', cf. example V.i) ...
2	Syntactic	va giù per (fr. va jù par, it. scende, 'go down:PRES.3SG'); da di latte (fr. da di lat; it. allatta, 'breastfeed:PRES.3SG'); da giù (fr. da jù, it. picchia, 'hit:PRES.3SG'); subject clitics; absence of 'ci' existential-locative clitic in PPRCs (produced: 'quella che è sotto il gatto'; it. 'quella che c'è sotto il gatto')
3	Semantic	monta (fr. monte, it. cavalca, 'ride:PRES.3SG'); pittura (fr. piture, it. disegna, 'draw:PRES.3SG'); pettina (fr. petène, it. spazzola, 'brush:PRES.3SG'); vacca (fr. vacje, used as the it. mucca 'cow:F.SG', not as the it. vacca) ...
4	Lexical	purcit (it. maiale, 'pig:M.SG'); miluç (it. mela, 'apple:F.SG'); petène (it. spazzola, 'to brush:PRES.3SG'); cjale (it. guarda, 'look at:PRES.3SG') ...

Table 5.xviii Coding scheme for Friulian transfers

On the basis of the coding scheme presented in table 5.xviii, the children's Friulian productions were quantified. Table 5.xix summarizes the results.

<i>children</i>	<i>1</i> <i>Morphological transfer</i>	<i>2</i> <i>Syntactic transfer</i>	<i>3</i> <i>Semantic transfer</i>	<i>4</i> <i>Lexical transfer</i>	<i>total</i>
ID 2	1	1	1	0	3
ID 3	1	2	1	11	15
ID 5	2	1	1	2	6
ID 6	4	0	1	10	15
ID 9	4	3	1	1	9
ID 12	1	2	1	4	8
ID 13	2	1	1	3	7
ID 14	0	0	1	3	4
ID 15	0	0	0	1	1
ID 16	1	1	1	1	4
ID 17	2	1	1	7	11
ID 18	2	0	1	3	6
ID 19	1	2	0	2	5
ID 21	2	0	1	5	8
ID 22	0	0	0	0	0
ID 24	0	0	0	0	0
ID 26	2	0	0	5	7
ID 27	2	0	0	25	27
ID 28	0	1	1	12	14
ID 30	1	0	0	3	4
ID 31	0	1	2	1	4
ID 32	2	0	1	3	6
ID 34	1	2	1	0	4
<i>total</i>	31	18	17	102	168

Table 5.xix Children's Friulian production types

Looking at the data presented in the table 5.xix, the first general consideration concerns the type and frequency of transfers. Lexical transfer (4) is the most produced one with 102 occurrences. Morphological transfer (1) follows, with 31 occurrences. Syntactic (2) and semantic (3) transfers are also produced, even if less (18 and 17 occurrences respectively).

The focus can then be set on ID 5, 6, 9, 15, 17, 21, 27, 30 and 34, highlighted in orange. These are the children identified as having at least a minimum Friulian input on the basis of the

parental questionnaire information (cf. chapter 4, table 4.v). The first observation that can be made is that all these children indeed produce Friulian transfers. Specifically, the types of transfer shared by all children in this group are the lexical and morphological transfers (with the only exception of ID 34). The majority of the children also produces semantic transfers; ID 15, 27 and 30 excluded.

Consider then ID 2, 3, 12, 13, 14, 16, 18, 19, 26, 28, 31 and 32, namely those children identified from the parental questionnaire as not having a minimum Friulian input. Also for this group, the most shared type of transfer is the lexical one (with the exception of ID 2, 22 and 24). The majority of the children also produces semantic transfers, excluding ID 19, 22, 24 and 26. Lastly, more than half of the children also produced morphological transfers (ID 2, 3, 12, 13, 16, 18, 19, 26 and 32).

It is interesting to note that in this second group, even if it consists of children identified as not having a minimum Friulian input, the majority actually produces Friulian transfers. Some children do it more than the others, and show performances similar to the ones of the children of the first group. Specifically, ID 12, 13 and 26 make more than a few transfers, and ID 3 and 28 show a very high Friulian transfers production. For all of them the produced transfers are mostly lexical.

In conclusion, considering also table 4.vi in chapter 4, which reports the parents' perceptions regarding their children Friulian output, there are two additional observations that can be made. First: even if some children did not reach the threshold of the minimum Friulian input, their parents reported that they nonetheless showed Friulian productions, even if only rarely. This can be confirmed by the data in table 5.xix.

Second: only three children were described as almost never producing Friulian, and this parents' perception can be confirmed here for two out of three: ID 22 and 24 are indeed the only children in the whole tested group that never produced Friulian during the experiment.

6. DISCUSSION

In this final chapter I will reflect on the results presented in chapter 5 in relation to the theoretical and linguistic framework presented in chapters 1 – 3, in order to try and answer the research questions that guided this thesis and also verify the predictions made and presented in chapter 4. Specifically, section 6.1 will tackle the acquisition of relative clauses by Italian-Friulian children, also focusing on some specific syntactic phenomena like the relativizer type and resumption. Section 6.2 will be concerned with the type of bilingualism found between Italian and Friulian with respect to the role of the elicitation language (6.2.1) and the role of input (6.2.2).

6.1 Italian-Friulian children relative clauses acquisition

The first research question concerned the acquisition of relative clauses by Italian-Friulian children and asked whether their performance patterned alike to what is known from cross-linguistic literature about SRC, ORC and PPRC acquisition. To answer this question, various predictions were made.

The first specifically concerned SRCs and ORCs, and predicted that, having considered the results known from the literature on RC acquisition (Tavakolian 1981; Hamburger & Crain 1982, De Vincenzi 1991, Novogrodsky and Friedmann, 2006, Friedmann et al., 2009, Contemori and Garaffa 2010, Adani 2011, Belletti et al., 2012, Contemori and Belletti 2014, among many others), also Italian-Friulian children should have exhibited the well known and cross-linguistically attested subject-object asymmetry. That is, they should have produced considerably more target-like SRCs than ORCs. In order to confirm or deny this prediction, it is helpful to review the related results.

Starting from the Friulian session and focusing on SRCs, the data show that children produced 165 target-like sentences, which corresponds to 79% of their productions. Non-target sentences are as low as 2,9%, corresponding to 6 productions, and the alternative productions, namely DP-type structures, main clauses and fragments, cover the 17,39%, corresponding to 36 productions. A different picture can be seen when ORCs are considered: the production of target-like ORCs stops at 35,65%, corresponding to only 82 sentences. The production of non-target RCs in this case is higher than target-like RCs, with 89 productions corresponding to 38,70%. The production of alternative structures amounts at 25,65%, corresponding to 59 productions. For the Friulian session the subject-object asymmetry can then be confirmed with 79% of target-like SRCs versus only 35,65% of target-like ORCs.

Turning then to the Italian session, and considering SRCs, the production of target-like sentences reaches 95,65%, with 198 instances. There is just one non-target SRC, corresponding to 0,48%, and the alternative productions are just 8, amounting at 3,86%. The data are quite

different when ORCs are analysed, with target-like productions attested at 57% with 132 sentences. Children produced 73 non-target ORCs, representing the 31,74%; the alternative productions cover the remaining 10,87% with 25 instances. It can then be confirmed that the subject-object asymmetry holds also in the Italian session, with 95,65% of target-like SRCs versus 57,39% of target-like ORCs.

The subject-object asymmetry was also confirmed by the statistical analyses performed in chapter 5, paragraph 5.1.4. and 5.2.4.

Having looked at the results from both the Friulian and the Italian session it is then safe to say that Italian-Friulian children indeed exhibit the subject-object asymmetry and show a performance in line with cross-linguistic results; the first prediction can be confirmed.

The second prediction about Italian-Friulian children RCs acquisition targeted specifically PPRCs. Having considered the work of Costa, Friedmann, Silva and Yachini (2014, 2015) Italian-Friulian children were expected to show a production performance for PPRCs similar to the one for ORCs, namely considerably less target-like productions with respect to SRCs.

In order to verify this prediction, consider again the Friulian experimental session focusing specifically on PPRCs: children produced 73 target-like sentences, corresponding to 35,27%. The non-target sentences were instead 52, equal to 25,12%, while alternative productions amounted at 39,61% with 82 productions. Considering that the target-like ORCs production was equal to 35,65%, the productions of PPRCs and ORCs are in fact similar, and surely far from the 79% reached for SRCs productions. These data confirm the prediction for the Friulian Session.

Turning to the Italian session, the production of target-like PPRCs corresponds to 55,65%, with 128 sentences. Children also produced 58 non-target relatives, amounting at 25,22%; alternative productions weighted 19,13%, with 44 instances. Recalling the data for ORCs target-like production, consisting of 132 sentences representing the 57%, it appears clear that the similarity between target-like PPRCs and target-like ORCs production can be confirmed also for the Italian session and seen against the target-like SRCs production (attested at 95,65%, with 198 sentences).

These observations were also confirmed by the statistical analyses performed in chapter 5, paragraph 5.1.4. and 5.2.4.

In conclusion, having considered the results for PPRCs production in both the Friulian and the Italian session and having compared them with both ORCs and SRCs productions, also the second prediction is then verified: the similarity in the PPRCs and ORCs performance holds in both sessions and in both sessions that similarity is in an asymmetric relation with the performance for SRCs.

With respect to PPRCs investigation, a further step was also made in the experiment: a distinction was in place between lexical and functional prepositions involved in PPRCs construction. This distinction was designed on the basis of Svenonius (2010) and Cinque (2010) who consider functional prepositions as case markers attributing +DP feature to their target, while lexical prepositions attribute +PP feature to their target. Assuming the Relativized Minimality framework (Rizzi 1990, 2004; Friedmann, Belletti, Rizzi 2009) one more prediction was made: children should have performed better and produced more target-like sentences when lexical PPRCs were elicited than when functional PPRCs were elicited, since in the derivation of lexical PPRCs there is no crossing of the same feature (+PP vs. +DP), while the crossing of the same features happens in the derivation of functional PPs (+DP vs. +DP). In order to verify or deny this prediction, the data in chapter 5, section 5.3.2 need to be taken into account.

In the Friulian session, target-like lexical PPRCs are produced more than 40% of the times, while target-like functional PPRCs are produced almost half the times, with a percentage a little over 20%.

In the Italian session, target-like lexical PPRCs are produced more than 60% of the times, while target-like functional PPRCs are produced around 45%.

These observations were supported by the statistical analyses outlined in chapter 5, section 5.3.2.

These results, even if small, are in line with the prediction that target-like PPRCs are produced more and better when lexical prepositions are used compared to when functional prepositions are used.

However, when considering the above-mentioned pattern, caution is in order. Children's actual productions, in fact, are different from the expected ones, namely PPRCs constructed using 'cui' and 'quale' relative pronouns (cf. chapter 2, section 2.1.1.). Consider the following examples:

Example 1. functional PPRCs:

Context: Ci sono due bambini. Una bambina regala un'oca ad un bambino. Una bambina regala un cane ad un bambino. Quale bambino scegli?

Expected answer: Quello a cui la bambina regala il cane.

Actual answer: Quello che gli regala il cane. (ID 5, 4 y.o.)
that.M.SG COMP CL:DAT.M.3SG donate:PRES.3SG DEF.M.SG dog:M.SG

*There are two boys. A girl donates a goose to a boy. A girl donates a dog to a boy. Which boy do you like best?
The one to whom the girl donates the dog.*

In this case, instead of using 'cui' or 'quale' relative pronouns, the child produced a PPRC introduced by 'che' complementizer and also used a resumptive clitic pronoun.³⁸

Example 2. lexical PPRCs:

Context: Ci sono due panchine. Un gatto è accovacciato sotto una panchina. Un gatto è accovacciato sopra una panchina. Quale panchina scegli?

Expected answer: Quella sopra la quale è accovacciato il gatto.

Actual answer: Quella che è sopra il gatto. (ID 16, 5 y.o.)
that.M.SG COMP be:PRES.3SG over:ADV DEF.M.SG cat:M.SG

There are two benches. A cat is crouched under a bench. A cat is crouched over a bench. Which bench do you like best?

The one over which the cat is crouched.

In this case, instead of using 'cui' or 'quale' relative pronouns, the child produced a PPRC introduced by 'che' complementizer and no other pronoun is present.³⁹

^{38,39} In Friulian PPRC constructions of this kind are the only ones available (cf. chapter 2, section 2.2).

Considering the latter example and focusing specifically on the lexical PPRCs actually produced by children, it is not so obvious how constructions of this kind are derived. As a matter of fact, three possible derivations can be applied: it could be the case that there is indeed movement, and it is combined with prepositional stranding. But it could also be the case that there is no movement involved, and a base-generated *pro* is the complement of the preposition, controlled by an operator in COMP. Should this be the case, it would not be a matter of +DP vs. +PP feature crossing anymore, but rather a matter of constructions involving movement vs. structures with no movement. Alternatively, one plausible option implies assuming the presence of a silent existential-locative clitic also in the produced lexical PPRC.

Example 3., building on example 2.:

Quella che (c') è sopra il gatto.
 that:M.SG COMP (there:CL) be:PRES.3SG over:ADV DEF.M.SG cat:M.SG

In this case the produced lexical PPRC would then be the same as in the children's functional PPRC production with resumptive clitics (example 1.), which in turn would make it difficult to motivate the differences observed in the children's performance.

Since the picture here presented is indeed complex and intricate, I would advise caution in interpreting the results: further research is needed to better understand these specific productions, also in relation to the acquisitional path of PPRCs.

Regarding the acquisition of relative clauses by Italian-Friulian children, we zoomed in the RCs produced by children and further investigated two syntactic phenomena which characterized children's production: the first is the use of relative pronouns and complementizers; the second is the use of resumption.

Focusing on complementizers, as shown in chapter 5, paragraph 5.4.2., results show that children only produce 'che' (*that*) and 'dove' (*where*). Concentrating specifically on 'che', in the Friulian session children produce 435 instances of it: 169 with SRCs, 159 with ORCs and 107 with PPRCs. In the Italian session, they produce 530 instances of 'che': 185 with SRCs, 184 with ORCs and 161 with PPRCs. These data make 'che' the most used complementizer in both sessions, regardless of the RC type. Considering instead 'dove', it is used 32 times in the

Friulian session: only 2 instances in SRCs, while there are 12 and 18 instances in ORCs and PPRCs respectively. In the Italian session, ‘dove’ is used 60 times: 14 instances in SRCs, while in ORCs and PPRCs it amounts to 21 and 25 instances instead. The use of ‘dove’ is not limited to spatial contexts and locative relatives, but is also combined with animate antecedents: this result patterns with Guasti and Cardinaletti (2003) findings on French ‘où’ (*where*).

Lastly, children never produce relative pronouns of the type article/preposition and ‘cui’ and ‘quale’. The preference for uninflected complementizers rather than relative pronouns marked for different features such as gender, number and case can be interpreted as evidence that children prefer derivations only involving a one-step movement (head noun movement). Moreover, the use of uninflected complementizer has also been interpreted as indicating that children master a CP-layer that is unspecified for certain features before a fully specified one reached with age (Guasti and Cardinaletti 2003).

Concerning resumption, results show that children produce it with both kinds of complementizers (‘che’ and ‘dove’), with ORCs and PPRCs (cf. chapter 5, paragraph 5.4.3.). This pattern holds in both sessions: in the Friulian session when ORCs are elicited children used resumption 67 times and 44 times with PPRCs. Resumption was mostly clitic (73 occurrences), but also lexical DPs and PPs were used (18 occurrences), or a combination of the two (14 instances). In the Italian session, children used resumption even more: when ORCs were elicited, children used resumption 102 times and 94 times with PPRCs. Also in this session clitic resumption was the most used (89 occurrences), followed by lexical DPs and PPs (84 occurrences) and a combination of the previous two (15 occurrences).

The results for resumption are in line with what was observed by Guasti and Cardinaletti (2003) for children RCs production: Resumptive Relatives are consistently produced by children speaking Romance languages, particularly productive for more demanding RCs: ORCs and PPRCs. This can be explained recalling that resumption has been interpreted as either requiring no movement or involving non-operator movement similar to clitic left dislocation, thus resulting as a facilitating strategy used to circumvent intervention configurations.

6.2 Italian-Friulian children: what kind of bilingualism

The second research question concerned the kind of bilingualism found in the Italian-Friulian context investigated. In the following paragraphs a characterisation will be provided on the basis of the role that the elicitation languages and input play in defining it.

6.2.1. Italian-Friulian bilingualism: the role of elicitation language

As previously explained in chapter 4, the whole children's production was essentially in Italian in both sessions, regardless of the language of elicitation being Friulian, the minority language, or Italian, the majority language. Nevertheless, the different elicitation languages could have led to structural differences in the children's relative clauses production. In order to verify whether the different languages did indeed influence differently the children's performance, results and strategies used in the two sessions need to be considered once again in relation with the prediction made about it.

A first prediction was drawn regarding the Italian session, namely the session in which the elicitation was conducted using Italian, the majority language. Following Garraffa, Beveridge, Sorace (2015) and Klaschik, Kupisch (2016) a bilingual context should not hinder the development of linguistic competence in the majority/standard/dominant language, namely Italian. Hence, the children results for the Italian session should have been comparable with those of Italian monolingual children (Utzeri 2007; Belletti and Contemori 2010, 2012).

In order to verify this prediction, the results from the Italian session for SRCs (cf. chapter 5, section 5.2.1.) and ORCs (cf. chapter 5, section 5.2.2.) production need to be considered again (PPRCs are set aside for the moment because their production was not investigated in the aforementioned studies). In the present research, children performed very well with SRCs: they almost always produced target-like sentences (95,65% with 198 sentences). All other kinds of structures are almost absent (0,48% of non-target SRC and 3,86% of alternative productions). In the case of ORCs, the production of target-like sentences is worse compared to SRCs (57%

of target-like ORCs with 132 sentences). The most used alternative structure is the production of non-target RCs (31,74% with 73 sentences). These results are indeed comparable with the ones for SRCs and ORCs production found in previous studies on Italian (Utzeri 2007; Belletti and Contemori 2010, 2012): the subject-object asymmetry is confirmed and strong, and the use of non-target RCs as an alternative production when ORCs are elicited is also a stable results. The only difference between this thesis results and the results from the aforementioned studies concerns the production of Passive Object Relatives as an alternative when ORCs are elicited: this strategy is absent from this study but widespread in the previous ones. Further research is needed to fully understand this discrepancy.

To proceed with the comparison between the Friulian and the Italian session, in order to determine whether the language of elicitation influenced differently the children's production, also the results for PPRCs elicitation need to be recalled.

In the Italian session (cf. chapter 5, section 5.2.3.), target-like PPRCs production is similar to the one for ORCs (55,65% with 128 sentences). Children also produced non-target like sentences (25,22% with 58 sentences) and DP-type structures (17,83% with 41 instances): both strategies represent actual alternatives if a PPRC is elicited.

The data from the Italian session need to be then considered in comparison with those from the Friulian session. In the case of SRCs children performed well (79,71% with 165 sentences); the only other relevant option being the DP-type strategy (13,53% with 28 instances). In the case of ORCs, the production of target-like sentences was worse compared to SRCs (35,65% with 82 sentences). Children produced non-target sentences (38,70% with 89 sentences) almost as much as they produced target-like sentences. The DP-type strategy was also used, but considerably less than the non-target-like option (17,39% with 40 instances). In the case of PPRCs, the production of target-like sentences was similar to the one for ORCs (35,27% with 73 sentences). The difference with respect to ORCs was that the DP-type strategy was the preferred alternative when PPRCs were elicited (32,85% with 68 instances), more than the non-target type of production (25,12% with 52 sentences).

Having recalled and compared the results from the Italian and the Friulian session, it appears clear that the language of elicitation does indeed play a significant role in influencing the children's performance, as confirmed by the statistical analyses performed in chapter 5, section 5.3., and this influence can be articulated in various observations.

First, the use of Italian as the elicitation language made target-like production higher in all conditions (SRCs, ORCs and PPRCs); while the use of Friulian made target-like production smaller in all conditions. Second, the use of Italian made almost disappear the production of fragments and main clauses as alternatives to RCs production; while the use of Friulian made fragments and main clauses production small but still present as an alternative to RCs production. Third, the use of Italian made the DP-type alternative production strategy less productive in all RCs contexts of elicitation; while the use of Friulian made the DP-type alternative production strategy more productive in all conditions. Fourth, considering specifically ORCs, the use of Italian made the target-like production surpass the non-target-like production; while the use of Friulian made the non-target production exceed the target-like production. Fifth and last, focusing specifically on PPRCs and their alternative productions, the use of Italian made the non-target PPRCs production higher than the DP-type production; while the use of Friulian made the DP-type production higher than the non-target PPRCs. The role of the language of elicitation can then be described as having an ameliorating effect on the children's performance when Italian, the majority language, is used; whereas it has pejorative effect when Friulian, the minority language, is used. The language of elicitation also influences differently the strategies that children implement to cope with the more difficult conditions, namely ORCs and PPRCs.

The results just illustrated here and the considerations on the role played by the language of elicitation are relevant in order to verify also the second prediction made about the kind of bilingualism found in the Italian-Friulian context. While the first prediction concerned the Italian session, the second prediction concerned the Friulian session instead, and two different scenarios were imagined as plausible: in the first scenario, the Italian-Friulian bilingualism resembled a 'standard' bilingualism, so children should have been able to use also Friulian appropriately enough to perform in the Friulian session similarly to the Italian one; in the second scenario, the Italian-Friulian bilingualism resembled a 'bilectal' bilingualism instead, and children should then have shown different performances for the Friulian and the Italian session, depending on the input and dominance relations between the two languages.

The results summarised above are evidence against the first hypothesised scenario, because the children performance in the Italian and the Friulian session was different both quantitatively and qualitatively. Instead, those results support the second scenario as the more appropriate

one, since children did show different performances in the Italian and the Friulian session: the Italian-Friulian bilingualism can then be described as bilectal.

After having denied the first predicted scenario and instead verified the second, namely the bilectal one, the choice moves on to the two possible context of dominance imagined as a consequence of that scenario: should Friulian result as the dominant language, children should show a very good performance in the Friulian session; should Italian result as the dominant language, children should show a rather strong influence of Italian also in the Friulian session.

The considerations made above with respect to the general ameliorating effect that Italian as the language of elicitation has for children's RCs production compared to the Friulian pejorative effect, already argues in favour of Italian being the dominant language. The other fundamental and strong evidence supporting this claim lies in the fact that regardless of the language of elicitation being Italian or Friulian, children only used Italian in their output productions. This claim is supported by two more observations: first, subject clitics, which are typical and compulsory in Friulian (cf. chapter 3, section 3.1.5.1) were completely absent from the entire experimental productions, with the only exception of one subject clitic produced by one child. Second, morphological transfers always happened in order to adapt Friulian lexical items to the Italian grammatical system. All these considerations make the case for Italian being the dominant language in Italian-Friulian children bilectalism.

Nonetheless, even if Italian is the dominant language, the Italian-Friulian bilectal bilingualism manifests itself also with influences of Friulian on Italian. The following examples are instances of that influence: first, the absence of the existential-locative clitic 'ci' in PPRCs whereas in Italian it would have been needed⁴⁰ (cf. chapter 5, section 5.4.3); second, the instances of head-gender errors based on the Friulian feminine gender imported in Italian whereas the masculine gender should have been used (23 instances, cf. chapter 5, section 5.4.1); third and last, transfers (cf. chapter 5, section 5.4.5): children indeed produce transfers from Friulian in Italian, mainly lexical (102 instances), but also syntactic (3 instances) and semantic (20 instances).

⁴⁰ The absence of existential-locative clitics in the Italian productions can also be motivated by the fact that this kind of clitic has not developed yet, since these forms tend to emerge later in acquisition due to their complex structure.

6.2.2. Italian-Friulian bilingualism: the role of input

In order to answer the research question concerning the kind of bilingualism found in the Italian-Friulian context, together with the role played by the elicitation language in influencing the children's RCs production, it is important to consider also the relationship in terms of input between Italian and Friulian.

The input received by the children was investigated through a parental questionnaire (cf. chapter 4, section 4.3.1.). On the basis of the parents' perceptions, different aspects of input were examined: first, input was considered with respect to different contexts of language use: results showed that Friulian is most present in the relations with extended family, friends, and the community, while Italian is most present in the kindergarten; homes are the place in which Friulian and Italian seem to coexist more. As previously mentioned in chapter 4, section 4.2., however, even if parents agree on defining the kindergarten as mostly Italian, all children also receive Friulian input there because of the Friulian language program. Second, Friulian input was specifically considered focusing on the quantity provided by the parents. These data led to a distinction between children that appeared to be receiving at least a minimum Friulian input and children who did not. Regardless of this distinction, as previously said in chapter 4, all children showed an essentially Italian production, even when Friulian was the language of elicitation in the experimental session. This result suggests that input could probably be unbalanced between the two languages, with more input provided for Italian, while Friulian input is not enough for children to perform the experiment using that language. Nonetheless, even if the children's production was mostly Italian, some Friulian did indeed surfaced in the children's productions, as seen in chapter 5 section 5.4. Friulian emerged mostly with lexical transfers (102 occurrences), but also morphological, syntactic and semantic transfers were present (31, 18 and 17 occurrences respectively). Surprisingly, these transfers appeared in the productions of both children classified as receiving the minimum Friulian input and children classified as not receiving even a minimum Friulian input. These findings suggest that even when children do not receive much Friulian input from their parents, they receive at least some Friulian input from the surrounding environment, which is sufficient for them to produce some transfers. This consideration can be confirmed taking into account also the parents' information about their children Friulian output. When asked to quantify it, the majority of

them indicated at least some Friulian output in their children speech, and this is precisely what was observed in the experiment. Only three children out of twenty-three were described by the parents as never producing any Friulian output: for two of them the parental perception has been confirmed by the findings, as they are the only two participants that did not produce any type of Friulian transfer in the experimental sessions.

The input relation between Italian and Friulian, as illustrated here, is in line with what has been previously said about the role that the language of elicitation plays in influencing the children's productions. These considerations suggest that the Italian-Friulian bilingualism could then be described as unbalanced, with Italian, the majority language, being the dominant language, and Friulian, the minority language, being the weak one, even if still productive.

In concluding this section, an additional consideration should be made regarding some of the influences of Friulian on Italian. In fact, it should be considered that the regional variety of Italian spoken in Friuli seems to borrow some syntactic elements from Friulian (Cortelazzo 1996), as for example the structures without the locative-existential clitic 'ci', which are very common also in the regional Italian variety. Therefore, it could be the case that children are influenced not only directly by Friulian but also indirectly by the local Italian variety.

CONCLUSIONS

Having reached the end of this thesis, some considerations are in order with respect to the objectives that guided this work.

Two research questions were addressed: the first concerned the Italian-Friulian children acquisition of relative clauses and the comparability of their results with what is found in the related cross-linguistic literature; the second question concerned the type of bilingualism found in context where Italian majority language and Friulian minority language are spoken, in order to provide a characterization of its peculiarities, also with respect to specific bilingual factors such as the role of the language of elicitation and the relationship in terms of input between the two languages.

As far as the first research question is concerned, the data presented in this thesis confirm that Italian-Friulian children's performance is in line with cross-linguistic results in all conditions, namely for SRCs, ORCs, and PPRCs. Specifically, in line with the predictions made following the Relativized Minimality approach (Rizzi 1990, 2004; Friedmann et al. 2009), results support both the subject-object asymmetry and the ORCs and PPRCs performance similarity. Moreover, through a further investigation of PPRCs, an effect of the type of prepositions was found: in the case of PPRCs with lexical prepositions children produced more target-like structures than with PPRCs with functional prepositions. However, it should be added that PPRCs are still scarcely investigated and further research would be needed to better understand the issue.

Turning to the second research question, results were analysed comparing the Italian and the Friulian experimental session, also with respect to specific bilingual factors such as cross-linguistic influence, language dominance and input role (Mioni 1979; Meisel 2004; Gorsjean 2011; Rowe and Grohmann 2013). Having considered that the children's production was essentially in Italian regardless of the language of elicitation being Friulian or Italian, and the ameliorating role played by Italian in influencing the children's results, it can be said that the Italian-Friulian bilingualism is unbalanced with Italian being the strongly dominant language and Friulian being the weak one.

Nonetheless, even if Italian is certainly the dominant language, it should be noted that specific influences of Friulian on Italian were indeed present in the children's production, regardless of the children being described by their parents as receiving or not receiving a minimum Friulian input. This suggests that even if it is not clear to which extent, still Friulian is alive and productive in those contexts in which the children grow.

To conclude, I would like to reflect also on the limits of this thesis and make some suggestion about its possible future developments. First, it should be noted that the experiment was administered only to preschool children aged 4 to 6 years old. It would be interesting to then expand the age range of the participants, specifically involving also older children, in order to verify how the relation between the two languages Italian and Friulian evolves over the years, possibly resulting in less or more Friulian influences and/or productions. Second, it is important to consider that the results presented in this research work are related to the experimental method used to collect the data, and therefore it could be the case that different experimental methods would lead to different results. For example, it remains uncertain to which degree the picture support influences children's comprehension of the experimental items: then it could be interesting to test the same population with an experimental task that does not imply the use of pictures. It would also be appealing to try and test this population with a task that resembles more spontaneous speech, in order to create a different experimental context: story-telling designs could be interesting in this regard. Finally, it should be considered that the investigation only involved children from the same town, namely Gemona del Friuli, all exposed to the same variety of Friulian, namely *Gemonese*. But having considered the peculiar linguistic landscape of Friuli (Francescato 1966; Pellegrini 1972; Frau 1984; Roseano 2015; Vicario 2015a, 2015b), it would also be useful to widen the investigation involving children from different localities, as for example the town of Codroipo or the Carnia valley, namely areas in which different Friulian varieties are spoken, and also known for being alive and well with respect to their knowledge and daily use of Friulian language.

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