

Article

Optionality in the Expression of Indefiniteness: A Pilot Study on Piacentine

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Abstract: Optionality is an issue within the minimalist theory of language, in which the principle of the “last resort” does not admit competing options to express the same meaning. What is needed is a solid empirical base showing that apparently competing forms do specialize for some syntactic/semantic traits. Hence, the aim of this pilot study is to investigate optionality in the choice of competing indefinite determiners in Piacentine, an Italo-Romance variety spoken in north-western Italy. Sixteen native Piacentine speakers were presented with a questionnaire to collect linguistic data. Statistical analyses of the data were performed to seek correlations between the choice of the indefinite determiners and some syntactic/semantic traits that were controlled for. The results indicate that Piacentine displays four main determiners, labeled ART, *di+art*, bare *di*, and ZERO. ART and *di+art* are the most widespread determiners allowing both narrow and wide scope and occurring in all the investigated contexts. Bare *di* is instead the unmarked form for expressing non-existential indefiniteness in negative contexts and only has narrow scope. ZERO co-varies with bare *di*, and its use was strengthened by contact with Italian, preventing its loss, differently from French, which lost ZERO instead.

Keywords: bare *di*; definite article; determiners; indefiniteness; Italo-Romance variety; optionality; partitive determiner; Piacentine; ZERO determiner



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1. Introduction

This paper presents the first pilot study which deeply investigates how indefiniteness is syntactically expressed in a north-western Italo-Romance variety spoken in the province of Piacenza, Emilia-Romagna (Italy).¹ The aim is twofold: (i) filling a gap in the literature, which lacks fine-grained analyses of the determiner system in specific varieties spoken on the Italian peninsula, and (ii) contributing to the understanding of variation and optionality in language. This study is rooted in a recent line of inquiry (cf. [Cardinaletti and Giusti 2018, 2020](#)) aiming at investigating variation and optionality in the expression of indefiniteness in Italian and Italo-Romance.

Before turning to the implementation of the research, the key concepts of variation and optionality (cf. Section 1.1), and expression of indefiniteness (Section 1.2) will be briefly defined to better highlight the contribution of the present study (Section 1.3).

The rest of the paper is organized as follows: Section 2 describes materials and methods of the research. Section 3 shows the results of data analysis. Section 4 discusses and interprets the results, highlighting the important findings. Section 5 concludes the paper.

1.1. Variation and Optionality in Syntax

Variation is an intrinsic dimension of natural languages. [Berruto \(2010, p. 226\)](#), [Chambers \(1995, pp. 206–53\)](#) states that “variation permeates all languages, has a socio-cultural as well as a biological foundation and shows itself in multifarious manners with

an adaptive significance." Variation comes in different forms depending on the external factors it is influenced by space (diatopic variation), time (diachronic variation), social status (diastratic variation), channel (diamestic variation), and communicative situation (diaphasic variation).

Space is particularly relevant when it comes to the Italian linguistic situation (Berruto 2010 *apud* Berruto 1989). There is in fact a great number of Italo-Romance varieties (commonly defined *dialects*) spoken on the territory of the peninsula.² This traces back to the pre-Latin inhabitants of the territory, who transferred to Latin the features typical of their own languages after the Roman occupation (cf. Loporcaro 2009, p. 34). This transfer was induced by language contact. The contact gives rise to variability, which may (but must not) induce language change (cf. Poplack and Levey 2010). This perfectly fits for the Italian peninsula, whose linguistic diversity is a fertile ground for studying optionality.

The phenomenon of optionality in syntax can be defined as "the coexistence within an individual grammar of two or more variants of a given construction, which: (1) make use of the same lexical resources; and (2) express the same meaning" (Sorace 2000, p. 93). A typical example is the optionality of complementizer drop in English in a sentence such as *I think (that) John is a fool* (Müller 2003, p. 289).

Optionality is tolerated in transformational grammars of the 1960s and in Chomsky's (1981) Government and Binding framework, as it arose from an optional application of the transformations taking place in syntax (cf. Müller 2003). However, with the Minimalist Program (Chomsky 1995), optionality becomes a challenge for a theory in which syntactic operations (Merge) are seen as a "last resort", i.e., they only apply if strictly necessary. As soon as these operations are optional, they are no longer a "last resort". This leads to the problem that, if several forms qualify as optimal, the question arises as to which one of them is to be chosen.

Various solutions have been proposed to tackle this issue. Some of them place the *locus* of optionality external to the grammar, such as the coexistence of multiple independent grammars in the same speaker (cf. Kroch 1989). Others view optionality as rooted in the grammar itself, as in the case for freely ranked constraints of grammar (*Optimality Theory*, cf. Müller 2003 *apud* Prince and Smolensky 1993), equally costly derivations (cf. Biberauer and Richards 2006), structures differing in a minimal specification of uninterpretable features (cf. Adger 2006, 2016) or probabilities built into the linguistic system giving rise to variants as probabilistic outcomes (cf. Labov 1969, 1972).

The above-mentioned theories crucially do not deal with the optionality found inside the determiner system, which is widespread in the Romance panorama (cf. Giusti 2021) and therefore requires our attention. The Italo-Romance ground is particularly fertile for the study of optionality given the presence of several determiners which can be used to express indefiniteness in (apparent) free co-variation. Moreover, this language family has thus far received little attention concerning this aspect.

The present research fills this gap, investigating the indefinite determiners and optionality in their choice in a particular Italo-Romance variety spoken in the province of Piacenza.

1.2. The Expression of Indefiniteness

Indefiniteness refers to a broad and many-sided phenomenon, which interfaces with semantics, syntax, and pragmatics. It forms a dichotomy with its positive counterpart, i.e., *definiteness*. Several proposals try to define the opposing *definite* vs. *indefinite*, respectively, in terms of uniqueness vs. non-uniqueness (e.g., Russell 1905), familiarity vs. novelty (e.g., Heim 1982), and specificity vs. non-specificity (e.g., Fodor and Sag 1982).

Here, a more syntax-oriented definition has been adopted, treating *indefinites* as those "determiner phrases (DPs) [. . .] headed by [. . .] an indefinite D(determiner)" (Brasoveanu and Farkas 2016, p. 238). Indefinites introduce some entity in the discourse and present it as new, in contrast to definites which refer to familiar entities (cf. Heim 1982). The contrast between indefinites and definites is provided in (1a) vs. (1b), respectively.

- (1) a. Mary visited *a garden, some garden(s), some of the gardens, a certain garden.*
- b. Maurice visited *the/this garden, these gardens/the capital of Albania/the largest museum in the world.* (Brasoveanu and Farkas 2016, p. 238)

Since *expression of indefiniteness* is a broad term, this study makes use of it by narrowing its semantics to the subset of indefinites, which are the object of the present investigation. In what follows, *expression of indefiniteness* will be referred to as the strategies used to introduce *uncontroversial indefinites* (cf. Brasoveanu and Farkas 2016). An unmarked indefinite is “existential and its referent is not uniquely identifiable” (Brasoveanu and Farkas 2016, p. 239). An example is given in (2).

- (2) Muriel visited *gardens* when she traveled to France this summer. (Brasoveanu and Farkas 2016, p. 239)

1.3. Variation in the Italian and Italo-Romance Determiner System

The Italian and Italo-Romance panorama is a flourishing field for studying the expression of indefiniteness given the amount of available indefinite determiners (cf. Cardinaletti and Giusti 2018), which *prima facie* seem to occur in free co-variation. The main determiners are:

- The *zero* determiner introducing bare nominals, henceforth labeled “ZERO” (cf. (3a)).³
- The definite article with indefinite interpretation, henceforth “ART” (cf. (3b)).
- The simple *di* determiner, homophonous to the genitive preposition, referred to as “bare *di*”, common in certain north-western Italo-Romance varieties (cf. (3c)) and only appearing on dislocated indefinites in standard Italian (cf. (3c')).
- The *partitive determiner*, which displays a superficial syncretism with the articulated preposition introducing partitive constructions. This determiner combines *di* with the morphology of the definite article. It will be labeled “*di+art*” (cf. (3d)).
- The determiner-like *certo* “certain”, which is used as an indefinite determiner only in some southern varieties (Rohlf 1968, p. 119) (cf. (3e)). In standard Italian, it only conveys a specific reference (cf. (3e')).

(3) a.	Mangio I-eat	Ø ZERO		biscotti biscuits
b.	Mangio I-eat	i ART	biscuits biscuits	
	“I eat biscuits.”			
c.	sei if-there	fyse was	d' <i>di</i>	aqua water (Piedmontese; Berruto 1974, p. 57)
	“If there was water.”			
c'	Di <i>di</i>	biscotti, biscuits	ne NE	mangio I-eat
	“Of biscuits, I eat.”			
d.	Mangio I-eat	dei <i>di+art</i>	biscotti. biscuits	
	“I eat some biscuits.”			
e.	cə there	šta is	cirta <i>certo</i>	pərzonə people (Abruzzese; Rohlf 1968, p. 119)
	“There are some people.”			
e'.	Mangio I-eat	solo only	certi <i>certo</i>	biscotti biscuits
	“I only eat certain (kinds of) biscuits.”			

Other indefinite determiners are found along with the forms presented above: quantifiers such as *alcuni* “some”, *molti* “a lot”, and *pochi* “a few”, and the indefinite article *un(o)/a* “a/one”.⁴ Since the indefinite article is restricted to singular NPs,⁵ and quantifiers belong to a separate syntactic category external to the nominal expression (cf. the QP-Hypothesis, Cardinaletti and Giusti 1990), only the determiners in (3) are relevant for the research presented below.

1.4. True Optionality in Italian?

The amount of different indefinite determiners serving the same function and occurring in (apparent) free co-variation would give rise to optionality, which is not permitted in recent theories of language (cf. Section 1.2).

This issue has given rise to a recent line of research, started by [Cardinaletti and Giusti \(2018\)](#). The authors individuate some clear tendencies in the use of the indefinite determiners across Italy, due to the analysis of AIS maps.⁶ The analysis of the map 1037 “If there was water” (conveying a core existential indefiniteness) allows for the individuation of a clear pattern: in central Italy, the use of ART is predominant. This tendency spreads north- and southwards; however, coming up to the extreme areas (extreme north and extreme south, including Sicily and Sardinia), a prevalent use of ZERO is found instead.⁷ The extreme north-western territory bordering with France displays a great use of bare *di*.⁸ The tendency towards a greater use of bare *di* and ART overlap in the area roughly corresponding to Emilia-Romagna: here, the two determiners “merge”, giving rise to a widespread use of *di+art*.⁹

Analyzing other AIS maps, [Cardinaletti and Giusti \(2018\)](#) note that some determiners specialize semantically: ART are preferred in salient contexts (map 1343 “(go to the cellar) to take wine”), while *di+art* conveys small quantity interpretation (map 637, “(to go and look for) violets”). They may specialize for other traits in specific varieties. In the dialect of Ancona, ART and *di+art* operate a division of labors, the former specializing for narrow scope and the latter for wide scope (cf. [Cardinaletti and Giusti 2018](#), p. 152).

An analysis based exclusively on the AIS maps would be incomplete, as they only provide narrow scope contexts, rarely reporting more than one form and depict the linguistic situation at the beginning of the last century. Furthermore, they leave open the question of the situation in the national language. [Cardinaletti and Giusti \(2020\)](#) provide an answer to the last issue, discussing the results of a pilot study conducted on informal Italian. The data were collected via an online questionnaire submitted to native speakers of Italian from all the areas of the peninsula. Their questionnaire investigated some important traits, which were individuated by [Cardinaletti and Giusti \(2018\)](#) as relevant for the choice of the indefinite determiner, namely:

- Noun class: mass nouns vs. plural count nouns.
- Polarity: negative vs. positive sentences.
- Sentential aspect: telic vs. atelic sentences.
- Sentence type: episodic vs. generic.
- Scope of the indefinite: wide vs. narrow.
- Meaning specialization: saliency vs. small quantity.

The results of their study suggest some optionality in the use of ZERO and ART across the whole peninsula. ZERO occurs more frequently than ART, especially in those lateral areas (Sicily and the north-east) in which the local varieties use ZERO as the unmarked form for core indefiniteness (cf. [Cardinaletti and Giusti 2020](#), p. 709). Moreover, the results confirm the authors’ previous predictions that ART tends to specialize for saliency contexts, while *di+art* conveys small quantity interpretation. The latter determiner in informal Italian seems to be restricted to positive episodic sentences, and its occurrence is greater in Emilia-Romagna,¹⁰ even though it does not seem to be the unmarked form.

1.5. Aim and Research Questions

The present study is the first research focusing on the determiner system in the variety spoken in the province of Piacenza (henceforth *Piacentine*).¹¹ Piacenza is the main town in the west-most province of Emilia-Romagna, in the north-western part of Italy. This area is particularly interesting as it is the crossroad in which the tendencies of *di* and ART merge together, giving rise to a predominant use of *di+art* (cf. Section 1.4).

The research questions leading this pilot study are formulated in (4).

(4) Research questions for the study on Piacentine:

- a. How many and which indefinite determiners are available in Piacentine?

- b. If more than one indefinite determiner is available (as expected), is there optionality in the choice of competing forms?
- c. If pure optionality is excluded, what are the features they specialize for?
- d. Are there any observable patterns that may be reduced to contact with Italian?¹²

Since the availability of multiple determiners is expected, the working hypotheses may be formulated for questions (4b) and (4c), which will be answered by the statistical analysis of the data. The hypotheses are as follows:

- *Null hypothesis*: determiners freely co-vary with one another. There is optionality in the expression of indefiniteness.
- *Alternative hypothesis*: different determiners cannot freely co-vary with one another. Optionality is only apparent, and the occurrence of a given form may be predicted to a certain extent by the syntactic environment and/or the semantic traits of the sentence.

The question in (4d) cannot be answered quantitatively as the present research focused only on Piacentine. However, the observation of the results allows to identify some relevant tendencies.

The research questions in (4) will be answered by an adaptation to Piacentine of [Cardinaletti and Giusti's \(2020\)](#) questionnaire in informal Italian. This favors the transparency in research and the comparability of the results. Due to the comparability, it will be possible to verify whether the tendencies found in Italian hold for this Italo-Romance variety as well.

The outcomes of this research show that:

- In Piacentine, the main four determiners presented in (3a–d) are available, but pure optionality in their choice is excluded, as there seems to be a divide between two pairs of determiners: ART and *di+art* vs. ZERO and bare *di*.
- ART and *di+art* are the dominant forms, found in all the investigated contexts. They are the only forms available in wide scope contexts. Bare *di* is the unmarked form for non-existential indefiniteness (in negative sentences), and together with ZERO specializes for narrow scope.
- The use of ZERO in Piacentine was strengthened by contact with Italian, preventing its loss (as happened in French).

This would pave the way for a more fine-grained investigation on the issue of indefiniteness and optionality in other varieties spoken alongside the peninsula. In fact, the present work shows that fine-grained research on local varieties may lead to relevant findings. In a comparative perspective, this analysis may provide some insight into the analysis of Italian and French indefinites, as the latter language shares with Piacentine the generalized use of *di+art* and the use of bare *di* (cf. fn.6).

2. Materials and Methods

The fieldwork was conducted by the author (a native speaker of Piacentine) in February 2018. The data were collected in Lugagnano Val d'Arda, about 35 km from Piacenza,¹³ on the northern slope of the Ligurian Apennine.

This section describes materials (Section 2.1), methods of submission (Section 2.2), and participants (Section 2.3).

2.1. Materials

The data were collected via a written questionnaire patterned after the one used by [Cardinaletti and Giusti \(2020\)](#) in their pilot study on informal Italian. This guarantees a maximal comparability of the results, facilitating the identification of possible overlapping tendencies in the use of indefinite determiners in Italian and in Piacentine. This also facilitates the individuation of influences due to the contact between the standard language and the local variety.

The questionnaire investigates the availability in Piacentine of the indefinite determiners listed in (3): ZERO, ART, bare *di*, *di+art*, and *certo* (used as a control item, as indefinite *certo* is

not attested in northern Italo-Romance varieties).¹⁴ Moreover, these are combined with the relevant syntactic traits given in (5) partially explored in [Cardinaletti and Giusti's \(2020\)](#) and fully discussed in [Giusti \(2021\)](#).

- (5) Traits investigated in the research on Piacentine¹⁵:
- Noun class: singular mass vs. plural count nouns.
 - Sentence type: episodic sentences (featuring past tense) vs. generic sentences (featuring present tense).
 - Polarity: negative vs. positive sentences.
 - Aspect: telic vs. atelic predicates.
 - Scope of the indefinite: narrow vs. wide.
 - Semantic specialization: saliency vs. small interpretation.

The questionnaire contains 24 items, divided as follows:

- 13 items consisting of forced-multiple choice tasks.¹⁶ The choice is not limited to one variant, but the informants could select all the sentences they deem correct (including the selection of none of the variants). The items are structured as follows: a context sentence provides the participants with a background as a base for their judgment. For each introductory sentence, there are 5 possible alternatives. The 5 possible options consist of the same sentence, in which only the indefinite determiner is changed. An example is given in (6).¹⁷

- (6) In t'al to dialèt, un astemi dirisal:
 "In your dialect, a teetotaler would say":
- | | | | | |
|----|---------|-----|--------|------|
| a. | A bev | mia | Ø | vein |
| | I-drink | not | ZERO | wine |
| b. | A bev | mia | al | vein |
| | I-drink | not | ART | wine |
| c. | A bev | mia | ad | vein |
| | I-drink | not | di | vein |
| d. | A bev | mia | dal | vein |
| | I-drink | not | di+art | wine |
| e. | A bev | mia | sèrt | vein |
| | I-drink | not | certo | wine |
- "I don't drink wine."

- Two forced-multiple choice tasks, which require the informant to choose among four possible sentences (each containing a different indefinite determiner, excluding *certo*). These are pragmatically coherent variant sentences, structured with a causative subordinate clause or with a coordination. An example is given in (7).

- (7) Lesa ogni region fein in fonda e signa cu ch'è scrit ma 't diris.
 "Read each sentence entirely and check those that are written as you would say them":
- | | | | | | | | |
|----|----------|-----------|--------|-----------|-------|------|-------|
| a. | A disnè | incö | ho | mia | buì | Ø | acqua |
| | at-lunch | today | I-have | not | drank | ZERO | water |
| | parché | la sèva | ad | candegina | | | |
| | because | it-tasted | of | chlorine | | | |
| b. | A disnè | incö | ho | mia | buì | I' | acqua |
| | at-lunch | today | I-have | not | drank | ART | water |
| | parché | la sèva | ad | candegina | | | |
| | because | it-tasted | of | chlorine | | | |
| c. | A disnè | incö | ho | mia | buì | d' | acqua |
| | at-lunch | today | I-have | not | drank | di | water |
| | parché | la sèva | ad | candegina | | | |
| | because | it-tasted | of | chlorine | | | |

- d. A disnè incö ho mia buì dl' acqua
 at-lunch today I-have not drank di water
 parché la sèva ad candegina.
 because it-tasted of chlorine
 "Today, at lunch, I didn't drink water because it tasted like chlorine."

- Six open comments referred to some of the multiple-choice tasks. The comments are relative to possible differences in the meaning and the interpretation of competing options in case the informant chose more than one. An example of this task is reported in (8).
- (8) Sa t'è sarnì püsè 'd 'na risposta in (X), at sa 'd vis c'ag sia 'na difareinsa ad cu ch'i vön di tra vüna e l'ètra? Pöt aspighè quèl ela? "If you chose more than one answer in (X), do you think there is a difference in meaning among them? Could you explain it?"
- Three concluding questions on the linguistic attitude of the participants. These ask about the confidence in their judgments, their linguistic attitude, and the personal appreciation of the task they had to fulfill. The first of these questions is reported here in (9) as an example.
- (9) A pinsè a la manera ca t'è cumpilè 'l dumandi, cus dirisat? "Thinking about the way you answered the questions, what would you say?"
- a. Ho sempar sarnì sicür/sicüra, senza aveg di dübi, "I have always been sure, without having doubts";
 - b. G'ho avì di dübi, ma ad solit s'era sicür/sicüra ca, "I me risposti i fisan giüsti" "I had some doubts, but generally I was sure that my answers were correct";
 - c. Specialment par sèrti dmandi sum mia sicür/sicüra d'avé dat la risposta giüsta, "Especially for some questions I am not sure I gave the right answer".
- The questionnaire concludes with the request of the consensus to use the data (cf. the statements in Supplementary Materials).

2.2. Method of Submission

The questionnaire was submitted orally to the native Italian-Piacentine speakers who agreed to participate in the research. The face-to-face submission of all the questionnaires was adopted to improve their accessibility to elder people who do not have familiarity with electronic devices. The accessibility of the questionnaire to all age groups is an important element, as it allows to verify the existence of possible changes and tendencies, which are developing in the speech of younger generations.

To allow for a more convenient and effective form of data collection, the questionnaire was printed on paper. The interview was conducted at the informant's place to guarantee a comfortable, relaxed, and quiet setting. In this way, the potential stress from the completion of the task was counterbalanced by the familiar environment.

Before turning to the questionnaire, the interviewer had a brief conversation with the informant to collect some information about their sociolinguistic background (cf. Section 2.3.1). The interviewer then explained to the participant the task they had to fulfill, focusing on a few core points including:

- The request of talking in Piacentine during the entire task to avoid interferences from Italian.
- The fact that the questionnaire was not a test (pointing out that there were no wrong or right answers), but only a tool to gain linguistic data thanks to the native competence of the participant.
- The fact that participants could choose all and only the possible variants they deemed correct, but they could also reject all of them.
- The possibility of asking the interviewer to repeat a sentence if it was not understood, as well as looking at the printed version of the questionnaire if something was unclear.

This introduction was conducted entirely in Piacentine to avoid interferences from Italian, which may have biased the results. The introductory part was needed to enhance the speakers' awareness of their own linguistic competence, leading them to think more deeply about their own ability of providing such grammaticality judgments. This aimed at preventing superficial answers (due to tiredness or boredom) and stimulating an active engagement in the task.

During the completion of the task, the interviewer read each context, followed by all the offered answers. In this case, the interviewees had to pronounce each possible variant they deemed grammatical in that particular context. The answers were immediately checked directly on the questionnaire sheet. In the case of the open questions, if the participants came out with some possible difference among competing forms (this happened quite rarely), the interviewer took notes directly on the back side of the questionnaire sheet.

Each submission was conducted individually, without posing any time limitation. On average, the task took about 30 min to be completed.

2.3. Participants

The participants were selected in order to represent a homogeneous linguistic background. A total of 16 native speakers of both Italian and Piacentine were recruited through snowballing sampling (cf. [Buchstaller and Khattab 2013](#)), i.e., asking the participants to recruit other participants among their acquaintances. All of them have grown up in a context in which they were exposed to both standard Italian and the Piacentine variety since birth. Moreover, 15 of them have spent the great majority of their lives in Lugagnano, the place in which the data were collected (one informant was born and raised in Piacenza). For the present study, the main sociolinguistic factor that was controlled for was age. Other factors, such as gender and level of education, were also considered, but could not be computed statistically as they were not balanced in the sample. Each of these factors was assigned a label. The division of the original sample with respect to the relevant sociolinguistic aspects was as follows:

- Gender:
 - M (male): 6 subjects.
 - F (female): 10 subjects.¹⁸
- Age (in number of years):
 - A (range up to 30): 5 subjects.
 - B (range 31–60): 6 subjects.
 - C (range above 61): 5 subjects.
- Level of education:
 - E (elementary school): 3 subjects.
 - M (middle school): 1 subject.
 - S (high school): 9 subjects.
 - U (university): 3 subjects.

The informants' identity was pseudo-anonymized, assigning each of them a number progressing from 1 to 16.

2.3.1. Use of Piacentine

As emerged during the pre-submission conversations, there is a tendency in the group of older people to prevalently use Piacentine as the dominant language in everyday life situations. These are not limited to the context of intimate relationships (mainly family and friends) but are found in every-day interaction, e.g., when doing shopping or in public services (at the post office or bank). The environment of the small town positively skews this tendency, favoring informal relations even in "formal situations" as people get to know each other more closely.

In the younger generation the tendency towards a dominant use of Piacentine is being lost, as regional (and standard) Italian is penetrating all aspects of life (family relations, educational contexts, and informal public relations). This goes hand in hand with a growing common perception that the local variety is used by uneducated people, as confirmed by younger informants. Respondents also stated that Piacentine is mainly used in the relations with the peers to express emotionally charged contents, e.g., to accentuate anger or highlight the irony of what is being told.

The generation that lies between these two opposite poles displays a sort of diglossia: in informal interactions (as often happens at work), standard Italian is preferred; in intimate relations, Piacentine is the dominant language.

2.3.2. Inter-Subject Agreement

Before proceeding to the analysis of the answers, a check of the participants' reliability was conducted using Krippendorff's alpha (α), defined as "a reliability coefficient developed to measure the agreement among observers, coders, judges, raters, or measuring instruments drawing distinctions among typically unstructured phenomena or assign computable values to them." (Krippendorff 2011, p. 1).¹⁹ This test was run on the pool of participants. It was implemented in R (R Core Team 2020), a free software used for statistical computing. The result of Krippendorff's α is reported in Figure 1. The threshold fixed in the study as indicator of low agreement is $\alpha < 0.30$. Subjects displaying a lower α were then fended off the pool.

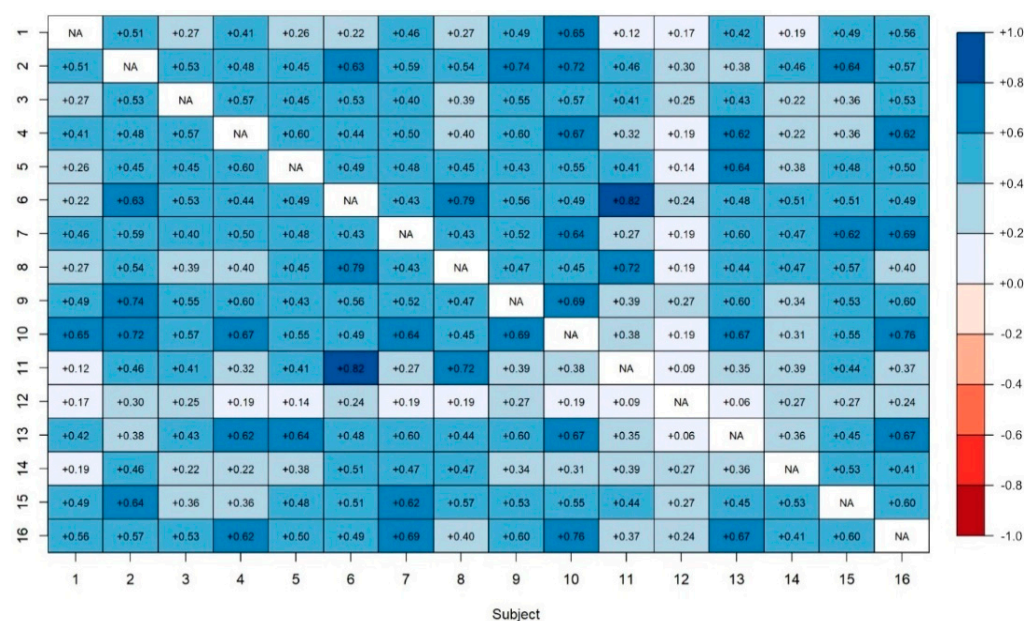


Figure 1. Inter-Coder Agreement ($\alpha = 0.462$). The boxes carrying unavailable values (NA) are produced as a result of the comparison of one subject with himself/herself. As for the remaining boxes, the more the α approaches 1, the higher the agreement between subjects is. On the contrary, values of α close to 0 signal a very low agreement.

Figure 1 highlights that Subject 12 displays a very low agreement with all the other participants, as the relative values of α are lower than (or equal to) 0.30 in all the cells. For this reason, Subject 12 was excluded from the pool and his/her answers were not considered in the statistical computation of the data.

Subject 1 also displays a suspicious pattern, with $\alpha < 0.30$ in relation to other six participants (considering the exclusion of Subject 12). Nevertheless, since this informant agrees with more than half of the remaining participants, Subject 1 was not excluded.

The remaining sample after the exclusion of Subject 12 is represented in Table 1.

Table 1. Pool of informants after the exclusion of Subject 12.

Total Age			Total Gender			Total Education		
A	B	C	M	F	E	M	S	U
5	5	5	6	9	3	1	8	3

2.4. Data Analysis

The collected data were reported and categorized in an Excel sheet used to feed R, which can easily operate on datasets built in files with the extension “.xlsx”. The Excel file was organized as follows:²⁰

- Each column contained a relevant variable (subject number, item question, relevant syntactic trait, answer, etc.).
- Each row encoded all the relevant information concerning one single sentence among those that could be chosen by the participants (e.g., (6a–e)). The (un)acceptability of a given sentence could assume the values “0” or “1”. “1” represented the case in which a particular sentence among the other options was chosen (i.e., that option is grammatical); the options which were not selected were instead considered ungrammatical and were assigned “0”.²¹

In the analysis presented below, the acceptability of each indefinite determiner was assumed as the dependent variable.

The aim was to find whether the acceptability of a given determiner varied with respect to the syntactic traits in (5). This was achieved by running Pearson’s chi-squared test (χ^2).²² When a variable presented more than two levels (e.g., the variable “age” has three levels: A, B, and C, cf. (3.3)), the Pairwise comparison of proportion test was used. It allows to compare all the pairs of level of a given variable in order to highlight possible statistically significant difference between them.

Each statistical analysis inevitably implies some limitations. The limits are linked to the problem of multiple comparisons, which causes a higher rate of uncertainty (cf. Winter 2019). For this reason, the data need to be considered with caution.

3. Results

This section presents the results of the statistical computing applied to the collected data, considering the acceptability of the indefinite determiners in relation with each syntactic trait.

3.1. Overall Acceptability of the Indefinite Determiners

Before getting to the interaction between the dependent variable and the independent variables, an analysis of the overall acceptability of the determiners was carried out to verify the existence of significant differences which may have arisen among different indefinites with respect to the rate of their overall acceptability by the speakers.

The χ^2 test revealed some significant differences among the determiners under investigation ($\chi^2 = 337.43$, $df = 4$, $p < 0.01$). Thus, the Pairwise comparison of proportion was applied to each pair of determiners to reveal where exactly the difference reached statistical significance. The results show that *certo* is significantly different from ZERO ($p < 0.001$), ART ($p < 0.001$), bare *di* ($p < 0.001$), and *di+art* ($p < 0.001$). Furthermore, another significant difference was found between ZERO and ART ($p < 0.001$) and ZERO and *di+art* ($p < 0.001$), but not between ZERO and bare *di* ($p = 0.86$). In turn, bare *di* significantly differs from ART ($p < 0.001$) and *di+art* ($p < 0.001$). The rate of acceptability for ART and *di+art*, instead, does not differ significantly ($p = 0.11$). The bar plot in Figure 2 graphically represents the overall (un)acceptability rate of all the considered indefinite determiners.

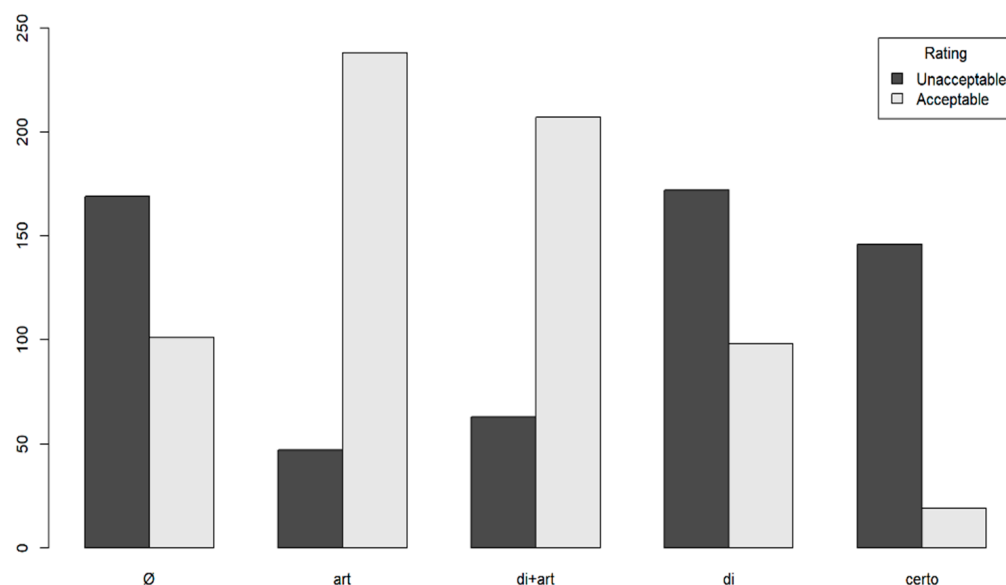


Figure 2. Bar plot of the overall (un)acceptability rate for the indefinite determiners.

The results clearly indicate how the proportion of unacceptability of *certo* sharply outnumbers that of its acceptability. This is in line with the expectation that *certo* is not available as an indefinite determiner in the northern varieties. The remaining determiners seem to form two pairs: ZERO and bare *di* on the one hand, and ART and *di+art* on the other. The former pair seems to be restricted, while the latter scores the highest acceptability rates.

3.2. Acceptability in Age Groups

The subjects participating in the submission of the questionnaire were evenly distributed for age groups: after the elimination of Subject 12 (cf. Section 2.3.2), each group comprised five informants. The age group was used as a variable to reveal possible differences in the rate of acceptance of different determiners. The χ^2 test revealed that the difference between age group and acceptability for the indefinite determiners is not statistically significant ($\chi^2 = 4.8132$, $df = 2$, $p = 0.090$), even though it suggests an interesting tendency²³ (cf. Figure 3). Groups A and B have a slightly higher acceptance rate than group C.

The older generation tends to be more conservative, possibly preserving a stricter norm in the use of Piacentine as they use it as their prevalently dominant language. This is, however, just a tendency. The Pairwise comparison of proportion did not reveal any significant difference between age groups: A vs. B ($p = 0.73$), A vs. C ($p = 0.22$) and B vs. C ($p = 0.14$).

Considering the acceptability for each indefinite determiner in each age group, some significant differences arise ($\chi^2 = 350.5$, $df = 22$, $p < 0.001$). This can be graphically represented by using a mosaic plot, as in Figure 4 below.

In the mosaic plot, the color palette plays an important role. The color of shading corresponds to the mathematical sign of the residual (blue for positive values, red for negative ones), while the intensity of the shading is directly proportional to the size of the deviation (the darker the shade, the greater the deviation). The mosaic also gives information about the distribution of the data with respect to the parameters taken into account: the bigger one box is, the more the data are falling into it (cf. Levshina 2015).

As can be inferred from Figure 4, *certo* is strongly rejected by all the groups, while ART and *di+art* are both significantly more accepted.

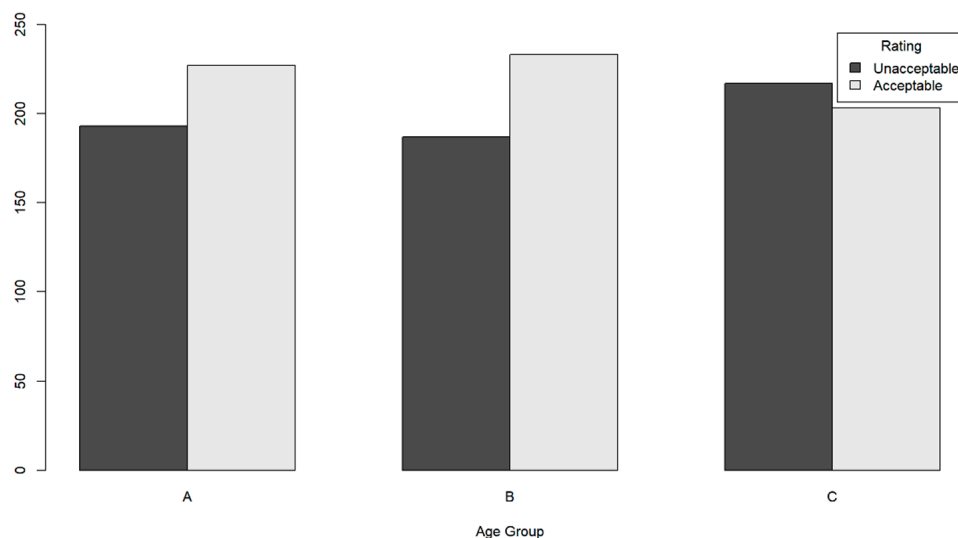


Figure 3. (Un)acceptability rate of the indefinite determiners in the age groups.

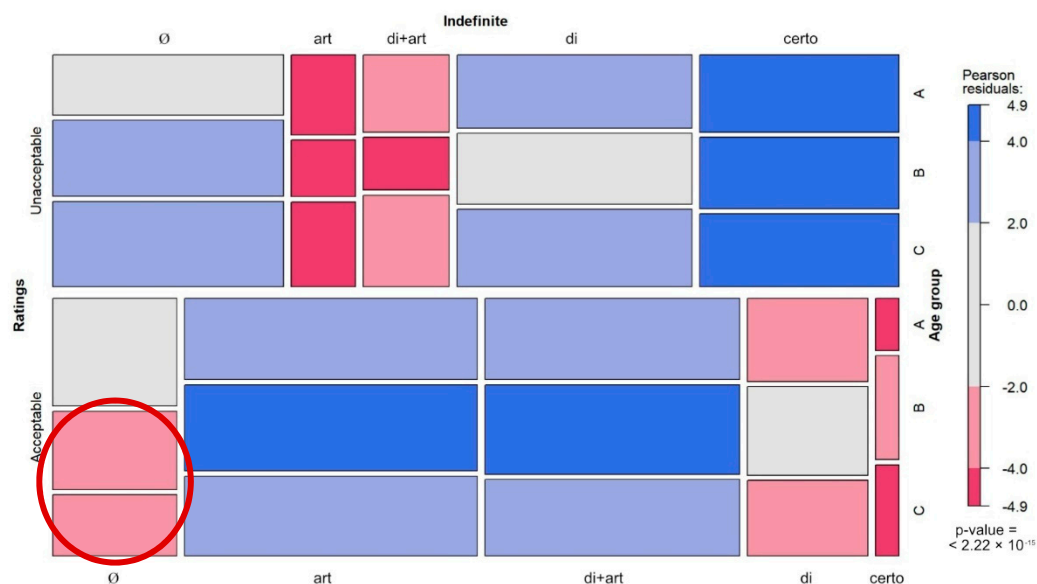


Figure 4. (Un)acceptability rate of each indefinite determiner in the age groups. The area marked by the red circle indicates that ZERO is less accepted by groups B and C.

Interestingly, ZERO is significantly less accepted by groups B and C: this points to the fact that ZERO is more tolerated by the younger generation, the one which is more in contact with the standard language. This suggests that Italian is exerting some influence in the use of ZERO in Piacentine (cf. Section 4.5.2).

3.3. Acceptability with Noun Class

The variable “noun class” has two levels, “MASS” for mass and “PL” for plural nouns. It is known that singular count nouns are treated separately from plural count and singular mass nouns (cf. Alexiadou 2011).²⁴

The interactions between each indefinite determiner and each noun class yielded some significant differences ($\chi^2 = 351.2$, $df = 13$, $p < 0.001$), as shown in Figure 5.

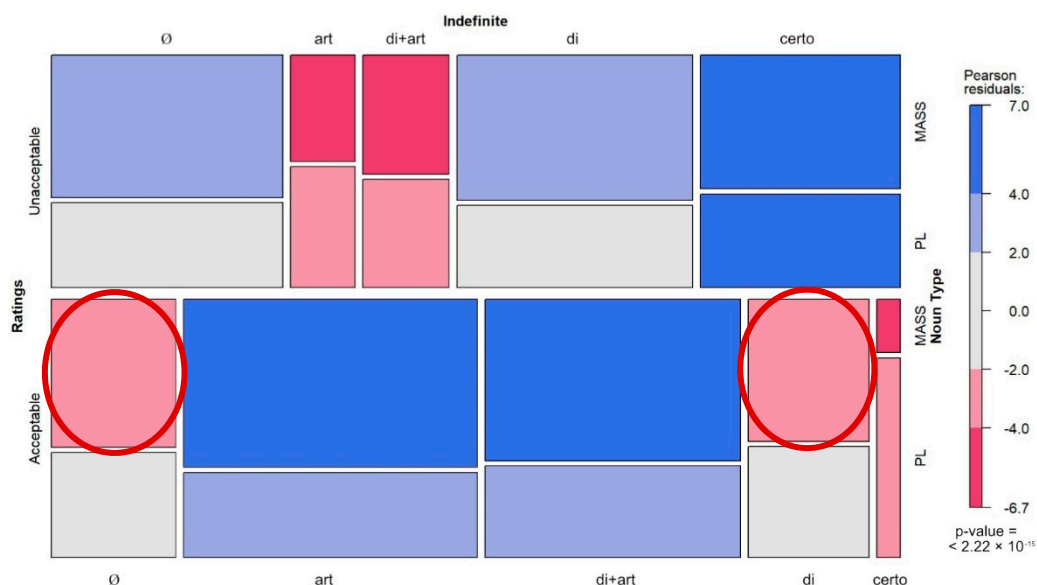


Figure 5. (Un)acceptability rate of each indefinite determiner with mass and plural nouns. The two red circles highlight the minor acceptability for ZERO and bare *di* with mass nouns.

All the determiners (except for *certo*, whose occurrences are very limited but preferred for plural nouns) are accepted with both noun classes, with bare *di* and ZERO being significantly less accepted than expected when co-occurring with mass nouns.

3.4. Acceptability with Different Polarity

“Polarity” is another binary variable, whose levels are “POS” for positive sentences, and “NEG” for negative ones. The presence or absence of the negation has a significant effect on the choice of the indefinite determiner ($\chi^2 = 14.94$, $df = 1$, $p < 0.001$). The mosaic plot in Figure 6 shows how the distribution of the determiners changes significantly depending on the polarity of the sentence ($\chi^2 = 526$, $df = 13$, $p < 0.001$).

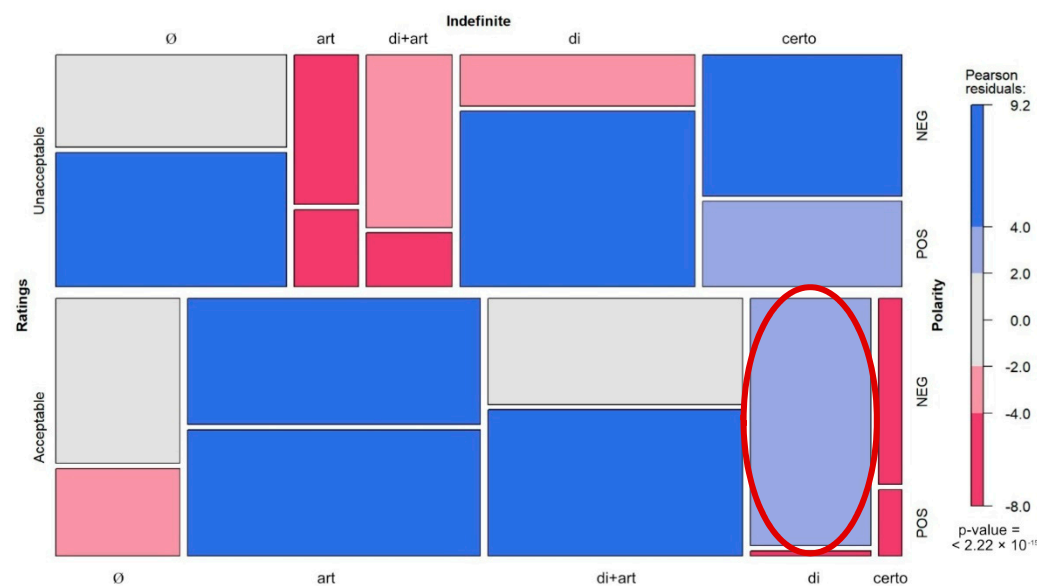


Figure 6. (Un)acceptability rate of each indefinite determiner with polarity. The red circle highlights the behavior of bare *di*, which is accepted only in negative sentences.

The most noticeable behavior in this respect is that of bare *di*, which has a significant acceptability in negative sentences, correlated to a strong unacceptability in positive ones

(in which its occurrence leads to ungrammaticality). This is one of the most evident Gallic features, which Piacentine shares with French, as the latter displays an obligatory insertion of partitive *de* with indefinite objects under the scope of negation (cf. Section 4.4.1).

ART almost equally occurs in both positive and negative polarity sentences. As for *di+art*, a significantly greater acceptability is found only when occurring in positive sentences, while in negative ones, no such correlation is found. ZERO, on the contrary, seems to be preferred in negative polarity sentences, even though its overall occurrences in the whole questionnaire are quite limited.

3.5. Acceptability with Different Clause Type

In the present study, two levels of the variable “clause type” are considered: “GEN” indicating generic sentences, and “EPIS” for episodic sentences. In the questionnaire, generic events are marked by a present tense verb. Episodic sentences instead contain a present perfect verb (*passato prossimo*), indicating an event that happened once in the past.

Comparing the number of occurrences of each indefinite determiner in relation to the clause type, some significant differences are found ($\chi^2 = 500$, $df = 13$, $p < 0.001$). These are displayed in the mosaic plot in Figure 7.

The plot reveals a pervasive presence of ART and *di+art*, with the latter outnumbering the former in episodic sentences. The same pattern is found in Italian as well (cf. Section 1.4).

Bare *di* seems to be significantly less acceptable in episodic sentences, being judged unacceptable with a greater extent in this kind of clause. ZERO follows a similar pattern.

Certo is mostly ungrammatical. When occurring, it displays a strong preference for episodic contexts, i.e., those which more easily facilitate a wide scope reading. This is not surprising, since *certo*, as in Italian, always has a wide scope.

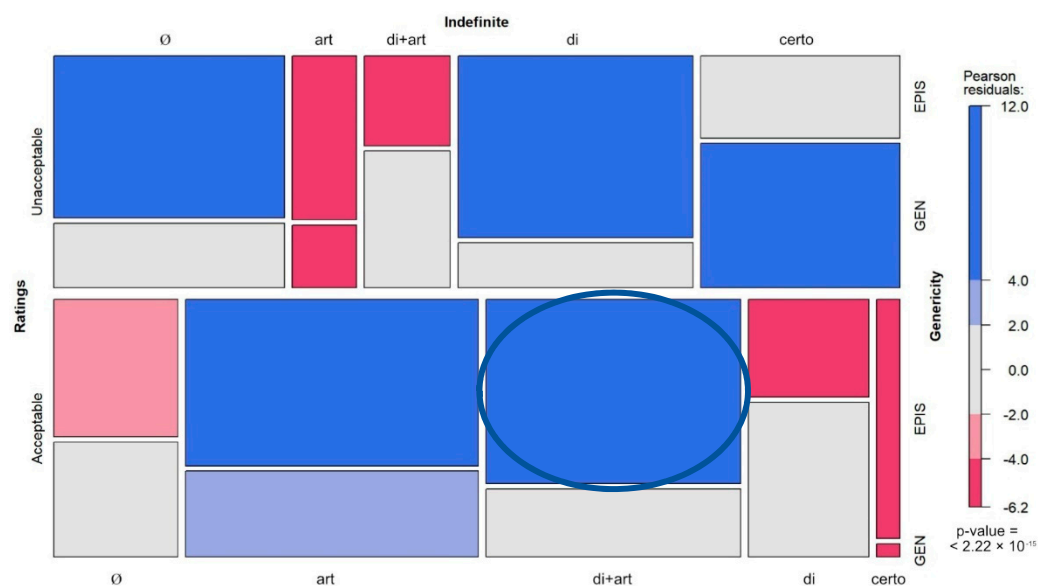


Figure 7. (Un)acceptability rate of each indefinite determiner with episodic and generic sentences. The blue circle highlights the greater acceptability for *di+art* in episodic sentences.

3.6. Acceptability with Different Aspect

The variable “aspect” refers to the kind of action which is expressed by the predicate. The levels of this variable in this study are “TEL” (telic actions) and “ATEL” (atelic actions). Telic aspect hinges on the presence of a “terminal point” in the denotation of the predicate (cf. Krifka 1989, p. 75), i.e., if the action expressed by the verb is directed to an aim or leads to a result. On the contrary, the atelic aspect does not involve such a “terminal point”. This dichotomy is not always clear cut. A sentence such as *I don’t eat meat* (which was one of the items on the questionnaire) cannot be unambiguously classified as being either telic or atelic. For this reason, for the sake of the present analysis only, non-ambiguous

contexts were considered. These are disambiguated by using those adverbials proposed by Dowty (1979) (*apud* Krifka 1989, p. 75) as a diagnostics for (a)telicity (e.g., “in an hour” for telic contexts and “for an hour” for atelic ones).

The χ^2 test applied to the levels of the variable “aspect” yields a significant difference between telic and atelic sentences ($\chi^2 = 7.8632$, $df = 1$, $p = 0.005$), as shown in Figure 8.

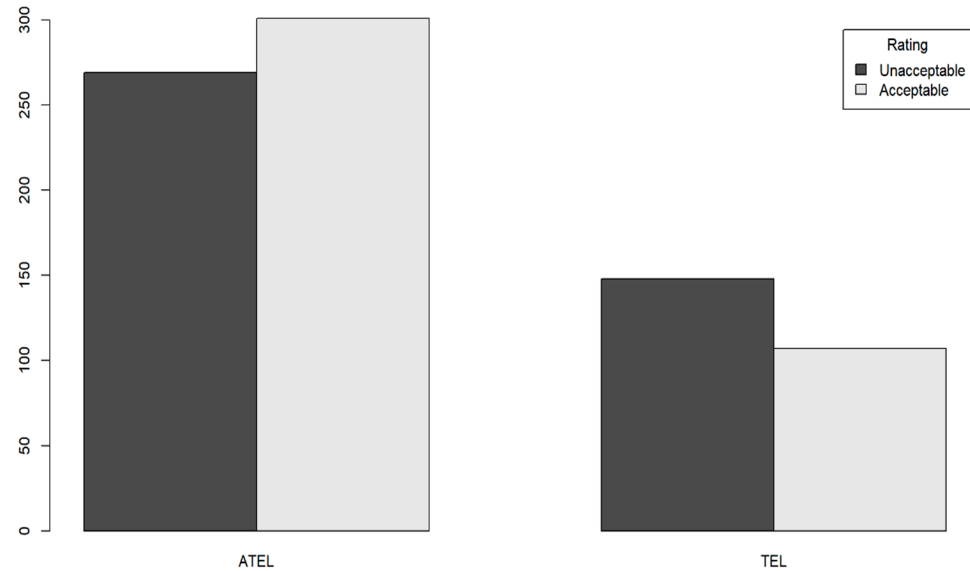


Figure 8. (Un)acceptability rate of telic and atelic sentences.

The bar plot shows that atelic sentences are more acceptable overall, displaying quite a great difference with respect to telic predicates. This is not totally surprising, as telicity more easily triggers a definite interpretation of the referent.

The χ^2 test computed on the acceptability for the different indefinite determiners in relation to the different aspect of the sentences led to some statistically significant differences ($\chi^2 = 354$, $df = 13$, $p < 0.001$). These are graphically represented in the mosaic plot in Figure 9.

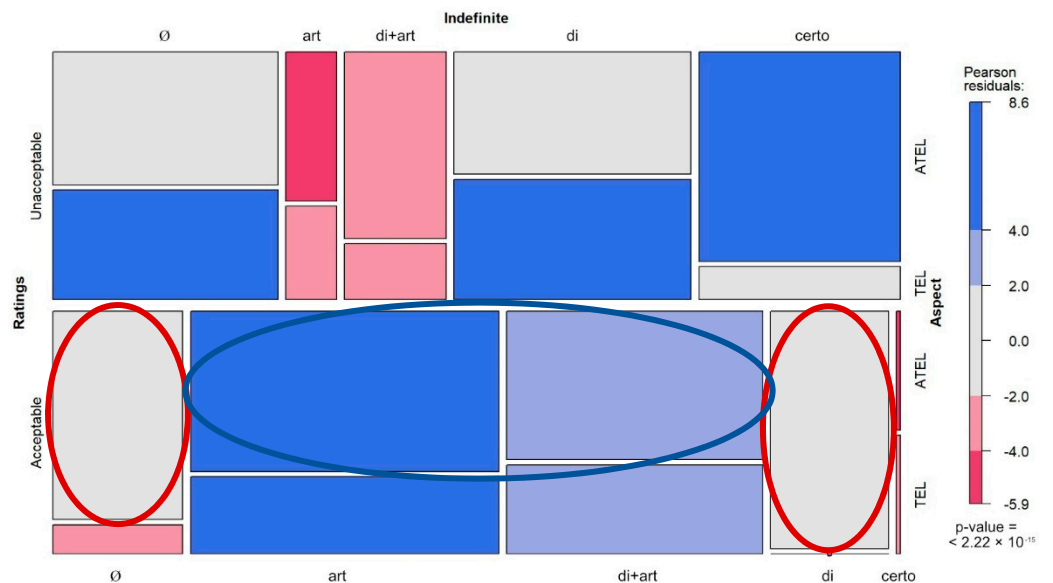


Figure 9. (Un)acceptability rate of each indefinite determiner with telic and atelic predicates. The red circles highlight the similar behavior of ZERO and bare *di*, while the blue circle indicates a similar behavior of ART and *di+art*.

Figure 9 shows that ART and *di+art* roughly follow the same pattern: both are accepted in both telic and atelic sentences, with a slight preference for the latter ones.

On the contrary, ZERO and bare *di* are rarely accepted (if not rejected at all) in telic sentences. They can only occur in atelic predicates. *Certo* was not chosen in these sentences.

3.7. Acceptability with Different Scope

The variable “scope” has two levels, intuitively labeled “WIDE” and “NARROW”. The difference between these two levels in terms of total acceptability is not significant ($\chi^2 = 4.9015$, $df = 1$, $p = 0.027$). The interesting comparison is the cross-category distribution of the acceptability in scope readings for each indefinite determiner. Indefinites can in fact have different scope properties. Some of them can only take either wide or narrow scope, while others can have both readings.

The mosaic plot in Figure 10 reveals which Piacentine determiners are compatible with narrow and wide scope. This comparison yields some significant differences ($\chi^2 = 236.46$, $df = 13$, $p < 0.001$).

Figure 10 clearly reveals the specialization of *di* and ZERO for narrow scope interpretation. This is perfectly in line with their occurrence only in atelic sentences (cf. Section 3.5), as atelicity more easily correlates with narrow scope interpretation.

Both ART and *di+art* show a significant greater preference for narrow scope reading. The two can also occur with wide scope reading, with *di+art* being significantly more accepted than the chance level. The modest number of occurrences with wide scope interpretation is due to the quantity of sentences forcing a narrow scope reading, which outnumbers those triggering a wide scope reading. However, the comparison with the other parameters strongly suggests that ART and *di+art* have wide scope interpretation, as the high acceptability in telic predicates in episodic sentences. Bare *di* and ZERO instead display the opposite tendency.

As expected, *certo* is ungrammatical with a narrow scope interpretation.

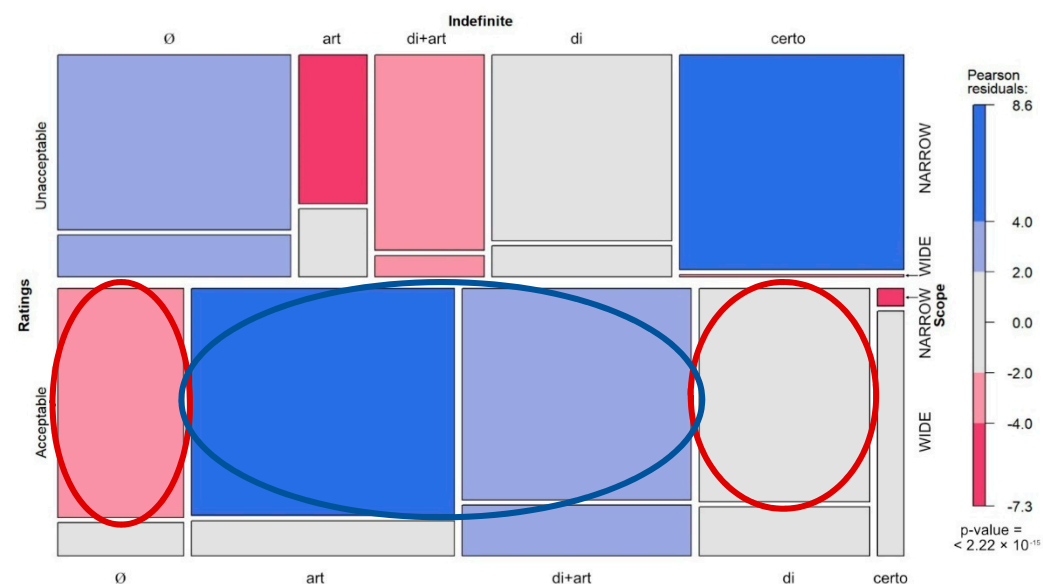


Figure 10. (Un)acceptability rate of each indefinite determiner with wide and narrow scope. The red circles highlight the similar behavior of ZERO and bare *di*, while the blue circle indicates the similar behavior of ART and *di+art*.

3.8. Acceptability of the Indefinite Determiners with Different Contexts

The variable “context” has two levels, corresponding to two semantic values associated to different indefinite determiners: saliency (“SAL”) and small quantity interpretation (“SmallQ”).

The comparative analysis of the acceptability for each indefinite determiner in each semantic context yields some significant differences ($\chi^2 = 234.53$, $df = 13$, $p < 0.001$), which are graphically shown in the mosaic plot in Figure 11.

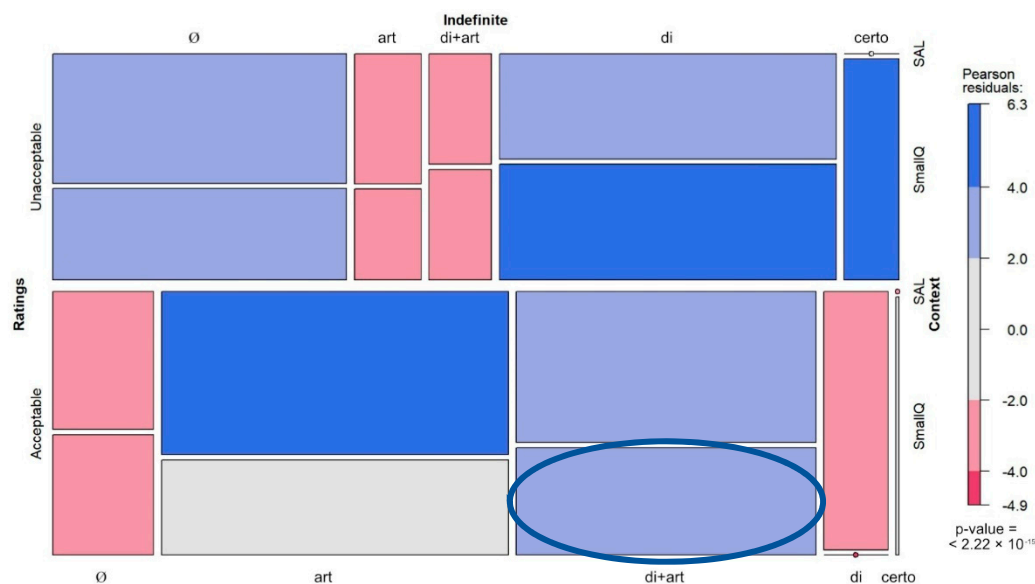


Figure 11. (Un)acceptability rate of each indefinite determiner on saliency and small quantity interpretation contexts. The blue circle highlights the greater acceptability for *di+art* with small quantity interpretation.

Figure 11 highlights a pattern resembling (though weakly) the same semantic specialization which is found in regional Italian (cf. Cardinaletti and Giusti 2020). As in colloquial Italian, ART has a significantly higher rate of acceptability in saliency contexts, while with small quantity interpretation, no correlation was found. *di+art* displays instead a milder greater acceptability, both in saliency contexts and with small quantity interpretation. The relative proportions of ART and *di+art* are very similar, with a subtle preference for the latter small quantity interpretation but still displaying a higher number of occurrences within salient contexts overall.

Both bare *di* and ZERO have low rates of occurrences in the sentences marked as either salient or conveying small quantity interpretation. Both display a degree of unacceptability which significantly deviates from the expectation. Bare *di* (almost) never appears in sentences with small quantity interpretation, while ZERO is sporadically present in both contexts. *Certo* seems not to be available in these contexts.

The analysis of the data revealed several interesting trends, which answer the research questions posed at the beginning of the paper. These trends and the answers to the research questions will be addressed in Section 4.

4. Discussion

This section discusses the data, defining their relevance, and addressing potential issues which may affect the analysis.

The obtained results allow to answer the research questions posed at the beginning and have guided the whole study. For convenience, the questions are repeated in (10).

(10) Research questions for the study on Piacentine:

- a. How many and which indefinite determiners are available in Piacentine?
- b. If more than one indefinite determiner is available (as expected), is there optionality in the choice of competing forms?
- c. If pure optionality is excluded, which are the features they specialize for?
- d. Are there any observable patterns which may be reconducted to the contact with Italian?

Each question will be answered in the following subsections, in order to allow for an easier and more fluid discussion and interpretation of the findings.

4.1. Available Indefinite Determiners

The questionnaire reveals the presence of multiple indefinite determiners available to the speakers of Piacentine. The repertoire of indefinite determiners in this variety is even broader than in Italian: Piacentine displays four indefinite determiners, namely (in decreasing order of acceptability): ART, *di+art*, bare *di*, and ZERO. *Certo* is not part of the determiner system of this variety, as its unacceptability rate is extremely high and largely outnumbers its grammatical occurrences. This is also confirmed by it being significantly different from the other four determiners (cf. Section 3.1). This result is however expected, as an indefinite use of *certo* is reported only in southern varieties (Rohlf's 1968, p. 119).

4.2. Optionality among Determiners?

As far as optionality is concerned, the statistical tests indicate that it is possible to reject the null hypothesis of optionality among all the determiners in Piacentine, at least among the two pairs of determiners for which a significant difference was found, that is ZERO/*di* vs. ART/*di+art*.

ART does not significantly differ from *di+art*: in such case, the null hypothesis cannot be safely rejected, and some optionality is to be admitted. The same holds for ZERO and bare *di*.

The questions in (11c–d) will be answered in the next subsections, also by comparing the behavior of the determiners in Piacentine with their counterparts in Italian and French, as the latter shares common traits with Piacentine for historical reasons (cf. fn.8).

4.3. ART and *di+art*

Piacentine shares with Italian an extensive use of ART and *di+art*. The partitive determiner is also widely used in French, which displays common features with Piacentine. However, there are some differences in the distribution of these determiners in the three languages.

4.3.1. ART and *di+art* in Italian

As far as plural count and singular mass nouns are concerned, ART is the most widespread indefinite determiner in Italian, together with ZERO (cf. Section 1.4). The partitive determiner has instead a slightly different behavior. Both ART and *di+art* can combine with mass and plural count nouns (11a–b), the former maintaining a narrow scope reading both in episodic (11) and generic (12a) sentences. The latter, instead, allows for a narrow scope reading only in generic contexts, giving rise to a sub-kind reading in episodic ones (as signaled by the # sign in 12b). In these instances, ZERO is also always admitted.

(11)	a.	Gianni	(non)	ha	mangiato	Ø /	i /	dei		biscotti
		John	not	has	eaten	ZERO	ART	<i>di+art</i>		biscuits
		"John ate biscuits."								
	b.	(Non)	ho	messo	Ø /	il /	del	sale	nell'	acqua
		not	[I] have	put	ZERO	ART	<i>di+art</i>	salt	in-the	water
		"I put salt in the water"								
(12)	a.	Non	mangio	Ø	/	la	pasta.			
		not	[I] eat	ZERO		ART	pasta			
		"I don't eat pasta."								
	b.	#Non	mangio	della	pasta.					
		not	[I] eat	<i>di+ART</i>	pasta					
		"I don't eat some pasta."								

The partitive determiner in episodic negative sentences may be ambiguous between a wide (13a) and a narrow (13b) scope interpretation with plural count nouns.²⁵ The

ambiguity is not found with mass nouns (14), for which only narrow scope (14b) is available (cf. [Cardinaletti and Giusti 2016](#)).

- (13) Non ho visto dei ragazzi.
not [I] have seen *di+art* boys
“I didn’t see some boys/any boy.”
Possible continuations:
a. Ho visto Gianni e Maria, ma non ho visto Mario e Teresa.
“I saw Gianni and Maria, but I didn’t see Mario and Teresa.”
b. Ho visto solo (dei) bambini.
“I only saw children.”
- (14) Non ho bevuto del vino.
not [I] have drunk *di+art* wine
“I didn’t drink wine.”
Possible continuations:
a. #Ho bevuto (del) Prosecco e (del) Cabernet, ma non ho bevuto (del) Ribolla o (del) Sauvignon.
#“I drank (some) Prosecco and (some) Cabernet, but I didn’t drink Ribolla or Sauvignon.”
b. Ho bevuto solo (dei) liquori e (dell’)acqua minerale.
“I only drank (some) liqueurs and (some) mineral water.”

(adapted from [Cardinaletti and Giusti 2016](#), p. 60)

ART can be ambiguous between narrow (15a) and wide (15b) scope, but in the latter case, it yields a definite interpretation (cf. [Cardinaletti and Giusti 2018](#)).

- (15) Non ho invitato i ragazzi alla festa ...
not [I] have invited ART boys at-the party
“I didn’t invite the boys at the party ... ”
a. ma solo (delle/le) ragazze
“but only (the) girls”
b. #perché erano antipatici
“because they were obnoxious.”

(adapted from [Cardinaletti and Giusti 2018](#), pp. 144–45)

As for aspect, Italian admits ZERO and ART in atelic contexts (16), and only ART in telic ones (17). As for *di+art*, it may occur both in telic and atelic sentences, crucially depending on the provenience of the speaker.²⁶

- (16) Maria ha raccolto Ø / le fragole per un’ ora.
Maria has picked ZERO ART strawberries for an hour
“Maria picked strawberries for an hour.”
- (17) Maria ha raccolto *(le) fragole in un’ ora.
Maria has picked ART strawberries in an hour
“Maria picked the strawberries in an hour.”

(adapted from [Cardinaletti and Giusti 2020](#), p. 282)

4.3.2. ART and *di+art* in French

French differs from Italian in that the partitive determiner may occur in a broader spectrum of contexts. *Di+art* can occur in episodic sentences with an indefinite, non-kind-referring meaning, and can introduce both noun classes (18).²⁷ ART is instead definite in French, as visible in (19a) vs. (19b).

- (18) a. Jean a mangé des biscuits.
 Jean has eaten *di+art* biscuits
 ‘Jean ate (some of the) biscuits.’
- b. Jean a bu du café.
 Jean has drunk *di+art* coffee
 ‘Jean drank (some of the) coffee.’ (adapted from Ihsane 2008, p. 142)
- (19) a. #J’ai vu les lions.
 [I] have seen ART lions
 “I have seen the lions.” (specific)
- b. J’ai vu des lions.
 [I] have seen *di+art* lions
 “I have seen some lions.” (adapted from Le Bruyn 2010, p. 116)

Only when ART introduces the object of a consumption verb (cf. (20a)) it is ambiguous between a definite and an indefinite reading. The same holds for the partitive determiner: it can convey either a specific or a non-specific reading (20b).

- (20) a. Jeanne mange les pommes.
 Jeanne eats ART apples
 “Jeanne eats apples.” (habitual)²⁸ / “Jeanne is eating the apples.” (non-habitual)
- b. Jeanne mange des pommes.
 Jeanne eats *di+art* apples
 “Jeanne eats apples.” (habitual) / “Jeanne is eating apples.” (non-habitual)
 (adapted from Behrens 2005, p. 285)

The partitive article in French may have ambiguous scope when combined with plural count nouns (21a), but it only features narrow scope with mass nouns (21b) (Bosveld-de Smet 1998 *apud* Ihsane 2008, p. 139).²⁹

- (21) a. Des enfants viennent jouer. ici tous les jours.
di+art children come playing here all the days
 “Children/The children come playing here all the days.”
- b. *De l’ étoffe que j’avais achetée hier traînait par terre.
di+art material that I had bought yesterday lay-about on floor
 (Bosveld-de Smet 1998, 33ff. *apud* Ihsane 2008, p. 139)

Moreover, *di+art* is compatible only with atelic sentences (22), as in French “noun phrases introduced by *des/du* do not delimit individual referents, as can be shown by the impossibility of their furnishing [. . .] the delimitation required for telic interpretations” (Corblin et al. 2004, p. 19). The definite article instead occurs in telic sentences (23).

- (22) Marie a cueilli des fraises pendant des heures /*en une heure.
 Mary picked *di+art* strawberries for hours in one hour
 “Mary picked strawberries for hours/*in an hour.”
- (23) Marie a cueilli les fraises en une heure/*pendant des heures.
 Marie picked ART strawberries in one hour for hours
 “Marie picked the strawberries in an hour/*for hours.” (adapted from Ihsane 2008, p. 230)

4.3.3. ART and *di+art* in Piacentine

Piacentine displays a pattern which is somehow in between Italian and French. The data suggest that ART and *di+art* are in competition in all the contexts, i.e., with mass and plural nouns in generic (24)³⁰ and episodic (25) sentences. In the latter case, *di+art* displays the same ambiguity of scope it displays in Italian with plural count nouns (cf. (13) vs. (25b’)).³¹

- (24) a. A mangi mia al / dal patèti.
 I eat not ART di+art potatoes
 "I don't eat potatoes."
 b. A bev mia al / dal vein.
 I drink not ART di+art wine
 "I don't drink wine."
- (25) a. Teresa l'é andè dal maslein a cumprè al / dal bistechi
 Teresa she-went to-the butcher to buy ART di+art steaks
 "Teresa went to the butcher to buy steaks."
 b. A disnè incö ho mia buì l' acqua ma admé al vein
 at lunch today [I]have not drank ART water but only ART wine
 b'. A disnè incö ho mia buì dl' acqua ma admé dal vein
 at lunch today [I] have not drank di+art water but only di+art wine
 "For lunch today I didn't drink water but only wine."

The ambiguity of *di+art* is derived by its possibility (shared with ART) of taking both narrow and wide scope in the investigated contexts (cf. the grammaticality of both (26a–b)). Its scope properties also account for its occurrence in both telic (27a) and atelic (27b) predicates. This property makes Piacentine *di+art* more similar to its French counterpart.

- (26) Ala festa, ho mia invidè i / di ragas,
 at-the party [I] have not invited ART di+art boys
 a. ma admé ragasi.
 "but only girls."
 b. parché i eran antipatic.
 "because they were obnoxious."
- (27) a. Ho tajè l' erba / dl' erba pr' un'ura
 [I] have cut ART grass di+art grass for one hour
 "I have mowed grass for an hour."
 b. Ho tajè l' erba / dl' erba in t' un'ura
 [I] have cut ART grass di+art grass in one hour
 "I mowed the grass in an hour."

It is possible to conclude that ART in Piacentine features the same pattern found in Italian, with a pervasive occurrence in all the contexts. However, unlike Italian, the same holds for *di+art*.³² In fact, Piacentine *di+art* is half between Italian and French.

The results of this pilot study show that ART is significantly more accepted in saliency contexts, but no significance is reached with small quantity interpretation expected with *di+art*. Unlike in Italian, *di+art* is significantly more accepted in both saliency and small quantity interpretation contexts (cf. Section 3.7). Possibly, a quantitative study with a larger sample of informants and a larger pool of items may confirm (with more solid empirical bases) this tendency found in colloquial Italian (cf. Section 1.4). For the time being, a semantic specialization of the forms cannot be safely claimed (though a weak tendency in this direction may be spotted), and a certain degree of optionality between ART and *di+art* in Piacentine must be admitted in most contexts.

4.4. Bare di

ZERO and bare *di* display a similar distribution, but they will be discussed separately, as the use of ZERO is likely to have been reinforced by the contact with Italian (cf. Section 4.5.2), while bare *di* characterizes Piacentine as a Gallo-Romance variety, as is independent of the standard variety.

4.4.1. Bare di in French

French features a strong opposition between positive and negative polarity when indefiniteness is concerned:³³ while positive sentences display the partitive determiner (28a–b), negative sentences display bare *de* (28a'–b')–(29a), which is ungrammatical in positive polarity sentences (29b).

(28)	a.	Il	a	du				papier.
		he	has	<i>di+art</i>				paper
	a'.	Il	n'	a	pas	de		papier.
		he	NE	has	not	<i>di</i>		paper
		"He has paper/He doesn't have paper."						
	b.	Il	a	des				papiers.
		He	has	<i>di+art</i>				papers
		"He has papers/He doesn't have papers."						
		(adapted from Ihsane 2005, p. 205)						
	b'.	Il	n'	a	pas	de		papiers.
		he	NE	has	not	<i>di</i>		papers
		"He has papers/He doesn't have papers."						
		(adapted from Ihsane 2005, p. 205)						
(29)	a.	Marie	n'	a	pas	vu	de	fantôme.
		Marie	NE	has	not	seen	<i>di</i>	ghost
		"Marie hasn't seen a ghost."						
		(adapted from Ihsane 2008, p. 79)						
	b.	*Marie	a	vu	de			fantôme.
		Marie	has	seen	<i>di</i>	ghost		
		(adapted from Ihsane 2008, p. 79)						

As for scope properties, French *de* is only licensed under the scope of the negation and lacks existence entailment (Ihsane 2008, p. 82). It thus only displays narrow scope interpretation.

4.4.2. Bare di in Piacentine

In this respect, Piacentine behaves exactly like French. The data clearly show that bare *di* can only occur in negative sentences and that its interpretation is always linked to a narrow scope interpretation, as shown in (30)–(31).

(30)	a.	A	mangi	mia	Ø/	ad	chèran.
		I	eat	not	ZERO	<i>di</i>	meat
		"I don't eat meat."					
	b.	A	mangi	mia	Ø/	ad	patèti.
		I	eat	not	ZERO	<i>di</i>	potatoes
		"I don't eat potatoes."					
(31)	Ala	festa,	ho	mia	invidè	ad	ragas,
	at-the	party	[I] have	not	invited	<i>di</i>	boys
		"At the party I didn't invite boys."					
	a.	ma admé	ragasi.		¬E		
		"but only girls"					
	b.	*parché	i eran	antipatic.	*E¬		
		"because they were obnoxious"					

In negative contexts with narrow scope interpretation, ART, and *di+art* (though to a lesser extent) are also admitted, although bare *di* is the primary choice.

Bare *di* in Piacentine can be claimed to be the unmarked form for expressing non-existential indefiniteness. In competition with ZERO, bare *di* is always preferred. This leads to the hypothesis that ZERO could have been lost (as in French) but is regaining force as a consequence of contact with Italian. This will be discussed in the next section.

4.5. ZERO

ZERO does not significantly differ from bare *di* (cf. Figure 2, Section 3.1). However, differently from bare *di*, which is not used as an indefinite determiner in argument position in Italian, ZERO is the unmarked form for core indefiniteness in Italian. This is likely to have influenced the use of ZERO in Piacentine as well.

4.5.1. ZERO in Italian

In Italian, the use of ZERO co-varies with ART in some contexts (cf. Section 1.4), as in (11)–(12) above. It always takes a narrow scope, as shown in (11)–(12) above and (32) here, and may only occur in atelic predicates, as in (16) above.

- (32) Non ho invitato Ø ragazzi alla festa ...
 not [I] have invited ZERO boys at-the party
 "I didn't invite boys at the party ..."
 a. ma solo ragazze.
 "but only girls"
 b. *perché erano antipatici.
 "because they were obnoxious"

(adapted from [Cardinaletti and Giusti 2018](#), pp. 144–45)

ZERO is the unmarked form to express core indefiniteness: it is widespread on the territory of the peninsula, in particular in the "lateral areas" in the extreme south and north/north-east (cf. [Cardinaletti and Giusti 2018, 2020](#)).

The younger generation is the most exposed to colloquial Italian, penetrating each aspect of youth's lives (not only in the sphere of education, of public relations, and in the mass media, but also quite often in the family and with friends). This is likely to have influenced the grammaticalization of ZERO in the local variety, as illustrated in the next subsection.

4.5.2. ZERO in Piacentine

ZERO in Piacentine has roughly the same properties of bare *di*, i.e., it mainly occurs in negative sentences with narrow scope interpretation (cf. (30), (33)).

- (33) Ala festa, ho mia invidè Ø ragas,
 at-the party [I] have not invited ZERO boys
 "At the party I didn't invite boys"
 a. ma admé ragasi -E
 "but only girls"
 b. *parché i eran antipatic -E
 "because they were unpleasant"

The interesting fact about ZERO is that its acceptability differs in the age groups. As shown by Figure 4 above (cf. Section 3.2), this determiner is significantly less accepted by the middle and older groups. No significant interaction is instead found with the younger group. This difference is very telling, as it suggests that the use of ZERO was reinforced by contact with Italian, which is greater in the younger generation.

[Cerruti \(2021\)](#) shows how different varieties in contact (precisely referring to Italian and the dialects spoken on the Italian peninsula) may influence the pace of grammaticalization for some items in one variety. A telling example is represented by the particle *mica*, which in Italian is used as a non-canonical negation. In some northern popular varieties of regional Italian, *mica* can be used as the canonical negation due to the convergence of the popular varieties towards the substratum dialect. These uses are however losing ground, as the popular varieties converge towards "standard" Italian, in which *mica* is not grammaticalized as the canonical negation.

This is probably what is happening in Piacentine, which is converging towards the standard variety, i.e., Italian. It may be the case that, in different conditions, Piacentine would have undergone the same process of change that characterized the transition from Old to Middle French. Until early Middle French, ZERO was still alternating with the partitive article; the latter then replaced ZERO in late Middle French, and in Modern French, ZERO was lost (cf. [Carlier 2007](#)).

The contact with Italian hindered the completion of this process in Piacentine. The current convergence towards Italian is also strengthening the use of ZERO as suggested by the fact that it is most chosen by the younger generation.

4.6. Limitations and Further Research

As in all empirical works, the present pilot study has some limitations and raises further questions which could be addressed by future research.

There are mainly two limitations. One concerns the unbalancing of gender and education level in the sample, which does not allow us to make predictions about the relation between these two sociolinguistic factors and the use of the indefinite determiners.

The second limitation concerns a partial coverage of the relevant combination of traits: all the generic sentences are negative (e.g., *I don't eat meat*), while most episodic sentences are positive (six out of nine). Moreover, the sentences with narrow scope interpretation slightly outnumber those with wide scope interpretation (10 vs. 7).

Further research with a more balanced questionnaire and a larger sample is needed to address these issues and map the variation across the four determiners with sociolinguistic features as proposed by Adger (2016).

Furthermore, the collection of a corpus of oral data would help in distinguishing between different determiners in spontaneous production, possibly revealing semantic, pragmatic, and sociolinguistic factors that may regulate the variation between bare *di* and ZERO, and between ART and *di+art*.

5. Conclusions

Despite the exploratory/pilot nature of the present research, the data lead to important results and interesting observations. Since the discussion was particularly articulated, the conclusions are briefly summarized here:

- Piacentine mainly has four determiners for expressing indefiniteness: ART, *di+art*, bare *di*, and ZERO.
- There is no pure optionality in the expression of indefiniteness. There is however a divide between two pairs of determiners: ART and *di+art* vs. ZERO and bare *di*.
- ART and *di+art* are the dominant forms in all the investigated contexts. They are the only forms which can have wide scope interpretation. In the investigated contexts, these two determiners are almost always in competition (with the possible exception of generic positive sentences), so a certain degree of optionality between them seems to exist. *Di+art* is much more widespread in Piacentine than in Italian and is half a way between the partitive determiner in Italian and in French.
- Bare *di* is the unmarked form for non-existential indefiniteness: it only occurs in negative sentences and only has a narrow scope. Its behavior perfectly reflects that of French *de*. This is not surprising, given the Gallic origin of this determiner.
- Since bare *di* corresponds to its French counterpart and ART behaves in the same way as in Italian, the features of Piacentine *di+art* (which behaves slightly differently both from Italian and French) may be the result of the “mixed” nature of its components.
- ZERO has roughly the same distribution and properties of bare *di*. However, its higher acceptability by Group A suggests that in Piacentine the use of this determiner was strengthened in contact with Italian, preventing its loss as has happened in Middle French.

The collected data could help in distinguishing among different theories of variability listed in Section 1.1. Considering for the time being that there is optionality between ART and *di+art*,³⁴ Optimality Theory and Equally Costly Derivation seem inadequate in explaining this kind of variation. As mentioned in fn. 9, *di+art* is analyzed as the realization of both the specifier and the head of the DP.³⁵ Following this line, ART is the spell-out of the head D with SpecDP being non-realized (Cardinaletti and Giusti 2018). In terms of Optimality Theory or Equally Costly Derivation, this would amount to saying that the option of realizing or not realizing SpecDP either involves the same amount of derivational steps or has the same computational cost, which would be unlikely. A more advantageous approach is Adger's (2006, 2016) Combinatorial Variability (although more fine-grained research is still needed).

On the basis of data from a variety spoken in Buckie,³⁶ Adger (2006) argues that the view of multiple grammars (Kroch 1989) and that of building probabilities inside the grammar (Labov 1969, 1972), fail to accurately account for the optionality found in that

vernacular. The mechanism of Combinatorial Variability is instead able to capture the variation in a more fine-grained way.³⁷

Applying Combinatorial Variability to the data, in Adger's terms, ART and *di+art* are specified for the same interpretable feature g_1 but are endowed with two different uninterpretable features, uf_1 and uf_2 , respectively. Therefore, both can combine with some item C bearing the interpretable features f_1 and f_2 . They are graphically represented by this author in (34), following Adger's notation.

$$(34) \quad C[f_1, f_2] \quad \left\{ \begin{array}{l} \text{ART}[g_1, uf_1] \\ \text{di+art}[g_1, uf_2] \end{array} \right.$$

In (34), both forms may combine with C, which may be a lexical item, or a set of features present at sentential level (e.g., (a) telicity). Since uf_1 and uf_2 are uninterpretable, they do not affect the semantics of the nominal expression.

Needless to say, the suitability of Combinatorial Variability to the collected data needs further investigation. In particular, this model predicts diachronic stability of the optionality as its mechanism hinges upon the Agree operation between interpretable and uninterpretable features. This expectation could be verified through a thorough corpus analysis, which will be addressed by future research.³⁸ However, this constitutes a piece of evidence to be taken as a guideline for further work.

This research paved the way for future investigations, showing that Italo-Romance varieties have much to offer to the study of the expression of indefiniteness and optionality in syntax. This work has just scratched the surface of a complex phenomenon whose further exploration may provide important insight into the study not only of Piacentine, but also of Italian and French.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/languages7020099/s1>, Supplementary materials-1: List of the items of the questionnaire; Supplementary materials-2: Excel sheet containing the categorized data for statistical analysis.

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Informed Consent Statement: Written informed consent has been obtained from the patients to publish this paper.

Data Availability Statement: The data reported in the present paper, including the scripts for the statistical analysis, are publicly available on the OSF platform at the following doi:10.17605/OSF.IO/2YRNX.

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Notes

¹ The data and the results presented in this article are a re-elaborated extract of an MA Thesis referred to as [Molinari \(2020\)](#).

² Cf. [Price \(2000\)](#) for accurate information about the Italo-Romance varieties spoken on the Italian peninsula.

³ For convenience, I am adopting here [Cardinaletti and Giusti's \(2018\)](#) labeling for the indefinite determiners under investigation and I will maintain the same labels both for Italian and for the variety spoken in the province of Piacenza.

- 4 The numeral *due* “two” can also be used as marker of indefiniteness, conveying the semantics of a small quantity. However, its distribution is still very restricted as it has not fully grammaticalized into an indefinite determiner. For this reason, it was left aside in the present research.
- 5 Since the present study aimed at investigating the nominal expressions that apparently display a great deal of optionality (i.e., more than two choices), singular count nouns were not considered as they generally only combine with the indefinite article and display no optionality.
- 6 These maps (Jahberg and Jakob 1928–1940) report the translation of specific sentences or phrases in each the local variety on the peninsular territory. They present a snapshot of the Italo-Romance varieties at the beginning of the last century.
- 7 This is caused by lateral areas (Cardinaletti and Giusti 2018, p. 150): ART represents the innovation with respect to Latin ZERO. The innovation starts spreading from the center towards the borders: the lateral areas, being more conservative, still retain the Latin inheritance.
- 8 Indeed, the bare determiner *di* is a Gallic innovation (Rohlf 1968, p. 117), spreading from today’s France.
- 9 Cardinaletti and Giusti (2018) capture the variation in the different realization of these determiners via the interplay of a micro- and a nanoparameter regulating the (non-)realization of the head and the specifier of the Determiner Phrase (DP). This combination gives four possibilities (cf. (i)), corresponding to the four determiners listed in (3a–d). (i) [SpecDP zero/*di* [D Ø/ART]]
- 10 This is relevant, as Emilia-Romagna is the region in which Piacentine is spoken.
- 11 The varieties spoken in this province are not unknown to the linguistic literature. However, the existing studies focusing on Piacentine mainly concern its clitic system (cf. e.g., Cardinaletti and Repetti 2008).
- 12 Italian in this case acts as a *ceiling language* (Loporcaro 2009, p. 8), i.e., it is seen by the speakers as the standard normative language to which the local varieties (in this case, Piacentine) need to conform to.
- 13 Hajek (1997) reports homogeneous syntactic patterns in the varieties spoken in Emilia-Romagna. Thus, there are no substantial differences at syntactic level among varieties spoken in the same area (e.g., in the same province). For this reason, the dialect spoken in Lugagnano is assumed to be representative for the variety spoken in the province from a syntactic point of view. Future research will take into account a larger sample, which may include various areas of the province.
- 14 This study did not contain distractors as it was intended as a pilot to gain more insight into the expression of indefiniteness in Piacentine. This guaranteed that the questionnaire (i) was not too long and more accessible also to the oldest participants, and (ii) maintained the same structure of Cardinaletti and Giusti’s (2020) questionnaire, in order to make the results maximally comparable.
- 15 All the indefinites investigated in this research are in object position. This choice was made to maximize the number of possible competing forms. In fact, Italian (among other languages) has a restriction on the kind of determiner, which may appear in the subject position, e.g., bare nominals are generally disallowed, except for particular conditions (cf. Delfitto and Schrotten 1991).
- 16 Among the different tasks that may fit into a questionnaire, the multiple-choice task is statistically the most powerful if compared to the Likert scale task and the yes/no task (cf. Schütze and Sprouse 2013).
- 17 The complete list of items contained in the questionnaire can be found in Supplementary Materials.
- 18 All the participants spontaneously identified themselves as being either ‘male’ or ‘female’.
- 19 The output of Krippendorff’s α is a coefficient defined as Inter-Coder Agreement, calculated by comparing each participant’s answer pattern with those of the other subjects. Participants whose answers strongly deviate from the other participants’ patterns are excluded from the pool as they are considered “unreliable”.
- 20 The Excel file is available in Supplementary Materials.
- 21 As this was a forced-choice task (which did not involve judging sentences using a scale of values), the only possible values to be assigned were 0 and 1. For instance, if in the item reported in (6) (“In your dialect, a teetotaler would say”) a participant chose (6b) (*A bev mia al vein* “I don’t drink ART wine”), (6c) (*A bev mia ad vein* “I don’t drink *di* wine”) and (6d) (*A bev mia dal vein* “I don’t drink *di+art* wine”), in the operationalization of the answers (6b), (6c), and (6d) got the score 1, while (6a) and (6e) (which were not chosen) got 0.
- 22 χ^2 verifies the probability that the difference found between two variables arose by chance, by comparing the “expected” value of a variable with the “observed” value of that same variable (cf. Gries 2013; Johnson 2013). The direction of this relation (whether the observed value is higher or lower than expected) is indicated by *Pearson residuals*. They correspond to “the difference between each cell’s observed minus its expected frequency, divided by the square root of the expected frequency. If a Pearson residual is positive/negative, then the corresponding observed frequency is greater/less than its expected frequency. Second, the more the Pearson residual deviates from 0, the stronger that effect.” (Gries 2013, p. 326).
- 23 If $0.05 < p < 0.1$, then the difference is “marginally significant”, i.e., there is a tendency.
- 24 When it comes to the expression of indefiniteness, singular count nouns only display one option, i.e., they can only combine with the indefinite article *un(o)/a* (in Italian) or *un/une* (in French).
- 25 The choice and the scopal behavior of a particular determiner always hinges on a complex interplay of more interacting traits (e.g., polarity, noun class, and sentence type).

26 The difference is noticed by [Giusti \(2021\)](#). For speakers of central varieties *di*+art naturally occurs in telic sentences. For speakers from Emilia-Romagna, the partitive article is more easily admitted in atelic predicates.

27 French almost completely disallows bare nominals (cf. [Delfitto and Schroten 1991](#)), except for some occurrences, e.g., in predicative position, as in the sentence *Jean est médecin* (lit. ‘Jean is doctor’, [de Swart et al. 2007](#), p. 199).

28 This appears to be a genuine indefinite interpretation of ART and not an instance of kind reference. In fact, consumption verbs such as *eat* or *drink* cannot take a kind-referring object (cf. [Giusti 2021](#)).

29 [Ihsane \(2008\)](#) explains this fact by recalling [Bunt’s \(1985\)](#) homogeneity hypothesis: since the referential use entails that the speaker pick up a specific entity, this is not possible for mass nouns, as their denotation does not contain minimal entities. This trait was not investigated in subject position in the present research. Piacentine *di*+art seems to display a similar behavior: according to some consulted informants, (i) sounds unnatural and not completely grammatical. This issue deserves further investigation.

(i) ??Dla stofa c’ ho töt ier l’è trata par tera.
di+art material that [I] have bought yesterday lays-about on floor

30 All the generic sentences in the questionnaire were negative. In positive generic predicates, *di*+art features reference to subkind as in Italian (i), according to the author’s judgments and those of some informants. This issue needs further investigation.

(i) A mangi dal patèti / dla früta.
 I eat *di*+art potatoes *di*+art fruit
 ‘I eat (certain kinds of) potetos/fruits.’

31 All the examples of Piacentine in this and in the following sections are obtained from the questionnaire. The complete array of items can be found in Supplementary Materials.

32 For the time being, I refrained from claiming here that either ART or *di*+art is the unmarked form for expressing core indefiniteness in Piacentine. The reason is that both are almost equally widespread. This means that they must operate a division of labour at some syntactic/semantic level, allowing to individuate in which instances they may be taken to be unmarked forms. Further research will hopefully clarify this aspect.

33 The occurrence of the definite article would yield a definite interpretation, which is maintained even under the scope of the negation, cf. *Il a le papier* ‘He has the paper’ vs. *Il n’a pas le papier* ‘He doesn’t have the paper’ ([Ihsane 2005](#), p. 205).

34 A recent proposal by [Lebani and Giusti \(2022\)](#) assumes the morphosyntactic complexity of the determiners to be directly proportional to the semantic complexity of the context. This hypothesis stems from the analysis of part of Piacentine data presented here and other data from Rodigino considering polarity (NEG vs. POS) and aspect (ATEL vs. TEL). Indefinites in NEG and ATEL lack the presupposition of existence, which is instead favoured in POS and TEL. Thus, NEG and ATEL should be ‘less complex’ than POS and TEL, respectively. Given the syntactic composition of the determiners (cf. fn. 9), according to Lebani and Giusti’s hypothesis NEG and ATEL should display a higher rate of simpler determiners, i.e., ZERO (both SpecDP and D unrealized), ART (only D realized), or *di* (only SpecDP realized). This prediction is borne out: in NEG and ATEL Piacentine mainly displays *di* and ART (equally complex), while Rodigino optionally realizes ZERO or ART (as *di* is not available in this variety). In POS and TEL, instead, both varieties show optionality between ART and *di*+art, the latter being the most complex determiner (with both SpecDP and D realized). This interesting proposal deserves further attention in future research on Piacentine.

35 The structural analysis of *di*+art has been quite debated. [Chierchia \(1998\)](#) argues that it is a *bare partitive construction* derived from a canonical partitive construction (cf. (i)) via the incorporation of the definite article into the preposition *di* (incorporation of D into the immediately dominating P) and then movement of this complex to a higher DP projection through an empty N triggering partitive meaning (cf. (ii)).

(i) [DP [D alcuni] [NP [N 0_[+part]] [PP di [DP i ragazzi]]]]

(ii) [DP [NP [N 0_[+part]] [PP di_j [DP i_j ragazzi]]]] > [DP [D dei_{i+j}] [NP [N t_{i+j}] [PP t_{i+j} [DP t_i ragazzi]]]]

The semantics of the *bare partitive construction* results, according to Chierchia, from the combination of the ι -operator (i.e., the definite article) triggering a presupposition of existence and the partitive reading of the empty N. [Zamparelli \(2008\)](#) elaborates upon the same structural analysis, attributing the peculiar semantics of *di*+art to the fact that the preposition embeds a kind-denoting DP.

An alternative analysis is proposed by [Cardinaletti and Giusti \(2015a, 2015b, 2016\)](#), who show that the *partitive determiner* syntactically and semantically behaves neither as a partitive construction (as proposed by Chierchia and Zamparelli), nor as a quantified structure like *alcuni ragazzi* ‘some boys’ (as put forth by [Storto \(2003\)](#)). Cardinaletti and Giusti argue that the partitive determiner is the plural counterpart of the singular indefinite article *un/a* ‘a(n)’. Given its determiner status, they adopt a minimal DP structure in which the specifier is filled by the invariable determiner *di*, which is combined with overt morphology (syncretic with the definite article) in the head D. This is due to a mechanism the authors call *Compensatory Concord*, i.e., the overt realization of the head to compensate for the lack of features in the specifier. The structure is provided in (iii).

(iii) [DP di [D i] [NP ragazzi]] > [DP dei [NP ragazzi]]

Differently from Chierchia’s (and Zamparelli’s) account, whose derivation suffers from a violation of [Baker’s \(1988\)](#) Mirror Principle, Cardinaletti and Giusti’s analysis is in line with the general rules of syntax and does not represent an ad hoc solution, as the same syntactic operation (i.e., *Compensatory Concord*) intervenes in other cases, e.g., with the demonstrative *quei* ‘those’.

M.PL” and the adjective *bei* “handsome.M.PL”. Moreover, it is able to reduce the variation of *di+art* with the other indefinite determiners in terms of micro- and nanoparameters (cf. fn. 9).

- 36 Adger (2006) discusses the data collected by Smith (2000). The variety spoken in Buckie displays some optionality in the choice of singular vs plural past form of the copula/auxiliary *be* with pronominal subjects (resulting in free variation of forms such as *were* vs. *we was*).
- 37 The approach of multiple grammars and that of probabilities built in the grammar have nothing to say about the rate at which the different variants are found. Combinatorial Variability instead captures the fact that variant X is met more often than Y by assuming that X has different underlying combinations of features, which result in the same superficial form. Thus, X is more likely to surface (as more than one combination of features gives X as the output).
- 38 The analysis of the AIS maps does not provide strong evidence, as optionality is disregarded and only one form for each locality is reported. However, map 997 “[cook] butter” reports in Emilia-Romagna some occurrences of ART (e.g., points 413, 443) and *di+art* (point 424).

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