Microcontact and syntactic theory

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1. Setting the ground

Syntactic theory aims to uncover the principles that govern language, and syntax in particular. Like every other theory in science, syntactic theory makes predictions about what can and cannot be found in languages. For it to be successful, it needs to meet at least observational, descriptive and explanatory adequacy (Chomsky 2000). When the discussion revolves around these three levels of adequacy, however, the systems under consideration are typically idealized and considered in a "static" state, unaffected by changes over time. By idealized we mean that the working hypothesis is that there is one monolithic entity, which is called *grammar*, a system shared by all speakers of a given language that does not change over time and does not show variation. Why this assumption is incorrect and a little naïve has been the focus of many articles (see for instance a recent article by Rothman *et al.* 2022, but also Chandra, D'Alessandro & Putnam to appear). This article will offer another piece of evidence for the inconsistency of this assumption.

Operating under the premise that grammars are frozen in a synchronous state implies that we examine the system at a specific point in time. This is a straightforward approach to pursue when seeking to uncover the governing principles of a system, by examining the interconnections among its elements (which bears a resemblance to Saussure's methodology) and formulating hypotheses regarding how they were established. However, concentrating solely on a single moment in time may lead to misunderstandings and potentially obscure crucial underlying mechanisms at work in grammar. In the not-too-distant past, the diachronic viewpoint has been added to the general methodology for generative grammar: observing language change can give very important insights on the laws regulating the interaction of all elements in a grammar (Battye & Roberts 1995, Van Kemenade & Vincent 1997, Pintzuk *et al.* 2000, Roberts & Roussou 2003 and many others). Change in contact (CIC henceforth) has remained instead rather confined, in generative theoretical studies: while much research has been carried out from an experimental/psycholinguistic viewpoint, the formalization of the laws governing grammars in contact is outstanding. One notable exception is the study of heritage languages (HL henceforth), for which a recent, but quite robust, community of scholars has been coming together over the last years. Many of the studies within this community are theoretically informed, but most of them are concerned with only a part

of what Chomsky would call critical analysis: "explanatory power, simplicity, learnability, generality, evolvability" (Chomsky in Collins 2021: 5).

The issue of CIC has usually been tackled through quantitative analysis instead, which has yielded a comprehensive inventory of potential outcomes of change arising from language contact. However, there has been relatively limited exploration of the overarching principles governing such changes, and even less effort dedicated to using insights from language change to deduce the principles that govern grammar. This chapter is dedicated to precisely that task: identify shared foundational principles governing grammar by drawing comparisons between change in diachrony and in contact (CID and CIC, respectively; see D'Alessandro 2021; Andriani *et al.* 2022a,b). It does so by developing a methodology, which we call *microcontact*, well-suited for conducting this comparison since it enables us to assess the outcomes of change that impact linguistic features in contact as well as to trace their development over time. As such, this methodology provides a more fine-grained analysis of CIC, moving far beyond obvious explanations in terms of transfer.

In this chapter, we will not describe the methodology for data collection, but will focus on the generalizations regarding grammar. For a detailed description of the data elicitation methods, the reader is referred to Andriani *et al.* 2022a,b.

This chapter is organized as follows. First, we present an overview of the microcontact methodology and what is needed to compare as well as distinguish CIC from CID, also known as endogenous change (Section 2). After outlining our methodology, in Section 3 we share findings from the project *Microcontact. Language variation and change from the Italian heritage perspective*, carried out at Utrecht University between 2017 and 2022. This project focused on various syntactic phenomena, encompassing both purely grammatical aspects and those situated at the intersection of grammar and discourse. In so doing, we highlight the insights on grammatical theory that the microcontact methodology provides. In Section 4, we present data from a number of phenomena, in contact and in diachrony: demonstratives, auxiliary selection, differential object marking, subject clitics, and null subjects. Section 5 highlights the main theoretical contributions made by each of our four case studies. Section 6 concludes the chapter.

2. Change

While change is rather easy to identify in language, the conditions that allow for it are much less transparent. A challenge in addressing issues related to change is teasing apart change caused by contact from internally-caused change. If we observe change after it has happened, and given the number of extra-linguistic and accidental factors determining the output of language change, it is almost impossible to ascertain whether the change that we see was determined by an external factor or it happened "from within", for instance because of the reanalysis of some element following a phonological change in the system, but crucially with no intervention from a putative contact variety. One of the aims of the *Microcontact* project was therefore to identify a methodology to be able to determine whether the results of change were determined by contact or whether they were spontaneous. The rest of this section describes this methodology.

2.1. Teasing apart the causes of change

Identifying the triggers for language change is a challenging task. One of the possible paths to follow is to try and design some diagnostics, based on the pre-existing knowledge of the mechanisms of CID or CIC. Unfortunately, such attempt is bound to fail, as the object of study of CIC seems to be rather different than that of CID, and therefore the diagnostics for CIC, in turn, are rather different (and target different issues) than those for CID. This disparity can be attributed to the different traditions in which these studies are cast: CID studies usually focus on identifying the directionality of change and on drawing generalizations about this directionality (from more complex to less complex, from more lexical to more grammatical, from phonologically heavier to phonologically reduced, and so on). One of the major research areas of CID studies is to identify the paths of grammaticalization taken by the elements undergoing change. Until very recently, when socio-historical studies have started to gain a foothold in linguistics (see for instance the work by George Walkden and colleagues: Walkden & Breitbarth 2019; Hejná & Walkden 2022; Kauhanen *et al.* 2023) the sociological causes of CID have rarely been tackled: CID was almost exclusively tackled from a grammar-internal viewpoint.

CIC studies address a completely distinct set of research questions, primarily concerning the causes of change and the paths along which change unfolds, and the matter of structural simplification, to which we will return below. First, it is obvious that CIC happens through speakers who master two or more languages. However, some scholars focus their attention on the grammatical systems in contact while others focus on the speakers themselves and what happens to their mental representations, as well as the cognitive processes involved in bi- or multilingualism. Within the realm of examining grammatical systems in contact, scholars are divided into two main groups. A minority focuses on studying grammars in contact in a manner akin to the analysis of diachronic linguistics, while the majority approaches language systems in contact as an extension of social groups that are in contact.

These differences notwithstanding, all scholars agree that the causes of CIC are not exclusively grammatical: grammar-external factors have a prominent role in this domain. Among these there are purely social factors, such as the attitude of the speaker, the extension (partial, complete) or the nature of contact (balanced, displacive). Whether we are talking of a scenario akin to Basque in Spain or similar to Spanish in the US, the speaker's perception of the languages they speak plays a pivotal role in either facilitating or impeding linguistic change. These social factors are usually investigated by sociolinguists as well as typologists.[1] In addition to these, many other factors play a role in CIC: these include the degree of mastery of the contact languages, the age of onset of bilingualism, the situation in which bilingualism arises, the complete or incomplete acquisition of the other language (Paradis & Genesee 1996, Montrul 2008, Meisel 2011, 2013, Paradis 2011, Unsworth 2013, 2016, Unsworth et al 2014, Tsimpli 2014, Müller 2017, and many others).

The aim of the *Microcontact* project was slightly different. While acknowledging the relevance of all the factors just listed, the focus was on understanding which role grammar plays in determining the direction of change. One way to do that is by comparing CIC and CID to check whether there

[1] For a full overview of factors impacting CIC see Aikhenvald & Dixon (2006) and Hickey (2020).

are underlying cognitive principles influencing change. To identify them, we need a tool that helps us ascertain whether the witnessed change is due to internal or external causes, and whether it is spontaneous or contact-induced, as stated above. The initial significant challenge is, therefore, to pinpoint appropriate diagnostic tools that are applicable in both contexts: diachronic and contact scenarios. As we have just seen, building upon existing literature is challenging, due to factors such as limited knowledge regarding speaker attitudes and the circumstances of language acquisition and transfer in diachronic change.

Another significant aspect to be taken into account is that, when the languages in contact belong to the same family, it becomes exceedingly difficult to ascertain whether a specific change is a consequence of contact or it occurred spontaneously. For instance, we know that the Romance languages tend to overextend the auxiliary HAVE to cover the verb classes selecting BE (Tuttle 1986, Ledgeway 2012, a.o.). If we witness the extension of HAVE in contact across Romance varieties, we cannot conclusively attribute this change to contact more than we can attribute it to a spontaneous trend in the family. To say it with Aikhenvald's (2006: 9) words,

> "if languages are genetically related, we expect them to develop similar structures, no matter whether they are in contact or not. And if genetically related languages are in contact, trying to prove that a shared feature is contact-induced and not a chance result of Sapir's drift may be next to impossible".

This is certainly true if we conceptualize contact as involving languages dyads (Scontras & Putnam 2020). The whole narrative changes, though, if we take a cross-comparative perspective, whereby one language is checked in contact with many others. The *microcontact* methodology is described as follows:

(1) **Microcontact methodology**
"A language A with a feature X should be studied in contact with a set of languages: B, C, D, and F, which all have an identical feature X and they are almost equivalent grammatically BUT for the features Y and Z, strictly related to X. If the feature X in [A|B] (read, A in contact with B) undergoes exactly the same change as [A|C], and [A|D] and [A|F], despite Y and Z are different, we can conclude that the change of X is spontaneous, and that B, C, D, and F did not have any impact on A. If, instead, for instance XB (X in language B) and XD are identical, while XC and XF are completely different, and we see that XA changes in the direction of XB=XD but not of XC or XF, we can conclude that this change is contact-induced, and that possibly Y and Z have a role in this change (depending on how similar they are in B, D)" (D'Alessandro 2015:18–19).

This original formulation can be broken down into several parts. As stated above, to ascertain whether change is due to contact or it happens spontaneously, the best path is to compare the output of contact with the spontaneous evolution of the element under examination. This means that we need to identify a feature F in one language and follow its evolution in diachrony and compare it to its evolution in contact. Take for example differential object marking (DOM henceforth), exemplified in (2) for Eastern Abruzzese, an Upper-Southern Italo-Romance variety. DOM in Abruzzese is restricted to 1st and 2nd person objects:

(2) Eastern Abruzzese, Arielli (D'Alessandro 2017:8)

a. So vistə a mme/ a tte.
be.1SG seen DOM me/ DOM you
'I saw me/you.'

b. Semə vistə a nnu/ a vvu.
be.1PL seen DOM us/ DOM you
'We saw us/you.'

c. *So vistə a Marije/ a jissə/ a quillə.
be.1SG seen DOM Mary/ DOM them/ DOM them

The emergence of DOM in Eastern Abruzzese is not traceable since the first written attestations of the language date back to the 18th century (D'Alessandro & Di Felice 2015, Di Felice and Cesinaro 2016). However, Abruzzese is part of a large language continuum which includes Neapolitan, among other languages, for which a thorough documentation is available. As shown in Ledgeway (2009), DOM in Neapolitan emerged first in object left-dislocated structures, as exemplified in (1), while it was much less frequent on animate/definite objects *in situ* (as in (4).

(3) Neapolitan, 14th c. *Romanzo di Francia* (Ledgeway 2009: 792)
E a mene me 'de volleva mandare in outramare co' Ramirante
and DOM me.1SG me hence wanted to.send in overseas with Ramirante
'And he wanted to send me overseas with Ramirante'

(4) Neapolitan, 14th c. *Romanzo di Francia* (Ledgeway 2009: 834)
Vóy fare morire mene
want.2SG make die me.1SG
'You want to make me die'

Under the rather uncontroversial assumption that Eastern Abruzzese DOM has the same development of Neapolitan,[2] we can conclude that DOM started in topicalized, or clitic-left dislocated position, and gradually extended to the objects *in situ.*

Going back to the *microcontact* methodology, we need to ascertain whether that is also the case in contact. However, as repeatedly pointed out, not every contact situation is equal, and in particular looking at dyads in contact will not take us too far, as the result of contact could be accidentally similar or dissimilar to that of CID because of the particular language pair checked. The *microcontact* methodology requires therefore a cross-check between different dyads: one phenomenon needs to be observed in language A in contact with many other languages. Crucially, these languages need to be syntactically identical (for a given domain) to A except for that phenomenon. The easiest way is to compare languages of the same family, which are structurally very similar but may vary at featural level. For the case of DOM just illustrated, ideally DOM in Eastern Abruzzese needs to be checked in contact with Spanish (which does have DOM), French (which does not have it), Brazilian Portuguese (which does not have it), and so on. If a uniform change is observed, for instance the extension of DOM starting from topic position, then it is licit

[2] This path of emergence of DOM has also been extensively documented by Iemmolo 2009, 2010 for over 100 languages worldwide.

to conclude that CIC and CID follow the same path, and specifically that change has happened spontaneously and independently of the specific dyad involved. If, on the contrary, the output of change moves in different directions for different dyads, we can conclude that change is due to contact and it is not spontaneous. We will return to DOM in Section 4.4 with the results of our inquiry.

Not many languages offer this wealth of contact situations, as well as a thoroughly documented history which allows us to follow the spontaneous development of a feature X according to the *microcontact* methodology. An important exception, as just observed, is the Romance language group, and in particular the Italo-Romance subgroup. Many Italo-Romance languages have a long literary and written tradition. Some of them, like Sicilian, Neapolitan, or Venetan, were used for centuries in little kingdoms or republics in Italy. These languages were never completely isolated, though their extensive contact with superstratal Italian took place systematically and penetrated all social strata only after World War II. This means that all historical records allow us to observe the relevant phenomena in their diachronic evolution, from the Proto-Romance phase to the 1950s–1960s.

The languages chosen for the project were the Romance languages in the Americas.[3] It is well known that Italy has a long history of emigration to both North and Latin America, which happened in waves, starting in the 19th century. The target group was that of speakers that emigrated around the 1950s–1960s and their descendants. This choice was made with the aspiration to track the 1st generation emigrants. This, in turn, would make us able to verify the input that heritage speakers of subsequent generations were exposed to, attrited though they might be.

In the 1950s-1960s, a significant population of Italian emigrants, who were primarily monolingual speakers of various Italo-Romance dialects, found themselves in contact with other Romance languages in a situation of microcontact like that described in (1) above. This created the ideal conditions to check the configuration of multiple contact of features. The *Microcontact* project was designed to factor out as much inter-speaker and intra-speaker variation. Firstly, the conditions in which the first-generation speakers that we interviewed entered in contact with the host languages are rather similar: they all left Italy with the intention of relocating in the new country; the host country was distant enough from their homeland as not to allow for frequent contacts with it. Furthermore, the speakers' profiles are rather homogeneous: we selected 1st generation speakers with little education and scarce mastery of Italian and with a comparable socio-economic profile. While for 1st generation speakers it was somewhat possible to control for the uniformity of these extra-linguistic factors, this was not always feasible for heritage speakers of subsequent generations, whose profiles varied from holding no school education to university degrees, and whose exposure to their HL was quite heterogeneous. In fact, the classification into "generations" is itself inaccurate, as in many cases third generation heritage speakers learnt their HL directly from their grandparents, while the generation of their parents was skipped altogether (Andriani *et al.* 2022b). In general, while we are aware that the variation in the speaker profile as well as many external factors have a huge impact on the outcome of contact, we also could see clear tendencies

[3] For the rationale behind this choice the reader is referred to Andriani *et al* (2022a).

and identify some generalizations that hold across the board, as those that we are going to discuss in the next sections.

3. Generalizations on change in contact

A primary objective of the *Microcontact* project was to enhance our comprehension of some syntactic phenomena by examining them within the context of language contact. Isolating a feature and controlling its development in contact *and* in diachrony provides some important insights on its nature, on the elements directly interacting with it, and ultimately on syntactic structure. The next sections are dedicated to presenting some case studies of syntactic microcontact, specifically auxiliary selection, demonstratives, null subjects, and DOM.

Before reviewing those case studies, it is necessary to introduce some of the generalizations that have been derived by comparing outcomes across various linguistic phenomena. Building on the results of our research and on its comparison to CIC, the following generalizations can be made:

G1. Elements react to external solicitations of the grammatical system (i.e., to contact) in different ways depending on their nature. Specifically, purely functional elements behave differently than discourse-related ones (see also Sorace 2011 for similar results in bilingual speakers).

G2. Sequences of functional features change in a predictable fashion. Specifically, if they are core grammatical features (such as φ-features) they will follow a specific direction of change, both in diachrony and in contact. This direction is determined by what Terenghi (2021, 2023a) calls the *monotonicity bias*.

G3. Elements that are discourse-related, like null subjects or DOM, follow two different paths, possibly depending on the possible mapping of the structure of L1 on L2 and on in turn depending on the perception of the locus of variation by the speakers. In this respect, see the concepts of grammatical similarity (Schwartz and Sprouse 1996), perceived typological similarity as in the Typological Primacy Model, TPM (Rothman, 2010, 2011, 2013a,b; Rothman and Cabrelli Amaro 2010).

Some additional background to this latter generalization, and particularly to the issue of structural mapping, is further discussed in the remainder on this section.

3.1. Discourse-related elements – structural mapping

That the acquisition of some language features may be facilitated by the other languages present in the speaker's mind is a rather uncontroversial assumption. To begin with, the CEM (Cumulative Enhancement Model, Flynn *et al.* 2004) states that those elements present in any of the languages spoken by an L3 learner that can facilitate acquisition will be used to build the L3 grammar. Slightly differing from that, perceived typological similarity, as conceived by Rothman in his Typological Primacy Model (Rothman 2010, 2011, 2013a,b), is a key factor in linguistic transfer. Specifically, like for the CEM, the order of acquisition of L1 and L2 will be totally irrelevant for transfer. However, because of principles of economy of language acquisition, underlying structural

(and therefore typological) similarity between one of the languages and the L3 will actually condition the acquisition, and not just facilitate it. The crucial point is that transfer will happen of the entire system, including those features that are dissimilar in the languages. In a well-known study, Rothman (2010) examined bilingual Spanish-English (in either order) Brazilian Portuguese learners, observing how even if for some specific structures, like null subjects, BP is closer to English than to Spanish, Spanish structure was massively transferred into L3 BP. Rothman takes therefore a holistic view on transfer, with further refinement. From a micro-variational viewpoint, Westergaard (2009a,b, 2013) takes the opposite view, showing that acquisition happens via micro-cues, and therefore transfer is a side-effect of stepwise acquisition (and transfer, in the case of bilinguals) of the various featural values.

From a strictly structural viewpoint, it has been shown that structural similarity facilitates transfer in contact situations, both when typologically similar languages, like Spanish and Catalan, are involved and when typologically divergent languages, like Asháninka and Spanish are involved (Mayer & Sánchez 2021). The study by Mayer & Sánchez (2021) is particularly interesting in that it shows that in L2 Spanish spoken in Peru by Asháninka L1 speakers DOM is retained, while in L2 Spanish spoken by Shipibo L1 speakers in contiguous regions it is lost. Meyer & Sánchez attribute this different outcome to structural similarity in a wide sense: Asháninka is a nominative-accusative language with SVO order, while Shipibo is an ergative language with SOV order. Structural overlap allows DOM to be retained, while structural mismatch (within the VP domain) causes its disappearance.

Our study shows that something similar is indeed at work, but we move one step further along this line of reasoning. When two languages are in contact, in dyadic contact situations, speakers can usually map given parts of the structure of one language onto the other. If the languages are typologically or structurally similar, like in the case of Asháninka and Spanish, the speakers will have no trouble mapping for instance the VP of one language onto that of the other language. This will result is some sort of "perception" of the locus of variation, meaning that the speaker will be able to perceive the difference and adapt their structures, mostly along the line proposed by Sorace in her Interface Hypothesis. In the case of Asháninka and Spanish, DOM will be retained as the VP structures of the two languages are similar, despite the difference in vocabulary and phono-morphology. Hence, syntactic similarity plays a role, and in fact a much more central role than previously acknowledged. In the case of Shipibo and Spanish, instead, the speakers will identify the locus of variation, perceive the difference, "understand" that the VP in one language is organized differently from the other, and choose for simplification of the structure by dropping the DOM, possibly because of the greater structural difference between the languages. In any event, in the case of dyads in contact, language change will *not* be due to the inability to perceive or track the variation point, but to a grammar-internal resolution mechanism. The perceived typological similarity will be active in this context, as the speaker's mental representation of the two grammars is sufficiently distinct but also identifiable.

In general, if the speakers unconsciously perceive the locus of variation, in the sense that the grammars, for the relevant domain, can be easily mapped onto each other, the exact point of variation within a given domain can be identified. Importantly, though, 1:1 mapping of L1 to L2

(in a given domain) allows the speaker to identify the complexity or redundancy in their own language, and very often reduce it. Note that we are not talking here about simultaneous bilingual.

The proposal here is not that, whenever mapping is possible, simplification (i.e., choice of a system with "less points of choice") will ensue, but that it *might* ensue, and in fact that it is most likely to ensue. Conversely, when 1:1 mapping is not possible, the outcome of contact is much more unpredictable.

3.2. Discourse-related elements: no mapping possible

When heritage and L2 speakers cannot pinpoint the locus of variation, the conflict between two possible grammatical systems (or options) needs to be resolved in a different manner. This situation occurs, for instance, when the grammars in contact are two dialects of the same language, or two languages of the same family that are structurally typologically identical. In this case, both grammatical similarity (in the sense of Mayer & Sánchez 2021) and perceived typological similarity (in the sense of Rothman 2010 *seqq.*) are very high, too high in fact, up to the point that the speakers are no longer able to identify the point of variation, which will consist, for instance, in the value of a specific feature rather than the presence of the feature itself in the functional spine. This is crucially different from the case of Asháninka-Spanish contact, where the speakers can map one VP onto another, but they still have the clear perception that they are speaking two separate languages.

An example of the impossibility to identify the locus of variation is a speaker of Abruzzese (a language with DOM only on 1st/2nd person pronouns, as seen in Section (2)) in contact with Rioplatense Spanish (a language with definiteness and animacy-driven DOM): this speaker will not be able to perceive the variation point as that is too minimal. Variation resides indeed in the value of a feature; compare (2) to the Rioplatense Spanish counterpart:

(5) Rioplatense Spanish

a.	Me	vi	a	mí	mismo	
	me.1SG.CL	saw.1SG	DOM	me.1SG	self	
	'I saw myself'					
b.	Te	vi	a	vos		
	you.2SG.CL	saw.1SG	DOM	you.2SG		
	'I saw you'					
c.	los	vi	a	ustedes		
	you.2PL.CL	saw.1SG	DOM	you.2PL		
	'I saw you'					
d.	(la)	vi	a	María / a	la	chica
	her.3SG.CL	saw.1SG	DOM	María DOM	the	girl
	'I saw María/the girl'					

The structure of the XP that hosts the DOM marker (the VP) is essentially the same in the two languages; structurally identical languages can be easily mapped into each other, leaving the impression of a non-existent structural difference between them. In other words, functional head by functional head mapping yields a perfect one-to-one mapping. Yet, the feature values

represented by the functional heads differ. In this case, the TPM requirement, as well as the CEM requirements, will be vacuously met, but no structural resolution of the difference is envisaged. We maintain that in this case the speakers will have to resort to some basic cognitive strategies, and "reset" the phenomenon along the lines of its spontaneous emergence, as in L1 acquisition.

A very good example of this is the DOM-cycle described in D'Alessandro (2022a): while languages with DOM in macrocontact tend to lose DOM on *in-situ* objects, languages in microcontact overmark DOM on dislocated elements, as also illustrated in Section 4.4. This difference in the strategy of DOM resolution reflects the generalization just exposed: HL speakers in macrocontact situations resort to a different strategy compared to HL speakers in microcontact. Specifically, the locus of variation (in this case, the VP) is easily identifiable through structural mapping (obviously, unconsciously) and the system moves towards simplification; in the latter case, instead, the locus of variation does not easily emerge from mapping, and the resulting outputs are therefore significantly different from those attested in macrocontact.[4] Crucially, not only is DOM emergent in microcontact, but it also emerges in the same contexts in which it is shown to emerge diachronically, namely in object dislocation constructions (see Iemmolo 2010, Ciconte 2018a,b, Andriani *et al* 2022b, D'Alessandro 2022a, Sorgini 2022). The strategy of marking dislocated topics is acquired early in L1 acquisition (Belletti 2017, 2018, Belletti & Guasti 2015) and, we maintain, can be used by HL speakers to track long-distance dependencies (see D'Alessandro 2022b). We will not go into the detail of this marking strategy here, which would take us too far afield. What matters in this context is that while DOM is observed to emerge in microcontact, it seems to be lost or impoverished (with some exceptions, as we saw) in macrocontact. We attribute this different behavior to the impossibility of speakers in microcontact to identify the locus of variation, the difference between the structures of the two languages in contact. Speakers in microcontact, not being able to identify the structural locus of change thus resort to some 'default' mental representation of the construction at hand, or to what UG makes available, in the sense of Bickerton (1989, 1990).

Microcontact is not the only situation in which the speakers cannot easily map L1 structures onto L2 structures to be able to unconsciously identify structural differences between the two systems. The same difficulty arises in creole languages, where more than two languages, usually very different structurally, enter in contact suddenly and simultaneously. Little mapping between the constituents in the contact languages is possible, so the speakers (just like in the case of microcontact) do not resort to grammatical strategies for simplification of the same kind as those found in macrocontact (Aboh 2017, Aboh & DeGraff 2017, McWhorter 2018, Mufwene 2020 and many others). Creole languages present instead phenomena that are similar to those which arise in microcontact and in L1 acquisition, such as the marking of dislocated elements (D'Alessandro 2021a, b). At the moment, these cannot be presented as more than preliminary observations, based on the tendencies we observed in microcontact compared to macrocontact. We leave this therefore for further research.

Even if our interpretation of the facts were entirely flawed, we could still safely claim that the study of *microcontact* offers an important contribution to the theory of language, and to syntax in

[4] This is a simplification, obviously, which does not take the differences between speakers into account.

particular, as it makes it evident that generalizations based on contact often overlook the different kinds of contact from a strictly structural viewpoint. In fact, no general conclusions can be drawn from the fact that some phenomena (such as DOM or null subjects) weaken as to the conditions that determine this disappearance. Even if the results are similar, the causes underlying these outcomes may be different.

These generalizations regarding the mapping are only relevant for discourse-related elements. As per G2 (see again Section 3 above), whenever fixed sequences of functional heads are involved, like in the case of pronouns and demonstratives, structural mapping is irrelevant and other factors are instead at play. We will return to this in Sections 4.1 and 4.2.

4. Four case studies

In what follows, we present four case studies on microcontact, showcasing how it enriches our understanding of syntactic theory. The first case is that of auxiliary selection in heritage Italo-Romance. This study shows that varieties with auxiliary selection tend to reduce the auxiliaries to only one, and that the direction of change in contact is exactly the same as that followed by CID (Section 4.1). A similar behavior is found in demonstratives, where larger demonstrative systems (three contrastive forms) likewise reduce to smaller demonstrative systems (two contrastive forms), in (micro)contact and diachrony alike (Section 4.2). These facts differ starkly from those uncovered by the study of syntactic phenomena that also strongly rely on discourse (hence involving at least two different grammatical modules), as clearly shown by our studies on null subjects and DOM. The null subject data demonstrate that discourse features hinder our predictive power when it comes to the development of pronominal subjects in contact contexts (Section 4.3). Finally, DOM in microcontact is shown to behave very differently from DOM in contact, with L1-strategies at work for the resolution of microcontact (Section 4.4).
Table 1 reports the numbers of speakers interviewed (with G referring to generations). In the table, it is assumed that the speakers in Argentina are in contact with Spanish, those in Brazil with Brazilian Portuguese, and so on.

Table 1. Number of speakers interviewed per location and heritage variety (Andriani et al 2022b:14)

	Argentina	Brazil	Quebec	NY	(Belgium)	Total nr of speakers	Total minutes
ABRUZ-ZESE	9 speakers •7 G1 •2 HS	–	2 •2 G1	3 •1 G1 •2 HS	1 •1 G1	15 •11 G1 •4 HS	>150' •110' G1 •40' HS
CALAB-RIAN	9 •8 G1 •1 HS	3 •2 G1 •1 HS	5 •5 G1	–	–	17 •15 G1 •2 HS	>170' •150' G1 •20' HS
FRIULIAN	8 •4 G1 •4 HS	7 •7 HS	7 •7 G1	6 •4 G1 •2 HS	–	28 •15 G1 •13 HS	>280' •150' G1 •130' HS
SICILIAN	13 •10 G1 •3 HS	2 •2 G1	5 •4 G1 •1 HS	10 •8 G1 •2 HS	5 •4 G1 •1 HS	35 •28 G1 •7 HS	>350' •280' G1 •70' HS
TRENTINO	3 •3 G1	7 •7 HS	–	–	–	10 •3 G1 •7 HS	>100' •30' G1 •70' HS
VENETAN	16 •12 G1 •4 HS	28 •2 G1 •26 HS	8 •7 G1 •1 HS	–	–	52 •21 G1 •31 HS	>520' •210' G1 •310' HS
OTHER	15 •14 G1 •1 HS	3 •1 G1 •2 HS	9 •9 G1	39 •19 G1 •20 HS	2 •1 G1 •1 HS	68 •44 G1 •24 HS	>680' •440' G1 •240' HS
TOTAL	73 •58 G1 •15 HS	50 •7 G1 •43 HS	36 •34 G1 •2 HS	58 •32 G1 •26 HS	8 •6 G1 •2 HS	225 •137 G1 •88 HS	–
TOTAL MINUTES	>730' •580' G1 •150' HS	>500' •70' G1 •430' HS	>360' •340' G1 •20' HS	>580' •320' G1 •260' HS	>80' •60' G1 •20' HS	–	>2250' •1370' G1 •880' HS

Unless specifically indicated otherwise, all the data presented in this chapter pertain to the speakers who were interviewed during fieldwork and are reported in this table.

4.1. Auxiliary selection in heritage Venetan

In the Romance literature (cf. Loporcaro 2016 and references therein) auxiliary selection has received much attention due to the variety of patterns that it displays and to their implications for our understanding of agreement phenomena involving verbal arguments. Apart from the synthetic form of the lexical verb (moved from within the VP; cf. Pollock 1989), Romance languages typically lexicalize T using the auxiliaries BE and HAVE. Although there isn't a universally consistent correspondence between the choice of the auxiliary and the verbal class (see D'Alessandro & Roberts 2010), transitive and unergative verbs usually select HAVE while

unaccusatives and passives usually select BE (but see Sorace 1995 *ff.* for a more detailed description). The different mechanisms of auxiliary selection can provide us with valuable insights into the TP domain.

In heritage Italo-Romance, we detected some incipient changes affecting auxiliary selection, which seem to point in the direction of a *gradual simplification*, i.e. impoverishment of auxiliary selection and generalization of one auxiliary in certain contexts. This is reminiscent of the CID outcomes mentioned in Section 2.1, although we should mention that the direction of change does not always completely mirror the one observed in diachrony. The actual situation is rather that of optionality: speakers start extending the auxiliary HAVE to the verbs that usually select BE; in other words, HAVE is sometimes found in contexts in which the baseline features BE. This means in no way that the change is complete, and that BE has disappeared from the heritage Venetan grammar though (see D'Alessandro & Frasson 2023 for details on the selection and specialization of BE).

Among the varieties in our corpus, the only HL which offered a set of data fully suitable for comparison with the homeland counterpart is that spoken by the Venetan community in Argentina and Brazil. Despite the heavy microvariation, auxiliary selection in homeland Venetan varieties mainly follows the typical split-intransitive pattern (cf. Cordin 2021:§2.3.3), which is as follows:[5]

- BE with unaccusatives → [+ φ-Agr] with S_O;
- HAVE with transitive/unergatives → [– φ-Agr] with A/S_A; [+(/–) φ-Agr] with O

Crucially, and unlike Venetan, Argentinian Spanish and Brazilian Portuguese have generalized the synthetic past form; analytic past forms underwent instead specializations for other (language-specific) temporal and aspectual functions. Prior to these specializations, Spanish and Portuguese displayed the generalization of auxiliary HAVE (Spanish *haber*, Portuguese *ter*) to all contexts but passives.

A parallel expansion of auxiliary HAVE was detected for heritage Venetan in Brazil by Faggion (2013) and Dal Picol (2013, 2014);[6] importantly for our purposes, these scholars regard the expansion of HAVE as the consequence of contact with Brazilian Portuguese (BP). Faggion (2013:140) claims that younger speakers (born around 1970) transfer the BP auxiliary *ter* into their heritage Venetan and consequently start alternative *gavèr* (HAVE) with BE with unaccusatives ((6)a) and reflexive predicates (6):

[5] However, Venetan varieties do present a few lexicalized instances of HAVE-selecting unaccusative verbs, e.g. ***ga*** *calà* '(s)he's gone down' (cf. Cordin 1997: 93-95). Moreover, these varieties additionally show person-driven auxiliary splits for reflexives; this situation cannot be discussed here for reasons of space. For further details on the heritage Venetan, see D'Alessandro & Frasson (2023); for details on baseline Venetan, the reader is referred to Lepschy (1984); Belloni (1991); Benincà (1994); Loporcaro & Vigolo (1995); Marcato & Ursini (1998); Manzini & Savoia (2005); Cennamo & Sorace (2007); Loporcaro (2007).

[6] *Vêneto sul-rio-grandense* (Stawinski 1987; cf. also Frosi & Mioranza 1983; Cordin 2021: §1.3), the Venetan koine spoken in and around Caxias. The koine has been argued to be based on central Venetan varieties, with occasional Trentino and Lombard elements. In general, cross-dialectal levelling seem to have occurred in many of the areas considered.

(6) Heritage Venetan in Brazil (Faggion 2013:140), young generation speakers

a. mi **go** **ndato** a Garibaldi
I have.1SG gone.M to Garibaldi
'I went to Garibaldi (town).'

b. **me** **go** **desmentegà**[7]
me have.1SG forgotten
'I forgot.'

In contrast, older speakers retain *esser* ('BE') in the same contexts, while systematizing the different auxiliary with incorporated clitic forms in a different fashion with respect to the baseline (D'Alessandro & Frasson 2023): while baseline Venetan features three separate BE+subject clitic auxiliaries that are diatopically distributed, heritage Venetan in Brazil has developed a very articulated system whereby the choice of the BE auxiliary depends on the position of the subject and the agreement between the past participle and the object:

(7) Heritage Venetan, D'Alessandro & Frasson (2023: 14)

a. **L'è** rivà i bisnon-i qua tal Brasil.
Is arrived-M.SG the-M.PL great-grandparents-M.PL here to.the Brazil
'The great-grandparents arrived here in Brazil.'

b. La so mare ze nasest-a in Italia.
the his mother-F.SG **is** born-F.SG in Italy
'His mother was born in Italy.'

c. I non-i **è** vegnest-i de navio.
the grandparents-M.PL be.3 come-M.PL by ship
'The grandparents came by ship.

Heritage Venetan in Brazil has organized BE auxiliaries according to a system that is not found in the baseline spoken in Italy (though it is reported for some older varieties). While *l'è* is selected with postverbal subjects and non-agreeing past participle, *ze* is selected in sentences where the subject is preverbal. Furthermore, *è* is almost exclusively selected with preverbal masculine plural subjects. This system shows an incredible complexity: speakers are sensitive to subject position and agreement patterns, showing that handling syntactic complexity and long-distance agreement is not really an issue for these speakers.

To sum up, in Brazilian Venetan we see at least two developments with respect to auxiliary selection. Although BE is still very much present in the auxiliary system of heritage Venetan and BE/HAVE alternations may be found, some the tendencies we observe evidently point to an ongoing change in the auxiliary selection patterns in Brazilian (and Argentinian) Venetan. In these varieties, HAVE has started to gradually take over some of the slots reserved for BE (with the relevant agreement patterns) and, because of this extension, the BE/HAVE auxiliary selection is getting confined to fewer contexts. At the same time, the BE auxiliary distribution is also diversifying.

[7] Notice that this form is also attested in several varieties of Venetan (Benincà 1994 and data from ASIT)

Importantly, this incipient shift towards HAVE seems to coincide to what we observe in diachrony, i.e., that many languages (e.g., Spanish and Portuguese, as well as English) lost auxiliary alternation and generalized HAVE, a less computationally-costly option. A pure transfer account (i.e., importing the pattern found in the contact language, as maintained by Faggion 2013 and Cordin and Degasperi 2020 for Trentino) could only be invoked for the case of Argentina, where the exposure to the (specialized use of the) HAVE+past participle construction in the local Spanish is higher compared to that of Brazilian Venetans to the *ter*-past participle construction. This lack of exact correspondence between structures in the input and outcome of change in the HL leads us to infer that this slight restructuring of the auxiliary selection patterns in heritage Venetan is not directly triggered by the presence of a structurally similar construction in the dominant language. However, some sort of reduction is at work, which is hardly quantifiable at this stage because of lack of data.

This state of affairs falls under G2: auxiliaries do not interact with discourse, and can be considered core syntax. Their evolution is therefore predictable, and independent of the contact language. A similar behavior is found in demonstratives, which also follow a predetermined path that is the same in contact and in diachrony. The next section will expand on this topic.

4.2. Demonstratives in microcontact

Demonstrative systems constitute another domain in which a reduction from larger to smaller systems, similar to the one just reviewed in Section 4.1, is attested; this reduction proceeds in one and the same fashion in (micro)contact and diachrony alike. This case study focuses on the demonstrative forms in heritage southern Italo-Romance varieties spoken in microcontact.

Demonstrative forms, such as *this* and *there*, are used exophorically if they denote the location of a referent in the external world with respect to a deictic center, which serves as point of reference (see Lyons 1977; Diessel 1999; a.o.). Languages exhibit significant diversity when it comes to the range of deictic centers they employ (Diessel 1999; Levinson 2018; a.o.), as exemplified by the Romance varieties in (8):

(8) a. Italian
questo quello
'this near me' 'that far from me'

b. Brazilian Portuguese
esse aquele
'this near me and/or you' 'that far from us'

c. Spanish (some varieties)
este ese aquel
'this near me' 'that near you' 'that far from us'

The cross-linguistically most common deictic center is the speaker (Diessel 1999: Chapter 3), which yields demonstrative systems as the one in (8). These systems include two forms that stand in a two-way speaker-oriented opposition: near the speaker as opposed to far from the speaker (speaker-based binary systems). Other possible deictic centers include: the participants (8), such

that referents are defined as near the participants (i.e., the speaker and/or the hearer) as opposed to far from the participants (participant-based binary systems); and the hearer, besides the speaker, whereby a three-way deictic contrast is yielded among referents near the speaker, referents near the hearer, and referents far from both (ternary systems, ((8))).

Our study focused on heritage Italo-Romance varieties whose homeland counterparts are of the latter type (for further details, see Terenghi 2022, 2023a). More concretely, we considered heritage Sicilian (*n*=7), heritage Abruzzese-Molisano (*n*=4), and heritage Calabrian (*n*=1) speakers in different immigration countries, that is, in contact with different majority languages: in microcontact with Argentinian Spanish (*n*=6) and with (Quebecois and Belgian) French (*n*=2). Furthermore, we investigated contact with US English (*n*=6), included as a control group to test whether microcontact follows the same change mechanisms as other contact types in this domain.

While standard Argentinian Spanish has a ternary system similar to the one displayed by the southern Italo-Romance varieties under investigation (see again ((8))), its informal, spoken variety employs a speaker-based binary system as the one in (8); the system in (8) is also in use in French and in English.[8] Given these differences across heritage and majority languages, our purpose was to assess whether the encoding of deictic features in the demonstrative systems of the former undergoes CIC, i.e. whether the organization of the demonstrative systems of the heritage languages spoken in microcontact undergoes any change driven by the organization of the demonstrative systems of the relevant majority languages.

The results of our research show that ternary systems in microcontact and macrocontact alike tend to undergo a reduction towards either binary system: this is clearly shown by the fact that, while the speaker-oriented and the non-participant-oriented domains systematically get each its own exponent (as in ((8)c), the hearer-oriented deictic domain has its dedicated (target) exponent only in roughly half of the elicited data points. This is shown in Table 2, where microcontact and macrocontact data from all three varieties are reported jointly, as no significant differences were detected across them.

[8] Note that, strictly speaking, French has an even smaller inventory of demonstrative forms, with the only demonstrative form *ce* 'this/that' which combines with locative adverbs *-ci* 'here' and *-là* 'there' to disambiguate between the proximal interpretation (*ce* ...*-ci* 'this') and the distal one (*ce* ...*-là* 'that').

Table 2. **Speaker-, hearer-, and non-participant-oriented deictic domains in heritage southern Italo-Romance**; shaded cells represent non-target-like answers (e.g. 'this near me'-type used in the hearer-oriented domain, which would require a 'that near you'-type under (8c))

	'This near me'-type	*'That near you'-type*	*'That far from us'-type*
Speaker-oriented domain	53/53 (100%)	—	—
Hearer-oriented domain[9]	13/53 (24.53%)	26/53 (49.01%)	10/53 (18.87%)
Non-participant-oriented domain	6/53 (11.32%)[10]	2/53 (3.77%)	45/53 (84.91%)

The high percentage of 'this near me'- and 'that far from us'-type demonstratives in the hearer-oriented domain suggests that erstwhile ternary systems are moving towards binary systems in the heritage southern Italo-Romance varieties under investigation. Specifically, 'this near me'-type forms are compatible with a participant-based binary demonstrative systems (as in ((8)), while 'that far from us'-type forms are compatible with a speaker-based binary demonstrative systems (as in (8)a). It should however be noted that, despite the at face-value clear-cut results, our informants displayed a significant level of intra-speaker variation (for its full extent, see Terenghi 2023a), suggesting that change is still in progress in these varieties.

Importantly, also in this case our data consistently suggest that the attested incipient change is not driven by the contact varieties, despite the surface similarity between the reduced heritage systems and the contact systems: in fact, non-target 'this near me' forms are not expected under any of the contact situations and yet are the most elicited forms; likewise, target 'that near you' forms are attested in contact with Spanish (as expected), but even more so in contact with French in Belgium and with English in the US (contrary to expectations). Thus, the patterns of reorganization in contact cannot be explained as the result of transfer from the dominant language.

Instead, the simplification of demonstrative systems attested in heritage Italo-Romance varieties spoken in (micro)contact is in line with the wider tendency towards the reduction of demonstrative systems, as also attested in diachrony. As shown by Terenghi (2023a,b) on the basis of Romance data collected by Ledgeway & Smith (2016), ternary demonstrative systems in diachrony tend to lose the dedicated 'that near you'-like exponent for the hearer-oriented domain, and hence to turn into speaker-based or participant-based binary demonstrative systems, as well. This strongly implies that these paths of change in heritage and non-heritage varieties should be explained in a holistic fashion. A unified account for this simplification is put forth by Terenghi (2023a) and relies on featural and structural considerations. Here we only review the former as one of the major contributions of the *Microcontact* project to the understanding of language change.

[9] Furthermore, 4/53 (7.55%) elicited answers show optionality between the 'this near me'-type and the 'that far from us'-type.

[10] Note that the high percentage of non-target-like response in this case is an effect of the picture-sentence matching task, as the non-target-like 'this near me' forms decrease to just 1/23 (4.35%) when the production task is considered. For a discussion of this task effect, see Andriani *et al.* (2022a). Importantly, this effect is not prominent for the hearer-oriented domain, where the percentage of 'this near me' forms in fact increases to 8/30 (26.66%).

The main assumption that underlies the featural account proposed is that demonstrative forms encode deictic information by means of person features and, more specifically, two binary features: [±author] and [±participant] (see the account proposed by Harbour 2016 for person systems). As such, the deictic information encoded in the different demonstrative forms of ternary systems can be derived as follows:

(9) a. Speaker-oriented deictic domain ('near me'): [+author, +participant]
b. Hearer-oriented deictic domain ('near you'): [–author, +participant]
c. Non-participant-oriented deictic domain ('far from us'): [–author, –participant]

Based on (9), it can be advanced that the derivation of 'near you' forms constitutes the locus of complexity within the grammar of deixis, as their featural specification is the only one that involves non-matching feature values (i.e., one + and one –, as opposed to the matching feature values of the other two forms). Non-matching feature values are identified as complex by virtue of a general monotonicity bias active within the person domain (Terenghi 2021, 2023a; D'Alessandro & Terenghi in press).

Granting this, Terenghi (2023a) proposes that one person feature could be lost in the derivation of demonstrative forms to ease the complexity of (9). This leads to the loss of the dedicated exponent for the hearer-oriented form and concurrently to the reduction of original ternary systems to speaker-based binary systems (these are derived by [±author] alone) or to participant-based binary systems (derived instead by [±participant]). As the monotonicity bias is conceived as a general cognitive bias, its effects are expected to hold across diachrony and contact, in line with the demonstrative data discussed in this section, and captured by G2.

We now turn to the presentation of contact phenomena in HLs involving discourse and more generally more than one grammatical module. They are shown to differ radically from what we just saw, and to conform with G3 instead. We start by presenting a case study on null subjects and subject clitics in microcontact.

4.3. Subjects in microcontact

Changes in the way the subject is expressed are extremely frequent in HLs; the distribution of null and overt subjects in null-subject languages represents one of the most discussed topics in the literature on bilingualism and HLs, as already mentioned in Section 3.1. Most studies analyze the effects of contact of a dominant non-null-subject language with a null-subject language (e.g. Montrul 2004; Sorace and Filiaci 2006). As we saw above, such studies highlight a tendency to extend the use of overt subjects to discourse contexts in which null subjects would be otherwise expected. Non-null-subject languages have only one option (the overt subject pronoun), null-subject languages have more than one option; besides, the interpretation of null subjects is not immediately available to the hearer, as it is based on a complex interaction between grammatical and discourse factors. Therefore, change in this domain is attributed to a preference in bilingual speakers for more transparent systems.

Frasson (2022) investigates cases in which new structures are introduced or additional constraints are added to existing structures in heritage null-subject languages. This is the case of subject

realization in heritage Venetan in Brazil and Argentina; the number of possible configurations of different types of subject pronouns is bigger than in the homeland variety of the language. Notice that Venetan has two overt types of subject pronouns, strong and clitic, as well as null subjects:

(10) Heritage Venetan (Frasson 2022: 10)

a. Lu no me ga vedesto.
   he not me has seen
b. Lu no'l me ga vedesto.
   he not=he.SCL me has seen
c. No'l me ga vedesto.
   not=he.SCL me has seen
d. El no me ga vedesto.
   he.SCL not me has seen
e. *pro* no me ga vedesto.
   pro not me has seen
   'He did not see me'.

In (10), a subject pronoun *lu* is overtly realized. In (10) two subject pronouns appear: the subject pronoun *lu* and the subject clitic *(e)l*. In (10) only a subject clitic is realized after preverbal negation *no*. In (10), the same subject clitic is realized before preverbal negation *no*. Finally, in (10) there are no overt subject pronouns. Options (10) with a subject clitic preceding preverbal negation, and (10), without any overt subject pronouns, are not grammatical in homeland Venetan. In heritage Venetan, however, all these possibilities are attested, evidencing a complexification of the system. While BP shows a partially null-subject system, Frasson (2022) shows extensively that the contexts in which this complexification happens are not the same in which BP expresses the subject overtly. In other words, a direct transfer analysis of the patterns in (10) is not feasible.

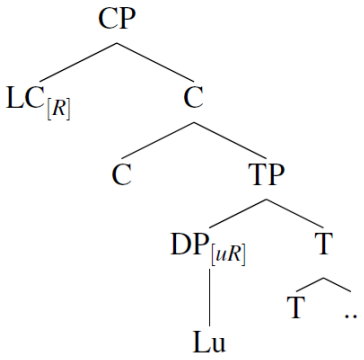
The microcontact data discussed here show a resolution of null subject facts that is, apparently, the exact opposite of that uncovered for other types of contact, as discussed in Section 3.1 building on Sorace and Filiaci (2006); in the latter case, we saw that whenever a 1:1 mapping between the language structures is possible, multilingual speakers tend to solve the apparent optionality in the realization of the subject by extending the use of overt subjects, hence simplifying the system. However, in microcontact, null subjects keep constituting one among the multiple possible options to realize the subject: this can be traced back to the difficulty, in microcontact contexts, to exactly pinpoint the locus of variation; therefore, speakers resort to some basic cognitive strategies. In this case, we believe that the relevant cognitive strategy is related to how information is structured.

To account for this divergence, in fact, we follow Frasson (2022) in capitalizing on the role of discourse features. In particular, he showed that operations on features taking place in narrow syntax, such as agreement, may involve (besides formal features, such as φ-features) discourse features; these depend on the way speakers structure the information, according to the meaning and interpretation that they want to convey. The distribution of discourse features may change in situations of language contact, affecting the realization of subject pronouns as in (10) and the way

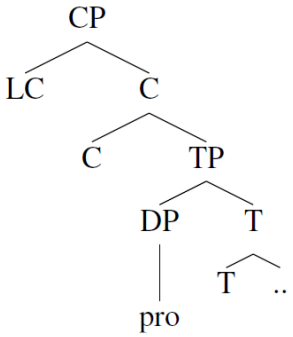
syntax interacts with information structure. This approach builds on Miyagawa (2005) and Aboh (2010), who propose that agreement for discourse properties is associated with specific discourse features that are assigned to lexical items already in the numeration. The discourse feature ruling the distribution of subject pronouns and their interpretation is defined in Frasson (2022) as [R] (referential): when subject pronouns encode this feature, they are overt and referentially specific enough to obviate or switch reference; when subject pronouns lack this feature, they refer to the most salient discourse antecedent and are normally not phonologically realized.

The distribution of subject pronouns in heritage Venetan does not depend on differences with respect to their internal structure (see also Pescarini 2021 for a wider discussion of this possibility): all pronouns have the structure of a DP, but are distinguished by the presence of absence of a [uR] feature. The presence of [uR] makes some pronoun referentially specific enough to switch the reference to a non-salient discourse antecedent (9). Conversely, the lack of [uR] implies that the pronoun will refer to the most salient discourse antecedent. In null-subject languages, subject pronouns lacking [uR] can undergo PF deletion under φ-feature identity with finite T, resulting in a phonologically null pronoun (Sheehan 2006, Roberts 2009) (10).

(11) subjects (Frasson 2022: 211)



(12) Null subjects (Frasson 2022: 165)

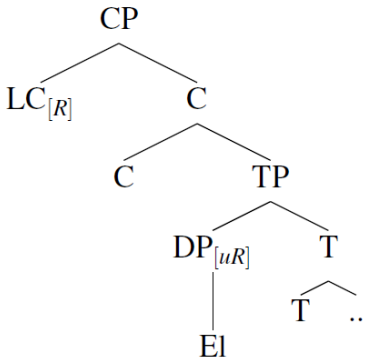


This difference captures the distribution of Venetan strong pronouns (10) and null subjects (10) and defines it in terms of the availability of interpretations allowed by the presence of [uR] in strong pronouns and the lack of such interpretations in null subjects.

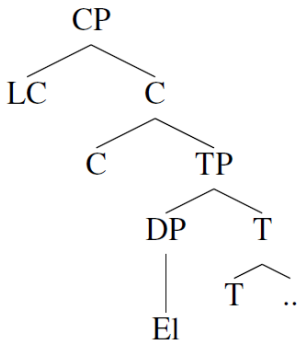
However, it was shown that heritage Venetan allows for a third possibility: subject clitics (10). These elements have previously been analyzed in homeland varieties of Venetan as agreement markers, and not as real pronouns, because of their distribution and position inside the sentence (Rizzi 1986); this is shown, for instance, by the fact that homeland Venetan does not allow for subject clitics to be separated from the verb. However, this distribution is grammatical in heritage Venetan, as shown in (10). Analyzing subject clitics from the perspective of information structure, it is possible to account for their typical pronominal behavior. Frasson (2022) proposes that subject clitics are pronouns that may or may not encode [uR]. Specifically, when they encode [uR], they behave as regular overt pronouns (13); when they lack [uR], they are phonologically realized counterparts of *pro* (13).

(13) Subject clitics

a.



b.



The difference in the distribution of [uR] in subject clitics across different varieties of Venetan depends therefore on a rearrangement of the distribution of features known in the literature on second-language acquisition as feature-reassembly (Lardiere 2008). Subject pronouns are sensitive to syntactic and discourse factors alike: the interaction of these factors leads to precise conditions of antecedent selection. In contact situations, these conditions are not lost, but rearranged and mainly affect agreement with discourse features: as such, it is not possible to establish a predefined path for the development of pronominal subjects in contact varieties, precisely as they involve a discourse feature whose implementation depends on grammar-external causes (G3). On the contrary, φ-agreement (and thus formal features) does not undergo change in heritage Venetan, in line with G2 (see also Sections 4.1 and 4.2).

4.4. Differential Object Marking in microcontact

We turn now to DOM (Bossong 1985), the phenomenon whereby a subset of Direct Objects ('DOs') display a different morphological realization by virtue of their semantic or pragmatic features, as well as of properties of the verb, as illustrated in Section 3.2. DOM in Italo-Romance languages displays a high degree of microvariation: the phenomenon is pervasive especially in central and southern varieties and affects different ranges of DOs. Specifically, it is generally found

more often on objects that are high on the Animacy Hierarchy proposed by Silverstein (1976) than on objects in the lower part of the scale, which is reported in (14):

(14) *Animacy Hierarchy*, based on Silverstein (1976) and adapted from Dixon (1979):
1st and 2nd person pronouns > 3rd person pronoun > proper names > human common nouns > animate common nouns > inanimate common nouns

DOM has been the topic of much contact research, especially in the field of heritage linguistics. Restricting the focus to Romance languages, a number of studies investigates Heritage Spanish spoken in the US (Silva-Corvalán 1994; Luján & Parodi 1996; Montrul 2004; Montrul & Bowles 2009; Montrul & Sánchez-Walker 2013; Montrul & Bhatt & Girju 2015) to show that DOM is rather unstable and weakens already in the first generation of heritage speakers. This is in line with the discussion in Section 3.1: whenever there is considerable structural difference across the languages in contact (as is the case for macrocontact between Spanish and English), the multilingual speakers tend to simplify their grammar by moving from a 2-choice system (in this case: some objects are marked and some are not) to a 1-choice system (in this case, no object is marked). In this section, instead, we present the results of our research on DOM as attested in HLs spoken in microcontact: following the rationale outlined in Section 3.2 and already validated by the subject data of Section 4.3, we expect that also in this case heritage speakers will fall back on general cognitive strategies. In what follows, we show that this prediction is borne out.

In the interest of space, here we limit the discussion to two Romance varieties from Italy, namely Friulian and Abruzzese, spoken as HLs in Argentina and Brazil. The setting of the investigation is such that a non-DOM variety (Friulian) and a DOM variety (Abruzzese) are investigated in contact with both DOM (Argentinian Spanish[11]) and non-DOM varieties (BP). The results of our investigation are partially antithetical with respect to what has been described for the homeland varieties: the HLs under discussion display different patterns of DOM, and more precisely we see that the rate of DOM increases, rather than decreasing, both in Heritage Abruzzese and Heritage Friulian. On the one hand, Heritage Abruzzese exhibits DOM on referents that are typically not affected by the phenomenon in homeland variety, as shown in (2)(15); on the other hand, DOM emerged in Heritage Friulian (15):

(15) Heritage Abruzzese in Argentina (Andriani *et al.* 2022b: 18)
Lu lopə s'a magnatə **a** **nu** **gnillə**.
the wolf si=has eaten DOM a lamb
'The wolf ate a lamb.'

(16) Heritage Friulian in Argentina (Andriani *et al.* 2022b: 18)
Tu as fât un sium. Tu as bussât **a** **to** **fie**.

[11] In particular, most of our data come from the Rioplatense variety of the language, where DOM is more extended than in European Spanish, as noted in Saab 2018.

you.SCL have made a dream you.SCL have kissed DOM your daughter
'You had a dream. You kissed your daughter.'

These data point to an additional conclusion, namely that topicality conditions are involved both in the emergence of DOM in Heritage Friulian, and in the extension of DOM in Heritage Abruzzese. We identified therefore the effects of a new factor in the attribution of the marking, different from that which is found in the homeland variety, where the position of the object is irrelevant for DOM (Ledgeway *et al.* 2019). In other words, in both HLs DOM is accepted more often in fronted topic position than *in situ*. Importantly, this result also differs from what has been noticed for Heritage Spanish (Silva-Corvalán 1994; Luján & Parodi 1996; Montrul 2004; Montrul & Bowles 2009; Montrul & Sánchez-Walker 2013; Montrul & Bhatt & Girju 2015). In (17a) and (17b), we show that DOM was accepted for one and the same type of referent by 1 out of 4 heritage Friulian speakers when that object was *in situ*, and by 4 out of 4 heritage Friulian speakers when it was instead topicalized. Similarly, for Heritage Abruzzese, one and the same referent was never differentially marked when *in situ*, but both our informants accepted it with DOM when in topic:

(17) Heritage Friulian in Argentina

a. O ai copat (a) chel sarpint neri. DOM: 1/4
I.SCL have.1SG killed DOM that snake black
'I hit that black snake.'

b. (A) chel sarpint neri, îr, lu=avin copât. DOM: 4/4
DOM that snake black yesterday it=have.1PL killed
'That black snake, yesterday, we killed it.'

Thus, DOM is not only preserved, but even strengthened in both varieties at issue spoken in Argentina, in clear contrast with the outcomes of macrocontact as discussed by the available literature (Spanish in contact with US English). Moreover, we found that Heritage Friulian speakers in Brazil also accept DOM to some degree. Similarly to what was described for Argentina, DOM acceptance is favored by topicalization of the DO. Since Brazilian Portuguese does not display DOM, this strongly suggests that this change does not follow from transfer, but is in fact endogenous, i.e., it mirrors the diachronic pattern of DOM emergence. This is further in line with findings from diachronic studies of DOM in Romance varieties (Iemmolo 2009, 2010). Another argument for the endogenous nature of the change at issue lies in the fact that the distribution of DOM in Heritage Friulian displays different features with respect to the contact languages: on the one hand, Brazilian Portuguese lacks DOM altogether, on the other hand, Argentinian Spanish features a system where DOM affects also non-animate referents, independently of their position within the sentence (Di Tullio 2019). In other words, topicalization of the objects does not affect the presence of DOM in Argentinian Spanish. As such, we can conclude that change in the domain of DOM is in conformity with G3.

5. Microcontact and syntactic theory

In Section 4, four case studies were presented on microcontact. Their results can be summarized as follows, in structural terms.

Auxiliaries. Auxiliary selection in microcontact yields two separate outcomes: on the one hand, HAVE auxiliaries overextend; on the other, a new rule emerges for the distribution of BE auxiliaries. As broadly discussed in Andriani & D'Alessandro (2022), this indicates a simplification of the paradigm, as the alternation between two forms changes into a mono-selectional process. This result parallels those that have been discussed in Section 3.1 regarding the reduction of null subjects and the overextension of overt subjects, and is very likely dictated by economy considerations. However, as Andriani & D'Alessandro also argue, selecting HAVE means opting for the most informative and structurally complex auxiliary (Tuttle 1986, Kayne 1993). The fact that simplification is not the only direction taken by auxiliation is further witnessed by the appearance of specialized BE auxiliaries in many Venetan varieties in Brazil. There, a distribution not existing in the Italian-based counterparts and bearing on the position of the subject and the anti-agreement effect originating with post-verbal subjects is at work. This distribution suggests the complexification of the auxiliary selection system.

The conclusions that we can draw, based on the observation of the CIC of auxiliary systems, is that economy principles might be at work in featural systems overall, but that we are not authorized to conclude that they will always be at work, especially as far as features are concerned. The existence of specialized emerging forms suggests in fact the opposite: an increase in the complexification of the system. However, following Polinsky (2018), the emergence of specialized forms in the fashion of one form one function can also be interpreted as reduction of complexity. Given the scarcity of data, it is not possible to draw firm conclusions regarding auxiliary selection in contact. We limit ourselves to identify two different paths, one of overextension and paradigmatic reduction, and another one of specialization.

Demonstratives. A clearer view is instead offered by demonstratives in contact. In that case, a rather large data set (see Terenghi 2023a and D'Alessandro & Terenghi in press) supports the observation that systems featuring mismatching values which break the monotonicity of the functional sequence contained in demonstratives tend to be reduced in a very systematic way: the functional sequence disrupting monotonicity is reduced. In Terenghi's study, a direct comparison is made between the developments of demonstrative systems in heritage languages, standardized (monolingual) varieties, and creoles. Interestingly, these systems exhibit analogous patterns of behavior. The conclusion to be drawn is that change affecting φ-features is largely predictable and uniform (see also Sorace 2011 for similar conclusions). Regarding the internal structure of demonstratives, this study allowed us to understand and pinpoint the exact universal sequence of functional heads composing them, by observing the elements that get eliminated first and their consistent peripheral position in the syntactic spine.

Null subjects and DOM. The same cannot be said when it comes to phenomena involving discourse, which are much more unpredictable. As we have seen, both null subjects and DOM evolve in a very different fashion than they do in simple dyadic contact. However, both null subjects and DOM in microcontact mirror the diachronic development of the same elements: they both rely heavily on topicality. While null subjects in dyadic contact tend to be replaced by overt

subjects, this is not the case in microcontact. Likewise, DOM in dyadic contact mostly weakens (Montrul 2004), while in microcontact it gets reinforced and extended.

The conclusions that we can draw here are of two kinds: the first one is that these results cannot be interpreted easily through the TPM, as this model is too coarse grained and vacuously effective, given that we are comparing different dialects of the same Romance macro-grammar. The second one is that, as mentioned in Section 3.2, when two varieties enter in microcontact it is difficult to pinpoint the locus of variation, as structural mapping is identical, and what varies is usually only the value of a feature, but not their structure overall (as extensively shown in Frasson's study on subject clitics and null subjects). In this case, the grammars behave as they do in diachrony in most cases: while DOM in situ can be weakened, DOM on topics systematically reappears. While agreement clitics become pronouns, pronouns start getting dropped in topic continuation situations. This, we maintain, reflects a general cognitive principle at work also in L1 acquisition, linked to the development of the clause and on the importance of topicality in the construction of the sentence (Lahousse, Belletti 2017, 2018, a.o.).

Regarding the structures themselves, microcontact helped us identify two important facts. The first one is that, based on their behavior in microcontact, sensibly different from that of dyadic macrocontact, there is no evidence for the distinction between subject clitics, full pronouns, and null subjects other than the value attributed to the R(eferential) feature. The second one is that DOM *in situ* and in topic are two rather distinct phenomena, and that the former is an extension of the latter (pretty much in line with Iemmolo's proposal, but only partially with the analyses considering DOM as phenomenon involving just the checking of an animacy or definiteness feature, see Torrego 1998, López 2010 and others).

6. Conclusions

This paper highlights the significance of incorporating the microdimension and cross-checking as analytical tools for examining CIC. Methodologically, if we were to examine language dyads alone, it might lead to a mistaken conclusion that several observed changes, such as the emergence or expansion of DOM (Differential Object Marking), are primarily a result of transfer. Examining the same microphenomenon in multiple contact situations, with all other factors held constant, is the only approach that can definitively address questions about the conditions that license change.

Empirically, we hope to have shown that we cannot easily conclude that CIC and CID are perfectly parallel (as proposed by Kupisch & Polinsky 2022), but that change targeting fixed sequences of functional heads is easier to predict.
Conversely, phenomena involving the interfaces are much more complex and unpredictable. In that case, we have shown that, while it is still possible to identify some triggers for change, it is not easy to identify a unique direction of change. The configuration in which the languages enter in contact plays an important role here, unlike for core syntactic features, in that the perception of the locus of variation is easier in language dyads, especially if the languages are sufficiently distant structurally. If structural mapping identifies point of variation, the conflict between structures can be resolved mainly towards simplification. If this identification is more difficult, like in the case

of minimally differing languages, the speakers resort to basic cognitive strategies for the resolution of grammar conflict, like topic marking in dislocation, a strategy which is also learned very early on by L1 acquirers and also at work diachronically.

Microcontact studies have yielded valuable insights into the structure of demonstratives, null subjects, subject clitics, and DOM. If anything, *Microcontact* has underscored the significance of the microdimension when attempting to formulate generalizations. However, it has also demonstrated that generalizations remain attainable; they simply require a comprehensive consideration of all potential contact configurations, specifically including microcontact.

References

Aboh, Enoch. 2010. Information structuring begins with the numeration. Iberia: An International Journal of Theoretical Linguistics 2(1): 12–42.

Aboh, Enoch. 2017. The emergence of hybrid grammars: A rejoinder to Peter Bakker. WORD, 63(3), 207-222. https://doi.org/10.1080/00437956.2017.1347316

Aboh, Enoch & Michel DeGraff. 2017. A Null Theory of Creole Formation Based on Universal Grammar. In I. Roberts (Ed.), The Oxford Handbook of Universal Grammar (pp. 401–458). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199573776.013.18

Adams, Marianne. 1987a. *Old French, null subjects, and verb second phenomena*. UCLA Doctoral Dissertation.

Adams, Marianne. 1987b. From Old French to the Theory of Pro-Drop. *Natural Language & Linguistic Theory* 5(1): 1–32. DOI: 10.1007/BF00161866

Aikhenvald, Alexandra Y. 2006. Reflections on language contact, areal diffusion, mechanisms of linguistic change. In Caron, Bernard & Zima, Petr (eds.), *Sprachbund in the West African Sahel*, 23–26. Louvain/Paris: Peeters.

Aikhenvald, Alexandra Y. & Robert M.W. Dixon. 2006. *Grammars in contact.* Oxford: Oxford University Press.

Andriani, Luigi, Jan Casalicchio, Francesco Maria Ciconte, Roberta D'Alessandro, Alberto Frasson, Brechje van Osch, Luana Sorgini & Silvia Terenghi. 2022a. Documenting Italo-Romance heritage languages in the Americas. In Matt Coler & Andrew Nevins (eds.), *Contemporary research in minority and diaspora languages of Europe*, Berlin: Language Science Press. https://langsci-press.org/catalog/view/332/3536/2466-1

Andriani, Luigi, Roberta D'Alessandro, Alberto Frasson, Brechje van Osch, Luana Sorgini & Silvia Terenghi. 2022b. Adding the microdimension to the study of language change in contact. Three case studies. *Glossa: a journal of general linguistics* 7(1), pp. 1–36. DOI: https://doi.org/10.16995/glossa.5748

Battye, Adrian, & Ian Roberts (eds.). 1995. *Clause structure and language change*. Oxford: Oxford University Press.

Belletti, Adriana. 2017. On the acquisition of complex derivations with related considerations on poverty of the stimulus and frequency. In Elisa Di Domenico (ed.), *Syntactic complexity from acquisition*, 28–48. Newcastle: Cambridge Scholars Publishing.

Belletti, Adriana. 2018. On a-marking of object topics in the Italian left periphery. In Roberto Petrosino, Pietro Carlo Cerrone & Harry van der Hulst (eds.), *Beyond the veil of Maya: From sounds to structures*. Berlin: Mouton de Gruyter.

Belletti, Adriana & Maria-Teresa Guasti. 2015. *The acquisition of Italian: Morphosyntax and its interfaces in different modes of acquisition*. Amsterdam/Philadelphia: John Benjamins.

Belloni, Silvano. 1991. *Grammatica veneta*. Este, PD: Zielo.

Benincà, Paola. 1994. *La variazione sintattica. Studi di dialettologia romanza*. Bologna: Il Mulino.

van Benthem, Johan. 1986. *Essays in logical semantics*. Dordrecht: Springer. DOI: 10.1007/978-94-009-4540-1.

Berizzi, Mariachiara. 2013. The preposition *ma* in the central Italian dialects. *Quaderni di lavoro ASIt* 15: 1–21. http://asit.maldura.unipd.it/documenti/ql15/ASIt15_berizzi.pdf

Biberauer, Theresa. 2019. Factors 2 and 3: Towards a principled explanation. *Catalan Journal of Linguistics 2019 Special Issue: Generative Syntax. Questions, Crossroads, and Challenges*, 45–88. DOI: 10.5565/rev/ catjl.219.

Biberauer, Theresa & Ian Roberts. 2012. Towards a parameter hierarchy for auxiliaries: Diachronic considerations. *Cambridge Occasional Papers in Linguistics* 6: 267–294. https://www.mmll.cam.ac.uk/files/copil_6_9_ biberauerroberts.pdf.

Bickerton, Derek. 1989. The Child, the Bioprogram and the Input Data: A Commentary on Cziko. *First Language* 9(25): 33–37.

Bickerton, Derek. 1990. *Language and Species*. Chicago, IL: University of Chicago Press.

Bossong, Georg. 1985. *Differentielle Objektmarkierung in den Neuiranischen Sprachen*. Tübingen: Narr Verlag.

Bossong, Georg. 1991. Differential object marking. In Dieter Wanner and Douglas A. Kibbee (eds), *New Analyses in Romance Linguistic*, 143–170. Amsterdam: John Benjamins. DOI: 10.1075/cilt.69.14bos

Cennamo, Michela & Antonella Sorace. 2007. Auxiliary selection and split intransitivity in Paduan: Variation, and lexical-aspectual constraints. In Raúl Aranovich (ed.), *Split Auxiliary Systems: A cross-linguistic perspective*, 65–99. Amsterdam: John Benjamins DOI: 10.1075/tsl.69.05cen.

Chandra, Pritha, D'Alessandro, Roberta & Michael T. Putnam. (to appear). Ethical concerns for theoretical research in linguistics: Issues and best practices. In *Ethics in Linguistics*, ed. Marina Terkourafi, Special Issue of *Linguistics.*

Chomsky, Noam. 2000. *New horizons in the study of language and mind*. Cambridge/New York: Cambridge University Press.

Ciconte, Francesco Maria. 2018a. Soggetto e oggetto nell'italo-romanze antico. *Studi e Saggi Linguistici* 56(1): 97–136.

Ciconte, Francesco Maria. 2018b. La posizione del soggetto e dell'oggetto nel siciliano antico. *Bollettino del CSFLS* 29: 177–204.

Collins, Chris. 2021. A Conversation with Noam Chomsky about Formal Semantics. Ordinary Working Grammarian [Blog]. https://ordinaryworkinggrammarian.blogspot.com/2021/06/a-conversation-with-noam-chomsky-about.html

Cordin, Patrizia & Leonardo Degasperi. 2020. Cambiamenti morfo-sintattici nel dialetto trentino di Piracicaba. *Vox Romanica* 79: 41–60.

D'Alessandro, Roberta & Ian Roberts. 2010. Past participle agreement in Abruzzese: Split auxiliary selection and the null-subject parameter. *Natural Language & Linguistics Theory* 28(1). 41–72.
D'Alessandro, Roberta. 2015. *Microcontact. Language variation and change from the Italian heritage perspective*. ERC project, https://microcontact.sites.uu.nl/project/
D'Alessandro, Roberta. 2017. When you have too many features: Auxiliaries, agreement and clitics in Italian varieties. *Glossa: a journal of general linguistics* 2(1): 50. DOI: https://doi.org/10.5334/gjgl.102
D'Alessandro, Roberta. 2021a. Syntactic change in contact: Romance. *Annual Review of Linguistics* 7(7). 309–328. DOI: https://doi.org/10.1146/annurev-linguistics-011619-030311
D'Alessandro, Roberta. 2021b. Understanding language change – directionality, simplification, or neither? LINGUAE Lectures, ENS, Paris, 2 December 2021.
D'Alessandro, Roberta. 2022a. Case, alignment, agreement, and information structure. The role of DOM in language change. Paper presented at the 31st Colloquium on Generative Grammar, Universitat de les Illes Balears, 1-3 June.
D'Alessandro, Roberta. 2022b. Crossing domains: topic marking and doubling in Romance. In Boneh, Harbour, Matushansky & Roy (eds), *Building on Babel's Rubble*. Paris: PUV.
D'Alessandro, & Claudio Di Felice. 2015. The diachrony of Abruzzese complementation, *Revue Roumaine de linguistique* 1-2: 129-145.
D'Alessandro, Roberta & Alberto Frasson. 2023. Simplification or complexification: auxiliary selection and anti-agreement effect in Brazilian Venetan. *Catalan Journal of Linguistics* 22, 9–27. https://doi.org/10.5565/rev/catjl.381
D'Alessandro, Roberta, Natvig, David & Michael T. Putnam. 2021. Addressing challenges in formal research on moribund heritage languages: A path forward. *Front. Psychol.* 12, 700126.
D'Alessandro, Roberta & Silvia Terenghi. In press. Non-monotonic functional sequences: A new metric for complexity in heritage languages. To appear in Maria Polinsky, Michael T. Putnam & Joe Salmons (eds), *Formal approaches to complexity in heritage language grammars*. Berlin: Language Science Press.
Dal Picol, Greyce. 2013. Novo perfil linguístico dos falantes bilíngues da Região de Colonização Italiana do Nordeste do Rio Grande do Sul: mudança dialetal e mescla linguística. *Sociodialeto* 3. 281–297.
Dal Picol, Greyce. 2014. *A morfossintaxe na oralidade do vêneto sul-rio-grandense: perfil dialetal de comunidades rurais da região da 4a légua, Caxias do Sul (RS)*. Universidade Caxias do Sul Doctoral Dissertation.
Diessel, Holger. 1999. *Demonstratives: Form, Function, and Grammaticalization*. Amsterdam/ Philadelphia, PA: John Benjamins. DOI: 10.1075/tsl.42.
Di Felice Claudio & Stefano Cesinaro. 2016. Documentando l'antico abruzzese. In : Coluccia R., Brincat J. & Möhren F. (eds), *Actes du XXVIIe Congrès international de linguistique et de philologie romanes (Nancy, 15-20 juillet 2013). Section 5 : Lexicologie, phraséologie, lexicographie*. Nancy, ATILF. http://www.atilf.fr/cilpr2013/actes/section-5.html.
Dixon, Robert M. W. 1979. Ergativity. *Language* 55(1): 55−138. DOI: 10.2307/412519

Faggion, Carmen Maria. 2013. Aspectos morfossintáticos do vêneto do Sul do Brasil. In Emili Casanova Herrero & Cesáreo Calvo Rigual (eds), *Actas del XXVI Congreso Internacional de Lingüística y de Filología Románicas* (Vol. 6), 131–142. Berlin: De Gruyter.

Flynn, Suzanne, Foley, C., & I. Vinnitskaya. 2004. The Cumulative-Enhancement model for language acquisition: comparing adults' and children's patterns of development in first, second and third language acquisition. *International Journal of Multilingualism* 1, 3–17. doi: 10.1080/14790710408668175

Frasson, Alberto. 2022. *The Syntax of Subject Pronouns in Heritage Languages: Innovation and Complexification.* Utrecht University Doctoral Dissertation. https://www.lotpublications.nl/Documents/622_fulltext.pdf

Frosi, Vitalina Maria & Mioranza, Ciro. 1983. *Dialetos italianos: um perfil lingüístico dos Ítalo-Brasileiros do nordeste do Rio Grande do Sul*. Caxias do Sul: EDUCS.

Geurts, Bart & Frans van der Slik. 2005. Monotonicity and processing load. *Journal of Semantics* 22(1): 97–117. DOI: 10.1093/jos/ ffh018.

Harbour, Daniel. 2016. *Impossible Persons*. Cambridge, MA: The MIT Press. DOI: 10.7551/mitpress/9780262034739.001.0001.

Harris, Martin. 1978. *The evolution of French syntax: a comparative approach*. London; New York: Longman.

Hejná, Michaela & George Walkden. 2022. *A history of English*. Berlin: Language Science Press. DOI: 10.5281/zenodo.6560337

Hickey, Raymond (ed). 2020. *The Handbook of Language Contact*. London: Wiley Blackwell.

Hirschbühler, Paul. 1995. Null subjects in V1 embedded clauses in Philippe de Vigneulles' Cent Nouvelles Nouvelles. In Ian Roberts & Adrian Battye (eds), *Clause Structure and Language Change*, 257–291. Oxford: Oxford University Press.

Huang, C.-T. James. 1984. On the distribution and reference of empty pronouns. *Linguistic Inquiry* 15(4): 531–574.

Hulk, Aafke and Natascha Müller. 2000. Bilingual first language acquisition at the interface between syntax and pragmatics. *Bilingualism: Language and Cognition* 3(3): 227–244.

Iemmolo, Giorgio. 2009. La marcatura differenziale dell'oggetto in siciliano antico. *Archivio Glottologico Italiano* 94(2): 185–225.

Iemmolo, Giorgio. 2010. Topicality and differential object marking: Evidence from Romance and beyond. *Studies in Language* 34(2). 239–272. DOI: 10.1075/sl.34.2.01iem

Ingham, Richard. 2018. Topic, Focus and null subjects in Old French. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 63(2) : 242–263. DOI: 10.1017/cnj.2017.48

Kauhanen, Henri, Sarah Einhaus & George Walkden. 2023. Language structure is influenced by the proportion of non-native speakers: A reply to Koplenig (2019). *Journal of Language Evolution* 20: 1–12. DOI: 10.1093/jole/lzad005

Kayne, Richard S. 1993. Toward a modular theory of auxiliary selection. *Studia Linguistica*, 47: 3–31. https://doi.org/10.1111/j.1467-9582.1993.tb00837.x

Van Kemenade, Ans & Nigel Vincent (eds). 1997. *Parameters of morphosyntactic change*. Cambridge: Cambridge University Press.

Kupisch, Tanja & Maria Polinsky. 2022. Language history on fast forward: Innovations in heritage languages and diachronic change. *Bilingualism: Language and Cognition* 25(1): 1–12. DOI: 10.1017/S1366728921000997

Labelle, Marie. 2007. Clausal architecture in Early Old French. *Lingua* 117(1). 289–316. DOI: 10.1016/j.lingua.2006.01.004

Lardiere, Donna. 2008. Feature-Assembly in Second Language Acquisition, in Juana Liceras, Helmut Zobl, Helen Goodluck (eds), *The role of formal features in second language acquisition*, 106–140. New York: Lawrence Erlbaum Associates.

Ledgeway, Adam. 2008. Satisfying V2 in early Romance: Merge vs. Move. *Journal of Linguistics* 44(2): 437–470. DOI: 10.1017/S0022226708005173

Ledgeway, Adam. 2012. *From Latin to Romance: Configurationality, Functional Categories and Head-Marking*. Oxford/New York: Oxford University Press.

Ledgeway, Adam, and John C. Smith. 2016. Deixis. In Adam Ledgeway & Martin Maiden (eds), *The Oxford Guide to the Romance Languages*, 879–896. Oxford/New York: Oxford University Press. DOI: 10.1093/acprof:oso/9780199677108.003.0054

Ledgeway, Adam, Schifano, Norma & Giuseppina Silvestri. 2019. Differential Object Marking and the properties of D in the dialects of the extreme south of Italy. *Glossa: a journal of general* linguistics 4(1): 51. doi: https://doi.org/10.5334/gjgl.569

Lepschy, Giulio (1984). Costruzioni impersonali con SE in veneziano. In Manlio Cortelazzo (ed.), *Guida ai dialetti veneti VI*, 69–79. Padua: CLEUP.

Levinson, Stephen C. 2018. Introduction. Demonstratives: Patterns in diversity. In Stephen C. Levinson, Sarah Cutfield, Michael J. Dunn, Nick J. Enfield & Sérgio Meira (eds), *Demonstratives in Cross-Linguistic Perspective*, 1–42. Cambridge: Cambridge University Press. DOI: 10.1017/ 9781108333818.002.

Loporcaro, Michele. 2007. On Triple Auxiliation in Romance. *Linguistics* 44(1). 173–222. DOI: 10.1515/LING.2007.005.

Loporcaro, Michele. 2016. Auxiliary Selection and Participial Agreement. In Adam Ledgeway & Martin Maiden (eds), *The Oxford Guide to the Romance languages*, 802–818. Oxford: Oxford University Press.

Loporcaro, Michele & Maria Teresa Vigolo. 1995. Ricerche sintattiche sul confine veneto-trentino in Valsugana: l'accordo del participio passato. In Emanuele Banfi, Giovanni Bonfadini, Patrizia Cordin & Maria Iliescu (eds), *Italia settentrionale: crocevia di idiomi romanzi*, 87–101. Tübingen: Niemeyer.

Luján, Marta & Parodi, Claudia. 1996. Clitic-doubling and the acquisition of agreement in Spanish. In Javier Gutiérrez-Rexach and Luis Silva Villar (eds), *Perspectives on Spanish linguistics* (vol. 1), 119–138. Los Angeles, CA: UCLA, Department of Linguistics.

Lyons, John. 1977. *Semantics*, vol. 2. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511620614.

Manzini, M. Rita & Savoia, Leonardo M. 2005. *I dialetti italiani e romanci. Morfosintassi generativa*. Alessandria: Edizioni dell'Orso.

Marcato, Gianna & Flavia Ursini. 1998. *Dialetti veneti: grammatica e storia*. Padua: Unipress.

Mayer, Elisabeth & Liliana Sánchez. 2021. Emerging DOM patterns in clitic doubling and dislocated structures in Peruvian-Spanish contact varieties. In Johannes Kabatek, Philipp Obrist

and Albert Wall (eds), *Differential Object Marking in Romance*, 103–137. Berlin/Boston, MA: De Gruyter.
McWhorter, John. 2018. *The creole debate*. Cambridge: Cambridge University Press.
Meisel, Jürgen. 2011. *First and Second Language Acquisition: Parallels and Differences*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511862694
Meisel, Jürgen. 2013. Sensitive phases in successive language acquisition: the critical period hypothesis revisited, in C. Boeckx, K. K. Grohmann (eds), *The Cambridge handbook of biolinguistics*. Cambridge: Cambridge University Press. 69–85
Miyagawa, Shigeru. 2005. On the EPP, in Martha McGinnis and Norvin Richards (eds), *Perspectives on Phases*, Cambridge, MA: MIT Working Papers in Linguistics 49: 201–236.
Montrul, Silvina. 2004. Subject and object expression in Spanish heritage speakers: A case of morphosyntactic convergence. *Bilingualism: Language and cognition* 7(2): 125–142.
Montrul, Silvina. 2008. *Incomplete Acquisition in Bilingualism. Re-examining the Age Factor*. Amsterdam: John Benjamins.
Montrul, Silvina & Bhatt, Rajesh, & Girju, Roxana. 2015. Differential Object Marking in Spanish, Hindi, and Romanian as Heritage Languages. *Language* 91(3): 564–610. DOI: 10.1353/lan.2015.0035
Montrul, Silvina & Bowles, Melissa. 2009. Back to basics: Differential Object Marking under incomplete acquisition in Spanish heritage speakers. *Bilingualism: Language and Cognition* 12(3): 363–383. DOI: 10.1017/S1366728909990071
Montrul, Silvina & Noelia Sánchez-Walker. 2013. Differential Object Marking in child and adult Spanish heritage speakers. *Language Acquisition* 20(2): 109–132. DOI: 10.1080/ 10489223.2013.766741
Mufwene, Salikoko. 2020. Grammaticization in the development of creoles. In Rainer Vossen (ed.), *Patterns of Linguistic Convergence in Africa, a Festschrift for Bernd Heine*, 153-169.
Müller, N. (2017). Different sources of delay and acceleration in early child bilingualism. *Zeitschrift Für Sprachwissenschaft* 36, 7–30. doi: 10.1515/zfs-2017-0002
Paradis, Johanne. 2011. Internal and external factors in child second language acquisition. *Linguistic Approaches to Bilingualism* 1, 213–237. doi: 10.1075/lab.1.3.01par
Paradis, Johanne & Fred Genesee. 1996. Syntactic acquisition in bilingual children. *Studies in Second Language Acquisition* 18, 1–25. doi: 10.1017/S0272263100014662
Pellegrini, Giovan Battista. 1977. *Carta dei dialetti d'Italia*. Pisa: Pacini.
Pescarini, Diego. 2021. *Object Clitics*. Oxford: Oxford University Press.
Pintzuk, Susan, George Tsoulas, & Anthony Warner (eds). 2000. *Diachronic syntax: models and mechanisms*. Oxford: Oxford University Press.
Polinsky, Maria. 2018. *Heritage Languages and their Speakers*. Cambridge: Cambridge University Press. DOI: 10.1017/9781107252349
Pollock, Jean-Yves. 1989. Verb Movement, Universal Grammar, and the Structure of IP. *Linguistic Inquiry* 20(3): 365–424.
Rizzi, Luigi. 1986. On the Status of Subject Clitics in Romance. In Osvaldo A. Jaeggli and Carmen Silva-Corvalan (eds), *Studies in Romance Linguistics*, 391–419. Dordrecht: Foris.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In Haegeman, Liliane (ed.), *Elements of grammar. Handbook in generative syntax*, 281–337. Dordrecht: Springer. DOI: 10.1007/978-94-011-5420-8_7

Roberts, Ian. 2007. *Diachronic Syntax*. Oxford/New York: Oxford University Press.

Roberts, Ian. 2009. A deletion analysis of null subjects. In Theresa Biberauer, Anders Holmberg, Ian Roberts, Michelle Sheehan (eds), *Parametric variation: Null subjects in minimalist theory*, 88–124. Cambridge: Cambridge University Press.

Roberts, Ian & Anna Roussou. 2003. *Syntactic Change. A Minimalist Approach to Grammaticalization*. Cambridge, UK: Cambridge University Press.

Rothman, Jason. 2010. On the typological economy of syntactic transfer: Word order and relative clause high/low attachment preference in L3 Brazilian Portuguese. *International Review of Applied Linguistics in Teaching (IRAL)* 48(2/3): 245–273.

Rothman, Jason. 2011. L3 Syntactic Transfer Selectivity and Typological Determinacy: The Typological Primacy Model. *Second Language Research* 27(1): 107–127. DOI: 10.1177/0267658310386439.

Rothman, Jason. 2013a. Cognitive Economy, Non-Redundancy and Typological Primacy in L3 Acquisition: Evidence from initial stages of L3 Romance. In S. Baauw, F. Dirjkoningen & M. Pinto (eds), *Romance Languages and Linguistic Theory* 2011, 217–248. Amsterdam: John Benjamins.

Rothman, Jason. 2013b. Linguistic and cognitive motivations for the Typological Primacy Model (TPM) of third language (L3) transfer: Timing of acquisition and proficiency considered. *Bilingualism: language and cognition* 18(2): 179–190.

Rothman, Jason & Jennifer Cabrelli Amaro. 2010. What variables condition syntactic transfer? A Look at the L3 initial state. *Second Language Research* 26(2): 189–218. DOI: 10.1177/0267658309349410

Rothman, Jason *et al*. 2022. Monolingual comparative normativity in bilingualism research is out of "control": Arguments and alternatives. *Applied Psycholinguistics*, First View: 1–14. DOI: 10.1017/S0142716422000315

Saab, Andrés. 2018. *Case conflicts and A-movement: DOM, doubling and clitics in Rioplatense Spanish*. Lecture series held at Utrecht University (December 2018).

Schifano, Norma. 2018. *Verb Movement in Romance: A comparative study*. Oxford: Oxford University Press. DOI: 10.1093/oso/9780198804642.001.0001

Schwartz, Bonnie D. & Rex A. Sprouse. 1996. L2 cognitive states and the Full Transfer/Full Access model. *Second Language Research* 12(1): 40–72.

Scontras, Gregory & Michael T. Putnam. 2020. Lesser-studied Heritage Languages: An Appeal to the Dyad. *Heritage Language Journal* 17(2): 152–155. DOI: 10.46538/hlj.17.2.2

Sheehan, Michelle. 2006. *The EPP and null subjects in Romance*. Newcastle University Doctoral Dissertation.

Silva-Corvalán, Carmen. 1994. *Language contact and change: Spanish in Los Angeles*. Oxford: Clarendon.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In Dixon, Robert W. M. (ed.), *Grammatical categories in Austrialian languages*, 112–171. Canberra: Australian Institute of Aboriginal Studies.

Sorace, Antonella. 1995. Acquiring argument structures in a second language: The unaccusative/ unergative distinction. In Lynn Eubank, Larry Selinker and Michael Sharwood Smith (eds), *The current state of interlanguage*, 153–175. Amsterdam: John Benjamins.

Sorace, Antonella. 2011. Pinning down the concept of interface in bilingualism. *Linguistic Approaches to Bilingualism* 1:1 (2011), 1–33. doi 10.1075/lab.1.1.01sor issn 1879–9264 / e-issn 1879–9272 © John Benjamins Publishing Company

Sorace, Antonella & Francesca Filiaci. 2006. Anaphora resolution in near-native speakers of Italian. *Second Language Research* 22(3): 339–368.

Sorace, Antonella, & Serratrice, Ludovica. 2009. Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism* 13(2): 195–210.

Sorace, Antonella, Ludovica Serratrice, Francesca Filiaci and Michela Baldo. 2009. Discourse conditions on subject pronoun realization: Testing the linguistic intuitions of older bilingual children. *Lingua* 119(3): 460–477. DOI: 10.1016/j.lingua.2008.09.008

Sorace, Antonella. 2011. Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism* 1(1): 1–33. DOI: 10.1075/lab.1.1.01sor

Sorgini 2002. One way for Accusative Case: Theme and Experiencer objects. Paper presented at the *Syntax Interface Lectures*, Utrecht University.

Stawinski, Alberto V. 1987. *Dicionário do dialeto vêneto sul-rio-grandense - português*. Porto Alegre: EST S. Lourenço de Brindes; Caxias do Sul: EDUCS.

Terenghi, Silvia. 2021b. (Non-)monotonicity effects in the person domain. Talk presented at the 2021 Annual Meeting of the Linguistic Association of Great Britain (LAGB), online, 6–9 September 2021.

Terenghi, Silvia. 2022. Demonstrative systems are not affected by contact: Evidence from heritage southern Italo-Romance. *Languages* 7(3). 201. https://doi.org/10.3390/languages7030201

Terenghi, Silvia. 2023a. *Missing Person: Structure and change in Romance demonstratives*. Utrecht University Doctoral Dissertation. https://www.lotpublications.nl/Documents/635_fulltext.pdf

Terenghi, Silvia. 2023b. Last in, first out: Patterns of reduction in Romance demonstrative systems. *Journal of Historical Syntax* 7(11): 1–40. https://doi.org/10.18148/hs/2023.v7i6-19.157

Tsimpli, Ianthi. 2014. Early, late or very late? Linguist. Approaches Biling. 4, 283–313. doi: 10.1075/lab.4.3.01tsi

Tuttle, Edward F. 1986. The spread of ESSE as universal auxiliary in Central Italo-Romance. *Medioevo Romanzo* 11(2): 229–287.

Unsworth, Sharon. 2013. Assessing age of onset effects in (early) child L2 acquisition. Language Acquisition 20, 74–92. doi: 10.1080/10489223.2013.766739

Unsworth, Sharon. 2016. Early child L2 acquisition: age or input effects? Neither, or both? *Journal of Child Language* 43, 608–634. doi: 10.1017/S030500091500080X

Unsworth, Sharon, Argyri, Froso, Cornips, Leonie, Hulk, Aafke, Sorace, Antonella & Ianthi Tsimpli. 2014. The role of age of onset and input in early child bilingualism in Greek and Dutch. *Applied Psycholinguistics* 35, 765–805. doi: 10.1017/S0142716412000574

Walkden, George & Anne Breitbarth. 2019a. Complexity as L2-difficulty: implications for syntactic change. *Theoretical Linguistics* 45(3–4): 183–209. DOI: 10.1515/tl-2019-0012
Walkden, George & Anne Breitbarth. 2019b. Interpreting (un)interpretability (response to commentaries). *Theoretical Linguistics* 45(3–4), 309–317. DOI: 10.1515/tl-2019-0022
Westergaard, Marit. 2009a. *The Acquisition of Word Order: Micro-cues, Information Structure, and Economy*. Amsterdam: John Benjamins.
Westergaard, Marit. 2009b. Item-based vs. rule-based learning: The acquisition of word order in wh-questions in English and Norwegian. *Journal of Child Language* 36: 1023–1051.
Westergaard, Marit. 2013. The acquisition of linguistic variation: Parameters vs. micro-cues. In: Terje Lohndal (ed.) *In search of universal grammar: From Old Norse to Zoque*, 275–298. Amsterdam: John Benjamins.
Wolfe, Sam. 2020. Reconsidering variation and change in the Medieval French subject system. *Glossa: a journal of general linguistics* 5(1): 59. DOI: 10.5334/gjgl.942