Adding the microdimension to the study of language change in contact.
Three case studies

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Abstract

Syntactic change in contact is generally accounted for by referring to either cognitive, structural/typological, or sociolinguistic factors. However, the relative weight of these factors in shaping the outputs of contact is yet to be assessed. In this paper, we propose a microcontact approach to the study of change in contact, one that focuses on microsyntactic points of variation across multiple language pairs that are structurally very close. We show that such an approach makes it possible to identify some of the factors that are involved in change with a better approximation. By considering three case studies centered on the syntax of subjects, objects, and indexicals, we show that the outputs of syntactic change in microcontact diverge from what is expected under otherwise solid generalizations (avoidance of indeterminacy, avoidance of silence, the Interface Hypothesis, and the general stability of the indexical domain) for change in contact. Microcontact offers a finer-grained point of observation, allowing us to go beyond broader typological assumptions and to focus on the link between structure and cognition. The results of our case studies highlight that the outputs of change in contact are an interplay between cognitive and structural factors (see also Muysken 2013 for additional processing considerations), and that the micro-variational dimension is crucial to draw a precise picture of heritage language syntax.

Keywords: heritage languages; microcontact; microvariation; Romance languages; structural similarity; syntactic change in contact

1. Introduction

Heritage speakers ('HSs') of a language are speakers that learnt that language in a naturalistic setting from early infancy and consistently spoke it at home, but who subsequently underwent extensive exposure to a different language, that of the wider society, and over time became dominant in it (Rothman 2009; Polinsky 2018a for an overview). Despite being native speakers of their heritage language ('HL'), however, HSs produce syntactic patterns that often diverge from those of monolingual and other bilingual speakers of the same variety. What causes this divergence is not completely clear, and while typological, cognitive and language-specific factors have been considered in several studies, their relative weight in shaping change in HL is yet to be fully determined.

To assess the weight of these factors, much background has been provided to HL studies from studies on L2 or L3 acquisition or bilingualism. Regarding L2/L3, transfer (or "borrowing", in typological terms) is one of the key concepts that has been examined, with considerable relevance attributed to the role of typological proximity, which is considered to be a main player in structural transfer by some (e.g., Rothman 2011), but not all (Westergaard 2019). Structural proximity has also been shown to play an important role in transfer, both in typological studies (Aikhenvald 2006) and in theoretical ones (Montrul *et al.* 2011, a.o.). Some stochastic models regarding the relative weight

of the languages in contact in case of code-switching have also been proposed, emphasizing the processing load of bilingual speech (Dijkstra & Van Heuven 1998) as opposed to monolingual one (Dell 1986).

The study of code-switching, specifically, has brought to light several important factors determining transfer, and in particular the emergence of *blends* (Goldrick, Putnam & Schwarz 2016), i.e. linguistic structures including elements from both languages. It should also be mentioned that some models of code-switching have been proposed that involve mainly grammatical factors: see for instance López, Alexiadou & Veenstra (2017), Alexiadou & Lohndal (2018), López (2020).

Still, most studies on HLs observe them from the viewpoint of contact between two languages that are significantly distant, both typologically and structurally. Furthermore, much research considers HLs in comparison to either monolingual or other bilingual situations. This paper will not contribute to the debate on the profile of HS, and whether they should be compared to monolinguals or to bilingual speakers, but it will add an important piece to the puzzle of grammars in contact by looking at HLs spoken in contact between minimally different languages ('microcontact'). Moreover, we believe that detailed understanding of the phenomena and the output of contact situations is needed in order to draw sensible generalizations about the various factors at play in language change in contact. This paper provides a theoretically-informed description of some phenomena in heritage languages.

Our results show that, though the specific grammars that are in contact play a role in determining the output of change and though our data are not completely homogeneous, some generalizations that have been observed for HL grammars are systematically disrespected when the contact languages are typologically very similar. Specifically, in this study, we consider four important generalizations regarding HL syntax.

The first one regards the tendency of HSs to avoid indeterminacy (Generalization 1, 'GEN1'): it has been noted that, if an item has several syntactic functions, only one of them will be selected in the HL (Polinsky & Scontras 2020). Our study on differential object marking (DOM, Diez 1874; Meyer-Lubke 1890-1895, Moravcsik 1978, Bossong, 1985, 1991) shows that this generalization does not hold in microcontact.

Secondly, the Interface Hypothesis ('IH', Hulk & Müller 2000; Sorace 2005) maintains that interface phenomena (of the weaker language) are more vulnerable in language-contact situations, the rationale being that the more grammatical modules are involved in a phenomenon, the more vulnerable that phenomenon will be to change (see also Müller & Hulk 2001, Paradis & Navarro 2003, Serratrice & Sorace 2003, Serratrice, Sorace & Paoli 2004, and many others). In particular, the fact that some phenomena involving discourse and information structure tend to weaken in HLs is taken to mean that HL speakers do not master the interplay between syntax and discourse-related information very easily (Generalization 2 'GEN 2'). Data from both subject and object domains contradict this generalization, as far as microcontact is concerned.

More in general, it is believed that HLs evolve in the direction of simplification. For instance, Tsimpli *et al.* (2004) and Sorace *et al.* (2009) observe that bilingual English-Italian or English-Greek children tend to use more overt subjects in their null-subject language; they attribute this to the fact that these bilinguals follow the model of English, which has only one option for the expression of subjects, namely the overt one. Rather than choosing a system that requires mastery of an intricate interface system for the distribution of subjects, they opt for the simpler system. Our data from both the subject and the object domains show that, while this is largely true, microcontact at times triggers cases of increased complexity, both morphological and syntactic, rather than simplification.

Along the same lines, previous research also highlights that heritage speakers tend to avoid silence ('GEN3', Polinsky 2006; Laleko & Polinsky 2016; 2017), i.e. they typically avoid *pro*-drop or ellipsis through the insertion of overt elements where monolingual speakers would use silent ones. In this article we show that the situation in microcontact is again different; null subjects are not only widely used, but also overextended with respect to monolingual use.

Finally, the indexicality domain has been shown to be the most stable domain in HLs ('GEN 4', Polinsky 2018a): our data from the nominal domain partially contradict this generalization. We do observe change in the indexical domain, especially in demonstratives, but this change is parallel to that witnessed in diachrony.

This paper is structured as follows. In Section 2, we introduce necessary background information and specifically we clarify the importance of considering contact between "minimally different languages" (Section 2.1), we stress the specific challenges posed by Italo-Romance HLs, especially in relation to the baseline definition (Section 2.2) and we give an overview of our methodology (Section 2.3). Both issues have been addressed in more detail in AUTHORS (2021a). Then, we introduce in greater detail the generalizations that have been proposed to account for a wide variety of instances of syntactic change in HLs/bilingualism, along with our contradictory data, to form three case studies: 'Avoid indeterminacy' and DOM (Section 3); the Interface Hypothesis and 'Avoid silence' with subject and object data (Section 4), and the stability of the indexical domain with data from the D and T domains (Section 5). Section 6 concludes the article.

2. Background

2.1 Microcontact

Heritage studies are usually carried out observing bilingual speakers of a HL and a "dominant" language. These studies often target languages that are typologically quite distant from each other, like English and Spanish (Silva-Corvalán 1994; Montrul & Bowles 2009; Montrul & Sánchez-Walker 2013; Pascual y Cabo 2013; Scontras, Polinsky & Fuchs 2018); English and Korean (Lee, Kwak, Lee & O'Grady 2011; O'Grady, Kwak, Lee & Lee. 2011), English and Russian (Polinsky 1997, 2005, 2006, 2011, 2018b) German and Turkish (Daller, Yildiz, De Jong, Kan & Basbagi 2011; Treffers-Daller, Daller, Furman & Rothman 2016; Kupisch, Belikova, Özçelik, Stangen & White 2017), and so on. These studies have the advantage of being directed to large numbers of speakers, and therefore to be easily usable for statistical generalizations. On the other hand, they present two main problems, in our view.

The first one is that HL studies usually target language *pairs*, and not language sets. This means that, normally, the comparison is performed on a one-to-one basis, and not on a one-to-many basis. This makes it ultimately impossible to ascertain whether the witnessed variation is due to the actual heritage situation or whether it is endogenous and would have taken place anyway (but perhaps more slowly, as in diachronic change). The study of language pairs is in fact not sufficient to identify the cause of change. As Aikhenvald puts it:

> "[i]t has long been recognised that one of the hardest tasks in comparative linguistics is distinguishing between similarities due to genetic inheritance and those due to borrowing (cf. the classic debate between Sapir and Boas)". (Aikhenvald 2006:24)

Likewise, Dench states that:

> "making the argument for an innovation shared by virtue of a period of common development is never easy. I take it for granted that a statement of shared inheritance as explanation for a shared feature should only be made once all other possible explanations for the shared feature have been exhausted. These other possibilities will include accidental similarity in form, borrowing and genetic drift." (Dench 2001:113)

The second issue concerns the fact that the languages examined are usually typologically distant. This allows to easily examine phenomena as a whole, but often lacks the granularity that is necessary to isolate the single features and follow their development in detail.

In this paper, we present a novel approach to the study of HLs, which we call *microcontact* (AUTHOR 2015, 2018, 2021a,b). By 'microcontact' we mean two things:[1] first, a study that focuses on the micro-level, and therefore on the output of contact (in the heritage context, in this case) between languages that are minimally different from each other. For this article, we consider HLs in contact with languages of the same family: Romance. By minimally different we mean the following: given a specific domain (for instance, the VP), everything is identical except for the value of the feature at issue. Second, the methodology we follow for microcontact studies also involves cross-checking: the evolution of the same feature is observed in a language L in contact with many minimally-different languages; the output of change is compared to that of a language L1 (closely related to L) in contact with the same language set. Both aspects, focus on microvariational issues and cross-checking, are necessary for a microcontact study.

Thus, given the two key dimensions of a microcontact approach, the setup of the present study is as follows. We consider a phenomenon X in a grammar A in contact with several other grammars, say B, C, D, that are very close to A, except for the specific feature X, which exhibits slight microvariation. Roughly, the grammars in contact are exactly the same in the domain around X, the only point of change being X itself. The rationale here is that the output of change in contact ('CIC') for the different grammars can either be the same for all contact situations, or differ depending on the languages involved. Identity of CIC outputs across language-pairs (A–B = A–C = A–D) implies that the change was entirely shaped by cognitive issues or by factors related to spontaneous change. Different outputs for at least one of the language pairs (A–B ≠ A–C and/or A–D) imply instead that the specific language pairs matter.

The languages that we selected share most of their lexicon and are typologically identical (see Ledgeway 2015a for an overview). Likewise, the phenomena that we selected display minimal cross-linguistic differences, allowing us to observe variation and change with high accuracy. These are null subjects (NS), DOM and indexicality. Considering the typological similarities (microcontact) of the languages included in our study, the difference of output also rules out the role of typology in the actual syntactic change, the relevant level being the exact microtypological profile of the languages involved.

The shift to a micro-dimension of contact parallels the one which happened with the introduction of the study of microvariation and comparative microvariational syntax; as many linguists, most notably Kayne (2000, 2005) observed for Romance, the introduction of this dimension uncovered a number of very important generalizations and offered a great contribution to syntactic theory.

This article shows that considering the microcontact dimension is not only necessary but indispensable in order to obtain a solid data pool from which to draw generalizations. Here, we discuss some case studies taken from syntactic variation in microcontact that show a substantial difference from what is known in the literature on HLs.

2.1.1. Insights from L2 and L3 acquisition

Research on syntactic change in HLs typically focuses on single phenomena, tested by controlled elicitation (production) and acceptability judgments (comprehension), and concludes by assessing whether a given hypothesis can account for the observed data or not; in the latter case, the divergent results are usually accounted for by means of acquisition-related analyses (early vs. late, possibly incomplete or, better, "differential" acquisition;[2] amount of input), structural complexity of the phenomenon, or typological considerations.

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[1] Observe that the term microcontact is sometimes used in sociolinguistics studies to refer to contact between very small language groups or contact for a very limited amount of time. This is *not* the meaning that we use in the remainder of this article.

[2] Kupisch & Rothman (2018) argue against the descriptive and theoretical accuracy of the term *incomplete acquisition*, deeming it "inappropriate to describe any outcome of naturalistic acquisition – bilingual or otherwise–" (Kupisch &

Importantly, much recent research relies on typology as a heuristic factor: as Rothman (2010)'s Typological Primacy Model ('TPM', developed on the basis of transfer in trilingual speakers; cf. also Rothman, Alonso & Puig-Mayenco 2019: §4.3.3) shows, transfer in an L3 is observed to come from the (psycho-)typologically closest language to L3, regardless of the actual structure and the order of acquisition. This model is holistic in its approach, because it looks at broad typological factors (organized into an implicational hierarchy: Lexicon > Phonology/Phonotactics > Functional Morphology > Syntactic Structure; Rothman, Alonso & Puig-Mayenco 2019:163), and uses them to account for the observed patterns, even if there is a difference between the languages in contact with respect to the specific phenomenon. In short, according to this model, typological similarity overshadows structural similarity. A very different approach is that explored by Westergaard *et al.* (2017) and Westergaard (2019), which demonstrate that transfer does happen structure by structure and is not overshadowed by holistic typological similarities (*contra* Rothman 2010 *ff.*). According to the Linguistic Proximity Model ('LPM'; cf. Westergaard *et al.* 2017), transfer between L_n and L3 (or L4) takes place incrementally, structure by structure, mainly based on linguistic similarity.

This paper shows that both approaches are in fact correct: macro-typological considerations vacuously apply to microcontact, therefore the TPM cannot determine what structure will be transferred or change in microcontact. We could argue that each of the strategies outlined by Muysken (2013)[3] is found in our data, to a certain extent. Muysken (2013) observes in fact that the output of CIC can go in one of the following directions: maximize structural coherence of the first language (L1); maximize structural coherence of the second language (L2); match between L1 and L2 patterns where possible; then, universal principles of language processing determine the final output. All these possibilities are present in our data to a different extent. However, we see some developments that are not predicted by this model, some innovations that belong to neither L1 or L2 and cannot be attributed to processing either.

Typological similarity does seem to play a big role since these generalizations take place within the same macrotypological group (i.e. typology needs to be considered). The LPM can target microcontact instead, as it observed structures and not "typological kinds". If anything, our data show that the specific structures in contact play a limited role, as the tendency we appreciate is against the generalizations listed above, independently of the specific languages in microcontact. In other words, it does not really matter whether the Italo-Romance pro-drop variety is in contact with Spanish or Portuguese: DOM will not decline. We will return to the possible explanations for this in Sections 3 and 4; at this stage, however, neither model perfectly applies to our dataset.

2.2 Italo-Romance HLs: the baseline problem

A common issue for many studies on minority languages is the impossibility of comparing and crosschecking the investigated varieties against a monolingual baseline (see, for an extended overview of the issues, Leivada, D'Alessandro & Grohmann 2019 and D'Alessandro, Natvig and Putnam to appear). Our study is no exception to this, as there are virtually no monolingual speakers of Italo-Romance varieties either in Italy (where Italian is spoken) or, obviously, in heritage contexts (where the national language of the host country is spoken). However, in addition to this, we encountered further issues related to the enormous syntactic Italo-Romance microvariation and the definition of the baseline, which are discussed below in Section 2.2.1 and 2.2.2, respectively.

2.2.1. Microvariation

Rothman 2018: 579). In its stead, they propose the term *differential acquisition*, which allows capturing the differences between monolingual and HS grammars (including the degrees of difference across individual HSs).
[3] We thank one anonymous reviewer for pointing out this important reference to us.

Investigating the morphosyntax of Italo-Romance varieties, either in contact or in the homeland[4] setting, poses several challenges. The most striking one is that morphosyntactic microvariation within Italo-Romance is wide and heavy (see Manzini & Savoia 2005 for a detailed overview) and, since most of these varieties lack a standard, microvariation creeps in in every structure and every paradigm. This tenet also applies to the heritage varieties investigated here. For lack of resources, we were not able to carry out interviews in any of the villages from which 1st generation immigrants ('G1' speakers; cf. also Section 1.2.2) originated, nor could we find descriptive reference grammars for the specific varieties (and/or the specific investigated phenomena) spoken in each of those locations. Instead, in this study we refer to regional or areal features that are shared among all varieties that are spoken in one and the same Italo-Romance linguistic area.

2.2.2. Identifying the G1 baseline as the input for HSs

Differently from heritage studies on major languages, we are dealing here with minority Romance varieties, typically non-standardized and displaying a large amount of microvariation, as mentioned above. As pointed out in D'Alessandro, Natvig and Putnam (to appear, 2021) selecting a baseline grammar for comparison is not always necessary, given the autonomous status of HLs. However, since most generalizations concerning HLs are drawn on the basis of comparison, we did consider which variety can be best regarded as the baseline. In the absence of large monolingual or bilingual speaker groups mastering the Italo-Romance varieties, and because these varieties are moribund, like those described by D'Alessandro, Natvig & Putnam, we opted for a research involving G1 speakers as the baseline group. In order to ascertain the level of attrition for the phenomena under investigation, we compared the G1 grammars to the grammars of the varieties as they were spoken when they left Italy. This microdiachronic dimension is, we believe, often overlooked in HL studies: languages change also in isolation, and therefore comparing HLs to contemporary varieties is a methodological hazard. To overcome that, we tried to cross-check the grammars of G1 speakers with reference grammars from the 1960s and earlier.

However, despite all the methodological efforts outlined above, the "baseline problem" is further enhanced when it comes to establishing which speakers actually constitute the G1 baseline (i.e. the linguistic input for our HSs) and, consequently, how the HL transmission occurred. Indeed, the latter was not straightforward as in other linguistic contexts, as the specific Italo-Romance linguistic input that our HSs received might have come from different sources; this is especially problematic when an unambiguous HLs' baseline has to be identified and defined for control purposes. In the most ideal, albeit rare, cases our HSs acquired their own Italo-Romance variety directly from their G1 parents, as well as other relatives and community members; this would constitute the ideal baseline considered in heritage studies, to which the HL can fairly easily be compared. However, most of our HSs reported that they did not learn the relevant Italo-Romance variety from their parents, but only from older relatives (e.g. (great-)grandparents, great-aunts, and great-uncles) or older community members, who usually migrated either earlier or at the same time as the HSs' parents. This transmission gap is due to the undeniable trend – both in Italy and heritage contexts – of abandoning the active use of Italo-Romance varieties in favor of monolingualism in the more prestigious variety available, be that Italian or the national language of the host country. This poses a challenge when trying to reconstruct the HL input in order to compare it with a single G1 baseline, as the HS's linguistic repertoire was built on varieties whose speakers are, in most cases, no longer alive. Hence, we had to include at least two generations of migrants when considering G1 speakers as the baseline providing linguistic input for our HSs, who are the sole focus of this study. Though evident, the baseline issue has had virtually no impact on our data, given that the tendencies are clearly identifiable and the generalizations quite macroscopic.

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[4] Following Polinsky (2018a), we use the "homeland" varieties (i.e. the varieties spoken in Italy as described in the literature, thus reflecting more closely the varieties exported abroad in the 20th century) as points of comparison for our phenomena, while the term "baseline" is used to refer to the language of G1 speakers.

2.3 Data collection

In what follows, we lay out the basic methodological details regarding our data collection. For a detailed overview thereof, and for remarks on the questionnaire design and on issues that arose from fieldwork, the reader is referred to AUTHOR (2021a). As stated at the outset, the remainder of the present study focuses on the novel generalizations drawn from our data and their comparison to the generalizations known in the literature that have been drawn on the basis of one-to-one investigations on language pairs.

Our study is based on fieldwork data collected by our research team in Argentina, Brazil and Canada. We considered 5 Italo-Romance varieties (Venetan, Trentino, Abruzzese, Calabrian, Sicilian) and one Rhaeto-Romance variety (Friulian) in contact with Argentinian Spanish, Brazilian Portuguese and Quebec French.[5,6] These Italo-Romance varieties were chosen on the basis of the phenomena that we targeted and because their speakers have very similar sociolinguistic profile: G1 speakers mostly left Italy after World War II to relocate in one of the American countries. Crucially, they were for the most part monolingual speakers of the Italo-Romance varieties, as Italian started being taught systematically at school around the time they left Italy[7]. This means, in turn, that the Italo-Romance varieties spoken today in Italy usually differ from those that were spoken when G1 speakers left (but see Section 1.2 above).

The data discussed here were collected during a preliminary set of fieldwork sessions that took place in spring 2019. A second, longer round of fieldwork was planned, but could not be carried out because of the Covid-19 outbreak. The first fieldwork session was more descriptive than analytical in our intentions: given that most of these varieties had not been described at all, we aimed at checking what the relevant structures looked like, before attempting any analysis. A quantitative overview of our fieldwork data is presented in Table 1.

Table 1: Overview of the speakers interviewed in our study considered by spoken Italo-Romance variety, country of immigration, and generation. An indication of the size (in terms of duration) of our spontaneous speech corpus is also provided.[8]

	Argentina	Brazil	Quebec	NY	(Belgium)	Total nr of speakers	Total minutes
ABRUZZESE	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
CALABRIAN	9 ● 8 G1 ● 1 HS	3 ● 2 G1 ● 1 HS	5 ● 5 G1	–	–	17 ● 15 G1 ● 2 HS	> 170' ● 150' G1 ● 20' HS

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[5] For convenience, we shall adopt the label 'Italo-Romance' throughout the text to refer to all the Romance varieties spoken in Italy that are not Italian. Note, however, that Friulian belongs to the Rhaeto-Romance group.

[6] As regards contact with French, we extended our area of investigation to Belgium: if not otherwise specified, the data collected in Belgium are also included in the following case studies.

[7] The unified middle school, identified by De Mauro (2016) as the most relevant trigger of language unification in Italy, was introduced in Italy only in 1963.

[8] The figures reported here to indicate the (time) extension of our spontaneous speech corpus are an approximation. For each speaker we collected at least 10 minutes of spontaneous data: we indicate only that here, rather than providing the exact duration of each recording. In addition, a large amount of data collected from 'other' varieties have been left out from the analysis reported below and have not been fully quantified yet. These number only serve to give a rough idea of the quantity of material we analyzed.

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

The sample is admittedly rather varied, as we explained before. Nevertheless, some robust generalizations emerged that are worthwhile reporting.

2.3.1 Data elicitation

The first round of fieldwork was meant to gain a thorough description of the phenomena under examination, given that they had never been described before. One of the phenomena we observed is DOM, the phenomenon whereby a subset of Direct Objects ('DOs') have a different morphological realization in virtue of their semantic and pragmatic features, as well as verb type and its argument structure.[9] Most Romance varieties mark DOM with the preposition *a*,[10] the same preposition that in the same varieties introduces datives and locatives, as well as experiencer subjects. For instance, the goal of the DOM set of tests was to ascertain whether the marker insertion was performed in conformity with Silverstein's (1976) hierarchy. We expected objects higher in the scale to exhibit DOM markers. These objects were tested both *in situ* and in fronted topic position (Rizzi 1997).

(i)   1st person pronouns > [+human] 3rd person pronouns > kinship terms > [+human][–definite] common nouns > [+animate][+definite] common nouns > [+animate][–definite] common nouns

The data were elicited by means of a forced-choice task, a picture-sentence matching task, and a semi-guided production task. Moreover, we employed a spontaneous production task, in which our informants were asked to tell a short story about their childhood: this way, a large corpus of spontaneous production was collected (approx. hours: 37h30', see details in Table 1). To check the fluency of the speakers, we asked for a self-evaluation, via a sociolinguistics questionnaire. Additionally, we prepared a short picture-naming task inspired by the HALA test (O'Grady *et al.*

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[9] While the term "Differential Object Marking" was introduced by Bossong (1985), DOM is such a pervasive phenomenon in Romance that it was already largely documented and studied under the label of *prepositional accusative* (Diez 1882; Rohlfs 1971; among many others).

[10] See Romanian *pe* and Peruvian Spanish *onde* (Bossong 1991) among other prepositions employed by Romance languages to mark DOM.

2009) which was however not always possible to perform. Thus, the data elicitation process consisted in:

– spontaneous speech;
– a picture-naming task (i.e. HALA test) for the HL;
– grammar elicitation tasks

The latter, as mentioned, was divided into three tasks. The first was a forced-choice task, for which we asked our informants to listen to pairs of audio stimuli (recorded by native speakers of the same variety as is spoken nowadays in Italy) and to choose, for each pair, the "right", i.e. most natural, sentence, as in example **Error! Reference source not found.** for DOM:

(1)   a. Tə   nsunnastə   chə   baciastə   a   idda
           REFL dreamt   that   you-kissed   DOM   her
       'You dreamt that you kissed her'
       b. Tə   nsunnastə   chə   baciastə   idda
           REFL dreamt   that   you-kissed   her
       'You dreamt that you kissed her'

With respect to DOM, we considered the data elicited from 2 Abruzzese, 4 Friulian, 4 Sicilian, and 3 Venetan HSs in Argentina; 3 Friulian and 8 Venetan HSs in Brazil; 1 Sicilian and 1 Venetan HSs in Canada. Speakers of northern varieties completed a questionnaire which included 9 sentences testing DOM plus some fillers, for a total of twenty-three sentences, whereas speakers of southern varieties had 13 DOM sentences plus fillers, for a total of twenty-four sentences. We chose to give an unequal number of questions to the two groups as we were not expecting production of DOM on a wide range of arguments by speakers of northern varieties, since most of these do not exhibit DOM in their homeland counterparts. We asked the informants to express their preference with respect to a minimal pair formed by two sentences with and without a DOM-marked object, as shown above in (1). These stimuli were presented in random order.

The second and third tasks were designed specifically for indexicality: the purpose of this study was to assess whether ternary demonstrative paradigms, i.e. demonstrative systems with three contrastive forms, were retained or not in HLs (see Section 5 for clarifications). This system is restricted, in our sample, to some varieties of Abruzzese, Sicilian, and Calabrian. Therefore, for this study we considered 38 speakers only, distributed as follows: 2 Abruzzese, 1 Calabrian, 3 Sicilian HSs *and* 5 Abruzzese, 5 Calabrian, 6 Sicilian G1 speakers in Argentina; 2 Sicilian G1 speakers in Brazil; 2 Sicilian HSs *and* 3 Abruzzese, 2 Calabrian, 7 Sicilian G1 speakers in Quebec(/Belgium).

In order to test the organization of demonstrative paradigms, we performed a picture-matching task, in which our informants were shown pictures representing the three different deictic domains (the one related to the speaker, the one related to the hearer, and the one not related to either of them) and were asked to choose, from a set of audio stimuli, the one that best described the given picture. For instance, given the representation of the speaker-oriented domain (Figure 1, where the dog is close to the speaker), the target answer would have been of the 'this' type. Each domain was tested in three different syntactic environments: pronominal ('this/that is… dog'), adnominal ('this/that dog is…'), and demonstrative-reinforcer construction ('this here/that there…').
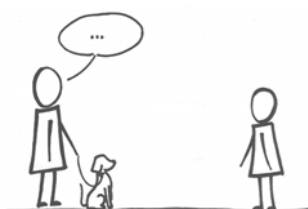

Figure 1: Speaker-oriented deictic domain

9

Moreover, we collected semi-guided production data by asking our informants to refer to or locate target objects in the actual interview setting. In this last task, we elicited each of the three deictic domains twice: once by means of demonstrative forms ('which one is…?', to yield 'it's this' vs 'it's that' type answers), and once by means of a locative adverb ('where is…?', to prompt 'it's here' vs 'it's there' type answers).

Thus, each deictic domain has been elicited 5 times (i.e. in 5 different conditions) for each speaker. The elicited responses have been informally transcribed and subsequently the demonstrative forms have been coded according to their morphology as formally 'proximal', 'medial', or 'distal', to avoid making explicit connections with the semantics of those same forms. For more details, see Section 5.

With respect to null subjects, we refer to the study presented in AUTHOR (2021), which tested the realization of subject clitics in Heritage Friulian through collected spontaneous production as well as forced choice. The study considered data from 15 speakers of Friulian: 8 in Argentina (3 G1; 5 HSs) and 7 in Brazil (all HSs). The sample of spontaneous production described in AUTHOR (2021a) included 580 sentences, of which 375 contained a subject clitic and 205 did not.

In what follows, we will report the results of our investigation and show how they often conflict with the generalizations that have been established for HL syntax.

3 Generalization 1: Avoid indeterminacy

The first generalization we review is related to indeterminacy. Several studies have concluded that HSs tend to avoid indeterminacy, that is, if a lexical item has several syntactic functions, only one of them will be selected in the HL (Montrul & Bowles 2009; Polinsky 2011).
An example of indeterminacy is provided by the morphological marker employed in several Romance varieties for DOM, which is *a* in the varieties at issue (see section 2.3.1). *A* is a syncretic preposition in the varieties we consider here: it marks DOM, as well as datives, locatives, object experiencers and, potentially, topics.

According to GEN1, one of the functions of *a* should be selected in heritage languages to avoid indeterminacy or ambiguity. Most of the loss or reduction of DOM in contact studies or bilingualism can be attributed to this multi-functional word (Polinsky 2006, Pascual y Cabo 2013, Montrul, Bhatt & Girju 2015).

In Romance languages, DOs generally appear in the bare accusative case, as in (1). Accusative is not visible on full DPs, but only on pronouns. If the object features an animate, specific referent, however, it is marked by the preposition *a* (see 1b, where *a* marks *mi amigo*, 'my friend':

(1)   a.   *Spanish* (RAE https://dle.rae.es/ver)
        Veamos   las   propuestas   presentadas.
        see.SBJV.1PL   the.PL   proposal.PL   presented.PL
        'Let's see the proposal presented.'
    b.   *Spanish* (RAE https://dle.rae.es/ver)
        Mañana voy   a ver a   mi amigo.
        tomorrow go.1SG to see DOM my friend
        'I'm going to see my friend tomorrow.'

In addition to the 'Avoid indeterminacy' principle, DOM is an interface phenomenon that requires the integration of syntactic and extra-syntactic knowledge (topicality, animacy, definiteness). This should make it more vulnerable to change (Montrul 2011). We will return to this in Section 4 in relation to GEN2.

Regarding the vulnerability of DOM, several studies (Silva-Corvalán 1994; Montrul 2004; Luján & Parodi 1996; Montrul & Bowles 2009; Montrul & Sánchez-Walker 2013; Montrul, Bhatt &

Girju 2015) have shown that DOM weakens in Heritage Spanish spoken in the US. This conclusion finds support also outside the Romance domain: Polinsky (2006, 2018a: 185-186) observes that HSs of Russian in the US tend to lose DOM, despite their perfect mastery of dative and accusative marking. Our data show the same tendency in heritage Southern Italo-Romance in contact with US English in New York City. All these varieties present DOM in their homeland counterpart:

(2)   *Heritage Cilentano in New York City*
   a.   Edda ha vvist'**a   mme**.
        she   has seen DOM me
        'she saw me.'
   b.   Ajerə   ho   vvisto **Ø   mi fijjə**.
        yesterday have.1SG seen   DOM my son
        'yesterday I saw my son.'
   c.   Oh, salutə   **Ø   questo qqua**, salutə   **Ø   questa persona qqua**.
        hey greet.2SG DOM this   here   greet.2SG DOM this   person   here
        'hey, say hi to this one here, say hi to this person here.'

   d.   Mi zio […] portato **Ø   tutta la famijja** là.
        my uncle   brought DOM all   the family there
        'my uncle […] brought all his family there.'
   e.   Io conosciuto **Ø   tuttəquandə**.
        I met   DOM everyone
        'I've met everyone.'

(3)   *Heritage Sicilian in New York City*
   a.   Mi nonna   voleva canoscere **a   mme**.
        my grandma wanted know.INF   DOM me
        'my grandma wanted to know me.'
   b.   Vasava   **Ø   la mia figlia**   ajèri.
        kissed.1SG DOM the my daughter yesterday
        'I kissed my daughter yesterday'
   c.   Vo'   canosciàre **Ø   u pecceriḍḍu**.
        want.1SG know.INF   DOM the child.M
        'I want to know the child (i.e. my granddaughter).'

(4)   *Heritage Abruzzese in New York City*
   a.   Jìrə   l' ei   bbasciat' **a   jèssə**.
        yesterday her= have.1SG kissed   DOM her
        'Yesterday I kissed her.'
   b.   M'ei   sunnatə ch' èi   bbasciatə **Ø   fijjə=ma**.
        me=have.1SG dreamt that have.1SG kissed   DOM daughter=my
        'I dreamt that I kissed my daughter.'

The data in (2)-(4) show that the DOM marker is dropped almost everywhere in heritage Italo-Romance varieties spoken in New York City. This is in accordance to what has been described in other studies on contact. Note, however, that in no case does the weakening of DOM lead to its complete loss: it is in fact retained with the most prototypically DOM-marked referents, i.e. personal pronouns (2a), (3a), (4a), but it is absent with other referents which would bear the *a*-marking in the homeland and baseline varieties. In particular, the *a*-marking is lost with kinship terms, as in (2b), (3b), (4b) and other highly referential/specific expressions, i.e. with demonstratives, as in (2c), definite referents, (3c), and universally quantified referents, e.g. 'all the family' (2d) and the pronoun

'everyone' (2e). Our control group for contact behaves exactly as expected. Microcontact, however, offers a completely different picture.

Exceptionally if compared with other studies, Romance DOM has also previously been studied in microcontact situations. A case in point is that of Catalan DOM in contact with Spanish: while Standard Catalan only has obligatory DOM with pronouns and dislocated DPs, non-standard varieties of Catalan preserve DOM and actually expand its context of occurrence, possibly because of contact with Spanish:

(5)   *Corpus Oral de Conversa Colloquial* (Benito 2017: 16)
a.   Esperant   a   la   mare.
     waiting   DOM   the mother
     'Waiting for the mother.'
b.   Coneixies   a   la   seva   família.
     knew.2SG   DOM   the 3.POSS family
     'You knew his/her family.'

In our own study on microcontact, we considered Heritage Venetan, Friulian, Abruzzese, and Sicilian. Homeland Venetan and Friulian do not display DOM, whereas homeland Abruzzese and Sicilian are DOM varieties. We examined these HLs in contact with one DOM variety (Argentinian Spanish), and three non-DOM varieties (Brazilian Portuguese, French, and Italian). Notice that the extension of DOM in Rioplatense Spanish is wider than in European Spanish, in that it involves also inanimates (Saab 2018).

The data collected in Argentina challenge GEN1: there, DOM is not only preserved, or even extended, in the Abruzzese and Sicilian, but it emerges in non-DOM varieties such as Friulian and Venetan. As an example of expansion, consider (6), in Heritage Abruzzese:

(6)   *Heritage Abruzzese in Argentina*
      Lu lopə s'a   magnatə **a**   **nu gnillə**.
      the wolf SI=has eaten   DOM   a   lamb
      'The wolf ate a lamb.'

Example (6) illustrates a case of extension of DOM to items that would not require it in homeland Abruzzese, where animals – and, in some varieties, 3rd-person referents – are not DOM-marked. Example (7) illustrates the emergence of DOM in Heritage Friulian, a variety traditionally considered as lacking DOM in its homeland counterpart:

(7)   *Heritage Friulian in Argentina*
      Tu   as   fât   un sium. Tu   as   bussât **a   to   fie**.
      you.SCL have made a   dream you.SCL have kissed DOM your daughter
      'You had a dream. You kissed your daughter.'

While non-DOM varieties, such as Venetan and Friulian, tend to accept DOM to a lesser extent than Abruzzese and Sicilian, the acceptance rate for all heritage varieties is higher than in their homeland counterpart (except for Sicilian varieties, cf. Manzini & Savoia 2005; Guardiano 2010). Despite these general tendencies, some differences can be found with respect to the degree of acceptability of DOM depending on the contact language: DOM is considerably higher in heritage varieties in Argentina than in Brazil and Canada,[11] as shown in Figure 2:

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[11] An anonymous reviewer suggests that this might be due to dominant language transfer from Spanish. This effect is not as strong in contact with French and Portuguese, as they are non-DOM languages. This observation is however not
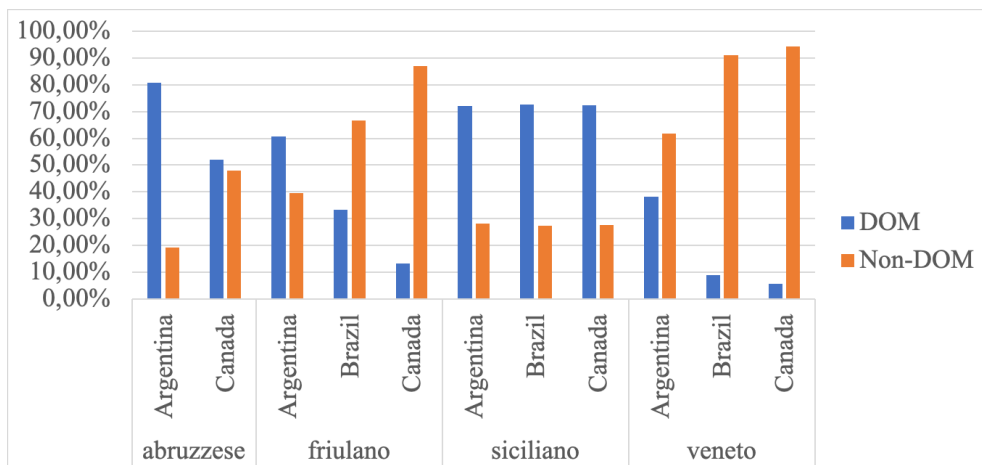
Figure 2: Percentage of DOM and non-DOM marked objects in a forced choice task with HSs of Abruzzese, Friulian, Sicilian and Venetan in Argentina, Brazil and Canada.

The elicited data go in the same direction as Abruzzese and Sicilian spontaneous speech.[12] We also find many instances of DOM in the spontaneous speech of heritage Friulian:

(8)   *Heritage Friulian in Argentina*
        ...e   an   clamat **a   me mari**.
        and   have.3PL called DOM my mother
        '…and they called my mother.'

The data from Venetan exhibit instead an asymmetry between the results of the questionnaire and what we found in the spontaneous speech. While speakers consistently selected the DOM-marked DOs in the questionnaire, they never produced DOM spontaneously. As for the forced choice task, the DOM option was chosen over the non-DOM one in 48% of cases by HSs (38% if we add G1 speakers), despite the fact that homeland Venetan is generally regarded as non-DOM (with some exceptions found in Triestino, Rohlfs 1969; 1971, and Paduan, Fabris 1928: 14). Given this discrepancy, we leave the Venetan data aside for further investigation.

    The facts reported here constitute systematic counterexamples to GEN1:[13] indeterminacy is not resolved in HLs in microcontact, but it is rather preserved and, possibly, strengthened. The *a*-marker is consistently selected for DOM and other uses (e.g. datives and locatives). In the case of Friulian, HSs extend the use of *a* to mark DOM, which is not found in the homeland grammar.

4   Generalizations 2 and 3: the Interface Hypothesis and null elements

The second generalization we address in this paper is the Interface Hypothesis ('IH'): change targets structures that involve several grammatical modules (Hulk & Müller 2000; Sorace 2005; 2011;

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supported by a follow-up study by AUTHOR (in progress) showing that DOM in Italo-Romance varieties in Argentina does not develop under the same syntactic contexts as they do in Argentinian Spanish, thus excluding the transfer effect. At this stage, we do not feel confident enough as to establish the exact role of the contact language, which is not at all obvious.

[12] The Sicilian data are not as straightforward as the others. The literature generally reports the presence of DOM for human indefinites (Manzini & Savoia 2005; Guardiano 2010), but our recent data collection in Italy shows a generalized absence of DOM with this class of objects. Furthermore, Braitor (2017) also reports only 5% of DOM-ed human indefinites in her corpus. This might be due to heavy microvariation. Given that we have no way to ascertain how exactly DOM works with human indefinites for G1 speakers, we leave this issue to further investigation.

[13] See Cohal (2014: 173) for a case where DOM did not expand in microcontact.

Sorace & Serratrice 2009; Sorace *et al.* 2009; a.o.). The core of the hypothesis is that strictly grammatical phenomena are less vulnerable, because they only require mastery of one module; phenomena at the interfaces between different modules, such as syntax, discourse, and information structure, are instead more vulnerable, as they require the integration of more modules and therefore have higher computational and processing loads. The IH was originally proposed to account for adult L2 learners and was later on widely used to explain the linguistic behavior of bilinguals. Moreover, the IH has also been applied to the study of HLs (see e.g. Benmamoun, Montrul & Polinsky 2013 and references therein).

In this discussion, we specifically target the syntax-discourse interface and explore it by referring to two different phenomena: DOM and null subjects ('NS'). While NS are situated at the syntax-discourse interface, DOM typically involves the internal interface between syntax and semantics. In some cases, however, it also touches upon the syntax-pragmatics interface. For both DOM and NS, then, syntactic computation must be integrated with information-structural requirements: this integration is computationally heavy and, therefore, both phenomena are predicted to be vulnerable to change in contact situations.

In the previous section we showed that DOM is preserved, or even strengthened, in heritage Italo-Romance varieties in (micro)contact with Argentinian Spanish. The contexts in which this extension takes place usually involve a fronted topic. Historically, topicality has indeed been argued to have favored the emergence of DOM in a number of Romance varieties. Pensado (1995) shows the relevance of topicality in the emergence of DOM in old Spanish; Iemmolo (2009; 2010) observes this same behavior in Old Sicilian, while Ledgeway (2009) shows that old Neapolitan had a contrast between unmarked *in-situ* DOs and marked dislocated (i.e. topicalized) ones. Our data also show that DOM is accepted significantly more often with fronted topicalized objects than with objects *in situ*, as illustrated in Figure 3:
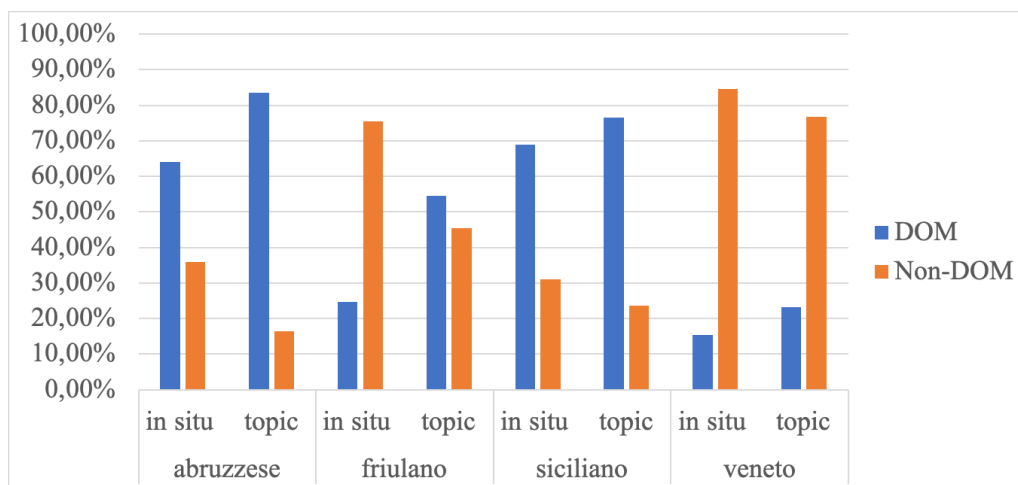

Figure 3: Percentages of DOM and non-DOM with both topicalized and non-topicalized constructions in a forced choice task with HSs of Abruzzese, Friulian, Sicilian and Venetan (data grouped across the three different host countries).

This difference between DOM with topicalized and non-topicalized objects was significant for Abruzzese speakers (DOM extension; 6 G1, 2 HSs) and Friulian speakers (4 G1, 4 HSs), although, for the latter variety, an interaction with generation showed that this effect was only significant for HSs (z=-3.14, p=.006), and not for the G1 migrants:

(9)   a.   *Heritage Abruzzese in Argentina*
         A   **na**   **candandə**, jirə,   li   so   vasciatə.
         DOM   a   singer   yesterday her.CL   AUX   kissed
   b.   *Heritage Friulian in Argentina*

A une cjantant, îr, la ai bussade.
DOM a singer yesterday her.CL AUX kissed
'As for a singer, I kissed one yesterday.'

This shows that HSs introduce discourse-related constraints on DOM, like topicality, that are not crucial in the realization of DOM in the baseline; in doing so, they defy the IH by showing good mastery of a discourse-related operation, i.e. topicalization, involving the syntax-pragmatics interface. Indeed, these facts seem to indicate that syntactic change penetrates into the system from the periphery of the clause.

Homeland Abruzzese, Friulian, Sicilian, and Venetan do have topicalization strategies. These, however, do not trigger DOM. DOM is widespread in Abruzzese and Sicilian, and it is triggered by the semantic features of the objects. In these varieties, the classes of objects that are available for *a*-marking will have DOM independently of their syntactic position (with the exception of some Sicilian varieties, where DOM is favored in topic position with some referents lower in the definiteness/animacy hierarchy; see Guardiano 2010). Heritage Abruzzese, Friulian, Sicilian, and Venetan, instead, show that DOM is introduced or strengthened in topicalization contexts, to different extents. Topicality slightly reinforces DOM in Heritage Sicilian, for instance, where indefinite objects are marked for 17% *in situ* and for 25% in topic position. Southern Italian varieties such as Calabrian and Sicilian keep definiteness and specificity as their primary DOM-trigger instead.

Turning to null subjects, the IH predicts that the production of NS will be affected by the computationally taxing integration of syntax and pragmatics.[14] This has been shown to be the case for NS by research both on L2 and HLs. When a pro-drop language enters into contact with a non-pro-drop language there are two possible logical outcomes. The first outcome is that the NS is partially lost, and that speakers of originally pro-drop languages actually start inserting overt subjects in contexts in which they are not used by monolingual speakers. This has been attested in many studies, such as Paradis & Navarro (2003) and Serratrice *et al.* (2004) for English-Italian; Sorace *et al.* (2009) for English-Italian and Spanish-Italian; Müller *et al.* (2005) for German-Italian.

The second logical possibility is to have non-pro-drop languages become pro-drop. This has been hardly attested. Emergence of pro-drop would imply increasing the complexity of a system. In non-pro-drop languages all subjects are overt, regardless of discourse and context factors, so they display a simpler system for subject insertion than to pro-drop languages, in which the insertion of an overt subject depends on specific discourse-related factors (Tsimpli *et al.* 2004, Sorace *et al.* 2009). The preference for the simpler system is usually chosen by L2 speakers as well as heritage speakers (Sorace *et al.* 2009). Other more gradable options are also found.

Despite the main tendency is to use overt subjects, null subjecthood can also sometimes remain unaffected or even be extended. Data pointing in this direction have been found by Pinto (2013) for Dutch speakers of L2 Italian; Montrul (2004) for HSs of Spanish in the US; Montrul & Rodriguez Louro (2006) and Rothman (2009) for American L2 speakers of Spanish. The tendency to keep the pro-drop status of the language is attested only marginally in contact situations, and therefore considered a deviation from the norm. However, studies on microcontact, such as contact between Spanish and Portuguese, have reported a similar output (see in particular De Prada Pérez 2009 on Catalan-Spanish; Carvalho and Child 2011 and De Souza *et al.* 2018 on Spanish-Portuguese).

In our study, we considered subject clitics in Friulian, a Rhaeto-Romance variety, in contact with English, Argentinian Spanish and Brazilian Portuguese. For the cases of contact with Argentinian Spanish and Brazilian Portuguese, we refer to the findings presented in AUTHOR (2021).

Friulian, as most varieties spoken in northern Italy, has two series of pronouns: tonic subject pronouns and subject clitics, as illustrated in Table 2:

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[14] In this paper, we refer to null subjects as *pro*. We do not take any stand here regarding the exact analysis of null subjects though, in particular regarding the existence of *pro* (Roberts 2010, Holmberg 2010). *pro* is used here as a shorthand for null subject.

Table 2: The paradigms of Friulian tonic and clitic subjects

Friulian subject pronouns	Tonic	Clitic
1sg	jo	i, o
2sg	tu	tu
3sg	M: lui; F: je	M: al; F: e
1pl	noi	i, o
2pl	voi	i, o
3pl	lor	a

Previous studies on varieties with subject clitics of the Friulian type (Rizzi 1986; Brandi & Cordin 1989; Poletto 1993; Benincà 1994) show that these elements are not real pronouns, but obligatorily realized markers of φ-agreement. Tonic subject pronouns are instead overtly realized mainly when they need to perform some discourse function such as topic shift, and do not appear in contexts of topic continuity. Observe that subject clitics, given their agreement-like nature, are always obligatory, regardless of discourse conditions. Homeland Friulian is therefore a NS language, in that tonic pronouns and full subjects follow the same distribution as in any other null-subject languages, like Italian or Spanish; they are not obligatory. In addition, Friulian also displays obligatory agreement-like subject clitics, which is equivalent to saying that they have rich agreement, or agreement doubling.

In heritage Friulian spoken in contact with English in the US, subject clitics are always obligatory also in the context of topic continuity, as illustrated in (10):

(10) *Heritage Friulian in New York City*
I soi zût a scuela il prin dì chi (…). **I** ai fât sessante *credits* (…).
I.SCL am gone to school the first day here I.SCL have made sixty credits
'I went to school on the first day here (…). I got sixty credits (…).'

Example (10) shows that subject clitics are realized every time a finite verb appears, regardless of discourse conditions, as expected for markers of φ-agreement, on a par with homeland Friulian.

However, AUTHOR (2021c) shows that in heritage varieties of Friulian spoken in Argentina and Brazil, subject clitics have been shown to display occasional pronominal behavior, in that they can be dropped in the second conjunct of coordinated structures (11a), while this is impossible in the homeland variety (11b):

(11) a. *Homeland Friulian*
Al mangje e **al** bef.
he.SCL eats and he.SCL drinks
'He is eating and drinking.'
    b. *Heritage Friulian in Buenos Aires (Argentina) and Ivorà (Brazil)*
Al mangje e ___ bef.
he.SCL eats and drinks
'He is eating and drinking.'

As stated above, agreement-like subject clitics cannot be dropped in homeland Friulian, as shown in (11b). In the heritage varieties spoken in Argentina and Brazil, though, they can, as shown in (11a). However, AUTHOR (2021c) witnesses a two-step development: agreement clitics are not mere φ-

bundles like in the homeland variety, but they are full pronouns. These pronouns are dropped, creating a pro-drop context that is not present in the homeland grammar.

The study presented in AUTHOR (2021c) tests the realization of subject clitics in Heritage Friulian through collected spontaneous production data from 15 speakers: 8 in Argentina (3 G1; 5 HSs) and 7 in Brazil (all HSs). The data show an effect of topicality for subject drop in Heritage Friulian. The effect emerges both for Brazilian and Argentinian heritage speakers, but it is particularly significant in Argentina, as illustrated in Figure 4.
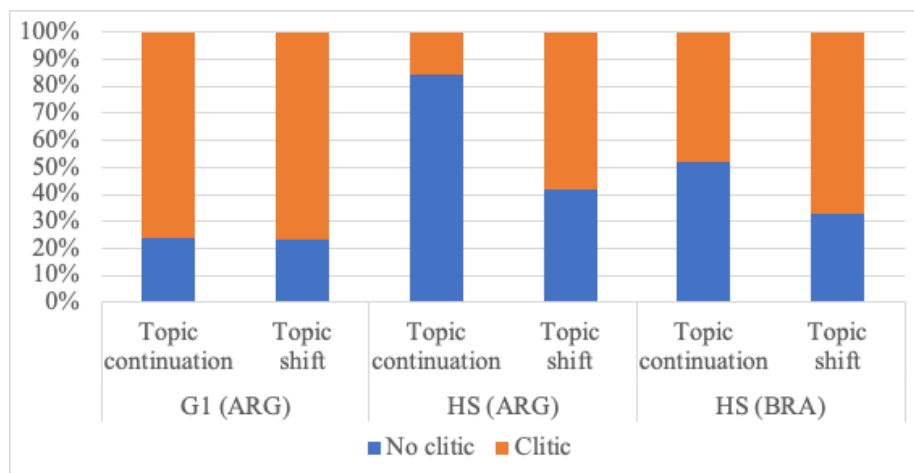

Figure 4: Percentages of subject clitic use in heritage Friulian (spontaneous production) in Argentina and Brazil

The case of Heritage Friulian in Argentina, for which a total of 189 sentences were coded, is particularly relevant for the present study, as it shows that HSs are more likely to produce a clitic when there is a shift in topic (produced clitics: 59.55%, $n=53/89$; dropped clitics: 40.45%, $n=36/89$) with respect to the previous sentence, as illustrated in (12):

(12)   *Heritage Friulian in Buenos Aires*
       Dopo tancj agn **a**   è restade cun me. E   cusì, **i**   fevelavi cun je (…)
       After many years she.SCL is stayed with me and so   I.SCL talked   with her
       'Many years later, she decided to stay with me. So, I talked to her (…)

HSs of Friulian in Argentina tend to drop the subject clitic in cases of topic continuity (produced clitics: 15.79%, $n=9/57$; dropped clitics: 84.21%, $n=48/57$) instead, as illustrated in (13):

(13)   *Heritage Friulian in Buenos Aires* (AUTHOR, 2020)
       I   ai   tacât   fevelà   furlan (…). Dop *pro* ai   sposât une furlane.
       I.SCL have started speak.INF Friulian   then *pro* have married a   Friulian
       'I started to speak Friulian (…). Then I married a Friulian.'

Also in this case, the data indicate that specific interface conditions trigger subject drop. Contrary to what is expected under the IH, HSs introduce new discourse-related constraints on pro-drop that are unavailable in the baseline, namely the use of topicality. This suggests that HSs in microcontact situations do not face specific difficulties with the computation of discourse operations; on the contrary, they exploit these discourse strategies to create new structural configurations, like pro-drop, unavailable for subject clitics in the homeland variety. In addition, the fact that the outcome of language contact depends on the particular contact language disproves the prediction by the IH that any effects of language contact are solely due to cognitive issues and should therefore be similar across language pairings.

The data on subject clitics we have just presented also allow us to reassess the third generalization, related to silent elements: HSs have been shown to be uncomfortable with silent elements (Polinsky 2006; Laleko & Polinsky 2016) and, therefore, to tend to avoid them, possibly because of processing issues.

Friulian data from Argentina and Brazil plainly contradict this generalization, as has been shown above in (11b), (12), and (13), in that some of the HSs we interviewed introduced new silent elements in their systems. Heritage Friulian speakers in Argentina and Brazil, in fact, allow for a pronominal use of subject clitics (obligatory agreement markers) that can therefore be omitted, as predicted for pronominal elements in null-subject languages: that is, in our data we see that an element that used to be obligatory in the homeland variety becomes optional in the HL.

Thus, HSs in microcontact situations are comfortable with silence, given the appropriate discourse conditions.

5 Generalization 4: Stability of the indexical domain

The last generalization we consider concerns the indexical domain. This domain is believed not to be affected by contact in HLs (GEN4, Polinsky 2018a), and this conclusion is supported by wider evidence coming from contact linguistics (Nichols 1992; Heine & Kuteva 2005; Friedman 2006; Matras 2009). The only type of change that we can observe in indexical elements is diachronic in fashion, i.e. endogenous. This is confirmed by our data in microcontact, but surprisingly only partially by our findings in contact.

Specifically, we examined HLs whose corresponding homeland varieties display ternary demonstrative systems (in our sample: Abruzzese-Molisano, some varieties of Sicilian and Calabrian), i.e. demonstrative adjectives and pronouns that show three contrastive forms, each referring to the domain of one of the discourse participants, or of none of them (close to the speaker, close to the hearer, far from both), as illustrated in (14) for demonstratives pronouns:[15]

(14)   *Calabrian* (Ledgeway & Smith 2016: 883)
          chist-u   chiss-u   chiḍḍ-u
          DEM.close to me-M.SG   DEM.close to you-M.SG   DEM.far from me/you-M.SG

Ternary systems are known for their instability, as witnessed by diachronic studies (Ledgeway 2015b; Ledgeway & Smith 2016): over time, they tend to reduce to binary demonstrative systems, i.e. systems that encode a two-way deictic opposition (between the speaker-related area and the non-speaker-related one, or between the participants-related area and the non-participants-related one; for the distinction, see (15b) vs (15c) below), or to unary ones, i.e. systems that do not encode any deictic opposition (by means of sole demonstrative forms).

The varieties that we considered in contact with our Italo-Romance heritage languages display either analogous ternary systems ('close to me' vs 'close to you' vs 'far from us': Argentinian Spanish in (15a), although not the Rioplatense variety), or dissimilar types of system, namely: speaker-oriented binary systems ('close to me' vs 'far from me': English in (15b)), participant-oriented binary systems ('close to me and/or you' vs 'far from us': Brazilian Portuguese in (15c), possibly extended to a ternary one by the addition of a locative adverb), or unary systems (no deictic contrast: French in (15d), although the system can make a binary distinction by the co-occurrence of the demonstrative form with a locative adverb):

(15)   Pronominal demonstrative systems
          a.   *Argentinian Spanish* (fieldwork data collected in Cordoba and Santa Fe)
                est-e   es-e   aquel

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[15] Note that, for data coding purposes only, forms akin to *chistu* have been coded as 'proximal', forms akin to *chissu* as 'medial', and forms akin to *chiḍḍu* as 'distal', irrespective of their semantics in the elicited responses.

DEM.close to me-M.SG DEM.close to you-M.SG DEM.far from me/you.M.SG
b. *English*
this that
DEM.close to me.SG DEM.far from me.SG
c. *Brazilian Portuguese* (Ledgeway & Smith 2016: 888)
ess-e aquel-e
DEM.close to me/you-M.SG DEM.far from me/you-M.SG
d. *French* (Ledgeway & Smith 2016: 881)
celui
DEM.M.SG

In our study, we tested the three spatial domains ('close to the speaker', 'close to the hearer', 'far from both') via a picture-sentence matching task and a semi-guided production task, as described in Section 2.3.1. As already mentioned there, this study includes Abruzzese, Sicilian, and Calabrian HSs compared to G1 speakers, for a total of 38 speakers. Given the fragmentation of our sample across different contact situations, and its general small size, in this case we could only perform some descriptive statistics. Nonetheless, we found preliminary converging results across heritage varieties, contact situations, and generations.

Specifically, the study bore the following results. 100% (n=33/33) of the HSs' responses for the speaker-related domain were target-like (i.e. morphologically proximal: 'this/here close to me'), that is: compatible with a ternary system as described in the homeland grammars. Likewise, the speaker-related domain's encoding is target-like (proximal) in the G1 population (99.26% of responses, n=135/136). In a similar fashion, responses elicited for the other-related domain were mostly target-like (i.e. morphologically distal: 'that/here far from me'): 87.88% (n=29/33) for HSs, 88.26% (n=120/136) for G1 speakers. These figures rise if the results of the semi-guided production task alone are considered: in this case, target-like responses (distal) were given in 93.33% of cases (n=14/15) by HSs and in 100% of cases (n=55/55) by G1 speakers. For the likely task-related effect in this context, see AUTHOR 2021a. The speaker- and other-related domains can therefore be regarded as very stable.

Instead, the hearer-related domain is rather unstable: only 54.55% of responses (n=18/33) given by HSs and 54.35% of responses (n=75/138) given by G1 speakers were target-like (i.e. morphologically medial: 'that/there close to you'). No effect of the specific contact varieties has been detected. Note that the hearer-related domain is also the most unstable diachronically: this means that, if ternary systems change in contact situations (only in the case of hearer-related domain), this change mirrors exactly their diachronic development. In other words, it is impossible to ascertain whether change has been triggered by contact or has emerged spontaneously. Nonetheless, given the fact that change follows exactly the same path in all contact contexts and for all HLs, we conclude that this change is spontaneous rather than change-induced; in this case (but not in all others), contact might be accelerating the diachronic development. Overall, the results of this study seem to support GEN4.

However, GEN4 is not only concerned with the organization of indexical paradigms, but extends to the functional heads linked to indexicality and concludes that they should be stable, too. Interestingly, our investigation of the indexicality-related heads in Italo-Romance data collected in NYC (thus: not in microcontact) seem to contradict GEN4. First, some heritage speakers tend to leave some functional heads empty(/underspecified). The relevant functional heads are, strikingly, the indexicality-related ones (Polinsky 2018a): D and T.

The data in (16) illustrate D-drop, while the data in (17) illustrate T-drop or T-impoverishment (the Ø indicates the position in which the relevant heads appear in the homeland and baseline varieties):

(16) a. *Heritage Friulian in NYC*
il prim post al era al 34, dop a è giuta **a-Ø**[D] 28.

the first place 3.SCL was at=the 34, then 3.SCL is gone to=Ø 28
'the first place was on the 34th, then it moved to 28th.'

   b. *Heritage Cilentano*
mə piasce visitare **Ø[D]** me[D] nonni.
to.me.CL likes visit.INF my.PL grandparents
'I like to visit my grandparents.'

(17)   *Heritage Cilentano*
   a. io sempre **va** a Italia.
I always go.3SG to Italy
'I always go to Italy.'
   b. nessciuno **capire** questa lingua.
no-one understand.INF this language
'no-one understands this language.'
   c. mi zio **era**... a *politician* e **Ø[AUX]** **portato** tutta la famijja llà.
my uncle was a politician and Ø brought all the family there
'my uncle was a politician and brought all his family there.'

In (16) we observe the unexpected omission of definite articles in a prepositional phrase (16a) and with a possessive (16b), for which we would either expect an (American-)Italian-like structure *i miei nonni* or Cilentano *i nonnə m(e)i*, always with an overt D head. The examples in (17) show three different non-target-like behaviors related to T. Example (17a) instantiates the most frequent strategy of T-impoverishment, i.e. the loss of person-features on the inflected verb, resulting in a default 3SG-agreement strategy (this can also be seen in (18) below). Instead, (17b) shows the presence of a root-infinitive rather than a finite verb, indicating that the verb has not raised to T (cf. Pollock 1989; Schifano 2018). In (17c), we observe the omission of the perfective auxiliary *ha* 'has', suggesting that T has not been lexicalized at all; this leaves the sole past participle to express (perfective) past tense. In some respects, these facts also weaken GEN3 regarding null/silent elements, inasmuch as HSs do produce them in contexts where this is not expected, i.e. D and T, the highest functional heads of the N and V extended projections.

     Finally, person pronouns also exhibit some impoverishment, mainly related to the number feature, as in (18), where a third-person plural pronoun (*loro* 'them') is expressed by a third-person singular pronoun (*lei*):

(18)   *Heritage Sicilian*
quanno io fa sto mossa con lei.
when I do.3SG this.M movement.F with her
'when I do this movement with her (intended: them).'

In conclusion, while microcontact data regarding the organization of indexical paradigms confirm the general tendency of indexicals to remain stable or changing minimally in diachrony, the plain contact data relative to the indexical-related heads might prove problematic for this generalization.

6 Conclusions

In this paper, we have shown that microsyntactic variation offers an important additional set of data for understanding what is involved in change, and allows to factor out holistic typological considerations and to focus on the structural ones only. The outputs of CIC related to the different language pairs involved vary slightly, but they show tendencies that overall contradict what is known in the current literature, which is mainly based on contact. Specifically, we have shown that GEN1-

GEN3 (and partially GEN4) are contradicted by microcontact data. We maintain that these generalizations do not hold across the board because they have been established on the basis of structurally distant languages only. This paper offers a methodological contribution to the study of language contact in that it shows that introducing a microcontact perspective is not only desirable, but necessary. Furthermore, checking the same phenomenon in multiple contact situations offers a clearer picture of the factors involved and the incipient direction of language change.

Abbreviations

AUX = auxiliary, CL = clitic, DEM = demonstrative, DOM = Differential Object Marking, INF = infinitive, PL = plural, SCL = subject clitic, SG = singular

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