Language variation and change: a case study of the loss of genitive Case in (Heritage) Greek[1]

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1. Introduction

One central question that research on multilingual acquisition aims to provide an answer to is whether speakers acquiring more than one language achieve native competence in all languages they are exposed to. A particular fruitful area to address this question is of late that of Heritage Languages (HLs). Following Rothman (2009, 156), ''a language qualifies as a HL if it is a language that is spoken at home or otherwise readily available to young children, but, crucially, this language is not a dominant language of the larger (national) society.''

On the basis of this definition, heritage speakers are an interesting sub-group of multilingual speakers, as they are typically bilingual, speaking both the heritage language and the dominant society language. However, the linguistic behavior of these speakers in their HL can vary from that of monolingual speakers of the HL, as spoken in the homeland. For instance, as stated in Montrul (2016, 5), they display characteristics of second language learners in some modules of grammar, while they maintain native language mastery in other modules of grammar. Since such patterns of variation are systematic, see e.g. Benmamoun & al. (2013), Montrul (2016) for overviews, the study of HL grammars is by definition a study of variation among different varieties of a particular language: the grammar of the homeland variety and the grammar of the HL (and even various sub-grammars of the HL). Although there have been many detailed discussions of heritage language speakers in the area of sociolinguistics, recently formal grammar has started paying attention to their linguistic behavior and knowledge, as these speakers constitute a valuable source of information for linguistic theory. Specifically, they enable us to detect important aspects of linguistic development and variation, which cannot be observed in other populations, see e.g. Benmamoun & al. (2013), Montrul (2016), and Lohndal (2013) for discussion.

Research on various HLs has established that in view of the special circumstances of HL acquisition, the development of the HL is affected leading to changes in its structure. Typically, two explanations for this have been given in the literature: several authors appeal to *Incomplete Acquisition*, while others to *Language Attrition*.[2] From these perspectives, either HL speakers exhibit some sort of 'not target-like' development (incomplete acquisition) or they show signs of language loss/decline (attrition). These two processes have rather different developmental paths: if changes in HLs are due to attrition, then we are dealing with properties that were acquired in childhood, but were later subject to language loss or gradual decline (Montrul 2013; Polinsky 2011; Schmid 2011; Thomason 2001 among others). Consider for example the study of Russian relativization strategies in Polinsky (2011). Polinsky shows that while monolingual children and adults as well as heritage children behave alike and show mastery of the formation of both subject and object relative clauses, adult heritage speakers deviate from this pattern and perform at chance in object relative

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[2] Montrul (2012) discusses in detail that another common comparison is that to L2 learners.

clauses. Polinsky explains this as a case of attrition, since heritage children seem to have acquired full mastery of relative clause formation in Russian at the same time as their monolingual peers. In this case, a feature that has been acquired in childhood is lost in adulthood. Polinsky (2011), and Benmamoun et al. (2013) discuss factors that lead to such a loss and the reader is referred to these articles for details.

Turning now to incomplete acquisition, the situation here is different, as we are dealing with features that were never fully acquired during childhood. In this case, the grammar basically never reaches its target state and is considered frozen/fossilized. Several examples of this type are discussed in Montrul (2016); for example, verbal passives, subjunctives and conditionals are structures that have been reported in the literature to show effects of incomplete acquisition in heritage grammars, as they typically involve structures that are late acquired in the monolingual grammar as well. In this case, adult heritage speakers show similarities to monolingual children, who have not yet reached the target grammar, as we will see below for Greek. However, as Montrul (2016, 218) states, ''attrition and incomplete acquisition are not mutually exclusive: a speaker may show attrition in some areas that are acquired in pre-school age (e.g. gender), and incomplete acquisition in others that take several years to develop (e.g. passives).''[3]

Rothman (2007, 362), criticizing both views, states that ''the possibility that some native and heritage speaker competence disparities result from input differences and unequal formal education opportunities challenges the extent to which it is valid to suppose that all native/heritage competence differences can be explained by incomplete acquisition or attrition.'' Rothman's (2007) study highlights the fact that HL grammars can be devoid of some features that could only be transmitted via formal education. The grammar development of these speakers then follows a different path, which is worth investigating from the point of view of grammatical variation.

More recently, the changes observed in HLs have been viewed from the perspective of language change, i.e. the emergence of a new language variety, see e.g. Pires (2012). One could arguably attempt to model these new grammars along the lines of other well-known cases of language change from diachronic and creole studies. Thus new grammars could emerge via re-organization of features from two systems yielding hybrid grammars as in Aboh (2015) or via errors in the process of acquisition of features, as in Kroch (2001), the important point being that these new HL grammars are rule-governed (Sorace 1993). Kroch's view seems compatible with the incomplete acquisition perspective, if we take the monolingual homeland grammar to be the target of acquisition.

The aim of this paper is to provide further evidence for the perspective that there is an alternative explanation for the variation between HL and 'homeland' grammars: basically, HL grammars instantiate new patterns of the homeland language due to processes of language change. The change I will focus on is not a structural one, but rather a change in the realization of a particular structure, and it has its locus in the variability observed in the homeland grammar. In particular, I will have a closer look at the loss of genitive case, as described in Zombolou (2011) for Argentinean Greek. I will show that combining a synchronic dialectal perspective with a diachronic one we arrive at a more accurate

[3] There is currently a vivid debate on the nature of HLs in terms of incomplete acquisition vs. attrition, see e.g. Benmamoun & al. (2013), Montrul (2016), Yager & al. (2016). The paper will side with the view that none of these processes is involved at least in the case of Greek. See also Londal & Westergarard (2016), who argue that one expects different patterns of variation depending on the process involved, incomplete acquisition leads to systematic patterns, while attrition is far more variable.

explanation of the specific changes that affected the genitive of possession in this particular heritage Greek grammar. I will argue that the heritage Greek grammar lacks this particular realization of possession found in Standard Modern Greek, not because HL speakers are not able to build possessive structures; rather the particular realization of possession via genitive is 'marked', acquired late and often requires a formal setting. Since the alternative realizations they provide are part of the Greek grammar, the 'incompleteness' of acquisition relates to the formal realization, namely the genitive. I will model my analysis of the Greek pattern along the lines of the development of possession in the transition from Latin to Old French that shows interesting similarities to the Greek case. From this perspective then, the changes we see in the HL grammar can be modeled along the lines of other patterns involving syntactic variation and change. By doing this, the paper contributes to our understanding of syntactic variation by looking at HL grammars as representing systems where one can monitor language change in the 'making'. While my analysis and overall perspective is not strictly speaking incompatible with the incomplete acquisition view, here I agree with the view, recently expressed forcefully in Yager & al. (2016), that we should move away from focusing on what HL speakers cannot do, but rather examine their grammars as independent linguistic systems. Furthermore, this perspective suggests that changes in grammar emerge whenever there is variability in the realization of particular structures, in agreement with Adger (2014).

I will further argue that the fact that we find HL grammars seems similar to early L1 acquisition is not surprising, in view of e.g. Borer's (2004) proposal that children are actually quite sophisticated and pretty much adult-like at a very early age, see also Snyder (2007). The things that children acquire late are not computational in nature, i.e. they do not involve core properties of the syntactic computation. From this perspective, both children and HL speakers have acquired the structure to express possession, however, they both pick an alternative /unmarked realization, which could be classified as a kind of default, cf. Tsimpli & Hulk (2013), Scontras & al. (2015), but is nevertheless available in varieties of the standard grammar as well. This realization persists in the context of HLs in the absence of further formal input. Crucial support for this, as we will see, will come from the observation that both HL speakers and children exhibit patterns that are found in varieties of the homeland language and are described in the context of the diachronic development of and dialectal variation in Greek.

The paper is structured as follows. In section 2, I will first present some details of Zombolou's study. I will then turn to a discussion of her core data and her argumentation that heritage speakers are incomplete acquirers. In section 3, I will turn to the diachronic and dialectal distribution of the Greek genitive, and show that genitive loss has been actually in progress for a long period of time. This part relies heavily on the results of Mertyris's (2014) comprehensive study. A comparison with Old French discussed in Gianollo (2012) will suggest that what we find in heritage Greek is an alternative realization of a particular possessive structure; the difficulty with picking the genitive as the realization of this structure relates to formal restrictions on genitive formation. Section 4 concludes my discussion.

2. Heritage Greek

2.1 Data collection

There are very few studies available that investigate Greek as a heritage language, especially in the context of a majority language other than English. Zombolou (2011) offers a comprehensive overview of heritage Greek in Argentina. She reports changes on six grammatical phenomena, one of which will be the main focus of this paper, namely the loss of genitive to express possession in this particular variety of Greek. Zombolou's goal was to

examine whether these changes are due to language contact or incomplete acquisition. She provides evidence, which I will review in detail, that Argentina-Greek is a sort of 'fossilized' language. In other words, for Zombolou these speakers appear to be incomplete acquirers. They fossilize at initial stages of language development, and when Spanish became dominant their Greek weakened significantly.

The Greek community in Argentina is particularly interesting for the study of language change and variation, as, according to Zombolou, most speakers of the second and third generation do not speak Greek to each other and children of the fourth generation do not speak Greek at all.

Zombolou collected digitally recorded data from spontaneous speech and interviews of altogether 120 persons, aged between 13 and 97 years old, of first, second and third generations of Greek immigrants in Argentina. Although the participants of this study were exposed to the two languages, Spanish and Greek, Spanish became their primary language some time after 4-8 years when they went to Kindergarten and school. Participants are mixed in the sense that they do not all come from the same area in Greece; most of them come originally from Peloponnese, Dodecanese and Central Greece. Zombolou excluded participants from outside the standard geographical bounds of Greece (e.g. Southern Italian Greeks, Northern African Greeks, Cypriots, and Asia Minor Greeks) to avoid the appearance of significant dialectal changes. The data reported in her paper come from 20 speakers of the second and third generation, 10 each, 22-75 years of age. These speakers are considered early bilinguals as they were exposed to both Greek and Spanish from birth.

2.2 Genitive Case in heritage Greek

Standard Modern Greek (SMG) has four cases: nominative, genitive, accusative, and vocative. Subjects in SGM are marked with the nominative case. Direct objects are marked with accusative, while genitive marks possessors as well as indirect objects. I will focus here on the genitive of possession, exemplified in (1). Greek has also three genders (masculine, feminine, and neuter), and a very complex nominal declension system, see Ralli (2000), and the discussion in the next section:

(1) to vivlio tu Jani *SMG*
the book the John-GEN
John's book

Zombolou (2011) observes that Argentinean Greeks do not use the genitive to mark possession, they either use the accusative form or a PP (*apo* 'from'). The pattern in (2) is familiar from the literature on pseudo-partitives, and I will refer to it as juxtaposed here. This pattern is rather common cross-linguistically, as stated in Nichols & Bickel (2013). I will refer to the pattern in (3) as the PP pattern here. As we will see in the next section, both patterns are possible in dialects of SMG:

(2) i giagia ti mama mu
the grandmother-NOM the mother my-ACC
The grandmother of my mother

(3) ekana mathimata **apo** elinikus horus
did-1SG courses-ACC from Greek dances-ACC
'I gave Greek dance courses.' (Zombolou 2011, ex. 2 and 3)

Zombolou first entertains the language interference hypothesis to explain this pattern. According to this hypothesis, the genitive is not used to express possession, as the contact language Spanish lacks genitive case and makes use of PPs instead, as in (4):

(4) el libro de Maria
the book of Mary
Mary's book

Zombolou correctly points out that while language contact could explain the pattern in (3), it could not account for the juxtaposed pattern. In looking for an alternative explanation, Zombolou turns to L1 acquisition data and argues that we see in Argentinean Greek is an example of incomplete acquisition. The rationale behinds this analysis is the following. L1 spontaneous speech studies of Greek report that monolingual young children aged 1;7-4;10 also overuse both the juxtaposed pattern and the PP pattern in place of the genitive case in expressing possession (see Stephany 1997, Stephany & Christofidou 2007).

(5) ine ti mama su to vivlio? *juxtaposed*
is the mother your-ACC the book-NOM
'Is the book of your mother?'

(6) Q: pianis ine i mama *PP*
whose is the mother
A: apo tin kokinoskufitsa
from the little red riding hood
'It is little red riding hood's mummy.'

Stephany & Christophidou (2007) explicitly state that in their data the genitive plural for all three genders has not emerged yet: they find no neuter genitives, feminine singular genitives are extremely rare, and the singular masculine genitive emerges after the age of 4;10. In view of the fact that HL speakers produce the same errors as L1 children, then they must have fossilized and not have achieved complete acquisition, Zombolou concludes. In other words, the genitive would qualify as a structure acquired late in Montrul's (2016) typology, and thus subsumed under those features that are incomplete acquired in heritage grammars.

A closer look, however, at diachronic and dialectal variation within Greek enables us to offer a different analysis of these data. Specifically, it has been documented in the literature that the genitive is disappearing or has already disappeared from most Greek dialects of SMG, and speakers adopt alternative realizations to express possession.

3. The loss of genitive in SMG

3.1 General remarks on the Greek genitive

In this section, I will discuss the complexity involving the formation of genitive in Greek. Let us first briefly consider the SMG nominal declension system. As we can see in Table 1, from Alexiadou & Müller (2008, 121) based on Ralli (2000), SMG has 8 declension classes (DCs), and there is no one to one gender-declension class correspondence. The SMG system is characterized by massive syncretism, in fact the nominative-accusative syncretism is evident

in all neuter DCs in both numbers; only DC I has a different form for the accusative and the nominative in both numbers, while DC II has different forms for these two cases only in the singular. In both DCs I and II, the nominative form seems morphologically more complex than the accusative. As Collier (2013) notes, one significant change towards Modern Greek, was the loss of final *-n* from all accusative singular suffixes, making accusative the 'unmarked' form for all three genders. As we see, all genders take the same form for the genitive plural, while singular genitive forms are a bit more varied.

Table 1

	$I_{M/F}$	**II_{M}**	**III_{F}**	**IV_{F}**	**V_{N}**	**VI_{N}**	**VII_{N}**	**$VIII_{N}$**
Nom_{sg}	os	s	Ø	Ø	o	Ø	os	Ø
Acc_{sg}	o	Ø	Ø	Ø	o	Ø	os	Ø
Gen_{sg}	u	Ø	s	s	u	u	us	os
Voc_{sg}	e	Ø	Ø	Ø	o	Ø	os	Ø
Nom_{pl}	i	es	es	is	a	a	i	a
Acc_{pl}	us	es	es	is	a	a	i	a
Gen_{pl}	on	on	on	on	on	on	on	on
Voc_{pl}	i	es	es	is	a	a	i	a

What it is not immediately clear from table 1 is the fact that genitive formation does not only involve the presence of a particular ending, but also stress shift. As discussed in detail in Mertyris (2014), and Sims (2006), and we see in table 2, (adapted from Mertyris 2014, 33, his 2.7), across DCs the genitive requires stress shift either in both numbers, or only in the singular, either from ante-penultimate to the penultimate or form the penultimate to the ultimate syllable. In addition, in some cases in the same DC no stress shift is observed. As we will see, this has to do with the phonological changes that affected the Greek genitive in diachrony. Already this illustration is suggestive of a complex and rather unpredictable system. In addition, there are several words, which do not seem to be able to give good genitive plurals. Mertyris (2014, 93) cites the example of bananófluda 'banana peel', where all possible forms of genitive plural sound odd, e.g. ??bananófludon/*bananoflúdon/*bananofludón, although in principle it should pattern with the example given for DCIII in table 2.

Table 2	**Stress patterns of the genitive in SMG**
DC I_{M}	ANT→PEN: Gentive Singular, Genitive Plural
DC VI_{N}	ánthropos/ anthrópu, ántrhopu/ antnrópon (M) 'person'
	prósopo/ prosópu, prósopa/ prosópon (N) 'face'
	NO CHANGE:
	kópanos/ kópanu, kópani/ kópanon (M) 'mallet'
	láhano/láhanu, láhan/ láhanon (N) 'cabbage'
DCII	ANT/PEN→PEN: Genitive Plural
	gítonas/ gítona, gítones/ gitónon
	PEN→ULT: Genitive Plural
	kléftis/ κléfti, κléftes/ kleft´pon 'thief'
DCIII	ANT/PEN→ULT: Genitive Plural
	óra/ óras, óres/ orón 'hour'

DC III/DCII (M/F) NO CHANGE:
papús/ papú, papúdesç/ papúdon ‘grandfather’ (M)
DC VI PEN→ULT: GS, Genitive Plural
spíti/ spitiú, spítia/ spitión ‘house’
DC VIII ANT→PEN: Genitive Plural
prágma/ prágmatos, prágmata/ pragmáton ‘thing’
DC VII PEN→ULT: Genitive Plural
dásos/ dásus, dási/ dasón ‘forest’

Mertyris (2014) offers the following remarks as far as the loss of genitive in SMG is concerned. First of all, as he states, we observe accusative-genitive plural syncretism (in the personal pronouns of almost all dialects and the nominal inflection of a few). Second, he signals that we have loss of the genitive plural (and occasionally the genitive singular) in specific paradigms of most dialects and SMG. The genitive plural is a form that is syncretic across DCs, as we can see in Table 1. This loss is advanced in Northern Greek, where the preposition *apo* ‘from’ + accusative has replaced the genitive plural in most such varieties. Finally, Mertryris discusses various phenomena of genitive loss, e.g. defective paradigms, as in (7), an example from the Rhodes dialect, where the genitive plural form simply does not exist, see also Ralli’s (2003) overview. Another example from Calabria in (8) shows that the genitive form is preserved on the article, but not on the noun:

(7) nom.sg. ftéksimo nom.pl fteksímata
gen.sg fteksimátu gen.pl *fteksimáton ‘blame’ (Mertyris 2014, 203)
(8) tu aˈpandima *tu apandimátu
the-GEN meeting-ACC tu-GEN meeting-GEN (Mertyris 2014, 273)

Let us now have a closer look at the dialects where advanced loss of genitive is observed. According to Mertyris, we find an accusative-genitive syncretism in the dialects spoken in Cyprus, Voúrbiani, Samos, Sporades and Northern Euboea, Epirot and Thessalian Sarakatsans, Kýzikos, and Corsican Maniot. Crucially, however, these are not the areas Zombolou’s speakers came from, so we can safely conclude that what is observed in their production is not a dialectal pattern that came from the homeland.

The complete loss of the genitive plural in Northern Greek, is documented, according to Mertyris (2014) in the following dialects: Central Greece Epirus, Thessaly, Macedonia, Northern Aegean, Thrace, Eastern Rumelia and Bithynia, South-western Asia Minor. In most of these dialects, the preposition *apo* is grammaticalized as a possessive marker, as mentioned and as we see in (9). Sims (2006) notes significant gaps also in SMG in the formation of genitive plural.

(9) ta ruha apo ta pedia
the clothes from the children-ACC *Grevena Greek* Chatzikirgiakidis & al. (2015)

Other additional alternative strategies used, as documented in Mertyris, include juxtaposition, (10), as well as relative clause formation:

(10) o tenekes ta filla *Eastern Thrace* (Mertyris 2014, 246)
the bin the leaves-ACC
the bin of the leaves

Both the *PP* and the juxtaposed pattern have a rather long history, and they appeared very early on in Greek diachrony, according to Mertyris (2014). They become more dominant once the genitive case is lost. Thus it is very unlikely that the patterns observed in the HL grammar are a case of incomplete acquisition. Rather these speakers seem to opt for an alternative realization for the expression of possession, which is available in the Greek grammar. We can then conclude that, as far as we can tell, HL speakers actually are well placed in the continuum of Greek dialects. The question is why they pick alternatives forms to express possession, and why do they pattern similar to L1 acquirers.

To understand this, we need to take a closer look at the factors that caused the loss of genitive. I will turn to this issue in the next section.

3.2 What caused the loss of genitive in Greek diachrony?

The factors that led most Greek dialects to lose the genitive are rather complex and morpho-phonological in nature. Both Mertyris (2014) and Karatsareas (2011) agree that it has to do to with the marked stress patterns of the genitive that were no longer phonologically motivated after the early Hellenistic period, see also Sims (2006) for a synchronic perspective. Specifically, formations that required stress shift do not acquire genitive forms and a large number of feminine nouns of medieval and modern origin with unpredictable stress position were also rendered defective. As Mertyris observes, the genitive features patterns of stress shift more than any other case, see also table 2, and also Sims (2006). Let us now try to grasp the dimensions of this complexity, building on Mertyris's results.

Among the nominal DCs of Ancient Greek, there is in fact only one that does not show stress shift and only in singular number. All other DCs shift stress to the penultimate or ultimate syllable in both singular and plural genitives. This pattern was maintained in Modern Greek, as we saw above. However, the main factor that caused stress shift in earlier stages, namely vowel length, no longer conditioned the shift, as it was no longer a distinctive feature of the language, see Mertyris (2014, 31) for details.

Importantly, as we saw above, even within the same declension class the old stress pattern appears next to novel stress pattern where stress is maintained, leading to a certain uncertainty in many cases for genitive formation. In case of uncertainty speakers pick alternative realizations, and this is that we see in the case of HL grammars. This has been also confirmed experimentally by Sims (2006). Specifically, the HL grammar retreats to alternative realizations for the expression of possession, as the genitive can no longer be formed productively, namely:

1. accusative as the unmarked case
2. use of juxtaposition as an analytic strategy with roots in Ancient Greek (Mertyris 2014)
3. use of PPs similar to what we see in Romance, Chatzikirgiakidis & al. (2015).

I will comment on each of these strategies in turn.

3.3 Alternative realizations of possession

First of all, it may come as a surprise that accusative is the unmarked case in HL grammars, but, it has been observed in the literature that the accusative is the default/basic form for acquisition, as it appears unmarked in all three genders, in comparison to the nominative

form, which surfaces occasionally with –s, see table 1, and Stephany & Christofidou (2007) for further references and discussion.

With respect to the juxtaposed pattern, Mertyris discusses a distinction between so called anchoring and non-anchoring relations, building on Koptjevskaja-Tamm (2002). Anchoring relations involve e.g. possession, part-whole relationships, kinship, and these thematic roles are expressed by the genitive. According to Mertyris (2014, 49), ‘‘anchoring relations of inanimate possessors can be marked with means other than the genitive in Greek.’’ Moreover, he points out that ‘‘*apo* is also employed in other anchoring relations with animate nouns with problematic or ungrammatical genitive plural forms’’, (Mertyris 2014, 70), as in (11):

(11)	ta ftera apo tis papies		vs.	*ta ftera ton papion
	the wings from the ducks-ACC			the wings the ducks-GEN
	the wings of the ducks			

Furthermore, according to Mertyris (2014, 70), ‘‘in the majority of the Northern Greek dialects *apo* has been grammaticalized as a possessive marker and can be used with all anchoring possessive relations, resulting in the complete loss of the genitive plural.’’

By contrast, non-anchoring relations involve modification of the head noun with respect to age, quality, measurement, duration, value, etc. Unlike anchoring relations, marking of these constructions has significantly changed throughout the history of Greek. Although the genitive still marks for example age and quality, juxtapositions and prepositional phrases are employed for non-anchoring relations in MG more generally, as Mertyris shows in detail, see also Alexiadou & Stavrou (1998, 1999). Juxtaposition is found even in earlier stages of Greek with e.g. value and measure instead of the expected genitives Mertyris concludes that ‘‘as juxtapositional structures are a cross-linguistically widespread strategy for marking non-anchoring relations, their early use in parallel with the genitive in Greek should not surprise’’, Mertyris (2014, 52).

Mertyris (2014, 89) suggests then the following gradual development: i) possessive anchoring (GENITIVE) vs. non anchoring (GENITIVE < JUXTAPOSITION), ii) true partitives (GENITIVE <apo) vs. pseudopartitives (GENITIVE < JUXTAPOSITION) and iii) adverbial prepositional complement of ablative meaning (GENITIVE <apo) vs. adverbial prepositional complement of locative meaning.

In sum, in agreement with Mertyris’s discussion and conclusions, the reason to develop or more accurately adopt alternative structures to express possession is the genitive-accusative syncretism: if possession expresses a thematic or a modification relation between the head noun and the possessor, the two forms need to have alternative realizations. When genitive is present, this is done via the genitive. When the genitive gets lost, either juxtaposition with an accusative marking or a PP realization emerge as alternative realizations of possession.

3.4 A comparison with Old French

In this section, I would like to point out that what we observe for Greek is not an isolated case. It has also been observed in e.g. the diachrony of Romance. As is well known, while Latin had a rich inflectional nominal system, the modern Western Romance languages do not show any case distinctions on nouns. Thus it is interesting to compare the Greek situation to the development of the expression of possession from Latin to Romance, specifically Old

French, which has been documented in the literature and shows interesting parallels to Greek, but also important differences. This comparison seems reasonable, as Chatzikiriakidis & al. (2015) have shown that *apo*-phrases in e.g. Grevena Greek behave like *de*-phrases in Romance, and because the change in Romance crucially also involves the loss of genitive marking.

As is well known, see Gianollo (2012) for detailed discussion, genitives that were morphologically marked in Latin, are encoded in Western Romance languages via prepositional phrases headed by *de*. This reanalysis is attributed to the process of loss of inflection in the transition from Latin to Romance. Gianollo discusses two patterns in Old French that resemble the patterns found in Greek, the juxtaposed one, and the prepositional one introduced by *de* see (12-13), her (9a-b respectively):[4]

(12) li filz [le roi d'Arragon]
the son the king of Aragon
'the son of the king of Aragon' (Charrete 5780)

(13) la teste [d'Agolant]
the head of Agolant
'Agolant's head' (Aspremont 10532)

It is important to note that in Old French, the morphological distinction between nominative and oblique (accusative/genitive) case was visible only in the masculine paradigm of nouns and determiners. As Gianollo details, the juxtaposed pattern decreases during the 12th and 13th century, and then disappears by the Middle French period, following the loss of the two case declension system.

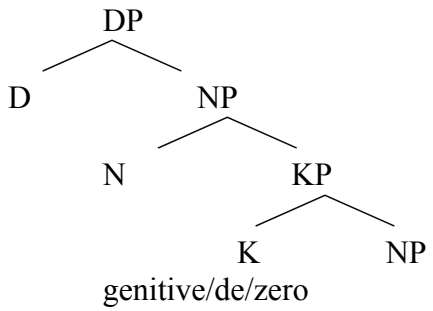
The similarity with the Greek case is that there is only one oblique case in opposition to the nominative in Old French. The crucial difference is that the juxtaposed pattern does not disappear. Let us now re-consider the Greek situation from this perspective. We observe across dialects a genitive-accusative syncretism, suggesting that the system develops towards an opposition of the type nominative vs. oblique, similar to what happened from the transition from Latin to Old French. The important difference from French is that the two case system does not disappear.

In terms of syntactic representation, I follow Gianollo and assume that the structure remains intact, the only difference is the realization of the relation, genitive in the target formal grammar, and older stages, but P or accusative in the new grammar and dialectal grammar. The structure of possession can be realized via two alternatives, either a preposition, or use of accusative case, which takes over the function of morphological genitive leading to juxtaposed patterns. In other words, syncretism leads to alternative realizations to express possession, a pattern known and described in the historical syntax literature.

Specifically, Gianollo (2012) takes inflectional genitive to realize K°, i.e. heading a Kase phrase, where case morphology is located. This head is realized by *de*, once inflection gets lost. As in Simonenko (2010), K° has a zero exponent in the juxtaposed pattern:

[4] There is a third pattern, the prepositional phrase introduced by *à*, which is restricted to human nouns, which she does not focus on, see Simonenko (2010) for discussion.

(14)



For the purposes of this paper, I will adopt a similar structure for Greek, cf. Alexiadou & Stavrou (1998, 1999), and Alexiadou & al. (2007), and take zero in the case of the juxtaposed accusative or P to constitute alternative realizations of the genitive inflection. From this perspective, what we observe in HLs is not a structural change, but rather a realizational change as a result of syncretism and loss of morphological distinctions that are found in the HL grammar similar to many Greek dialects. In other words, the pattern found in HL Greek is no different from the change observed in the transition from Latin to Old French. Unlike in French, case morphology has not completely disappeared thus the two alternatives, juxtaposition and PP, are options speakers have at their disposal.

Recall now that Zombolou's study reported similar patterns in L1 monolingual Greek acquisition, drawing from Stephany (1997), see also Marinis (2003). As in many Greek dialects, young children use either juxtaposition or *apo* phrases, see (15) repeated from section 2:

(15) a. i mama ti kokinoskufitsa
the mother the little red riding hood-ACC
little red riding hood's mother

b. apo tin kokinoskufitsa
from the little red riding hood

The question that these data raise is why children would reanalyze possessives or more accurately, on the basis of our discussion thus far, pick alternative realizations for the expression of possession. Clearly, what we see here is that children retreat to alternative realizations available in the grammar of Greek. If indeed building genitive forms is morpho-phonologically complex and associated with all sorts of restrictions (and possibly with higher registers, as suggested in Holton & al. 1997, Sims 2006 and references therein), it is kind of expected that children will resort to alternative (and unmarked) strategies. That is, as argued in Borer (2004), children are adult like in their syntax but the complexity of the morpho-phonology of the genitive leads them to pick the unmarked variant. This is what Rothman (2007) also suggested for inflected infinitives in Brazilian Portuguese. Moreover, following Gianollo (2012), what changes is not actually the structure but its realization. We can thus attribute this particular change to the complex and formal nature of the Greek genitive, so that its choice as a possible realization of the structure of possession lags behind that of the unmarked forms, namely accusative and PPs. This particular change is expected, if we view variability in the possession structure under discussion as involving variation with respect to particular items that lexicalize possession. In other words, change is the result of variability, where alternative forms compete for the lexicalization of particular syntactic structures, see

Adger (2014), who makes this point for intra-speaker variation in various speech contexts.

4. Conclusions

In this paper, I have argued, in line with e.g. Rothman (2007), that it would be premature to judge the linguistic behavior of heritage speakers as the result of incomplete acquisition, although this seems obvious at first sight. Rather what we find in their grammar is the emergence of new patterns that are systematic, and can be found in varieties of the homeland grammar as well. In our particular case study, the change relates to the predominant use of unmarked realizations of possession, which can be found in many Greek dialects as well as the standard grammar.[5] Moreover, the variation found cannot be attributed to language contact and interference, first because the patterns observed are not influenced by Spanish and second because precisely they are found in the grammar of homeland Greek as well. Thus heritage Greek seems to follow a pattern of development, common to that of SMG, and independent of contact. This path shows interesting similarities to a well-documented pattern of language change in the history of French, suggesting that the discussion of variation affecting HL grammars in the context of language change is a worthwhile enterprise.

A question that arises at this point is whether the analysis provided for the Greek genitive of possession can generalize to other instances of genitive loss that have been reported in the literature, e.g. in Russian, as described in Polinsky (2000). Polinsky reports that certain possessive structures are no longer expressed via the genitive in American Russian; rather speakers use the nominative form together with some form of the verb *have* instead of the homeland Russian *be* + P+ genitive string. This is very different from Greek. In general, heritage Russian, unlike heritage Greek, uses nominative and not accusative as the default case both in acquisition and in heritage grammars. Interestingly, assuming with Kayne (1993) that *have* is the result of P incorporation into *be*, what we see in the American Russian grammar is the emergence of a new pattern due to syntactic reanalysis.

With respect to the question why nominal inflection seems severely affected in Argentina-Greek, I pointed out that syncretism is the key to understand the loss of case distinctions. The three very detailed studies of nominal morphology of Greek that I am aware of, namely Karatsareas (2011), Collier (2013), and Mertyris (2014), all make this point very clearly: Greek nominal morphology has become syncretic. Whenever this happens in the nominal system of a language, some case distinctions get lost. This was the case in the transition of Latin to Romance, as we saw in this paper, but also in the history of English. Allen (1997), for instance, states that categories get lost only when the forms had become too syncretistic to support them. Crucially, this is a result independent of contact.

With respect to the similarities between heritage Greek and child acquisition data, I pointed out that the fact that HL grammars retreat to the form that seems to be the default in the learning of the Greek case system, namely accusative, suggests that the comparison between L1 acquisition and HL grammars should be undertaken along the lines of Rothman (2007), i.e. heritage grammars are not fossilized systems. If, as I argued here, following Gianollo (2012), speakers have acquired the syntax of possession, but not the morpho-phonological complexity of the genitive to realize this structure, then they clearly retreat to a

[5] It has to be mentioned here that Zombolou's data are production data collected in the context of interviews, which might suggest that HSs might have knowledge of the genitive, and it would be worthwhile to undertake such an investigation. However, in view of the fact that genitival formation is subject to restrictions and is highly marked, as discussed in section 3, I do not expect speakers to show knowledge of these forms.

default realization. Importantly, this default realization is one of three alternatives, available in the language, the 'target' and formal one being the genitive, which seems to emerge late in the grammar of native speakers, and to have disappeared completely from some Greek varieties. Stephany & Christophidou (2007) introduce a correlation between late emergence and the infrequency of these forms in the input, which we might attribute to an avoidance strategy. Sims (2006) shows that frequency might not be the only answer, as uncertainty in (plural) genitive formation occurs with very frequent words as well. Naturally, if adult native speakers are uncertain as to how to form genitives, they will themselves make use of one of the alternative realizations of possession, which I take is what becomes the standard realization in the heritage grammar. In other words, the genitive constitutes a formal, marked feature of the language, and its absence from the heritage grammar is suggestive of the emergence of an alternative realization, while the syntax remains intact. In view of the fact that similar changes are observed in homeland varieties as well, we can conclude that the pattern of change is identical in both the HL and these homeland varieties that are affected. By contrast, formal registers of SMG still preserve a three-way distinction (genitive, juxtaposition and PP, which might be sensitive to the shape of the noun and the type of possession involved, more acceptable with inalienable possession involving objects for example). The type of variability described here for SMG, i.e. distinct realizations of a particular structure could be seen as a case supporting Adger's (2014) view that the basis of variability in different speech contexts is related to properties of individual lexical items, in the sense that several lexical items could be in principle compete to realize a particular syntactic structure. As Adger points out, in processes of language change variability is lost, and this seems to be the case both for Greek dialects and heritage Greek.

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