<u>Managing multilingualism: contact, attitudes and planning in historical contexts</u>

Fragmentary ancient languages as "bad data":
towards a methodology for investigating multilingualism in epigraphic sources

Abstract:

The study of language contact in the ancient world has been an area of huge growth over the past ten years. However, in areas of the ancient world where sources are more limited, scholars have been more hesitant to make sweeping claims about the nature of language contact, even in communities where societal bilingualism is likely to have existed for many centuries. Languages only attested in fragmentary epigraphic corpora are considered the ultimate "bad data" and have not always received a great deal of attention in historical sociolinguistics, despite these texts representing our best evidence of many of the communities across the ancient Mediterranean. In response to this problem, this article asks how we should go about interpreting the evidence of ancient language contact in small or fragmentary corpora of texts.

This article uses the Oscan corpus from Southern Italy (Lucania, Bruttium and Messina) c. 400-50 BCE as a case study for examining bilingualism in a fragmentary corpus. It outlines the data gathered from a range of different text-types from Southern Italy, the different kinds of contact phenomena which have been found in these texts, and whether there are any discernible patterns in the data. It argues, because of the fragmentary state of the Oscan corpus, that there is little clear evidence of chronological or geographic differentiation in levels of bilingualism. Rather, the evidence shows that in this corpus some text-types are more likely than others to contain contact phenomena. With this in mind, this paper proposes a new model which includes consideration of text-type for the interpretation of language contact and bilingualism in fragmentary corpora.

1. Introduction

If the sources used for historical sociolinguistics constitute "bad data" (Labov 1972: 100), then fragmentary ancient languages are perhaps among the worst data. Our sources for fragmentary ancient languages – defined here as those languages attested only through inscriptions, with corpora of between a few hundred and a few hundred thousand words – have a number of inherent drawbacks. As with other historical sources, the researcher has no control over the type and quantity of data, and new data cannot be elicited from speakers to increase the number

of tokens for unusual linguistic phenomena. The speakers who have created the linguistic sources are self-selected to some extent, and are drawn disproportionately from certain groups – particularly the literate male élite, soldiers, craftsmen and scribes – while groups such as women, slaves, the least educated and children are often not represented at all. The sources are usually limited to certain text-types, such that they do not represent the whole range of usages found in the speech community, or even the full range of competencies of the individuals who wrote them.

The study of fragmentary languages also presents problems not (always) found in other areas of historical sociolinguistics. Because the corpora for ancient languages other than Latin and Greek are often very small, the number of tokens even for relatively common linguistic phenomena may be tiny, far less than the fifteen tokens sometimes recommended as a minimum for meaningful study in corpus linguistics (Hernández-Campoy/ Schilling 2012: 67). The preponderance of short epigraphic texts means that our knowledge of the syntax of these languages is often very limited, so that our focus must often be on phonological and morphological features, the syntax of short phrases and, where the corpus is varied enough, the lexicon. We also know very little about the writers of these texts: sometimes we know their name and therefore their gender and (perhaps) something of their background and place of origin, but names are not always given in the text. Even where a name is included in a text, we usually cannot be confident in ascribing the content of the text to the named individual. There were multiple steps in the production of epigraphic texts on stone or bronze, and each step (payment, commissioning, drafting, tracing onto the support and incising) might each be completed by one or more different people. It becomes very difficult, therefore, to associate any linguistic feature with a particular person or group. In addition, fragmentary languages' corpora are usually a series of "snapshots", with few clear relationships between the various texts – for example, we are very unlikely to have multiple texts which we know to have been written by the same person. Dating the texts is also a constant problem. We can often only reliably date texts in fragmentary ancient languages to within a century or two, limiting our recognition of change over time.

Despite all this, the general consensus over the past decade has been that we should not despair. Firstly, written sources provide a wealth of information not found in spoken sources, particularly regarding orthography (i.e. spelling) and epigraphy (i.e. alphabet or writing system, letter shapes, text layout, and so on). This is not linguistic information per se, but may tell us indirectly about the language(s) or background(s) of the writer, including any individual bilingualism, as we shall see. Secondly, our lack of control over the data may be seen as a limited

advantage for some purposes (Miller 2004: 287). It is problematic that our data sample is not truly random, as it has been biased by patterns of archaeological activity, which skew towards the most famous ancient sites and the areas which continue to experience redevelopment and building work. In most areas, we are also lacking the texts which were written on materials such as wood and papyrus, and metals which could have been melted down. But at the sites which have been excavated, we may have a reasonably representative sample of the written language on long-lasting materials. We can be confident, too, that the sources have not been affected by the process of data collection, in the way that an interview with a contemporary speaker might be – in this sense, historical written data is "better" data than data elicited by researchers (Romaine 1982: 122).

To make the most of these small advantages, recent scholarship has stressed the idea of "informational maximalism" (Janda/ Joseph 2003: 37). Although we should continue to take care not to over-extrapolate, this guiding principle of historical sociolinguistics encourages us to get as much out of the data as possible. This idea developed alongside the recent focus in Classical scholarship on the materiality of texts, and the connections between language, epigraphy and material culture. While archaeology has traditionally been a separate discipline from ancient linguistics, scholarship on ancient sociolinguistics has recently emphasised the importance of investigating our sources from all angles as well as understanding their limitations (Langslow 2002; Miller 2004; Clackson 2011). This has been found particularly in the work of Mullen on Gaulish, Greek and Latin in Southern Gaul (Mullen 2012, 2013), Steele on the languages of Cyprus (Steele 2010, 2013) and Tribulato on Sicily (Tribulato 2012), all of whom show the importance of considering language and script alongside layout, object type, iconography and spatial context. In many cases, we can also use Greco-Roman literary sources to support our investigations, though we should always appreciate that they give only a very limited view of cultures and languages other than their own.

It is no coincidence that much of the sociolinguistic work on fragmentary ancient languages has focussed on multilingualism. The ancient Mediterranean was highly linguistically diverse, and it is very rare indeed to find sites with evidence of only one language. Many, but not all, of the fragmentary languages which are attested in the ancient Mediterranean took on written form after coming into contact with Greek or (later) Latin, adapting the alphabets used by speakers of those languages. A large number of languages underwent language death during ancient times, mainly because of the increased dominance of Latin. Our knowledge and understanding of these fragmentary languages is therefore predicated on the fact that they existed in a diverse and multilingual environment.

This article seeks to make a contribution to this tradition of informational maximalism in studying multilingualism in fragmentary ancient languages. One of our biggest challenges is identifying different kinds of bilingualism. Can we go from the linguistic "snapshots" that we get in short individual texts, which may give us some evidence of individual multilingualism, to understanding whether there was wider societal multilingualism and what it might have looked like? The key, I argue, is to complement a close reading of individual texts with looking systematically at groups of texts which share a genre or text-type. Genre is often highly significant for language choice in multilingual societies, and so must form part of our methodology for investigating fragmentary ancient languages.

2. Oscan and Greek in Southern Italy and Sicily

Oscan was a widespread language in Central and Southern Italy, now attested only through inscriptions. It belonged to the Italic language family, which also includes Latin, but it belongs to the Sabellian rather than the Latin-Faliscan branch. In total, there are around 800 Oscan texts, ranging from just one letter to around 500 words; the vast majority of texts are under twenty words. Oscan is written in three main alphabets (though a small number of inscriptions are written in other alphabets): the Central Oscan (or "Native" or "National") alphabet, the South Oscan (or Greek) alphabet, and the Roman alphabet. In general, the Roman alphabet is used for the latest texts, dated to around 150-50 BCE, particularly in the areas nearest Rome, while the Central Oscan alphabet and the Greek alphabet were in use from c. 450 to c. 100 BCE. The Central Oscan alphabet was used mainly in Samnium and Campania, while the Greek alphabet was used in Lucania, Bruttium and the city of Messana in Sicily.

This article deals primarily with the "South Oscan" texts written in the Greek alphabet. There are around 130 of these texts, mainly written from the fourth to the second centuries BCE. There is a relatively good spread of text-types: fifty dedications, two or three legal texts (one of which is probably better classified as "Pre-Samnite" rather than Oscan (Poccetti/ Lazzarini 2001; McDonald 2015:188–192)), five "official" texts commemorating the completion of public buildings, eight curse tablets, and two or three funerary epitaphs (one of which may be a dedication). The rest of the corpus consists of very short texts: twenty-five tile stamps, amphora stamps and makers' marks, eight graffiti and dipinti and around one hundred coin legends.

The corpus of South Oscan texts has grown considerably during the late twentieth and early twenty-first centuries, resulting in a collection that is considerably under-studied, both as

individual texts and as a group. The corpus was hugely expanded in the second half of the twentieth century, mainly as a result of the excavations of Dinu Adameşteanu at sites including Rossano di Vaglio during the 1970s and 1980s. Because this information has only been easily accessible for a few years, in contrast to the large number of Central Oscan texts which have been known since the nineteenth century, the South Oscan texts remain significantly under-studied. In particular, evidence for language contact and bilingualism in the corpus has been neglected, despite the fact that around 35 of the South Oscan inscriptions (more if coin legends are included) show some evidence of Oscan/Greek bilingualism.

We know from both archaeological and Greco-Roman historical and literary sources that Oscan was in prolonged contact with Greek in the south of Italy (McDonald 2015: 1–31). Literary texts rarely make Oscan-speakers the focus of their narrative, but when the language is mentioned it is often connected to instances of individual or societal bilingualism. Ennius (*Annals* 477S) calls the Bruttians bilingual, and a gloss on this suggests that Ennius had in mind Oscan/Greek bilingualism.[1] Aulus Gellius (17.17.1) says that Ennius himself had three hearts, because he was trilingual in Oscan, Greek and Latin.[2] Dio Chrysostom tells a story of a Lucanian ambassador who delivered a speech to a Syracusan court in impeccable Doric Greek (Dio Chrysostom *Orations* 27.24). In Campania, Strabo (5.4.7) mentions that some Oscan-speakers were given full citizenship in Greek-speaking Naples (Lomas 1996: 138). Livy (24.3.10) describes the refusal of the people of the Greek city of Croton to allow immigration from Bruttium, in case it meant that their language would be replaced.

When and where Oscan texts survive in the south of Italy suggests a relatively unusual situation of stable societal bilingualism, in that neither was ever the dominant language of the entire region during the period 400-100 BCE. In some cities, such as Naples in Campania, the aristocracy was Greek-speaking for the entire period despite a significant Oscan-speaking minority. In others, such as Laos and Paestum, the elite began to use Oscan rather than Greek in texts such as official dedications to deities, before shifting to Latin. And at the sanctuary at Rossano di Vaglio, Oscan alone was used until Latin became the preferred written language. Greek never completely displaced Oscan, nor vice versa. The decline of both Greek and Oscan in Italy was caused by the expansion of Latin, with Oscan undergoing language death around the first century BCE to the first century CE (Adams 2003: 112, 146–147; Clackson/ Horrocks 2007:

---

[1] "*bilingues Bruttaces: Ennius dixit quod Brutti et Osce et Graece loqui soliti sunt*" [bilingual Bruttians: Ennius said that the Bruttians were accustomed to speaking both Oscan and Greek]. Paulus Fest. 31 L. To a Roman audience, bilingualism may have connoted deceitfulness (Dench 1995: 77).
[2] There has been some debate on whether Ennius was an Oscan-speaker, since he came from a Messapic-speaking area of Apulia.

83). Greek survived elsewhere in the Mediterranean, but probably also ceased to be spoken in Italy, although the Griko dialect of Calabria and Puglia may show limited continuity of Greek in Italy up to the present day (Horrocks 2010: 383).

But can we go further than saying simply that Greek and Oscan were in close proximity, that there were some bilingual individuals, and that neither language caused the ultimate death of the other? To create a more nuanced picture of Oscan/Greek bilingualism, we need to look at both individual texts and the patterns which emerge across the whole corpus of South Oscan epigraphy.

3. Oscan and Greek texts

There is not space in this article to discuss all of the relevant texts in detail. Here, I will give three brief examples of the kinds of texts and contact phenomena we encounter in this corpus. Additional information about these and other texts in the corpus can be found in McDonald (2015) and Crawford (2011: vol. 3). All inscription numbers in the following text are as they appear in Crawford (2011).

3.1 Potentia 21 – Borrowing

> *Transcription*
>> [-?-]αματομ
>> [-?-]υξ κhομοι
>> [-?-]μψδοι μεfι-
>> [-?-] *vacat*
>> *vacat*

> *Translation*
>> ?order-PERF.PART.ACC.SG.MASC.
>> -ux? ?burial-mound?
>> Numpsdos-DAT. belonging-to-Mefitis-DAT.
>>
>> … has been ordered
>> … ? for the ?burial-mound?
>> … for the companion of Mefitis.

Figure 1 – Potentia 21. Photograph provided by M. Crawford.

Potentia 21 is written on a grey sandstone block, broken on the left-hand side, found re-used as the base of a votive column. The date has been placed variously as 325-300 BC (Lejeune 1990: 41) and 250-200 BC (Crawford 2011). This text may show evidence of Oscan/Greek bilingualism because of the sequence <kh> in line 2. Lejeune put a word division between these two letters, on the grounds that /kh/ is not a possible sequence in Oscan (Lejeune 1990: 41). However, there are various problems with Lejeune's reading of the rest of the text which have made this interpretation less likely (McDonald 2015: 124–126).

A more plausible scenario is that the sequence <kh> is the beginning of the word, giving us an otherwise unattested word *khomoi*. We could compare this to Greek *khõma* or *kheũma*, "earthworks, burial mound" (Del Tutto Palma 1987:371). If the word was borrowed from Greek to Oscan, we would have to account for the change in inflection from a neuter noun in *–a* to a masculine noun in *–os* (Nishimura 2016: 2). However, this kind of change during borrowing is not usual, particularly where there is not a close equivalent for a morphological category in the receiver language – Oscan, for example, does not have neuter nouns in *–a,* which could prompt a change of category for borrowed Greek neuter nouns. If this interpretation is correct, then we have an example here of lexical borrowing from Greek, in which the aspirate pronunciation is maintained by writing stop + <h>. The borrowing of the word may have gone along with the borrowing of a practice or object, such as a particular style of earthworks.
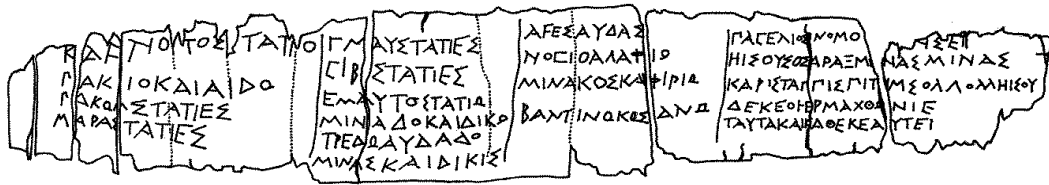
Figure 1 – Petelia 2. Author's drawing.

Transcription

Column I. 1. καϝνοτο στατιο

πακϝιω και<δ>ι<κ>ω

πακολ στατιεσ

μαρα(σ) στατιεσ

Column II. 1. γναυ(σ) στατιεσ

ϝιβι(σ) στατιεσ

εμαυτο στατιω

μιναδο καιδικω

5. τρε<β>ω αυδα<ϝ>ο

μινασ καιδικισ

Column III. 1. αϝεσ αυδαισ

νοϝιο αλαϕιω

μινα<δ>ο σκαϕιριω

βαντινω κωσσανω

Column IV. 1. παϝελιοσ νομο[-5-]νσ ετ

ηισ ουσοσ αραξ μ[ι]νασ μινασ

καρισ ταπ(?) πισπιτ (ιν)ιμ σολλομ ηισου

δεκεο ηερμα χθωνιε

5. ταυτα και καθεκε αυτει

8

Translation

[List of male and female names, all nominative]

Oscan: πισπιτ   (ιν)ιμ   σολλομ   ηισου

        whoever-MASC.SING.   and.   all-MASC.GEN.PL.   them-MASC.GEN.PL.

Greek: δεκεο   hερμα   χθωνιε

       receive-IMP.   Hermes-VOC.   of-underworld-VOC.

       ταυτα   και   καθεκε   αυτει

       these-NEUT.ACC.PL.   and.   keep-IMP.   here-ADV.

       And whoever (is acting on behalf) of all of them,

       Hermes of the Underworld, receive these (names) and keep them here.

This text was first published by Lazzarini, and some changes to the reading of the fourth column of the text have been proposed by the 'Greek in Italy' project based on autopsy in September 2014 (Lazzarini 2004; McDonald/ Tagliapietra/ Zair 2015). The first clause of the curse formula is in Oscan, and the second clause is in Greek.

The syntax of the Oscan part of the phrase is not completely clear: among other things, the use of the genitive to mean something like "associated with", which is unusual in Oscan, may be derived from Greek models for this formula (McDonald 2015: 161–162). The Greek clause is a relatively common Greek curse formula, asking Hermes to receive something or someone (Poccetti 2010: 674). There are several features in this clause which have been identified as Doric Greek, such as the spelling *dékeo* rather than Attic-Ionic *dék^{h}eo*, the vocative *herma* "Hermes", and *autei* for *autou* "just here" (Lazzarini 2004: 679). There are also a number of non-standard spellings in the Greek, including alternations between omega (/ō/) and omicron (/ŏ/) (eg. *k^{h}t^{h}ōnie* for *k^{h}t^{h}ónie*) and metathesis of aspiration (eg. *kat^{h}eke* for *kátek^{h}e*). These spellings suggest that the writer was an L2 speaker of Greek who could not reliably distinguish the difference between aspirated and non-aspirated stops.

What motivates the code-switch in the formula? One way of looking at this is to consider the hypothetical interlocutor. At the point where the formula becomes a request to Hermes, with an imperative and the vocative, the writer switches into Greek. This may be because Greek was the language associated with Hermes, and therefore was appropriate for speaking to him directly.

The code-switch may also have come about because the writer did not want to translate the magical formula and risk losing the magical power of the original. Whoever translated the Greek formula partly into Oscan must have had some knowledge of both languages, but we cannot know whether this was the writer of the curse or the writer of a handbook of formulae. For more detail on the language of this curse, see McDonald (2015: 159-164) and McDonald/ Tagliapietra/ Zair (2015).

3.3 Potentia 39 – A calqued formula?

Figure 3 – Potentia 39 (reproduction). Author's photograph.

Transcription

       επι τησ

       νυμμε-

       λου αρχησ

Translation

    in.   the-FEM.GEN.SING.

    Nummelos-MASC.GEN.SING.

    magistracy-FEM.GEN.SING.

    In the magistracy of Nummelos.

Potentia 39 was found at Serra di Vaglio, near Rossano di Vaglio. The inscription is written in Greek, and is dated to the fourth century BC. It is thought to have been erected to date the fortification wall which was constructed around that time (Manni Piraino 1968: 452).
The dating formula used here was immediately considered unusual on its discovery: the usual Greek would be *epì* + GEN + *arkʰontos*, where GEN is the genitive of the magistrate's name and *árkʰontos* is the genitive of *árkʰōn* 'archon, magistrate'. Though the meaning of the formula *epì* + GEN + *arkʰḗs* formula, where *arkʰḗ* means 'magistracy', is identical in context, the word choice and syntax is out of the ordinary for Greek official documents. The unusual formula has led to speculation that this is a translation of an Oscan dating formula. Guzzo went so far as to suggest that Nummelos had erected a bilingual inscription, of which the Oscan half did not survive (Guzzo 1984: 202). We can, however, still understand this inscription as a word-by-word calque of an Oscan formula without assuming a corresponding Oscan half.

Several very similar Oscan dating formula using the word 'magistracy' have been identified (McDonald 2015: 199), but none in which the syntax exactly matches this inscription. The closest model is perhaps an inscription on a bronze helmet dated to 400-375 BC (Lu 37/Metapontum 1), which reads συπ μεδικιαι πο [*sup medikiai po*] 'in the magistracy of Po.', with the name of the magistrate abbreviated. The relationship between the various similar formulae in Greek and Oscan in this region is complicated, and may show multiple calques and translations between the two languages (Poccetti 2010: 667; McDonald 2015: 198-201). Regardless of the exact mechanism of the change, this inscription provides one example of the influence of Oscan on the language of Greek official documents in southern Italy.

4. Geographic distribution

If we were to guess that there was regional variation in the level of Oscan/Greek bilingualism, we might reasonably expect certain patterns. One possibility would be that there were higher levels of Oscan/Greek bilingualism at coastal Oscan-speaking sites which were relatively close to the Greek cities. This may have been the case, but it is not reflected in the surviving evidence. There are identifiable contact-induced phenomena at both inland and coastal sites, and not all

coastal sites where the use of Oscan is attested show any clear evidence of influence or borrowing from Greek. Another hypothesis would be that cities where Oscan was written which were originally Greek foundations or had large Greek-speaking populations (as far as we know from historical sources) would have experienced more societal bilingualism. Again, this may have been the case, but our evidence does not show this pattern either: non-Greek sites a considerable distance from the nearest Greek settlement, such as Rossano di Vaglio, have plenty of evidence of Oscan/Greek contact.

There seem to be factors other than geography dictating the amount of evidence for Greek contact at any particular Oscan-speaking site. Firstly, the larger the number of inscriptions from a site, the greater the evidence of contact. Sites with only one or two extant Oscan inscriptions may not show any clear epigraphic or linguistic evidence of contact with Greek, while the site with the most inscriptions, Rossano di Vaglio, shows by far the most evidence of contact. The type of site is highly relevant to how this pattern plays out. As a large sanctuary, Rossano's entire purpose was to act as a repository of inscriptions and other votives; there was never any reason to set up so many inscriptions on stone at habitation sites. Secondly, an over-representation of certain kinds of inscriptions results in more evidence of Greek contact. Sites with curse tablets such as Laos, Roccagloriosa and Petelia are likely to show a greater number of contact-induced features. Any geographic patterns therefore seem to be a matter of the availability of certain kinds of evidence, and not evidence of regional variation. To understand the evidence for bilingualism in this corpus, we need to look more closely at text-type and domain.

5. Text-type and domain

One aspect of understanding multilingualism is analysing why individuals choose a particular language for a particular task. Domain, or immediate social context, has long been used to understand language choice in spoken bilingualism (Fishman 1965, 1967; García/ Schiffman/ Zacariah 2006), and more recently also in written sources (Bats 2011; Schendl 2012: 522; Langslow 2012). Here, "domain" refers to an area of life, such as religion, politics, home life, while "text-type" refers to a genre of text, such as dedications, laws and curses. More than one text-type may form part of the same domain, and one text-type may belong to several domains. For the South Oscan corpus, we can summarise the contact phenomena by text-type.[3]

---

[3] A more detailed account of these contact phenomena and the inscriptions referred to can be found in McDonald (2015: 224-227, with references). This summary also does not have space to consider coin legends in detail – most of the coin legends relating to Oscan-speaking cities in the south have Greek

Table 1: Contact phenomena in South Oscan inscriptions

Text-type	Number of examples of contact phenomena in texts of this type (total number of texts)	Categories of contact phenomena found in texts of this type
Dedications	16 (in 50 texts)	Language choice (Greek used rather than Oscan) (2) Re-use (1) Lexical borrowing (1) Orthographic influence (1) Greek numerals (1) Syntactic influence (3) Word or formula choice may be influenced by Greek (7)
Curse tablets	14 (in 8 texts)	Language choice (Greek used rather than Oscan) (3) Code-switching (1) Re-use (1) Orthographic influence (6) Syntactic influence (3)
Legal texts	1 (in 2 texts)	Orthographic influence (1)
Official texts	4 (in 5 texts)	Language choice (Greek used rather than Oscan) (3) Greek numerals (1)
Funerary	1 (in 2 texts)	Word or formula choice may be influenced by Greek (1)
Stamps	3 (in 25 texts)	Language choice (Greek used rather than Oscan) (3)
Graffiti and dipinti	1 (in 8 texts)	Language choice (Greek used rather than Oscan) (1)

Greek/Oscan contact phenomena seem to cluster around certain text-types in the South Oscan corpus: in particular, we find much higher evidence for bilingualism in curses than in any other kind of text. The other text-types need a little more care in interpretation. Although official texts

morphology, and there seems to have been a special relationship between coinage and the Greek language, with many coins being minted in Greek-speaking areas (McDonald 2015: 204–211).

commissioned by magistrates appear to have a high degree of influence from Greek, in fact this relates primarily to language choice – these magistrates have chosen to put up inscriptions in Greek rather than in Oscan, although their names and locations might lead us to expect that they would write inscriptions in Oscan. One of these official inscriptions in Greek is also less than one word long, consisting only of an abbreviation of the word *demos* "people" (McDonald 2015: 201–203). Contact phenomena appear in proportionally fewer of the dedicatory texts in the table above, but the range of types of contact phenomena which they show is much wider and shows more Greek features appearing in Oscan-language texts, and therefore may be more indicative of societal bilingualism.

It is possible that this means that the individuals writing curses and dedications were more often bilingual than those writing, say, legal texts. However, it seems more likely that there was widespread societal bilingualism (or, at least, that there were many areas with large bilingual minorities), but that the use of elements from more than one language was thought more appropriate to some written texts than others. In some text-types, we can see why this might have come about. For example, evidence of Oscan/Greek bilingualism is strongest in the curse tablets. In these texts, language mixing, including code-switching, may have been part of a deliberate effort by the writer to increase the potency of the text either by producing an artificially mixed language, or by keeping elements from an originally Greek spell he was copying from a handbook. It is also understandable that in some highly specialised texts with an entirely local and "traditional" frame of reference, such as legal texts, the use of otherwise prestigious Greek features might be discouraged. The only contact phenomenon we find in South Oscan legal texts is the Greek-influenced spelling <γγ> for /ŋ/.[4]

This apparent clustering of contact features around certain text-types means that the language of an individual inscription must always be evaluated in the context of other inscriptions of the same genre, and not just as a single text or in the context of the Oscan corpus as a whole. This patterning of contact phenomena by text-type is likely to exist not just in South Oscan, but in other corpora of fragmentary ancient texts, and so the investigation of domain should take a central place in the methodology for examining bilingualism in the ancient world.

---

[4] The apparently low level of Greek influence on Oscan legal texts may also be partly explained by the high level of Latin influence on the longest legal text, the Tabula Bantina, which is among the latest of the Oscan texts and was written perhaps a generation or two before the death of Oscan.

6. Conclusions

Several attempts have been made to create diagnostic models of ancient language contact, to help us to understand what kinds of societies and what kinds of bilingualism would have resulted in particular patterns of epigraphic texts. For small and fragmentary corpora, this is all the more important. The most useful of these models has been produced by Mullen (2012, 2013) in relation to her work on Gaul, and draws on the work of Adams (2003). I have proposed adding an additional row to this table (shaded in the table below), to acknowledge the clustering of evidence for multilingualism which is likely to occur in ancient corpora (McDonald 2015:239–240).

We can use this model to get a sense of the intensity and nature of particular ancient language contact situations, even where evidence is limited and we are forced to work from a series of "snapshots".[5] In the case study described above, South Oscan, we find a range of language contact phenomena from Oscan/Greek contact, including code-switching, borrowing and interference. There is more evidence of Greek influence on Oscan than Oscan influence on Greek, though there are a few examples where Greek texts show lexical borrowing or calquing formulae from Oscan. Using the model to provide a framework for interpreting our corpus, we should conclude that the relative ethnolinguistic vitality of South Oscan and Greek may have been even or, at times, somewhat uneven in favour of Greek, varying between sites and time periods. This fits comfortably with our knowledge of the history of Southern Italy: it is easy to imagine that Greek may have had more overt prestige or more speakers in some communities than in others. At the same time, we have little evidence of Greek ousting Oscan across the whole region, and in some areas balanced bilingualism may have been the norm for many bilingual individuals.

Is it possible for a small, fragmentary corpus of "bad data" to provide enough evidence for us to understand what kinds of bilingualism existed in different areas of the ancient world? I argue here that it is possible, as long as we pay close attention to some basic methodological principles. Firstly, the corpus should be studied at multiple levels, including individual texts, groups of multiple similar texts, and at the level of the entire corpus. Secondly, text-type must be considered, and where possible texts should be considered as a part of a group with other texts of a similar type, so that texts are contextualised within their domain or social context. And

---

[5] However, the presence or absence of bi-version texts should perhaps not be taken as straightforwardly diagnostic for estimating levels of societal bilingualism, as this appears to vary greatly between areas of the ancient world. This is perhaps an area where more research is needed. McDonald (2015: 238).

thirdly, following the principle of informational maximalism, the language of a text should not be studied separately from its layout, physical appearance, epigraphy, or archaeological context. Even if we follow these principles, there will inevitably be details and nuance which will be missed, just as happens in studies of better-attested languages. But, ideally, we will be getting as much as possible out of our "bad data".

Table 2: Models of language contact, after Mullen (2012, 2013) and McDonald (2015).

	One language			Two (or more) languages	
Type of community	Closed	Open, high ethnolinguistic vitality	Open, low ethnolinguistic vitality	Even ethnolinguistic vitality	Uneven ethnolinguistic vitality
Types of bilingual texts	- No bi-version. - No texts displaying bilingual phenomena.	- No bi-version. - Few texts displaying bilingual phenomena, perhaps including lexical borrowing.	- No bi-version. - Texts displaying bilingual phenomena involving lexical borrowing, perhaps tag-switching.	- Bi-version common. - Texts displaying bilingual phenomena involving code-switching, borrowing, interference. -Bi-directional influence.	- Fewer bi-version texts. - Texts displaying bilingual phenomena involving code-switching, borrowing, interference. - Linguistic features of the higher vitality group are mostly found in the lower.
Domains	- One language used in all domains.	- One language used in all domains.	- One primary language used in all domains. - Borrowing may be limited to certain domains.	- Languages may be specialised to different domains.	- Languages may be specialised to different domains. - Higher vitality language may be used in majority of domains, or show signs of taking over domains of lower vitality language.

References

Adams, James N. (2003): *Bilingualism and the Latin Language*. Cambridge: Cambridge University Press.

Bats, Michel (2011): Emmêlements de langues et de systèmes graphiques en Gaule méridionale (VIe-Ier siècle av. J.-C.). In: Ruiz Darasse, Coline/ Luján Martinez, Eugenio R. (eds.): *Contacts linguistiques dans l'Occident méditerranéen antique*. Madrid: Casa de Velázquez, 197–226.

Clackson, James (2011): Latin Inscriptions and Documents. In: Clackson, James (ed.): *A Companion to the Latin Language*. Chichester: Wiley-Blackwell, 29-39.

Clackson, James/ Horrocks, Geoffrey (2007): *The Blackwell History of the Latin Language*. Malden, Mass.; Oxford: Wiley-Blackwell.

Crawford, Michael H. (2011): *Imagines Italicae*. London: Institute of Classical Studies, School of Advanced Study, University of London.

Del Tutto Palma, Loretta (1987): ηομοι [ενε]μ υδοι = "terrae et aquae", una coppia inesistente? [ηομοι [ενε]μ υδοι = "terrae et aquae", a nonexistent pair?]. In: *Studi Etruschi* 55, 367–371.

Dench, Emma (1995): *From Barbarians to New Men: Greek, Roman, and Modern Perceptions of Peoples from the Central Apennines*. New York: Clarendon Press.

Fishman, Joshua (1965): Who speaks what language to whom and when? In: *La Linguistique* 2, 67–87.

Fishman, Joshua (1967): Bilingualism with and without Diglossia. In: *Journal of Social Issues* 23, 29–38.

García, Ofelia/ Schiffman, Harold/ Zacariah, Zeena (2006): Fishmanian Sociolinguistics: 1949 to the present. In: García, Ofelia/ Peltz, R./ Shiffman, Harold (eds.): *Language Loyalty, Continuity and Change: Joshua A. Fishman's Contributions to International Sociolinguistics*. Cleveland: Multilingual Matters, 3-68.

Guzzo, Pier Giovanni (1984): Lucanians, Brettians and Italiote Greeks in the Fourth and Third Centuries BC. In: Hackens, T./ Holloway, Nancy D./ Holloway, R. Ross (eds.) *Crossroads of the Mediterranean: Papers Delivered at the International Conference on the Archaeology of Early Italy*. Providence, RI: Brown University Center for Old World Archaeology and Art, 191-246.

Hernández-Campoy, Juan M./ Schilling, Natalie (2012): The application of the quantitative paradigm to historical sociolinguistics: Problems with the generalizability principle. In: Hernández-Campoy, Juan M./ Conde-Silvestre, Juan Camilo (eds.): *The handbook of historical sociolinguistics*. Chichester; Malden, Mass.: Wiley-Blackwell, 63-79.

Horrocks, Geoffrey (2010): *Greek: A History of the Language and its Speakers*. 2nd edn. Chichester: Wiley-Blackwell.

Janda, Richard D./ Joseph, Brian D. (2003): On Language, Change and Language Change – Or, of History, Linguistics and Historical Linguistics. In: Janda, Richard D./ Joseph, Brian D. (eds.): *The Handbook of Historical Linguistics*, 3–180. Oxford: Blackwell.

Labov, William (1972): *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press.

Langslow, David (2002): Approaching bilingualism in corpus languages. In: Adams, James N./ Janse, Mark & Swain, Simon (eds.): *Bilingualism in Ancient Society: Language Contact and the Written Text*. Oxford: Oxford University Press, 23-51.

Langslow, David (2012): Integration, identity and language shift: Strengths and weaknesses of the "linguistic" evidence. In: Roselaar, Saskia T. (ed.), *Processes of integration and identity formation in the Roman Republic*. Leiden: Brill, 289-309.

Lazzarini, Maria Letizia (2004): Lamina plumbea iscritta da Petelia [Inscribed lead tablet from Petelia]. In: *Mediterraneo Antico* 7, 673–680.

Lejeune, Michel (1990): *Méfitis: D'après les dédicaces lucaniennes de Rossano di Vaglio*. Louvain-la-Neuve: Peeters.

Lomas, Kathryn (1996): Greeks, Romans and Others: Problems of colonialism and ethnicity in southern Italy. In: Webster, Jane/ Cooper, Nicholas J. (eds.): *Roman Imperialism: Post-Colonial Perspectives*. Leicester: University of Leicester, School of Archaeological Studies, 135-144.

Manni Piraino, Maria Teresa (1968): Iscrizioni greche di Lucania. In: *La Parola del Passato* 23, 419-458.

McDonald, Katherine (2015): *Oscan in Southern Italy and Sicily: Evaluating language contact in a fragmentary corpus*. Cambridge: Cambridge University Press.

McDonald, Katherine/ Tagliapietra, Livia/ Zair, Nicholas (2015): New readings of the multilingual Petelia curse tablet. In: *Zeitschrift für Papyrologie und Epigraphik* (195), 157–165.

Miller, Cynthia L. (2004): Methodological issues in reconstructing language systems from epigraphic fragments. In: Hoffmeier, James K./Millard, Alan (eds.): *The Future of Biblical Archaeology: Reassessing Methodologies and Assumptions*. Grand Rapids, MI: Eerdmans, 281-305.

Mullen, Alex (2012): Introduction: multiple languages, multiple identities. In: Mullen, Alex/ James, Patrick (eds.): *Multilingualism in the Graeco-Roman Worlds*. Cambridge: Cambridge University Press, 1-35.

Mullen, Alex (2013): *Southern Gaul and the Mediterranean: Multilingualism and Multiple Identities in the Iron Age and Roman Periods*. Cambridge: Cambridge University Press.

Nishimura, Kanehiro (2016): Oscan and Other Languages in Contact. In: The Classical Review, First View, 1-2.

Poccetti, Paolo (2010): Contacts et échanges technologiques en Italie méridionale: Langues et écritures au cours du IVe siècle av. J.-C. In: Tréziny, Henri (ed.): *Grecs et indigènes de la Catalogne à la Mer Noire*. Errance: Centre Camille Jullian, 659-678.

Poccetti, Paolo/ Lazzarini, Maria Letizia (2001): *Il mondo enotrio tra VI e V secolo a.C. : Atti dei seminari napoletani (1996-1998)* [The Oenotrian world between the 6th and 5th centuries BCE: Acts of the Neapolitan seminars]. Naples: Loffredo.

Romaine, Suzanne (1982): *Socio-historical Linguistics: Its Status and Methodology*. Cambridge: Cambridge University Press.

Schendl, Herbert (2012): Multilingualism, code-switching, and language contact in historical sociolinguistics. In: Hernández-Campoy, Juan Manuel/ Conde-Silvestre, Juan Camilo (eds.): *The Handbook of Historical Sociolinguistics*. Chichester; Malden, Mass.: Wiley-Blackwell, 520-533.

Steele, Philippa (2010): *A Linguistic History of Cyprus: The Non-Greek Languages, and their Relations with Greek, c.1600-300 BC*. Cambridge: University of Cambridge (PhD Thesis).

Steele, Philippa (2013): *A Linguistic History of Ancient Cyprus*. Cambridge University Press.

Tribulato, Olga (2012): "So Many Sicilies": Introducing Language and Linguistic Contact in Ancient Sicily. In: Tribulato, Olga (ed.), *Language and Linguistic Contact in Ancient Sicily*. Cambridge: Cambridge University Press, 1-45.