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Greek-Anatolian Language Contact and the Settlement of Pamphylia

The Ancient Greek dialect of Pamphylia shows extensive influence from the nearby Anatolian languages. Evidence from the linguistics of Greek and Anatolian, sociolinguistics, and the historical and archaeological record suggest that this influence is due to Anatolian speakers learning Greek as a second language as adults in such large numbers that aspects of their L2 Greek became fixed as a part of the main Pamphylian dialect. For this linguistic development to occur and persist, Pamphylia must initially have been settled by a small number of Greeks, and remained isolated from the broader Greek-speaking community while prevailing cultural attitudes favored a combined Greek-Anatolian culture.

1. INTRODUCTION

1.1 BACKGROUND

The Greek-speaking world of the Archaic and Classical periods (ca. ninth through third centuries BC) was covered by a patchwork of different dialects of Ancient Greek, some of them quite different from the Attic and Ionic familiar to Classicists. Even among these varied dialects, the dialect of Pamphylia, located on the southern coast of Asia Minor, stands out as something unusual. For example, consider the following section from the famous Pamphylian inscription from Sillyon:

συ Διϝια και ηιιαροισι Μανε̄[ς .]υ ανhελε ΣελυW[ι]ιυς [..? hι†ια[ρ]α ϝι̇λσιιο̣ς υπαρ και αγιιας οσα περ(ι)ι[στα]τυ Woικ[. . .]

> With the help of Diwia and the priests, Manes [son of . . .] of Sillyon ordered sacrifices on account of the oppression and distress which afflicted the dwellings [. . .].[1]

Among the more striking features are its unfamiliar orthography, namely the two different letters used to write [w], the familiar digamma and the letter unique to the Pamphylian alphabet that is transcribed here as W; its unfamiliar phonology, such as the doubling of ι and the presence of word-internal [h]; and its unfamiliar vocabulary, such as ϝιλσιϙς "oppression."

From a linguistic perspective, Pamphylian appears to represent a mix of dialects from as many as three different dialect groups with influence from the neighboring Anatolian languages.[2] Due to the patchwork dialect geography of Ancient Greece, contact between unrelated dialects was common, and it is not unusual to find dialects with features borrowed from other dialect groups. For instance, Boeotian is often described as a mixed dialect, as an Aeolic dialect with heavy influence from West Greek.[3] However, even against this background of dialect contact, Pamphylian is unusual. Pamphylian shows such extensive mixing of dialectal variants that its original subgroup is no longer clear; and no other dialect of Ancient Greek shows such pervasive change due to contact with another language.[4]

This paper explores the hypothesis, most notably elaborated by Brixhe (1976: 148–49), that many of the unusual linguistic features in Pamphylian are due to contact with the neighboring Anatolian languages. Specifically, this influence is due to interference, or influence from speakers who learn a language imperfectly as adults. These L2, or second-language, speakers generally learn and preserve the lexicon of the target language, but impose the phonology and syntax of their native language on the target language. Given a community of L2 speakers large enough and well enough integrated into the speech community, imperfect second language learning can even affect the language as spoken by L1, or first-language, speakers.[5]

This hypothesis fits a diverse array of independent evidence, from the historical and archaeological record, to anomalous linguistic changes in Pamphylian, to Greek influence on the Anatolian languages. The historical and archaeological record shows that Greek and Anatolian languages were likely in close contact in Pamphylia. The dialectal features of Pamphylian that are alien to Greek, such as the restructuring of the consonant system, have clear parallels in the neighboring Anatolian languages. The pattern of Anatolian influence, with extensive influence in the phonology and perhaps syntax, but little influence in the morphology and lexicon, is the same pattern found in a wide variety of sociolinguistic examples of interference from second-language learners. The reciprocal influence of Greek

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1. Colvin 2007: 176–77.
2. Colvin 2007: 47–48.
3. Colvin 2007: 40–41.
4. Colvin 2007: 47–48.
5. Thomason 2001: 74–76.

on the Anatolian languages, with loan words but no structural influence, also matches the pattern expected from second-language learning.

Accepting this hypothesis carries wide-ranging significance. It presents a unique opportunity to uncover the origins of Pamphylian and the early settlement history of the Greeks in Pamphylia, which is especially important because evidence from archaeology and written sources is scarce or lacking. It also raises and answers a fundamental question in Ancient Greek dialectology. When Asia Minor and Cyprus were colonized by Greeks during the eleventh and tenth centuries BC, they were already inhabited by populations that spoke non-Greek languages.[6] Why, then, does Pamphylian show such extensive influence from the native languages when, for instance, Lesbian, East Ionic, or Cypriot do not? This paper argues that differences in the relative size of the Greek-speaking population, the degree of connectedness with the rest of the Greek-speaking world, and attitudes towards ethnic and linguistic heterogeneity likely account for this difference in outcomes. These results provide another case to add to our growing understanding of language contact and bilingualism in antiquity and its social and historical implications (e.g., Adams and Swain 2002).

1.2 METHODOLOGY

Before proceeding further, it is important to address the question of why language contact could be a preferable explanation to internal motivation for language change.

In the study of the ancient world, whether through linguistics, history, or archaeology, scholars are faced with an incomplete set of evidence, and so must construct hypotheses to identify underlying patterns and gain an understanding of the past. The validity of a hypothesis is judged by the probability that it is true, i.e., by explaining the greatest amount of independent data with the least need to invoke data or processes that are unattested or unparalleled.[7] Thus, for instance, if only one change were at play and there were no evidence that two languages had been in contact, an explanation of internal motivation would be preferable to one of contact. However, a contact explanation accounting for numerous changes in two languages known to be in contact with one another would be a far better hypothesis than a series of ad hoc explanations based on internal motivation.

Since a hypothesis becomes more probable the more evidence it can explain, it makes sense to lay out the evidence a language contact hypothesis should take into account. In short, there should be a definite source language that can be shown to be in contact with the receiving language; the chronology of the proposed changes should match the historical record; and there must be a reasonably large body of evidence. The following set of criteria is adapted from Thomason.[8] The first two

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6. Thomas and Conant 1999: 72–80; Hawkins 2010: 213–21.
7. Fulk 2003, Neidorf 2015.
8. 2001: 91–95.

criteria can be fulfilled through historical and linguistic evidence, while the others are purely linguistic:

1 The hypothesis should be able to identify and refer to a source language. This can either be the actual source language, or, failing that, closely-related relatives of that language.

2 It must be probable that the source language and the receiving language were in contact, and that this contact was close enough to enable the degree of change proposed.

3 The evidence must encompass the whole of the receiving language in detail (phonology, morphology, syntax, and lexicon), and not rely on isolated features.

4 There must be structural features which are shared between the source language and the receiving language, though these features do not need to be identical in the source language and the receiving language.[9]

5 It should be probable that these shared features **were not** present in the receiving language prior to contact.

6 It should be probable that these shared features **were** present in the source language prior to contact.

Next, it is necessary to make a strong case that a given result of contact-induced change is due to a specific sociolinguistic situation. This type of argument carries much more uncertainty because the outcome of language contact is not completely deterministic; similar language contact situations may produce outcomes that vary in the magnitude of contact influence due to different attitudes on the part of speakers.[10] At the same time, similar types of contact situations do tend to produce similar results, since the same mechanisms of change are present. Thus, a hypothesis should address three issues:

1 The linguistic outcome of contact should be consistent with the proposed sociolinguistic situation, in all linguistic subsystems (phonology, morphology, syntax, and lexicon) and in detail. It is crucial to cite parallel examples from language contact situations where the historical context is well-known.

2 The circumstances surrounding contact should be consistent with the proposed sociolinguistic situation. This includes, but is not limited to, the relative numbers of speakers of the two languages, the relative socioeconomic status of each group, and the cultural context in which they came into contact.

3 The attitudes of the speakers of the receiving language should permit the observed degree of language change.

9. Thomason 2001: 93.
10. Thomason 2001: 77–85.

Again, the standard by which to judge an argument about contact-induced change is not absolute proof, since historical linguistics by its very nature draws on a set of evidence which is incomplete and whose sources may be unreliable. Instead, the standard should be whether the contact explanation is the most probable one, that is, the one which accounts for the most evidence under a single explanation. The argument should rest on the weight of the evidence as a whole. The criteria above are designed to bolster the probability that an explanation of contact-induced change is correct, since they force a thorough examination of the linguistic data, historical evidence, and sociolinguistic comparanda.

It is a common but fallacious counterargument to claim that a language contact hypothesis is invalid because alternate ad hoc explanations may exist for single pieces of data. This counterargument does not offer a more compelling explanation either for these single pieces of data or for the data as a whole. Instead, one can discredit a language contact hypothesis through two possible approaches. The first is to construct an alternative hypothesis that offers a better explanation for the data. Such a hypothesis may be able to explain the data with fewer assumptions, or to account for a wider range of data. The second is to demonstrate that many of the pieces of evidence used to support the language contact hypothesis are, in fact, inconsistent with this hypothesis. For example, additional research into historical records could show that the populations were not in contact during the time period in question; a better reading of a text could remove evidence for a linguistic change; or further sociolinguistic research could show that the proposed language contact scenario would have played out in a different way. It is not the case that an explanation from language contact is inherently better or worse than an explanation from internal motivation. Thus, there is no burden of proof to show that every piece of linguistic evidence could not be caused by internal motivation.

This now leads to the subject of language contact in Brixhe's excellent grammar of Pamphylian (1976), and how well his argument stands up to the level of scrutiny just laid out. His treatment of the Pamphylian data is detailed and superb, and covers phonology, morphology, syntax, and the lexicon. He discusses which Anatolian languages may have been in contact with Pamphylian (148–49), and often flags similarities between Pamphylian and the Anatolian languages. He analyzes the settlement history of Pamphylia from a historical and archaeological perspective and discusses what the language contact situation must have been between the Greeks and the native Anatolian population. His conclusions, such as that the Anatolian influence on Pamphylian is due to interference from imperfect second-language learning,[11] are, in many ways, broadly similar to those presented here.

At the same time, it makes sense to expand upon and update this argument. In the forty plus years since Brixhe's work appeared, our understanding of Pamphylian has increased (e.g., Brixhe 2013), our knowledge of the Anatolian languages has

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11. Brixhe 1976: 145–50.

improved,[12] and the pool of sociolinguistic comparanda has expanded; for instance, the developments in Singapore English discussed below only began to take place in the 1980's. Such evidence gives this argument a much firmer basis and increases the depth and breadth of our understanding of how Pamphylian came to be.

1.3 OUTLINE

This paper is divided into two parts. The first part is devoted to analyzing the influence of the nearby Anatolian languages on Pamphylian. It investigates the historical evidence for contact between Greek and the nearby Anatolian languages and assesses the effects of language contact on all aspects of Pamphylian. Then, it discusses how these changes are indicative of the effects of imperfect second-language learning. Next, since language contact is rarely a one-way street, it seeks confirmation using the evidence for Greek influence on the Anatolian languages. The second part of the paper considers why there is extensive contact-based change in Pamphylian but not the other Greek dialects of the region, those of Cyprus and Asia Minor. The paper compares the sociolinguistic situations on Cyprus and Pamphylia by way of illustration. Finally, the paper discusses the implications of this type of contact-induced change for the early history of Pamphylia.

2. LANGUAGE CONTACT

2.1 PAMPHYLIAN AND ANATOLIAN LANGUAGES IN CONTACT

It is probable that Greek and one or more Anatolian languages were in contact from an early period, and that this was close contact. As will be discussed in more detail below, Pamphylia was already settled to some degree during the Bronze Age, where it was in contact with the Hittite Empire and the Lukka Lands, which have been identified as modern Lycia.[13] Thus, Pamphylia shows associations with Anatolian languages from the Bronze Age onward. Greeks most likely began to settle in Pamphylia some time between the early twelfth and ninth centuries BC.[14]

In historical times, various Anatolian languages were spoken in and around Pamphylia. Inscriptions in a poorly-understood Anatolian language known as Sidetic are attested at the Pamphylian city of Side from the fourth or third century BC.[15] Pamphylia was bordered to the west by Lycia, where the Anatolian language of Lycian was spoken. Inscriptions in Lycian are attested from the fifth and fourth centuries BC.[16] Pamphylia was bordered to the north by Pisidia, where

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12. Cf. the reading lists in Melchert 2004b and Melchert 2004c.
13. Bryce 1995: 1162; Grainger 2009: 4–5.
14. Grainger 2009: 7.
15. Nollé 2001: 630.
16. Melchert 1994: 39.

the poorly-attested Pisidian language was spoken. Pisidian inscriptions are only attested from the third century BC.[17]

Sidetic and Lycian, at least, had close contact with Greek. There are two Greek-Sidetic bilingual inscriptions,[18] and Sidetic inscriptions show Greek personal names, including *artmon* (Ἀρτέμων), *poloniw* (Ἀπολλώνιος), and *θandor* (Ἀθανόδωρος), and loanwords from Greek, which are discussed in more detail below.[19] There are approximately ten Greek-Lycian bilingual inscriptions, such as the Lycian-Greek-Aramaic trilingual inscription of the *Létôon* in Xanthos, some of which show evidence of interference between the Lycian and Greek inscriptions.[20] There are also loanwords from Greek, which are discussed in more detail below. In addition, approximately one third of the personal names in Pamphylian inscriptions are Anatolian.[21] The archaeological record of Lycia provides evidence of close contact with Greeks starting in the latter half of the sixth century BC in pottery, architecture, sculpture, and the alphabet.[22]

Greek mythology also mentions close ties between Greece and Lycia. In the *Iliad*, the Lycian Glaukos and the Greek Diomedes share a *xenos* relationship through their grandfathers, and the Bellerophon myth also references a marriage alliance between a king of Argos, Proitos, and the king of Lycia. Herodotus reports that the Lycian Sarpedon led a group of Cretans to settle in Lycia (Hdt. 1.173). The name of this group, the Τερμίλαι, is very similar to the Lycians' own name for themselves, the *Trm̃mili*.[23]

2.2 ANATOLIAN LANGUAGES USED FOR COMPARISON

Thus, Pamphylian had the potential to be in contact with several Anatolian languages, but many of the candidate languages are poorly understood. Luvian is well understood, but it dates to the Bronze Age and early Iron Age, and there is no clear evidence that it was ever in direct contact with Greek. For instance, the map in Payne (2010: 4) showing the distribution of Hieroglyphic Luvian inscriptions does not show any inscriptions in areas colonized by Greeks. Lycian is reasonably well understood, but there are still gaps in our knowledge in all areas of the language due to the relative scarcity of attested material; there are approximately 150 inscriptions on stone and 200 inscriptions on coins, as well as a handful of others.[24] Pisidian is poorly attested and poorly understood. There are only a handful of Pisidian inscriptions, all from the third century BC.[25] Sidetic is poorly attested and poorly understood. There are only ten inscriptions, all of them short.[26]

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17. Melchert 1994: 44–45.
18. Nollé 2001: 630–34.
19. Nollé 2001: 646.
20. Rutherford 2002; Hawkins 2010: 224; Melchert 2004b: 591.
21. Brixhe 1976: 146–47, cf. Brixhe 2013: 185–89.
22. Hawkins 2010: 219.
23. Hawkins 2010: 219; Bryce 1995: 1162.
24. Melchert 2004b: 591–92.
25. Melchert 1994: 44–45.
26. Nollé 2001: 630–46.

Since it is not clear which language or languages were in contact with Pamphylian, and our understanding of many of these languages is poor, the following discussion will compare Pamphylian to the languages which are best attested and best understood, with comparanda from the other languages as appropriate. Thus, the following discussion compares Pamphylian phonology, morphology, and lexicon mainly to Lycian. On the other hand, since Lycian syntax is so unusual among the Anatolian languages, the primary point of comparison between Anatolian and Pamphylian syntax will be Luvian.[27]

2.3 LINGUISTIC ANALYSIS

Before proceeding with the linguistic discussion, it is important to call attention to the nature of the evidence. Pamphylian inscriptional material is extremely limited. There are just under 200 inscriptions, most only a few words long. Only two, one from Sillyon[28] and one from Aspendos,[29] are of any significant length.[30] Thus, it is necessary to make inferences based on a small amount of material: most of the points made below are only supported by a handful of examples, and often there is no evidence from relatively early inscriptions.

2.3.1 PHONOLOGY

The phonology of Pamphylian shows massive structural interference from the Anatolian languages. Most significantly, it appears that the structure of the consonant system of Pamphylian has changed to become very similar to that of Lycian, even though Lycian and Ancient Greek have very different consonant inventories. Ancient Greek had three series of stops: voiceless, voiced, and voiceless aspirated. Lycian had only one series of stops, which was normally voiceless but had a voiced allophone before nasals.[31] However, Lycian had a wide variety of fricatives and affricates, both voiceless and voiced, including the affricate [ts] (spelled *z*), a voiceless dental fricative spelled *θ*, and three voiced fricatives, spelled *b*, *d*, and *g*.[32]

There is some evidence that in Pamphylian the voiceless aspirates became fricatives. The best evidence comes from orthographic confusion between *φ* and ϝ. For instance, the form φικατι is used for ϝίκατι "twenty," which makes sense if some instances of /pʰ/ and /w/ had become a voiceless fricative, either [f] or [φ]. Unfortunately, the only example comes from the third century BC.[33] Further evidence comes from a collection of sound changes which concern a sequence of a

27. Melchert 2004b: 598–99.
28. Brixhe 1976: 167–86.
29. Brixhe and Tekoğlu 2000.
30. Brixhe 2013: 169.
31. Melchert 2004b: 592–94.
32. Melchert 2004b: 594–95.
33. Brixhe 1976: 89–91; cf. Brixhe 2013: 179–81.

continuant and aspirated stop, in which the aspirated stop tends to become a simple voiceless stop. These changes include σθ > στ, e.g., συτελε͞σται for συντελεῖσθαι "complete"; σχ > σκ, e.g., Μοσκίιονυς for Μοσχίωνος "Moschinos" and Ισσκυς for Ἴσχυς "Ischus"; and θρ > τρ, e.g., ατρ͞οποισι for ἀνθρώποισι "people" (dat. pl.) and hατρε̄καδι for hα ἠθρήκασι "the matters that have been examined." If what is written as a voiceless aspirate was instead a voiceless fricative, then these sound changes are easily explained as dissimilation–in some environments, the language avoided a sequence of two continuants by changing a voiceless fricative to the corresponding voiceless stop.[34]

There is, however, strong evidence that voiced stops became fricatives, at least in some environments. In intervocalic position, the letter β, which normally represents the voiced labial stop [b], is often used interchangeably with W, which represents [w], e.g., hε̄Wοταισι for ἡβόταισι "for the youth," probably indicating that it had become some kind of voiced fricative.[35] Likewise, inherited intervocalic [d], which would typically be written using the letter δ, is generally written using ρ, the letter usually used to represent [r], e.g., πηρια for πεδία "plains." It seems likely that intervocalic [d] had become a voiced coronal fricative.[36]

The situation with γ is more complicated. Intervocalically before front vowels, the letter γ, which normally represents [g], is frequently written as ι, which represents [j], e.g., μηε[ι]αλα̣ for μεγάλη "large" (nom. s. f.). This change probably indicates a process of lenition whereby [g] had first become a voiced palatal fricative, and then the palatal approximant [j].[37] It may be the case that [g] had become a fricative in other environments as well. For instance, the various case forms of the participle κεκραμενος are best explained as the perfect passive of γράφω "write," borrowed as legal terminology from another dialect. If γ in Pamphylian represented a fricative, then κ would presumably have to be used to write the stop of the borrowed form.[38] A small measure of further support is offered by the form ελυψα. This form is best interpreted as the aorist of γλύφω "engrave," i.e., Gk. ἔγλυψα.[39] If [g] had become a fricative, its loss in this environment could be explained as a strategy to prevent a sequence of two continuants, along the same lines as the dissimilation rules discussed above.

Lycian had two phonemic glides, /w/ and /j/,[40] while Greek had only /w/, though some dialects, such as Attic-Ionic, had lost even /w/. Pamphylian had both /w/ and /j/. These glides come from three sources. The first is inherited etymological w, written using both Ϝ and W, e.g., Woικυ "building" (acc. s.).[41] The next is the apparent phonemicization of the offglides between the high vowels [u] and

34. Brixhe 2013: 179–80.
35. Brixhe 1976: 81–82.
36. Brixhe 1976: 82–83.
37. Brixhe 1976: 85–88.
38. Brixhe 2013: 180–81.
39. Brixhe 2013: 180.
40. Melchert 2004b: 595.
41. Brixhe 1976: 47–50.

[i] and a following vowel, e.g., ϝετ[ι]ια for ϝέτεα "year," though it is important to note that /j/ from this source is also found in Cypriot, early Argive, and Ionic.[42] The third is the development of [g] > [j], as discussed above.

The vowel system of Pamphylian also shows structural interference from Anatolian. Most significantly, Lycian had four syllabic consonants: [m̥, n̥, l̥, r̥].[43] Greek of the Archaic and Classical periods had none, but there is some evidence that Pamphylian may have had syllabic liquids. There are a number of forms that show metathesis, which could represent an attempt to write a syllabic liquid, for instance περτι for προτί "towards," and Αφορδισιος for Ἀφροδίσιος (Brixhe 1976: 61–63).[44] On the other hand, these forms could very well have come from Cretan, given the existence of the Cretan forms Ἀφορδίτα and πορτί, though the vocalism of Pamphylian περτι requires some explanation.

However, better evidence for syllabic liquids comes from a series of forms of Anatolian origin. With these forms, Pamphylian shows the sequence CRe or CRi, while non-Pamphylian Greek shows the sequence CeR. This is best illustrated by the names of two Pamphylian cities, Perge and Selge: Pamph. Πρειιας, Πρειϝυς, Πρεεως, Gk. Περγή, Περγαῖος/Περγαία, and Pamph. Στλεγιυς, Εστλεγιυς, Gk. Σέλγη, Σελγέυς, Σελγικός, respectively.[45] In the case of one doublet, the Anatolian form is preserved and contains a syllabic liquid in this position: Lyc. *Trm̃mili*, Gk. Τερμίλαι "the Lycians," Pamph. Τρεμιλας "Mr. Lycian."[46] It is not likely that these pairs of forms represent metathesis. Instead, given the close contact between Greek and Anatolian speakers, it seems fair to assume that at the very least, Pamphylian speakers pronounced the syllabic liquids in Anatolian loanwords in the same way that many educated English speakers pronounce the final consonant of Bach as a velar or uvular fricative even though this sound is not found in native English words. Whether native Greek words contained syllabic liquids is an open question.

Pamphylian may have developed nasalized vowels through contact with Anatolian. Lycian had nasalized vowels, while Ancient Greek generally did not. In Lycian, coda nasals were frequently lost with nasalization of the preceding vowel and voicing of the following stop, if there was one.[47] Pamphylian shows the exact same sound change, e.g., εξαγōδι for ἐξάγωντι "let them lead out," and πεδε for πέντε "five."[48] It is almost certain that Pamphylian had a stage with nasalized vowels, even if the nasalization was eventually lost, since VN > ṼN > Ṽ > V is a very common pathway for sound change.[49]

42. Brixhe 1976: 52–53, 58–59; Buck 1955: 52.
43. Melchert 2004b: 595.
44. Brixhe 1976: 61–63.
45. Brixhe 1975: 61–62.
46. Brixhe 1976: 62.
47. Melchert 2004b: 593, 595.
48. Brixhe 1976: 74–76; Colvin 48.
49. Greenberg 1966, Beddor 2009.

There may be other, more minor structural influence on the vowel system from Anatolian. Greek had a vowel system containing short /i, e, a, o, u/. The long vowel system was similar, but contained additional mid vowels which varied between dialects. Lycian had only /i, e, a, u/.[50] Pamphylian had many instances where [o] had been raised to [u]. Arcado-Cypriot almost certainly contributed this vowel-raising to Pamphylian,[51] but it could also be possible that these dialectal variants were retained in Pamphylian in part because of the lack of [o] in Lycian. On the other hand, Sidetic does appear to have [o] which is used both in native words, such as *ozad*, as well as Greek personal names, such as *pordor* for Ἀπολλόδωρος, so this connection must remain tentative.[52]

Anatolian influence is also apparent in the phonotactics of Pamphylian. Lycian did not allow heterosyllabic sequences of vowels,[53] while Greek had many sequences of heterosyllabic vowels. The Pamphylian tendency to write out the glides [y] and [w] between the corresponding high vowel and a following vowel may reflect a tendency towards the Lycian rule in Greek, though heterosyllabic sequences of vowels certainly continued to exist in Pamphylian.

Apheresis is also common in personal names formed from the names of Athena, Apollo, and Aphrodite. This is clearly parallel to the treatment of these names in Sidetic, for instance, Pamphylian Θαναδωρυς, Sidetic *θandor*, Greek Ἀθηνόδωρος; and Pamphylian Πελαδωρυς, Sidetic *pordor*, Greek Ἀπολλόδωρος. On the other hand, since apheresis is limited to these roots, this may reflect lexical influence more than phonological influence.[54]

In conclusion, structural influence from Anatolian on the phonology of Pamphylian was so extensive that the consonant inventory of Pamphylian appears less Greek than Anatolian, with the loss of distinctions in voicing and aspiration, the development of voiceless and voiced fricatives, and the retention of /w/ and the introduction of /j/ as a phonemic glide. There is also influence on the vowel system, with the introduction of syllabic consonants and nasalized vowels, and possibly the reduction of the number of instances of /o/ and heterosyllabic sequences of vowels.

2.3.2 MORPHOLOGY

Pamphylian shows almost exclusively Greek nominal and verbal morphology, with very little influence from Anatolian. There are only a few exceptions. The first is that Pamphylian shows the third singular active athematic primary personal ending -τι (from West Greek), like Lycian, instead of -σι (from Arcado-Cypriot).[55] The second is that Pamphylian shows the third person active imperative ending -δυ,

50. Melchert 2004b: 595–96.
51. Colvin 2007: 47–48.
52. Nollé 2001: 646; Orozco 2003: 107.
53. Melchert 2004b: 596.
54. Nollé 2001: 646; Orozco 2003: 107–108; Brixhe 1976: 43–45.
55. Brixhe 1976: 76–78.

identical in the singular and plural.[56] The normal Greek third person singular ending is -τω, while the plural ending varies among dialects. Arcadian, Boeotian, Locrian, and most West Greek dialects except for Cretan, Theran, Phocian, and Elean have -ντω. The form -ντων appears in Phocian, Cretan, and Theran. The form -ντον appears in Lesbian and occasionally Rhodian; with the phonological changes in Pamphylian, this would appear as -δυ.[57] However, the Lycian third person imperative endings are -(t)u and -(͡)tu, in other words, minus the voicing, exactly the same as the Pamphylian forms.[58]

The only unambiguous examples of Anatolian influence on Pamphylian morphology come from personal names. Pamphylian Greek names use the Anatolian linking vowel -a- instead of the Greek vowel -o-, e.g., Pamph. Θαναδωρος, Gk. Ἀθηνόδωρος and Pamph. Πελαδωρυς, Gk. Ἀπολλόδωρος.[59] One Anatolian suffix, -muwa-, which is frequently used to form names, appears as a suffix in Pamphylian even in names where the first member of the compound is clearly Greek, e.g., ΕπιμουϜαυ, ϜεχιμουϜαυ.[60]

Even given these examples, however, the point still stands that Pamphylian morphology is almost entirely Greek.

2.3.3 SYNTAX

The surviving Pamphylian inscriptions are too short or too fragmentary to give us a detailed picture of Pamphylian syntax. However, it is clear that Pamphylian syntax had a number of unusual features and that these can be attributed to Anatolian influence. These examples of syntactic influence may seem far-fetched, but they are well within reason for what has been reported for other language contact situations. For an excellent discussion with many detailed examples of the ways in which speakers' first languages may influence a contact variety of a language, see Siegel (1997).

Ancient Greek dialects regularly used the article, but in Pamphylian there is only one instance of the article, and this one instance is probably due to the outright borrowing of a legal phrase.[61] Luvian did not have an article. Lycian, too, did not have an article, and the Greek used to translate Lycian in Lycian-Greek bilingual inscriptions also omits the article in certain contexts, such as with personal names and ethnic terms.[62]

Pamphylian uses the dative case where most other dialects would use the genitive with prepositions that have an ablatival function, such as εξ "out of" and απυ

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56. Brixhe 1976: 121–22.
57. Buck 1955: 113–14.
58. Melchert 2004a: xii.
59. Brixhe 2013: 185.
60. Brixhe 2013: 185–86.
61. Brixhe 1976: 125–26; Colvin 2007: 180.
62. Rutherford 2002: 208–209.

"away from."[63] Arcadian and Cypriot use the dative in the same way,[64] but Luvian also uses the dative with most postpositions.[65] The postposition *arha* "away," however, takes the instrumental-ablative, which would initially seem to work against the idea that the use of the dative is due to Anatolian influence.[66] However, in Luvian, the genitive is only used for possession. The ablative instead merged with the instrumental, and the dative merged with the locative.[67] Lycian has the same distribution of case functions.[68] It may have seemed very odd for an Anatolian speaker to use the same case used for possession for spatial relationships. It may have seemed better to use the same case used for the instrumental for the ablative, which would have been the Greek dative.

Pamphylian has a construction which is unparalleled in the Greek dialects: καί νι + impv.[69] The particle νι could have arisen from any one of a number of potential sources: Brixhe draws parallels to νυ, which appears twice in Cypriot after prescriptive optatives and once in Boeotian before an imperative, and in Homer, where it appears frequently as an emphatic particle. On the other hand, Lycian uses *ni*, a negative particle, with prohibitions, as opposed to the usual negative *ne*.[70] Likewise, in Luvian, prohibitions are expressed with *ni(s)* (NEG$_3$) and the indicative present, for instance, |NEG$_3$-*sa* |LITUUS+*na-ti-i* "let him not behold." It is not unparalleled for particles to be borrowed or to undergo syntactic or semantic changes as a result of contact; for a handful of examples, see discussion of negation in the Mayan languages Sakapulteko and Sipakapense in Barrett (2012).

While the exact origin of the particle νι is uncertain, it is clear that the full construction καί νι + impv. represents a contact feature. Examples of speakers' L1 influencing syntactic constructions are extremely common cross-linguistically and vary greatly in their fidelity to the L1 construction. A substrate form can be used in the same syntactic construction with the same function. For example, in Fiji English, the Fijian focus marker *gā* is used to mark noun phrases, e.g., Fiji English "You gā, you gā tell it" "*You, you* tell it!" Alternately, target language forms can be grammaticalized and used with varying degrees of continuity in meaning. For example, in Singaporean English, "already" is used as a completive aspect marker in the same way as the Hokkien completive aspect marker, while in Fiji English, the English word appropriated for the same function as Fijian *rui*, the preverbal marker indicating extreme action, is "full." Finally, language contact can lead to the creation of new syntactic structures which were not originally present in any of the languages involved. For example, in Nigerian English, the possessive pronoun can be used after a demonstrative, for example "those his prayers," but

63. Brixhe 1976: 126–27.
64. Buck 1955: 108.
65. Payne 2010: 36.
66. Payne 2010: 36.
67. Payne 2010: 33–36.
68. Melchert 2004a: x.
69. Brixhe 1976: 131–32.
70. Melchert 2004a: 43–44.

in the L1 of most speakers of Nigerian English, the demonstrative precedes the noun while the possessive follows the noun.[71] Unfortunately, without further knowledge of the Anatolian language(s) in contact with Pamphylian, it is impossible to narrow down the list of possibilities–whether the construction και νι + impv. reflects a specific construction in the speakers' L1, or simply the Anatolian languages' general propensity for strings of enclitic particles that follow the first accented word in a clause.[72]

In short, these three syntactic developments in Pamphylian do mirror Anatolian syntax. Thus, it is reasonable to conclude that the Anatolian languages did influence Pamphylian syntax to some degree.

2.3.4 LEXICON

Brixhe (1976: 131–43, 146) does not mention any Anatolian influence in the lexicon. At least in our recorded texts, which are, admittedly, not extensive, there are no loan words from Anatolian with the exception of personal names.

2.4 CONCLUSIONS

To summarize, Pamphylian phonology has undergone massive structural change as a result of contact with Anatolian. The consonant system had begun to lose the contrast between voiceless, voiced, and voiceless aspirated stops, at least sporadically. This change took place alongside the creation of two series of fricatives, voiceless and voiced. One or more syllabic consonants may have been created. Certain Anatolian phonological rules, such as the loss of coda nasals and nasalization of vowels and the reduction of the number of heterosyllabic vowel sequences, were imposed on Pamphylian. Pamphylian also appears to have undergone some syntactic changes, though it is difficult to pin down what these were and how extensive they were. At the same time, there is little to no Anatolian influence on morphology or the lexicon.

2.4.1 IMPERFECT SECOND LANGUAGE LEARNING

This type of influence–phonological and syntactic change, but little or no morphological or lexical change–is most characteristic of change due to imperfect second-language learning. When adults learn a new language, they impose some aspects of their own linguistic structure on the target language, either through incorrectly applying some aspects of their native language to the target language, or through failing or refusing to learn certain features of the target language. These features are most likely to be structural as opposed to lexical. Given the right sociolinguistic situation, this version of the language may persist as the language of a certain group as a marker of social or ethnic identity. If the community of second-language

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71. Siegel 1997: 120–22.
72. Payne 2010: 39–40; Melchert 2004c: 582.

learners is integrated into the main community, this can even lead to change in the original target language.[73]

Factors that influence whether the target language changes as a result of second-language learners include relative population size, isolation, and speaker attitudes.[74] If there were a small number of L1 Greek speakers against a large number of L2 speakers, more influence from imperfect second-language learning would be expected. As will be discussed in more detail later, it is probable that these factors were in play with Pamphylian. It is likely that Pamphylia was only settled by a small number of Greeks. If Pamphylia was relatively isolated, then close contact with the rest of the Greek-speaking world would not have been able to enforce linguistic norms. This is probable as well, since Pamphylia was a relatively inaccessible backwater. Finally, if Pamphylians viewed the variety of Greek heavily influenced by native Anatolian speakers as a source of pride instead of shame, this influence would be more likely to persist. There are good reasons to believe that Pamphylians could have seen a mixed Greek-Anatolian heritage as an important part of their identity.

Note that this discussion has used the neutral term "change due to imperfect second-language learning" instead of "shift-based interference" or "substratum interference." Shift-based interference implies that a population has shifted from using one language to another. This may or may not accurately describe the situation in Pamphylia; the presence of both Greek and Sidetic inscriptions, as well as Greek-Sidetic bilingual inscriptions, implies that there was still a population of Anatolian speakers. Thus, at least some part of the population may have been bilingual, taking up Greek as an additional language instead of a replacement. Similarly, "substratum interference" requires that the shifting population was sociopolitically subordinate. There is no outside confirmation that in the early days of settlement, the Greek colonists were sociopolitically dominant and the Anatolian speakers were subordinate, so use of the term "substratum interference" would involve an unwarranted assumption.[75]

2.4.2 EXAMPLES OF IMPERFECT SECOND LANGUAGE LEARNING

There is at least one other example of language change due to imperfect second-language learning in the ancient world. Herodotus notes that the Saromatae came about through intermarriage between Scythian men and Amazon women, and that they were able to communicate because the Amazons learned the Scythian language. However, as Herodotus notes, φωνῇ δὲ οἱ Σαυρομάται νομίζουσι Σκυθικῇ, σολοικίζοντες αὐτῇ ἀπὸ τοῦ ἀρχαίου, ἐπεὶ οὐ χρηστῶς ἐξέμαθον αὐτὴν αἱ Ἀμαζόνες ("The Sauromatians speak the Skythian language, speaking it differently from the old way, since the Amazons never learned it well," Hdt. 4.117).

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73. Thomason 2001: 74–76.
74. Thomason 2001: 77–85.
75. Thomason 2001: 74–76.

There is a parallel example from modern times in Singaporean English. Like Pamphylia, Singapore is a multiracial society, in this case consisting of Chinese, Malays, and Indians.[76] Also like Pamphylia, Singapore is multilingual. It has four official languages: English, Malay, Mandarin, and Tamil, though a number of other languages are spoken widely, including Hokkien, Cantonese, Teochew, Hindi, and Bengali.[77]

English serves several vital roles in Singaporean society. The first is economic: Singapore has few natural resources, and English is its lifeline to the global scientific and business communities.[78] Greek may have served a similar role in Pamphylia, connecting Pamphylia to Cyprus, the Aegean, and the rest of the Greek world. The second is social: in such a heavily multiracial and multilingual society, English is the language of communication between different racial and linguistic groups, and there is increasing use of English even among members of the same group, at least in the younger generation.[79] Approximately 75% of the population is literate in English.[80]

Like the situation that will be proposed here for Pamphylian, knowledge of English was introduced to Singapore by a relatively small number of speakers, in this case, schoolteachers. English first came to Singapore during the Colonial period, but it only began to be taught widely after Singapore's independence in 1965. English became firmly entrenched in the 1980's, when the Singaporean government mandated English as the language of instruction in schools.[81] As a result, Singaporean English currently exists in two main varieties, Standard Singapore English, which is similar to other varieties of Standard English, and Singapore colloquial English or Singlish, which differs significantly from Standard English in all aspects, including phonology, intonation, morphology, syntax, semantics, and pragmatics.[82]

There is increasing pressure from the government for the people to abandon Singlish in favor of Standard English, such as the Singaporean government's Speak Good English program, but this is unlikely to happen simply due to the lack of models.[83] As Wong (2014: 18) writes:

> [E]xcept for a few of the elite, "sustained" Standard English speech appears to be rare. This means that not many Singaporeans can speak Standard English continuously. When Singaporeans who are trying to speak Standard English speak for an extended period of time, Singlish and other non-standard features will start to appear in their speech. This happens to

76. Wong 2014: 1.
77. Wong 2014: 1–2.
78. Wong 2014: 2; Lim and Foley 2004: 4–6.
79. Wong 2014: 3; Lim and Foley 2004: 4–6.
80. Wong 2014: 5.
81. Wong 2014: 14–15; Lim and Foley 2004: 5.
82. Wong 2014: 6–7; for a detailed overview with references, see Lim 2004.
83. Wong 2014: 16–18.

teachers too. Among other things, this means that Singaporeans do not always have access to perfect or near-perfect role models of Standard English.

If Pamphylia was similarly isolated from speakers of other Greek dialects, its Anatolian-influenced variety of Greek would have been likely to persist.

Even if the Singaporean population does become more fluent in Standard English, Singlish is likely to survive and thrive because it is a vehicle for Singaporean culture; for instance, the pragmatics of Singlish express Singaporean culture in ways that Standard English cannot.[84] As Wong writes (2014: 306–307):

> English, the emblem of Anglo culture, is not designed for the expression of the kinds of meanings and values that are associated with Asian cultures. Take Southern Chinese cultures for example: many words and expressions (e.g., the elaborate kinship terms, particles, speech acts) simply do not have counterparts in English. Moreover, English was first established in Singapore as a second language learned in school and, even if many younger members of the younger generation now speak a form of English as their mother tongue, they acquired it from a second-language variety, either from their teachers or their parents. A second-language English variety is obviously not as complete as a first-language variety and members of the younger generations need to develop it to meet their total multicultural expressive needs. This nativization of English involves importing important words from the various home languages and "consolidating" them into an English form which is now Singlish.

Thus, Singlish has become a unifying force in the extremely diverse multilingual and multiracial population of Singapore, to the point where it has been described as "the cornerstone for a unifying cultural identity" (Humphreys 2001: 174) and the way by which Singaporean Chinese and Indians de-emphasize their own ethnic identities and differentiate themselves from the Chinese and Indians of China and India.[85] As will be discussed later, Pamphylian may have presented a similar situation, with the Pamphylian dialect offering a sense of Pamphylian cultural unity and differentiation from the rest of the Greek and Anatolian speaking world.

2.4.3   ADDITIONAL EVIDENCE FOR IMPERFECT SECOND LANGUAGE LEARNING

In language contact situations involving imperfect second-language learning, a speaker's second language may also influence their first language. However, the impact of a speaker's second language on their first language tends to come in the form of lexical borrowings, with less morphosyntactic and very little phonological

84. Wong 2014: 300–307.
85. Wong 2014: 310.

interference.[86] There is an example of a Yiddish-English bilingual group, where Yiddish is their L1 and English is their L2, which shows exactly this kind of reciprocal influence. Their English shows strong phonological, morphological, and syntactic interference with moderate lexical interference, but their Yiddish shows extensive lexical interference, with moderate syntactic interference and little phonological interference.[87] In the ancient world, Neo-Phrygian and Phrygian Greek show this same pattern of reciprocal influence. Phrygian borrowed Greek loanwords and, rarely, Greek morphology. Phrygian Greek shows some lexical borrowings from Phrygian, but more significantly, it shows Phrygian phonological influence. This includes the merger of the Greek voiceless aspirates and, later, fricatives with the voiceless stops, as well as different strategies for handling the cluster στ, which was not permitted in Phrygian.[88]

It would be informative, then, to look for confirmation in the form of reciprocal influence of Greek on the nearby Anatolian languages. At the very least, are there Greek loanwords in the neighboring Anatolian languages? In fact, there are loanwords from Greek in Sidetic and Lycian. Our knowledge of Sidetic vocabulary is hindered by the small size of the corpus and our poor understanding of the language in general (Nollé only lists six words which are not personal names whose meaning can be inferred), but there are two loanwords from Greek: *anaθemataz,* Gk. ἀναθήματα "dedication, offering," and *iztratag* Gk. στρατηγός "general."[89] In Lycian, there are only a handful of loanwords, including *sttala-* "stele," Greek στήλη "stele," *sttrat*[] "general," Greek στρατηγός "general," and *trijere-* "trireme," Greek τριήρης.[90] Although Lycian *stta-* "stand, remain" was once thought to be a borrowing of Greek ἵστημι "stand," it is now clear that it is inherited.[91]

It is unfortunate that such a small sample of Sidetic and Lycian vocabulary is preserved, but the evidence that we do have is at least consistent with reciprocal interference from second-language learning on the Anatolian languages.

3. WHY PAMPHYLIAN?

Pamphylia was only one of several already-inhabited areas in the eastern Mediterranean that were colonized by Greeks in the centuries following the collapse of Mycenaean civilization. There is good reason to believe that there was close and sustained contact between the Greeks and the native population.[92] For instance, Ionia was originally inhabited by Carians. Herodotus states that the first Ionian colonists were exclusively men, and took Carian women to be their wives

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86. Thomason 2001: 75–76.
87. Thomason 2001: 76.
88. Brixhe 2002: 256–63.
89. Nollé 2001: 646; Orozco 2003: 104.
90. Melchert 2004a; Melchert 2004b: 599.
91. Jasanoff 2010.
92. Hawkins 2010: 216–21.

(Hdt. 1.146–47). Ionian and Carian mercenaries served side by side in Egypt start-ing in the seventh and sixth centuries BC. Several notable Greeks may have had mixed Carian-Greek ancestry, including Herodotus, the epic poet Panyassis, Thales the Milesian, and possibly Themistocles. One graffito from Egypt records a man with a Carian name and a Greek patronymic.[93] Strabo notes that Carian "had many Greek words mixed up in it" (Strabo 14.2.28, Hawkins 2010: 219). There are two known Greek-Carian bilingual inscriptions.[94]

Why, then, does Pamphylian show such profound influence from the indige-nous language or languages when, for instance, Lesbian, East Ionic, Rhodian, and Cypriot do not? A reasonable conclusion can be reached by comparing the linguistic histories of Pamphylia and Cyprus. Cyprus has been chosen for this example not only because it is the closest Greek-speaking neighbor of Pamphylia, but also because the linguistic diversity of Cyprus is well-attested, if not always well-understood (see Steele 2013).

3.1 CYPRUS

Cyprus was cosmopolitan.[95] Since at least the seventeenth century BC, Cyprus had been a crossroads for trade and a source of rich mineral resources, and so it attracted a population which came from diverse social, geographic, and presum-ably linguistic backgrounds.[96] From the sixteenth through the tenth centuries BC, inscriptions in the set of undeciphered writing systems collectively known as Cypro-Minoan are attested.[97] The epigraphic subgroups of Cypro-Minoan may represent different languages, and, in fact, the presence of several different Cypro-Minoan epigraphic subgroups in Enkomi in the thirteenth or twelfth centu-ries BC may even present evidence of linguistic diversity and language contact at that early date.[98]

Starting around the ninth century BC, we find inscriptions we can read, and they present a linguistic situation of great diversity.[99] There are two dialects of Greek: Cypriot written in the Cypriot Syllabary, and *koiné* written in the Greek alphabet. The largest concentration of Cypriot Syllabic inscriptions comes from the western part of the island.[100] There are at least one, probably two, unknown languages also written using the Cypriot Syllabary, known collectively as Eteocypriot.[101] The texts of one language, which can be identified with certainty even if it cannot be understood, are clustered in the southern part of the island,

93. Hawkins 2010: 219.
94. Hawkins 2010: 223–24.
95. Yon 2006; Karageorghis 1988.
96. Steele 2013: 84.
97. Steele 2013: 236.
98. Steele 2013: 85–87, 243.
99. Steele 2013: 237.
100. Egetmeyer 2010: 6–7.
101. Steele 2013: 100.

primarily at Amathus.[102] The other language, if it does represent a discrete entity, is located primarily at Golgoi, in east central Cyprus.[103] Phoenician inscriptions are found primarily in the southeast and east central portions of the island, at Idalion and Kition.[104]

However, even this represents a generalization, since inscriptions in Greek and Phoenician are found all over the island.[105] It is much harder to ascertain the distribution of Eteocypriot, given how much more difficult it is to positively identify inscriptions in that language, or languages.[106] Language contact can also be inferred from the existence of Greek/Eteocypriot and Greek/Phoenician bilingual inscriptions (see Steele 2013: 244), and from the onomastic record (see Steele 2013: 246). These languages apparently remained in a stable contact situation for centuries, from the ninth to the third centuries BC for Cypriot and Phoenician, and the fourth century BC for Eteocypriot (see Steele 2013: 237–38).

Even in the face of this linguistic diversity, there existed a unified Cypriot identity, which included iconography, foundation myths, and a homogeneous material culture stretching back as far as the Bronze Age.[107] Thus, this linguistic diversity was a deeply-rooted part of an already deeply-rooted Cypriot cultural identity.

3.2 PAMPHYLIA

Pamphylia was a backwater. It was relatively inaccessible and it was not blessed with natural resources. The plain that comprised Pamphylia is surrounded by mountains on three sides: the Lycian Mountains to the west, the Taurus Mountains to the north, and Rough Cilicia to the east. All of the routes out of Pamphylia were difficult, either to the north through the Kestros River valley with a steep climb through the pass of Gubuk Beli; to the northeast through the Melas river valley; or to the west along the Yenice bogaz near Termissos, through Golcuk Beli.[108] Pamphylia was also difficult to reach by sea. The coast is awkward to navigate because of a westward-flowing current, only a few major cities had harbors (Side, Korakesion, Attaleia, Magydos, Olbia, and Phaselis), and these harbors were small and vulnerable to storms.[109] These cities were probably not even founded until the eighth or seventh century BC, centuries after the first Greek settlers would have arrived in Pamphylia.[110] Some areas would have been fertile, but other areas would have been too sandy, while others tended to become marsh during the

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102. Steele 2013: 120–21.
103. Steele 2013: 100.
104. Steele 2013: 185.
105. Egetmeyer 2010: 11–13; Steele 2013: 185.
106. Steele 2013: 100.
107. Steele 2013: 247–48.
108. Grainger 2009: xi-xiii.
109. Grainger 2009: xiii.
110. Grainger 2009: 15–41.

winter. In addition, the land may have been difficult to farm using the sort of equipment available to Bronze Age farmers.[111]

Archaeology provides relatively little evidence, but Hittite records may give an indication of the history and linguistic affiliations of Pamphylia during the Bronze Age. There is almost no archaeological evidence of habitation before the founding of the major cities in the eighth and seventh centuries BC.[112] However, Bronze Age remains have recently been discovered at Perge, which tends to confirm the identification of a certain Parha on the Kastraya with Perge on the Kestros in a Hittite text describing the boundaries of Tarhuntassa.[113] This identification is widely accepted.[114] The sub-kingdom of the Hittite empire known as Tarhuntassa served as a buffer zone between the Hittite Empire and the belligerent Lukka Lands, and apparently encompassed part of Pamphylia.[115] From this it can be inferred that Pamphylia was inhabited, though probably not to any great extent, and that it was in contact with the Hittite Empire to the north as well as the Lukka Lands, probably to be identified with modern Lycia.[116] Thus, from the Bronze Age onward, the residents of Pamphylia had at least been in contact with, if they were not already speakers of, the ancestor of Lycian and related languages.

There is very little evidence as to when Greeks first arrived in Pamphylia. The earliest indication of Greeks in Pamphylia is a handful of ninth century Greek pottery from Sillyon, but there is no way to tell if the owners were, indeed, Greek.[117] The safest assumption is that Greeks arrived at some time after the fall of the Hittite empire but before the start of the Geometric period, or some time between the early twelfth and ninth centuries BC.[118] The major cities of Pamphylia–Side, Aspendos, Sillyon, Magydos, Olbia, and Phaselis–were founded in the eighth and seventh centuries, a century or more after Pamphylia was settled by Greeks.[119]

The foundation stories of the major Pamphylian cities relate a joint Greek-Anatolian origin. According to the Greek oral tradition, Perge was founded soon after the Trojan War by a contingent led by Amphilochos, Kalkhas, and Mopsos. The first two were Argives who fought for the Greeks during the Trojan War. Mopsos appears to have strong ties to Anatolia (*PECS* 692–693). Aspendos shows a more concrete connection to the Anatolian figure of Mopsos. Early coinage refers to the city as Estwediiys, which almost certainly is derived from Asitawandas, the name of the founder of the Anatolian city of Karatepe. In one inscription, Asitawandas describes himself as a descendent of Muksos, who almost certainly corresponds to Greek Mopsos (*PECS*, 101–103). Grainger (2009: 9–11) feels that

111. Grainger 2009: xiii-xiv, 5.
112. Grainger 2009: 2.
113. Martini et al. 2010.
114. Melchert 2007; Dinçol et al. 2000: 2; Houwink ten Cate 1992: 255; Otten 1989: 18–19.
115. Grainger 2009: 2–5.
116. Grainger 2009: 4–5.
117. Grainger 2009: 7.
118. Grainger 2009: 7.
119. Grainger 2009: 14.

these foundation stories are given more credit for historical truth than is warranted, but at the very least, they show that the residents of Pamphylia saw themselves as having a joint Greek-Anatolian heritage and were proud of it.

The names of the Pamphylian cities confirm this mixed origin. Some cities have Anatolian or pre-Anatolian names, such as Perge, which is apparently written as Parha in Hittite texts; Aspendos, which was also known as Estwediiys, an Anatolian word; and Sillyon, also known as Selyviios.[120] At the same time, Olbia has a clearly Greek name.

It was not only the case that Pamphylia saw itself as having a mixed Greek-Anatolian origin; it also had a mixed Greek-Anatolian population. The attested Pamphylian inscriptions contain approximately 190 different personal names. Setting aside three Macedonian and Semitic names, approximately a third of the personal names are Anatolian.[121] It is even possible to find both Greek and Anatolian names used within the same family.[122] Similarly, the Sidetic inscriptions contain at least eight Greek personal names.[123] As discussed above, Pamphylian Greek names sometimes incorporate Anatolian morphology. Furthermore, there are a few Pamphylian names that are somewhat ambiguous as to whether certain elements or even the entire name are Anatolian or Greek,[124] though it is unclear how contemporary Pamphylians interpreted or viewed these names. Thus, the onomastics of Pamphylia illustrate how Greek and Anatolian cultural and linguistic identities had become thoroughly enmeshed.

Even more significantly, the foundation story of Side relates how the arrival of the Greeks heralded the creation of an entirely new language. As Arrian relates:

> εἰσὶ δὲ οἱ Σιδῆται Κυμαῖοι ἐκ Κύμης τῆς Αἰολίδος· καὶ οὗτοι λέγουσιν ὑπὲρ σφῶν τόνδε τὸν λόγον, ὅτι, ὡς κατῆράν τε ἐς τὴν γῆν ἐκείνην οἱ πρῶτοι ἐκ Κύμης σταλέντες καὶ ἐπὶ οἰκισμῷ ἐξέβησαν, αὐτίκα τὴν μὲν Ἑλλάδα γλῶσσαν ἐξελάθοντο, εὐθὺς δὲ βάρβαρον φωνὴν ἵεσαν, οὐδὲ τῶν προσχώρων βαρβάρων, ἀλλὰ ἰδίαν σφῶν οὔπω πρόσθεν οὖσαν τὴν φωνήν· καὶ ἔκ τοτε οὐ κατὰ τοὺς ἄλλους προσχώρους Σιδῆται ἐβαρβάριζον.

> The Sidetans are Cumaeans from Cumae in Aeolia, and they tell the following story about themselves, that when the first ones sent from Cumae arrived in that land and disembarked to form a settlement, they immediately forgot the Greek language, and straightway spoke a foreign language, not belonging to the neighboring people, but a language peculiar to themselves which had not existed earlier at all. From then on, the Sidetans spoke a foreign language not similar to their neighbors.

> Arr. *Anab*. 1.26.4, the author's own translation.

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120. Grainger 2009: 12; Brixhe 2010: 249.
121. Brixhe 1976: 146–47.
122. Brixhe 2013: 186.
123. Nollé 2001: 646; Orozco 2003.
124. Brixhe 2013: 186–89.

Regardless of whether or not this story relates a real linguistic situation, it demonstrates that the Sidetans regarded themselves as linguistically unique, distinct from both the Greeks and the native population, and that they were proud of this heritage.

3.3   CYPRUS AND PAMPHYLIA COMPARED

It is now possible to identify some reasons why the Greek dialect of Cyprus retained its identity while the Greek dialect of Pamphylia came to be, and remained, heavily influenced by the native Anatolian language or languages. First, as Grainger (2009: 11–12) notes, Cyprus would have been an attractive place to settle, whereas Pamphylia was not. Cyprus would probably have been settled by large numbers of colonists, whereas Pamphylia may have only been settled by a handful. In those circumstances, the Greek speakers of Cyprus could have maintained relatively large communities populated by native Greek speakers. Pamphylia may have only attracted a small handful of settlers, who would have been greatly outnumbered by the native Anatolian speakers who learned Greek as a second language. When infants and children began to learn language, they would have learned the variety of the language as spoken by the majority of speakers. For instance, in one well-known case, known as "the Ethan experience," Ethan, the child of Eastern European immigrants in Canada, not only failed to learn his parents' highly accented English in any way, in favor of the L1 English spoken by the broader community, he even failed to notice that his parents' English was accented until he was well into grade school.[125] Thus, when children learned the majority variety of Greek, in Cyprus, it would have been the native-speaker variety; in Pamphylia, it would have been the second-language variety.

Second, Cyprus was a major trade hub, and, as such, would have maintained extensive contact with Greek-speaking populations in other areas. This was probably also the case for the dialects of the western coast of Asia Minor, which formed an unbroken speech community across the Aegean to mainland Greece. This was almost certainly not the case for Pamphylia, which probably remained quite isolated before the founding of the major coastal cities to serve as focal points for trade. As in the case of Singapore English, it would have required the widespread availability of models of normal Greek for the dialect as a whole to change.

The third factor relates to cultural attitudes towards ethnic heterogeneity. Both Pamphylia and Cyprus embraced their ethnic heterogeneity, but they did so in different ways. Cyprus was made up of different ethnic and linguistic groups, which were "certainly asserting their individual identities to some extent through language, script, and cultural practice. However, they were also all participating in an island-wide cultural koine and were in various ways promoting a specifically Cypriot identity."[126] Thus, an important part of the Cypriot linguistic identity was that it encompassed different groups while the groups remained discrete. As

125. Chambers 2002: 121–22.
126. Steele 2013: 248.

an example of the efforts to keep different languages and cultures separate on Cyprus, many bilingual Greek/Phoenician inscriptions give a Greek name in the Greek text and a Phoenician name in the Phoenician text, even though these refer to the same individual.[127] This is reminiscent of how people of Asian descent in America may have two first names, a name in their native language as well as an English name which they use with English speakers. Whether this indicates a practical approach, supplying one's interlocutor with a name that they are more likely to be able to remember or pronounce, or a desire to assimilate while still retaining one's own culture, maintaining two names is, at its heart, a way to keep these two languages and cultures separate.

However, Pamphylia seems to have built its identity upon the fusion of Greek and Anatolian elements. Their foundation myths celebrate a Greek-Anatolian origin, the population of their cities bore a mix of Greek and Anatolian names, and, at least in Side, the population was proud of the new language which was present from the founding of their city. The very name "Pamphylia" means "all tribes," and may have been another way of celebrating what seems to have been a unified culture. Their heavily Anatolian-influenced Greek may have served as another marker of this ethnic identity, or, at the very least, would not have been discouraged as being contrary to an ethnic identity they wished to maintain.

4. CONCLUSIONS

This paper has explored the hypothesis that the influence of native Anatolian languages on Pamphylian can be attributed to the effect of Greek as spoken by L2 Greek speakers, which became fixed as a part of the main dialect. This hypothesis finds widespread support from the linguistics of Greek and Anatolian, sociolinguistics, the historical record, and archaeology. The implications of this hypothesis offer a plausible account of the early settlement of Pamphylia: it was settled by a relatively small population of native Greek speakers, which caused children to use the variety of Greek spoken by Anatolian L2 Greek speakers as their target variety, both because these speakers were more numerous, and because prevailing cultural attitudes favored this fused Greek-Anatolian culture.

Thus, Pamphylian offers another example of the ways in which linguistic analysis can complement archaeology and the historical record in reconstructing the history of an area in the absence of a detailed written history—sociolinguistics. Since social aspects of language use can be encoded in language itself, sociolinguistics provides a unique opportunity to reconstruct the ways in which populations interacted with each other.

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127. Steele 2013: 214–25.

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