

Peter Trudgill  
 University of Fribourg  
 peter.trudgill@unifr.ch

## GREEK DIALECTS: LINGUISTIC AND SOCIAL TYPOLOGY

### Abstract

An interesting challenge for sociolinguistics has to do with relationships which may exist between the structures of human societies and the structures of human languages. The suggestion is that the distribution of linguistic features over languages may not be totally random when seen from a sociolinguistic point of view, and the question is whether certain linguistic features are more commonly associated with certain types of society or social structure than others. We may initially be able to learn much from what we already know about differences in the speed of linguistic change in different types of society and from the relevance of social ties, social networks and language contact to this phenomenon. Greek dialects illustrate very nicely the thesis that low-contact language varieties tend to be conservative in many respects. This paper examines the extent to which contact and social network structure, as exemplified in Greek dialects, prove to be relevant to the study of the relationship between social and linguistic typology.

### Introduction

Typological studies in linguistics have provided us with considerable amounts of information about the range of structures available to human languages. We do not yet, however, have any explanations for why some languages select particular structures and not others. Maybe there are no explanations. But a legitimate sociolinguistic viewpoint is that it might be useful to consider that some such explanations could be arrived at by supposing that they are social in nature. In this paper, I want suggest that for those of us who work in sociolinguistics, there is an interesting challenge to do with relationships which might exist between the structures of human societies, on the one hand, and the structures of human languages, on the other. The suggestion is that the distribution of linguistic features over languages may not be totally random when seen from a sociolinguistic point of view (Trudgill 1989a, 1989b, 1989c, 1992, 1996, 1998, 1999, 2001), and the question is whether it can it be the case that certain linguistic features are more commonly associated with certain types of society or social structure than others.

In tackling this question, it will be necessary to make decisions about what types of societal features it might be useful to consider. My suggestion is that we may initially be able to learn much from what we already know about differences in the speed of linguistic change in different types of society. As Milroy and Milroy (1985) have pointed out, "linguistic change is slow to the extent that the relevant populations are well established and

bound by strong ties whereas it is rapid to the extent that weak ties exist in populations". Ties have to do with social networks and with contact, which is why lack of contact favours lack of change.

Greek dialects illustrate very nicely the thesis that low-contact language varieties tend to be conservative in many respects. For example, most varieties of Greek lost the classical distinction between geminate and non-geminate consonants, so that for example /gramma/ is now /ɣrama/. This is thought to have happened perhaps as early as the first century AD. Remarkably, however, and as is well known to Greek dialectologists, in geographically peripheral areas of the Greek-speaking world, two thousand years on, geminates are still retained. This is true according to Newton (1968) of the Greek dialects of southern Italy, the Dodecanese, Chios, Cappadocia, and Cyprus. In this brief paper, I also attempt to see if what we know about these dialects can shed any light on the broader question of linguistic and social structure.

### 1. Contact and complexification

In order to do this, I now explore the two features of human societies suggested by the work of Milroy and Milroy just mentioned – contact, and social network structure and stability – and attempt to see if these factors, as exemplified in Greek dialects, can prove to be at all relevant to the study of the relationship between social and linguistic typology. First, I will consider the fact that the degree of contact one language community has with another appears to have two different types of implication for linguistic structure. One is that increased complexification may occur in languages as a result of borrowing. Nichols writes (1992: 193): "It can be concluded that contact among languages fosters complexity, or, put differently, diversity among neighbouring languages fosters complexity in each of the languages". This contact, of course, must be of a very particular type, namely long-term contact situations involving childhood – and therefore proficient – bilingualism.

An example of long-term contact leading to complexification in the form of increased redundancy is suggested by Joseph (1983). One of the well-known features of the Balkan linguistic area is the loss of the infinitive in Greek, Macedonian, Bulgarian, Albanian, Rumanian and certain dialects of Serbian. It is widely agreed that it was language contact which led to the spread of this feature; indeed, linguistic areas of the well-known Balkan *Sprachraum* type are obviously the result of contact-driven diffusion from one language to another of large numbers of features over a long period of time. However, more interestingly for our purposes, Joseph argues that contact is not only the cause of the spread of this feature but also of its origin. He points out that the use of forms such as Greek

*thelo na grapso* 'I want that I write'

where the first-person singular present is marked on both verbs in the construction is easier for non-native hearers to process than forms such as English

*I want to write*

where the same information is given only once. He argues that the Balkan-wide loss of the infinitive arose and spread in part because of sensitivity on the part of native speakers in contact situations to the comprehension difficulties of non-native listeners. In contact situations involving long-term, stable contact and child bilingualism, the needs of the non-native speaker as listener may lead to the growth of syntagmatic redundancy. The conclusion is that high-contact languages may demonstrate more redundancy if child language contact is involved.

## 2. Contact and simplification

The second implication is that contact may also lead to a type of process which is the complete reverse of this. That is, simplification may occur in high-contact languages as a result of pidginisation, which is what occurs in those situations involving adult and therefore imperfect language acquisition on the part of speakers who have passed the critical threshold (Lenneberg 1967). The imperfect language-learning abilities of adults, that is, can be an important factor in certain sorts of developments typical of contact situations.

One of the biggest problems for adult language learners is memory load. The less there is to remember, the easier language acquisition is. This is particularly true of the acquisition of lexis, which is one of the reasons why pidgins have small vocabularies. Memory load is also relevant, however, to the feature of word length, in terms of syllables and/or segments. The longer a word is, the more difficult it will be to remember, other things being equal. This is not a factor which is usually mentioned in pidginisation studies, but I believe that it is relevant. Languages differ enormously in the average length of even monomorphemic words. In Trudgill (1996), for instance, I showed that in the first fifty items on the Swadesh word list, Modern Greek basic vocabulary items are much longer than the corresponding English items. This cannot altogether be explained by phonotactic restrictions on syllable-final consonants in Greek, and not at all by case endings or the like. Standard Modern Greek, in these 50 words, has an average of 2.06 syllables per word, 81% more syllables than the same items in English, which average 1.14 syllables, as exemplified by e.g. *knee* versus *ghonato*; *big* versus *meghalo*; and *head* versus *kefali*. In terms of segments, too, there is a remarkable difference: English has an average of 3.06 vowels and consonants per word, while Greek has 4.58, an increase of around 50%. It is interesting to note, therefore, that there are dialects of Greek in which word length is greatly reduced in comparison to Standard Modern Greek. In the dialects of the north of mainland Greece, the same fifty words have an average length much closer to English, namely 1.76 syllables. This is accounted for by a phonological change in these dialects in which unstressed /i/ and /u/ have been lost. We may observe, moreover, that northern Greece is precisely the area of the country which has been most exposed to language contact with Albanian, Slavic, Romany, Arumanian and Turkish.

In any case, this is just one small example illustrating the thesis is that high-contact languages may demonstrate more simplification and less redundancy, of which word length is one aspect, if the contact involved is adult language contact.

### 3. Community size and information

We now move on from contact to social networks. Here I will consider that society size, network structure and stability may also have two different types of implication for linguistic structure.

The first is that members of small, stable, tightly-knit societies are likely to share more information than members of larger, more dynamic loosely-knit communities. The relevance of this is that Martinet (1962) argued that in spoken communication a dynamic equilibrium exists between the needs of the speaker to speak quickly and easily, on the one hand, and the needs of the listener to comprehend what is being said, on the other. This equilibrium, in other words, is usually conceived of as balancing the hearer's need to understand as effortlessly as possible against the speaker's need or desire to speak as effortlessly as possible. Dressler (1984) has similarly pointed out that phonological processes are concerned with pronounceability and perceptibility but that "the goals of better perception and better articulation often conflict with one another".

Anecdotal evidence supports the view that some, often nonstandard, varieties of language are harder to learn to understand than others. In the context of Martinet's dynamic equilibrium, I suggest that this is because the balance between perception and articulation need not be the same in all societies. The point is that less phonetic information may be necessary for successful communication in small communities with considerable amounts of shared knowledge, since the listener more often than in other communities may already have a good idea of what is going to be said. In such communities, therefore, the dynamic equilibrium might be weighted somewhat in favour of the needs of the speaker, and fast-speech phenomena might as a consequence be more common. Fast-speech processes, obviously, reduce the amount of phonetic information available.

In Trudgill (1995) I argued that this might have implications for grammaticalisation: certain types of grammaticalisation process might be more common in some types of community than others. The degree to which grammaticalisation is the result of pragmatic, cognitive, discourse, semantic, syntactic and/or phonological processes is very much an open question. To the extent that phonetics and phonology are involved, however, I would suggest that grammaticalisation may be a more frequent process in those communities which favour fast-speech phenomena than in those which do not. The argument is not that such processes occur only in isolated dialects. Rather, the proposal is that grammaticalisation processes which are due ultimately to phonological reduction and deletion may be *more common* in small, tightly knit communities with relatively few outside contacts, i.e. the same sorts of communities which particularly favour fast-speech phenomena.

This thesis concerning grammaticalisation can be examined in the light of Janse's observations on Asia Minor Greek dialects. As Dawkins (1916) pointed out, these dialects have "been developing in an isolated area separated from the rest of the Greek-speaking world". It is perhaps not surprising, therefore, that the Inner Asia Minor dialects of Cappadocia and Phrasa, and, to an even greater extent, the Pontic dialects, have undergone grammaticalisation processes involving pronouns that go well beyond those found elsewhere in the Greek-speaking world. Janse (1998: 538) shows, on the basis of Dawkins

(1916) and Drettas (1997), that in Pontic and certain Inner Asia Minor dialects “the use of doubled clitic pronouns has increased to the point where they have become quasi-obligatory object agreement markers”, as in the following example from Pharasa, with grammaticalisation of the originally plural pronoun /da/ to an invariant object marker capable of referring to a singular object:

e'saksa'n=da to=pro'vato  
 'they killed=it the=sheep'

He also notes that a grammaticalisation ‘clitic cline’ is in evidence in this area. This cline involves three chronological stages, all attested in Asia Minor:

- (1) cliticisation (type: e'stila'n=to)
- (2) agglutination (type: e'stilan-to)
- (3) fusion (type: esti'lan-to).

Type 2 is exemplified in the Pontic dialects in remarkably un-Greek forms such as

e'stilan-emas-atsene  
 'they sent them to us'

with an accent only on the first syllable, indicating partial morphologisation. Type 3 forms, which are typical of Cappadocia, are fully morphologised from the Greek point of view, because they are stressed in accordance with the three-syllable rule.

Of course, there are complications here to do with the influence of Turkish, but I suggest that it is not a coincidence that grammaticalisation has gone further in these remote dialects than in the more central dialects of modern Greek. This may be an indirect consequence of the fact that in smaller communities, less information is required and fast-speech phenomena are more prevalent.

#### 4. Social networks and conformity

The second implication is that dense, multiplex networks may lead to greater conformity in linguistic behaviour, and to the stricter maintenance of group norms, since tightly-knit communities are more able to enforce continued adherence to such norms.

One facet of this involves sound change. I suggest that small, tightly networked communities may be able to push through, enforce and sustain phonological changes which would have a much smaller chance of success in larger, more fluid communities. These would be phonological changes of a relatively non-natural or at least unusual type, and/or changes that are relatively complex in some way.

There is already some evidence to support this speculation (Trudgill 1996). As far as Greek is concerned, we can note the following. Many mainland Greek dialects, as we saw above, are characterised by the consequences of an unsurprising change, diachronic seg-

ment deletion, i.e. the loss of unstressed /i/ and /u/. The more remote southeastern island dialects of Greek, on the other hand, not only do not share this feature but demonstrate sound changes which can be labelled fortitions. For example, in parts of Rhodes, the plural of *nisi* 'island', *nisiá*, is pronounced /niscá/; and in Cypriot *alithia* 'truth' is pronounced /alithca/ (Newton 1967). Newton (1972) refers to this phenomenon as a form of manner dissimilation, which indeed it is, but the most important thing from our point of view is that it is a change which involves the conversion of a vowel into a plosive. Many historical linguists seem to feel that fortitions of this type are less to be expected than lenitions.

The thesis that non-natural sound changes are more common in smaller, more tightly-knit, peripheral communities is also borne out by a study of Greek dialects in other respects. Some sound changes evidenced by Greek dialects are, of course, of a highly natural type. Here I would include the loss of unstressed /i/ and /u/ in northern Greek dialects that we just mentioned and the subsequent raising of unstressed /e, o/ to /i, u/ respectively in this category. These are changes which we see very often in the world's languages. Similarly the fronting of /k, g, x, ɣ/ to [tʰ, dʰ, λ, ɣ] before /l, e/ in Crete and other dialect areas is an extraordinarily common type of sound change.

On the other hand, we can notice sound changes in remote and/or peripheral areas which are not at all of this type. For example, mountainous areas of central Crete have an allophone of /l/, a retroflex approximant, which is the result of the sound change of a presumably rather velarised or 'dark' [l] > [ɭ]. In these dialects, we see alternations such as the following (Kondosopoulos 1988; Mansfield & Trudgill 1994):

|        |         |
|--------|---------|
| kali   | [kali]  |
| kale   | [kale]  |
| but    |         |
| kala   | [kaɭa]  |
| kalo   | [kaɭo]  |
| kalous | [kaɭus] |

In fact, of course we are rather used to changes which involve switching between /l/ and /r/. However, it is most unusual for the /r/ to be of this type: Languages which have a retroflex approximant are rare enough. Only 15 of the 317 languages cited in Maddieson (1984: 245) have such an articulation, i.e. 4.7%. And languages which have it as an allophone of /l/ are presumably even rarer.

So far we have looked at unusual sound changes, but I would suggest that the same will also hold true for what we can perhaps refer to as unusual sound systems. Although relatively little work seems to have been done on the vowel systems of Greek dialects, no doubt because many of them have the apparently uninteresting five-vowel /i, e, a, o, u/ system, we can observe something strange about the vowel system of the Cretan dialect of Sfakia.

Typically, 5-vowel systems are very stable and very common: 31% of the world's languages have such systems (Maddieson 1984: 127). They also appear to make maximum

usage of available vowel space, and one is not surprised when such a system, in order to maximise distinctiveness and naturalness, consists, as the Standard Greek system does, of a close front unrounded vowel, a close back rounded vowel, and open central vowel, and, in between and equidistant from these, a mid-front unrounded vowel and a mid-back rounded vowel. The Sfakian dialect is not at all like this. The high vowels /i/ and /u/ are indeed where we would expect them to be. The low vowel /a/, however, is very back [ɰ]. And the mid vowels are actually much closer than mid, approximately [ɛ, ɔ]. Large areas of phonetic space in the vowel trapezium thus go unused, as it were.

Most remarkable, however, is something which has happened in Cyprus, and which, I again venture to suggest, is typical of the sorts of changes which tend to occur in peripheral communities. As I have already mentioned, Cypriot Greek and other southeastern dialects have preserved Ancient Greek geminates, as in /filla/ 'leaves'. However, this is only half the story. As is well-known, following the work of Brian Newton (1968), modern Cypriot Greek has also in the intervening period acquired geminates from other sources. Firstly, there are geminates which result from borrowings from Italian and Turkish, which also have geminates, in items such as /kappellos/ from Italian *cappello*. Then there are geminates which result from assimilation, such as /niffi/ 'bride' from earlier /nimfi/. Then, famously and somewhat more mysteriously, are the cases which Newton labels 'spontaneous gemination', where for reasons which are not entirely understood, although Newton goes some way towards explaining what has happened, single consonants have turned into geminates, as in /otti/ 'whatever' from earlier /oti/.

Newton points out that spontaneous gemination has occurred in other languages as well. However, the most remarkable thing about Cypriot Greek is that, unlike Ancient Greek, it also has word-initial geminates: in word-initial position, single and geminate consonants are in opposition. Word-initial geminates in Cypriot Greek may be the result historically of spontaneous gemination, as in /nne/ 'yes', from earlier /ne/; or of assimilation, as in /ββillos/ 'dog' from earlier /skilos/. They also occur in loans from Turkish, as in /ppullin/ 'stamp' from Turkish *pul* – which is also rather mysterious since Turkish does not have word-initial geminates. And they also occur in loans from English, as in *tennis*, which is /ttenis/ in Cypriot Greek. (This is presumably because the aspiration of word-initial voiceless plosives in English is interpreted as a sign of gemination; see below.) Note, however, that since English and Turkish do not have word-initial geminates, we can be sure that these loans must have post-dated the development of such geminates in Cypriot, in order for the borrowings to have taken this form. We cannot say that word-initial geminates occur in Cypriot Greek *as a result of* borrowings from English and Turkish.

Whatever the source of these geminates, however, the fact remains that word-initial single and geminate consonants contrast, as in /ppefti/ 'he falls' versus /pefti/ 'Thursday'. Of these geminates, particularly remarkable are the word-initial geminate stops of Cypriot Greek. Geminates are rather rare in the world's languages. Maddieson (1984) lists 19 of the 317 sample languages in his data base as having long consonants, i.e. only 6%. Phonotactics are not dealt with in Maddieson's book, but I believe that it is reasonable to suppose that only a small minority of this 6% of languages with geminates will have them in word-

initial position. And an even smaller number will have word-initial geminate stops. It is not difficult to see why this would be. Only when a long consonant is potentially heterosyllabic, and when the length distinction occurs intramorphemically, can such a consonant be classed as a geminate (see Catford 1977: 210f), but the main phonetic reason for the rarity of word-initial geminates will be the problem of *signalling* a length difference on initial consonants, especially stops, and most especially voiceless stops. According to Abramson (1987), for example, in Pattani Malay the "length" distinction between word-initial voiceless stops is actually not a length distinction at all but is maintained by differences in the relative amplitude of the following vowel. So it is in fact not at all surprising that the phonetics and phonology literature cites only a small number of languages where genuine word-initial geminate stops are known to occur (see Hume, Muller & van Engelenhoven 1997; Davis 1999). One phonetically well-established case is that of LuGanda, a Bantu language of Uganda which has a true single/geminate contrast (see Butcher forthcoming). Voiced geminates in this language occur in syllable-initial position mainly as the result of the historical loss of an intervening high vowel. Butcher's data show that the initial geminates are about 60% longer than the singles. His conclusion is that the difference between the two is achieved through differences in both peak pressure *and* stricture duration. As far as Cypriot Greek is concerned, Arvaniti has shown that word-initial geminate stops are distinguished from single consonants partly by aspiration but that they are also, crucially, genuinely and substantially longer than singletons (Arvaniti 1999, in press, this volume; Arvaniti & Tserdanelis in press; Tserdanelis & Arvaniti in press).

We are thus on sure ground when we maintain that the situation of Cypriot Greek as regards initial geminates is very unusual universally, and extraordinarily unusual amongst European languages. The proportion of the world's languages with a contrast between word-initial geminate and single stops in monomorphemic words must be infinitesimally small. Even if there are, say, 30 such languages, this will be less than 1%. My suggestion is that it may not be a coincidence that the variety of Greek which has this unusual feature is spoken on an island at the geographical periphery of the Greek-speaking world.

## 6. Conclusion

There is evidence from linguistic varieties around the world, including Greek dialects, to suggest that the distribution of structural characteristics over the world's languages may not be entirely random from a sociolinguistic point of view. For example, we have seen indications that long-term contact involving child bilingualism may lead to increased complexity, including redundancy. Conversely, contact involving adult second language acquisition may lead to increased simplification. Furthermore, communities with dense, tightly-knit social networks may be more likely to demonstrate fast-speech phenomena and the consequences of this; and more likely to experience unusual sound changes.



### Acknowledgements

I am very grateful for comments and information I have received on issues discussed in this paper to Amalia Arvaniti, Andy Butcher, Eric Hamp, Mark Janse, Brian Joseph, Paul Kiparsky and Jennifer Muller.

### References

- Abramson, A.S. (1987) Word-initial consonant length in Pattani Malay. *Haskins Laboratories Status Report on Speech Research* SR-91: 143-147.
- Arvaniti, A. (1999) Effects of speaking rate on the timing of single and geminate sonorants. In *Proceedings of the XIVth International Congress of Phonetic Sciences*, San Francisco: 599-602.
- (in press) Comparing the phonetics of single and geminate consonants in Cypriot and Standard Greek. *Proceedings of the Fourth International Conference on Greek Linguistics*, Nicosia, 17-19 September 1999.
- (this volume) Cypriot Greek and the phonetics and phonology of geminates.
- & G. Tserdanelis (in press). On the phonetics of geminates: evidence from Cypriot Greek. In *Proceedings of International Conference on Spoken Language Processing (ICSLP2000)*, Beijing, 17-20 October 2000.
- Butcher, A.R. (forthcoming) Fortis/lenis revisited one more time: the aerodynamics of some oral stop contrasts in Europe, Australia, and in between.
- Catford, J.C. (1977) *Fundamental problems in phonetics*. Edinburgh University Press.
- Davis, Stuart (1999) On the representation of initial geminates. *Phonology* 16: 93-104.
- Dawkins, Richard M. (1916) *Modern Greek in Asia Minor: a study of the dialects of Silli, Cappadocia and Pharasa with grammar, texts, translations and glossary*. Cambridge University Press.
- Dressler, Wolfgang U. (1984) Explaining natural phonology. *Phonology Yearbook* 1, 29-51.
- Drettas, Georges (1997) *Aspects pontiques*. Paris: Association de recherches pluridisciplinaires.
- Hume, Elizabeth, Jennifer Muller & Aone van Engelenhoven (1997) Non-moraic geminates in Letti. *Phonology* 14: 371-402.
- Janse, Mark (1998) Grammaticalization and typological change: the clitic cline in Inner Asia Minor Greek. In M. Janse & A. Verlinden (eds.) *Productivity and creativity: studies in general and descriptive linguistics in honor of E.M. Uhlenbeck*. Berlin: Mouton de Gruyter, 521-545.
- Joseph, Brian (1983) *The synchrony and diachrony of the Balkan infinitive*. Cambridge University Press.
- Kondosopoulos, Nikolaos (1988) *Glossikos atlas tis Kritis*. Iraklio: Panepistimiakes Ekdotis Kritis.
- Lenneberg, Eric (1967) *Biological foundations of language*. New York: Wiley.
- Maddieson, Ian (1984) *Patterns of sounds*. Cambridge University Press.

- Mansfield, Peter & Peter Trudgill (1994) A sex-specific linguistic feature in a European dialect. *Multilingua* 13.4: 181-186.
- Martinet, André (1962) *A functional view of language*. Oxford University Press.
- Milroy, James & Lesley Milroy (1985) Linguistic change, social network and speaker innovation. *Journal of Linguistics* 21: 339-384.
- Newton, Brian (1967) The phonology of Cypriot Greek. *Lingua* 18: 382-411.
- (1968) Spontaneous gemination in Cypriot Greek. *Lingua* 20: 15-57.
- (1972) *The generative interpretation of dialect*. Cambridge University Press.
- Nichols, Johanna (1992) *Linguistic diversity in space and time*. University of Chicago Press.
- Trudgill, Peter (1989a) Language contact and simplification. *Nordlyd* 15: 113-121.
- (1989b) Contact and isolation in linguistic change. In L.E. Breivik & E.H. Jahr (eds.), *Language change: contributions to the study of its causes*. Berlin: Mouton de Gruyter. 227-237.
- (1989c) Interlanguage, interdialect and typological change. In S. Gass et al. (eds.), *Variation in second language acquisition: psycholinguistic issues*. Clevedon: Multilingual Matters. 243-253.
- (1992) Dialect typology and social structure. In E.H. Jahr (ed.), *Language contact and language change*. Berlin: Mouton de Gruyter. 195-212.
- (1995) Grammaticalisation and social structure: nonstandard conjunction-formation in East Anglian English. In F.R. Palmer (ed.), *Grammar and meaning: papers in honour of Sir John Lyons*. Cambridge University Press.
- (1996) Dialect typology: isolation, social network and phonological structure. In G. Guy et al. (eds.), *Towards a social science of language, Volume 1*. Amsterdam: Benjamins. 3-21.
- (1998) Typology and sociolinguistics: linguistic structure, social structure and explanatory comparative dialectology. *Folia Linguistica* 31.3-4: 349-60.
- (1999) Language contact and the function of linguistic gender. *Poznan Studies in Contemporary Linguistics* 35: 9-28.
- (2001) Linguistic and social typology. In J.K. Chambers, N. Schilling-Estes & P. Trudgill (eds.), *Handbook of linguistic variation and change*. Oxford: Blackwell.
- Tserdanelis, G. & A. Arvaniti (in press) The acoustic characteristics of geminate consonants in Cypriot Greek. In *Proceedings of the Fourth International Conference on Greek Linguistics*, Nicosia, 17-19 September 1999.