

THE CHRONOLOGY OF THREE SAMOAN SOUND CHANGES

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1. INTRODUCTION¹

In Buck 1930:4-5 we find the following observations on Samoan historical phonology:

Recent changes have taken place in the spoken language in the substitution of *k* for *t* and a loose mutual interchange between the sounds *n* and *ng*. The reintroduction of *k* in place of *t* is extremely interesting as it evidently indicates a Polynesian tendency not confined to one dialect. A similar change has already completely occurred in the Hawaiian dialect in which it passed through two distinct phases. Thus, in the widespread Polynesian word *kumete* (wooden bowl) the first phase was the dropping of the *k* so that the word became *'umete*. In the second phase which occurred later, the *t* was changed to *k* and the word became *'umeke*. Thus the lost *k* came back into the dialect but in no word did it re-occupy its original position. In the process of resurrection, the *k* displaced the *t* sound completely out of the dialect. In Samoa, the first phase of dropping the *k* had been completed before the Bible was printed in Samoan and *kumete* had become *'umete*. The second phase of substituting the *k* for *t* is now taking place in everyday speech and a wooden bowl is now more referred to as *'umeke* than as *'umete*. The talking chiefs make the change in official speeches and the retention of the *t* sound is regarded by the public as pedantic. It seems probable that the Samoan *t* like the Hawaiian *t* is doomed to extinction.

The interchange between *n* and *ng*² has become so common that I had to constantly consult Pratt to find which was the original sound used. Thus in spoken speech, it is more usual to hear *paono* instead of the correct *paongo*, and *tafangi* instead of the correct *tafari*.

Buck's treatment does not differ substantially from that of other scholars who have touched on these problems, except maybe that Buck's presentation is a bit more shaded and above all more precise concerning the chronology of the sound changes than other treatments of them are.

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2. THE DEVELOPMENT PP³ *k > ' ⁴ IN SAMOAN

There are strong reasons for assuming that this sound change took place before the first contacts between Samoans and Europeans. W. Anderson, the surgeon on *Resolution* on Cook's third voyage to the Pacific mentioned in his journal of July 1777 three Samoan words which he had picked up on Tonga and "which seem to differ much from those of the other islands" (Beaglehole 1967:958). One of these words is tamaë'ty a *chief woman* which is identical with Mod. Sam.⁵ tama'ita'i *lady*.

Since the etymology of tama'ita'i isn't clear, the evidence provided by this example may not appear conclusive, but that objection does not apply to the material provided by Captain Edwards and surgeon Hamilton on *Pandora* when they visited Samoa 14 years later (1791). There we find forms like Oattooah (Thomson 1915:50) = Mod. Sam. 'O Atua and Ootootoillah/Otutuelah (Thomson 1915:55,130) = Mod. Sam. 'O Tutuila both containing the Samoan topic marker 'o < PP *ko.

Especially important when evaluating the information provided by Anderson, Edwards and Hamilton is the fact that on both expeditions there were several people familiar with Polynesian languages and accordingly capable of obtaining trustworthy information from the native informants. That was not the case with many other visitors and the materials provided by them are of very variable quality.

First of all we have the reports from La Pérouse's tragic visit to Samoa in 1789. The main source for this expedition is Milet-Mureau 1797, III:227-238 and there we find the following Samoan place names mentioned: Opoun, Léoné, Fanfoué, Maouna, Oyolava, Pola, Calinassé, Shika, Ossamu and Overa. Nobody on La Pérouse's expedition was familiar with Polynesian languages and the general information about the Samoan language in the report as well as the qualifications of the "interpreter" do not support the reliability of the examples mentioned:

Nous n'avions d'abord reconnu aucune identité entre leur langage et celui des peuples des îles de la Société et des Amis, dont nous avons les vocabulaires; mais un plus mur examen nous apprit qu'ils parlaient un dialecte de la même langue. Un fait qui peut conduire à le prouver, et qui confirme l'opinion des Anglais sur l'origine de ces peuples, c'est qu'un jeune domestique manillois, né dans la province de Tagayan au Nord de Manille, entendait et nous expliquait la plus grande partie des mots des insulaires: on sait que le tagayan, le talgale, et généralement toutes les langues des Philippines, dérivent du malais et cette langue, plus répandue que ne le furent celles des Grecs et des Romains, est commune aux peuplades nombreuses qui habitent les îles de la mer du Sud.

(Milet-Mureau 1797, III:229-230)

The Samoan sources for the names given by La Pérouse are still a matter of pure guessing (Oyolava = 'O i ō lava *Just there* ?), cf. Krämer 1903:13 and Von Bülow 1900 for further discussion.

The next visitor to provide some linguistic material of interest is Otto von Kotzebue (1830). But his material is no less confusing than that of La Pérouse and the linguistic competence regarding Polynesian languages was also practically nonexistent on Kotzebue's expedition. He mentions that the Samoan word for *pig* is boaka (Kotzebue 1830:279), cf. Mod. Sam. pua'a, PP *puaka, but as Krämer (1903:19) had already pointed out, Kotzebue probably had contact with some Tongan

speaking people in Samoa (cf. that the Tongan word for *pig* is *puaka*) since he refers to the name for a *chief* as *eige* which clearly is Tongan 'eiki and not Samoan ali'i. Let it also be added that Kotzebue generally has been considered by posterity to be a rather superficial and bad observer, cf. Krämer 1903:17 and the more or less justified attacks on him by the LMS missionaries (Williams 1837: 482 and especially Ellis 1831).

In Williams 1837:451 we find an interesting form pertaining to the problem we are investigating. A chief of Malova is reported to have made the following statement:

I am now a worshipper of Jehovah, my heart and thoughts are in love with the good word, and my sincere desire is that, speedily, it may spread through the land, and that not a *Faka-Devol*, a devil's man, may remain.

But the expression *Faka-Devol* (Mod. Sam. fa'atevolo) may be another example of Tongan influence, having come into use in Samoa through the teaching of the Wesleyan Tongan missionaries there, through Samoan visitors to Tonga having picked up the expression there or through Tongan visitors to Samoa. As we will see below there are other indications of such Tongan influence on Samoan.

The last example I have found of PP *k apparently being retained as k in Samoan is in Walpole 1849, II:331 where he mentions that when approaching Upolu:

Our vessel was soon surrounded by canoes, laden with their various treasures, the natives shouting "Fackaton, fackaton" (barter, barter)

The word *fackaton* most likely represents Tongan *fakatau*, cf. Mod. Sam. fa'atau.

The only conclusion we can draw from these scattered examples is that they are of little if any importance for the chronology of the change *k > ' since they could all be Tongan loanwords. But they are interesting in so far as they indicate that a certain familiarity with the Tongan language existed in Samoa in the early 19th century and that the use of Tongan phrases and words was to some extent common and perhaps fashionable.

The connections with Tonga lead us to another interesting set of data, namely the two loanwords 'oti *goat* (< Eng., cf. Tong. kosi < *koti⁶) and tapa'a *tobacco* (< Eng., cf. Tong. tapaka). These words cannot be older in Samoan than the knowledge of the objects they designate and as far as goats are concerned they were first known in this part of the Pacific when Captain Cook introduced goats to Tonga on his third voyage (cf. Beaglehole 1967:134,155), on exactly the same voyage when Anderson noted examples indicating that the sound change *k > ' already had taken place in Samoan.

The explanation must be sought in the fact that there were at that time extensive contacts between Samoans and Tongans. The examples referred to earlier in this paper indicate a certain knowledge of Tongan in Samoa and the use of Tongan in idioms, slang or other contexts. Further, the earliest reports from the LMS and especially Wesleyan missionaries in Samoa are full of references to Samoans having visited Tonga, Tongans staying in Samoa and the ease with which the Wesleyan missionaries from Tonga conversed with Samoans compared to the problems their Tahitian and Rarotongan colleagues in the LMS had in being understood.

Another important source is William Mariner's account of his stay in Tonga 1806-1810. He has several references to the high status of Samoan in Tonga and the popularity of Samoan songs there (Martin 1817, I:165-166,375, II:228-229,323,

337-339). The specimens he quotes of such songs are unfortunately of little value since the texts are too distorted to be intelligible for the simple reason that Mariner did not understand Samoan as he frequently pointed out and "very few of the Tonga people understand the Hamoa language" (Martin 1817, II:323). Nevertheless, Mariner tells us explicitly that he has got his information about Samoa from Samoans in Tonga (e.g. Martin 1817, I:1375) and that must imply that those Samoans spoke Tongan to him.

The linguistic contact between Tongans and Samoans must have made both parties aware of some of the basic and quite regular sound correspondences between the two languages. Accordingly, knowing that Tongan *k* regularly corresponded to Samoan ' it is likely that Samoans substituted a ' for a *k* in borrowings. But it is also likely that this substitution implies that Samoan at that time did not have any phoneme /*k*/ and not even the sound [k].

There are also a few other interesting words which may be loanwords of the same category and period as 'oti and tapa'a:

u'amea *iron, metal*, cf. Tongan ukamea/'ukamea⁸ and Fiji kaukamea.

'ulo *pot*, cf. Tongan kulo⁹ and Fijian kuro.

None of these words have Polynesian cognates outside the Tongan-Fijian-Samoan triangle (Niue *ulo pot* is a late borrowing from Samoan introduced by the missionaries) and already Pratt 1862:95 (cf. also Pratt 1977:67) considered 'ulo to be a recently introduced word in Samoan. Neither iron/metal nor pots were elements of traditional Samoan culture and we do not expect to find indigenous terms for them.

It is also interesting to observe that the word for cooking in pots is saka in Samoan, a word generally acknowledged to be borrowed from Fijian, cf. Fijian saqa.¹⁰ And this is one of the very few Samoan words where *k* is obligatory even in Lit. Sam., cf. below.

While 1777 then seems to be the terminus ante quem for the development **k* > ' , the question concerning a possible terminus post quem is much more difficult and for the moment probably impossible to answer. We do not have any written sources before 1777 which give us any data concerning Samoan and the use of oral sources and traditional material for diachronic linguistics is difficult and has obvious limitations. Let me take but one example which as far as I know is also the most relevant one for the problem we are discussing. If the Rarotongan hero Karika came from Samoa (cf. Gill 1876:25), if he is identical with the chief 'Ali'a of Manu'a, if we trust the Rarotongan genealogies (cf. Browne 1897:10) and assume that he lived in the 15th century, then it is reasonable to assume that Samoan still had the original *k* retained at that time since 'Ali'a most probably would have been rendered as *'Ari'a in Rarotongan. But there are a few ifs too many in this argumentation to base any conclusions on it.

As a last resort we may try to look for comparative evidence for the chronology, but the results are meagre. Among Western Polynesian languages only Samoan and Luangiua have the sound change **k* > ' and in these two languages the changes are completely parallel, cf. below concerning other cases of parallelism between the two languages. Similar sound changes in Eastern Polynesian seem to have no connection with the Samoan one: in Tahitian we have a general changing of velars (i.e. *g* and *k*) into ' and in Hawaiian the change **k* > ' is still not completed and there are several lexemes where the *k* is retained as an optional variant, cf. Elbert 1982:503-504. The intricate dialectal division and intermingling in Marquesan (cf. Elbert 1982), which by Polynesian standards is unique, has only been superficially described, but according to the information available it seems

that *k > ' is restricted to some dialects, *g > ' is only sporadic and restricted to some lexemes, while one of the most characteristic features of Marquesan is *r and *l > ', a development not attested elsewhere in Polynesia.

3. THE VELARISATION OF /n/ AND /t/ IN SAMOAN

From a phonological point of view we find two distinct sociolects in Samoan today¹¹ characterised by the following two different sets of nasal and plosive phonemes:

Literary Samoan	Colloquial Samoan
p t k	p k
m n g	m g

One can formalise the correspondences between the two systems in the following rather simple rule, assuming that the system of Lit. Sam. is the older one:

$$+ \text{ dental } \text{---->} + \text{ velar } / \left[\begin{array}{l} \propto \text{ plosive} \\ - \propto \text{ nasal} \end{array} \right]$$

But the development /t/ > /k/ and the development /n/ > /g/ are on neither the synchronic nor the diachronic level identical. Both /n/ and /g/ are full-fledged phonemes in Lit. Sam. representing generally PP *n and *g while /k/ in Lit. Sam. only occurs in recent borrowings from English, e.g. keke *cake*, kofe *coffee*, māketi *market* and in a few other words like puke,¹² 'expression to startle someone', puketā, 'exclamation of triumph in the game tāgāti'a', pukē *basket (used for storing cloth)*, saka *cook*. A few words which formerly had t in Lit. Sam. are nowadays considered by most speakers to have a basic k, e.g. okaoka (otaota), 'exclamation of surprise, shock', oka (ota) *raw fish*.

Accordingly, the development t > k is to a great extent a change in the phonetic realisation of one and the same phoneme and only in a subfield of the lexicon does it influence the phonological system and the set of distinctive oppositions. Samoans have generally no problems in switching between the two sociolects as far as plosives are concerned and errors like t-forms in k-style and vice versa are very seldom attested.¹³ It is quite to the contrary with the development n > g. In that case one has to know by heart which words have which phoneme(s) and most Samoans have great problems in separating the two styles with regard to nasal phonemes. The number of hypercorrect n-forms (instead of basic g-forms) in attempts at speaking Lit. Sam. is significant and so is the number of colloquial g-forms in literary style. This mixture of the two styles is not restricted to the spoken variant but is also frequently encountered in written sources.¹⁴

This intermingling of the two styles as well as the strong degree of variability in Spoken Lit. Sam. is hardly mentioned in the existing grammars, probably due to the fact that their main source of data is the classical literary language found in the Bible and similar sources. Editions of Samoan texts are also in general strictly normalised (this even applies to publications of typical oral texts like Stuebel 1895 and Moyle 1981). One of the few exceptions to this is Sierich 1901-1903 whose texts give a faithful depiction of the mixture of the two styles.

There are various theories about the origin of the sound changes t > k and n > g, but all of these seem to consider them as one simultaneous sound change

and not as two separate processes. Further they are considered as a quite recent phenomenon (or corruption as most would say) taking place in the last part of the 19th century when the literary Samoan language was well established.

In Pratt 1862 these changes are not mentioned at all and it is said explicitly that *k* is an introduced foreign letter used for writing proper names and loanwords (Pratt 1862:6).¹⁵ Among examples of careless pronunciation of consonants *lagoga* for *lagona* is mentioned, but it is not indicated that it is a general feature of the language. In a later edition of the grammar he has a note in the preface dated 5 June 1876¹⁶ saying:

In Hawaii they have changed the *t* into *k*, and *ng* into *n*. Thus *tangata* has become *kanaka*. Samoans are doing the same thing at the present time, to the great injury of the language.

An interesting treatment of these changes which sums up most of the current views at the turn of the century is Von Bülow 1897a:375:

Bezuglich der Änderung - Verderbnis nenne ich es - des *t* in *k*, des *n* und des *g* in *ng*, sagt ein Kenner der Samoasprache, der Missionar S.J. Whitmee, in einer Anmerkung zu Pratts Wörterbuch der Samoasprache (S.1): "This is a recent change. When I went to Samoa in 1863 I heard *k* used only on the island of Tutuila and on the eastern portion of Upolu. Now it is used all over the group. It is difficult to say how this change commenced, but its spread has been noted. - - The more intelligent use *t* quite correctly in reading and in public speaking. But the practice of transposing *k* and *t* in reading is rapidly growing." -

Selbst in Fremdwörtern, in denen *k* vorkommt, vertauschen es die Eingeborenen jetzt sehr oft mit *t*, und umgekehrt. In derselben Weise werden *n* und *g* (*ng*) miteinander vertauscht.

"Both of these changes took place in the Hawaiian dialect at a much earlier date and they have been adopted in the literature (sic!) of the Hawaiian Islands, which is not the case in Samoa".

Krämer 1897:77 has the following more laconic view of the situation: "Die Aussprache des *k* für *t* ist von Hawaii eingeschlept. Auf Savaii wird indessen meist noch das reine *t* gesprochen".

Brown 1916:182 gives a rather detailed description of the change *t* > *k* (*n* > *g* not being mentioned) which in some respects deviates from other sources:

When I first resided in the group, in 1860, there were very few people indeed on Upolu, and still fewer, if any at all, on Savaii who used the "k" sound. It was very rarely heard outside of the Port of Apia and the Tuamasaga district.

The general opinion was that the change was introduced from the island of Tutuila, and it was certainly called *O le nanu faa-Tutuila* (Tutuila jabber, or wrong speech). Whether it originated on Tutuila or not I cannot say. Some individuals seemed to be conscious of their wrong pronunciation. One man tried to excuse himself by saying that his mouth was hard. The spread of the change was very gradual,

and I am inclined to believe that intercourse with white men hastened the progress of it, for many of the traders used the pronunciation.

There are some points connected with this innovation which may be noticed:

1. According to the testimony of the natives the sound of "k" was not heard in the Samoan languages, except, it may be, in a very few individual cases, prior to the years 1858-60.
2. It was said to have originated in Tutuila, but none of the individuals whom I knew in the early sixties, who used the objectionable pronunciation, had ever been to Tutuila, from where the *nanu* (jabber) was said to have come. The worst case which I knew was that of a native of Manono. I do not remember hearing it on Savaii, except in a very few instances, or from visitors, whilst I was resident on that island. It certainly was not frequently used.

But Brown may not be a completely trustworthy source since he showed a very strong antipathy towards the sound change in question which he called "a very regrettable change" (Brown 1916:181) and "a threatened deterioration" (1916:183).

A modern and slightly modified version of these views is Buse 1961:105-106:

The following is perhaps the origin of the two styles. In the nineteenth century, there began in Samoan an isolative dental-velar consonant shift by which [t],[n] moved back to [k],[ŋ]. Either before the shift started or before it became at all widespread, missionaries and native Tahitian teachers arrived from Tahiti. They reduced the language to writing and set up schools, using [t] and [n] both as a basis for the script and in giving oral instruction. (Note that [t] and [n] both occur in Tahitian, but not [k] and [ŋ].) The conservative forces of writing and education were thus thrown behind the dental style and succeeded in preserving it in those fields where their influence was strongest (schools, churches, etc.). Elsewhere, however, the shift was carried through and the velar style became widespread as a colloquial medium. Further situational differentiation has set in, each style having its own fairly well-defined sphere of influence, but the position is still far from stable.¹⁷

To sum up, the scholars mentioned so far seem to assume that the sound changes $t > k$ and $n > g$ were simultaneous¹⁸ and that they:

- (a) started in the last half of the 19th century¹⁹
- (b) started in the eastern islands (Tutuila and Upolu, Manu'a not being mentioned) and spread westwards. The changes had not yet reached the western parts of Savai'i at the end of the 19th century²⁰
- (c) were originally due to influence from the Hawaiian language upon Samoan, although nobody has explained how this influence could have taken place and how the not negligible geographical distance between Hawaii and Samoa could have made contact between the two languages possible.²¹ Brown 1916:182 had the rather strange idea that white men, especially traders, promoted the change $t > k$, cf. above.

4. A CRITICAL REVALUATION OF CURRENT HYPOTHESES

Recently Shore 1982:269 has given a rather different or at least quite modified version of the story, without, however, giving very much data to support his conclusions:

Samoans sometimes claim that formal pronunciation style is still common in those areas where Samoan culture is least affected by European contact, an observation that appears almost ironic in light of the actual distribution of social contexts in which both styles are used.²² The island of Savai'i, particularly the remote village of Falealupo at the northwestern tip of the island, is held to be a bastion of "proper" (i.e. formal-style) pronunciation. My own visits there, however, did not confirm this assertion. Milner (1966) claims to have found the formal pronunciation generally used only by some older residents of Fitiuta village on Manu'a.²³

.... My best guess is that the dual phonological system in Samoan was the product of a phonological drift that had already begun by the time the first missionaries arrived in 1830. When they orthographized the Samoan language as the initial step in translating the Bible, the missionaries selected the older and culturally preferred forms, thereby "freezing" the [t] and [n] into the written language.

Although Shore's view is closer to mine than for example the theories put forward by Von Bülow or Krämer, I think it needs to be modified, and above all we have to state clearly what we really know and separate that from what is likely, sensible or possible. Let us start with the chronology.

There are few examples of k/g-style before 1850, but enough to prove that it existed. In Lundie 1846:79 we find a letter of 16 March 1840 where he tells us that when arriving in Pagopago the boat deck was covered by Samoans greeting the "Mishingalies" (= misionare in Mod. Sam.). In the first Samoan book printed (Williams 1834:5)²⁴ we find alternating forms like Fafine lalagna/Fafigne faifaiva (= Mod. Sam. fafine lalaga/fafine fai faiva). But especially important are the observations found in the journals of the LMS missionaries. Most important is the following note at the end of Buzacott's journal of 1836/37:

We have been surprized to find a number of Samoans, who cannot distinguish any difference of sound in the k & t & ng & n & who in the language use nothing but the k & ng where the t & n ought to be. It is surprizing what a difference the change of these two letters make in the beauty of the language - from being the most musical & pretty it becomes as rough & dissonant as any dialect of the South Seas.

John Williams has in his published works, as well as in the journals from his important visit to Samoa in 1832 or from later visits there, made no reference whatsoever to the existence of a k/g-style, although observations on language are far from absent in his works. Writing in Samoan or using quotations from Samoan he is also (with the exceptions noted above in Williams 1834) quite consistent in using the t/n-style. But in the journal from Williams' and Barff's first visit to Samoa in 1830 we find a very interesting observation on the language:

The language of the Samoans is a mixture of three different dialects. The Tahitian, which it strongly resembles in many words. The Rarotongan which it resembles in the nasal consonants gn etc., and the Tongatabooan which it resembles in the use of the C and K. In addition to the above they make great use of the S, which is not used by any of the above mentioned Islands.

A sensible interpretation of this is that Williams perceived velar plosives as something characteristic when first listening to spoken Samoan.

Accordingly there seems to be no doubt that the differences between the two styles were fully established about 1830. If the conclusion drawn above that Samoan had no k at the time when the words *tapa'a* and *'oti* entered the language can be accepted, then the changes $t > k$ and $n > g$ must have taken place in the period 1777-1830.

As the material quoted above shows, the current view until quite recently was that the changes started in Upolu and Tutuila and that only in this century did they reach the western part of Savai'i. Milner 1966 and Shore 1982 (cf. above) have pointed out that this view is in conflict with the present situation where the k/g-style is less common in Manu'a, the most easterly part of the Samoan islands, than elsewhere. My own field studies point in the same direction. The only Samoans I have heard using t/n-style in an informal situation when talking to other Samoans are people from Manu'a. On the other hand, the k/g-style is nowhere as prominent as in the western parts of Savai'i and many people there are hardly able to talk in the t/n-style, managing at best to produce a mixture of the two styles. The present situation is hard to conciliate with the information from late 19th century sources, referred to above, and it is hardly possible to go further than to admit that we know nothing for certain about the geographical place of origin of these sound changes and how and in what direction they spread.

But I think we can say quite a lot more about why the t/n-style was chosen as the basis of the literary Samoan language and why we in the middle of the 19th century have next to no information concerning the existence of a k/g-style in Samoa.

When the LMS missionaries after many years of struggle and hours of desperation finally had broken the code and managed to learn Tahitian and to establish a literary Tahitian language, they hoped in the beginning to get as much as possible out of this new achievement and to extend the use of it to other islands, cf. Williams 1837:122. When John Williams and Charles Barff came to Samoa in 1830, they talked to people in Tahitian or Rarotongan, they taught them Tahitian hymns²⁵ and they left behind Tahitian and Rarotongan teachers and books. The first years of the LMS' mission in Samoa was based on the Tahitian language and many of the Tahitian teachers left behind learned no Samoan or at best a rather broken Samoan.²⁶ Accordingly it would be very strange if the missionaries, when they had a choice, did not pick out the variant of Samoan phonetically closest to Tahitian as the basis for the written language and their preaching.²⁷ Whatever the social status of that variant was before the arrival of the missionaries it necessarily had to receive a high status from its position as the language of the church. Most probably both the number of speakers using it, the range of contexts it was used in and its geographical distribution increased with the spread of Christianity. It is impossible to prove, but very likely that the use of the k/g-style was more common in 1830 than in 1850 for the reasons just indicated and that explains the otherwise surprising overlooking of the colloquial

style in sources from the period 1840-1870. Maybe a more negative attitude towards Europeans and the turbulent state of affairs in Samoa at the end of the century promoted a new rise of the k/g-style. Sound changes have sometimes quite a lot in common with changes of fashion.

As Milner 1966 and Shore 1982 have pointed out the Samoans today are rather negative towards the k/g-style and to use a fashionable sociolinguistic term, the use of k/g-forms is in many contexts strongly stigmatised in Samoan. This may indicate that the difference also originally was determined by the status of person spoken to or the context, as it is today. But I think that the basis for such a conclusion is rather fragile. As we have seen above, both Pratt, Whitmee, Von Bülow and others were very negative towards the use of the k/g-style and other European authors from the 19th century are no less negative - so Funk 1893:1 says that instead of the "t" "sprechen die meisten Samoaner leider das k der Tonganer, was den gefälligen Klang der Sprache sehr beeinträchtigt". Even more outspoken is Neffgen 1904:II when he says that the pronunciation g for n is "fehlerhaft und hässlich" and that k instead of t makes "einen hässlichen Eindruch". If such attitudes were current among Europeans in Samoa and above all among the missionaries,²⁸ it is rather likely that they were adopted by the Samoans. This negative attitude towards velars was nothing peculiar to Samoa, it was something which was part of the European attitude towards all the languages of the South Seas. The works of the early explorers are full of such evaluations, but let me just quote one, which is of special relevance to the problems we are dealing with here, namely the following extract from Banks *Endeavour Journal* (Beaglehole 1963:372) from Cook's first visit to the Pacific:

All the Isles I was upon agreed perfectly as far as I could understand them; the people of Ulietea only chang'd the t of the Otahiteans to a k, calling Tata which signifies a man or woman Kaka, a circumstance which made their Language much less soft. The people of Ohiteroa as far as I could understand their words which were only shouted out to us seem'd to do the same thing, and add many more consonants and harshness's which made their Language still more untunable.

To understand this attitude properly it must be added that the Tahitian language was set up as a model of a beautiful, melodious and soft language by the first explorers and any deviation from it was considered as a deviation from perfect beauty and harmony.

5. THE SAMOAN SOUND CHANGES IN A POLYNESIAN PERSPECTIVE

The sound change PP *t > k is attested in several Polynesian languages: Luangiua, Hawaiian, Coll. Sam., some dialects of Tahitian (cf. Biggs 1978:714) and seems according to the information provided by Banks (cf. above) to have taken place on Raiatea before the native dialect there was replaced by Tahitian. Biggs (1978:712) assumes that the *t moved back to occupy the velar position left vacant by the *k > ' change. The development n > g in Coll. Sam. and Luangiua is then seen as a consequence of the first change, the velarisation of plosives being extended to nasals. This theory does not, however, explain the development g > n in Hawaiian and the rise of the phonological opposition /t/-/k/ in Mod. Sam.

Let us as our starting point take the Proto-Polynesian system of plosive and nasal phonemes:

- (1) /p t k/
/m n g/

After the *k > ' change we get the following asymmetrical system:²⁹

- (2) /p t/
/m n g/

In this system the opposition dental-velar is no longer relevant in the plosives, but still is in the nasals. Accordingly the /t/ phoneme could now be realised optionally (= stylistic variation) as [t] or [k] and we get the following situation:

- (3) Phonemes /p t m n g/
 | | \ | | |
Phonetic realisation [p t k m n g]

Depending on the frequency or the stylistic function of the non-labial plosive allophones the phoneme they represent could be conceived as basically dental (= (3)) or velar (4):

- (4) Phonemes /p k m n g/
 | / | | |
Phonetic realisation [p t k m n g]

In (3) a further development would be to extend the rule that a plosive dental could be realised optionally as either dental or velar to the dental nasal phoneme, while in (4) such an extension would affect the velar nasal phoneme:

- (3a) Phonemes /p t m n g/
 | | \ | \ |
Phonetic realisation [p t k m n g]

- (4a) Phonemes /p k m n g/
 | / | | / |
Phonetic realisation [p t k m n g]

Phonological systems like (3a) and (4a) are vulnerable since the lack of one-to-one correspondence between basic segments and phonetic realisations (= between input and output) easily leads to reanalysis and simplification. One way to go was to reestablish the one-to-one correspondence by eliminating the ambiguous phonemes:

- (3b) Phonemes /p t m g/
 | | \ | |
Phonetic realisation [p t k m g]

- (4b) Phonemes /p k m n /
 | / | | | /
Phonetic realisation [p t k m n]

(3b) is not attested in any Polynesian language of today but I think it not unlikely that this system existed earlier in Luangiua. (4b) is the system of

Hawaiian. According to the information available the Samoan system around 1830 was (3a), cf. above. But then the phoneme /k/ was reintroduced into Samoan through loanwords from Tongan, Fijian and English (perhaps facilitated through the widespread knowledge of Tongan in Samoa at that time). This reintroduction was then possible because Samoan already had the sound [k] although not a phoneme /k/. After the introduction of /k/ the Samoan system was as follows:

- (5) Phonemes /p t k m n g/
 | N | N
 | | | |
 Phonetic realisation [p t k m n g]

Coll. Sam. then simplified this system following the same principles underlying (3b) and (4b):

- (6) Phonemes /p k m g/
 | | | |
 | | | |
 Phonetic realisation [p k m g]

But Lit. Sam. simplified by reducing the possible allophonic realisations of the phonemes to one single allophone:

- (7) Phonemes /p t k m n g/
 | | | | | |
 | | | | | |
 Phonetic realisation [p t k m n g]

And then we are back where it all started!

6. ALTERNATIVES

The analysis given above implies that the sound changes in the different Polynesian languages are independent of each other and determined only by general phonological tendencies and the inherited phonological structure of the languages in question. Yet there are a few data that may indicate a stronger connection between the languages involved than I have till now assumed.

Tokelauan spoken just north of Samoa has retained the PP system of plosive and nasal phonemes (i.e. /p t k m n g/). But in Hale 1846 we find some curious information concerning the Tokelauan dialect of Fakaofu:

The confusion in the pronunciation of k and t is not uncommon, even in those languages in which both the sounds are met with as distinct elements. In Fakaofu aliti was heard for aliki and in New Zealand and Paumotu ariti. In Hawaiian, the natives make no distinction between the t and k, and the missionaries have adopted the latter, though improperly (as the element is really the Polynesian t), in the written language. (pp.233-234)

It is one peculiarity of this dialect (i.e. Fakaofu - E.H.) that the k at the beginning of many words is often dropped, apparently at the mere pleasure of the speaker. (p.258)

No descriptions of Modern Tokelauan mention these phenomena and in my own fieldwork on Atafu I have not observed any cases of k-t alternation or of the

dropping of initial k's (except in recent loanwords from Samoan). But there are a few examples of g instead of n both in Tokelauan (e.g. kogā/konā *because*) and Anuta (cf. e.g. the personal name Po Tingirau in Feinberg 1982 = Samoan Tigilau, Tongan Sinilau, Rarotongan tinirau, etc.). The most likely explanation of such data and the information provided by Hale (1846) (cf. above) is to assume a certain influence or borrowings from Samoan in Anuta and especially Tokelauan.

But seen in connection with the regular development $t > k$ and $n > g$ in Luangiua³⁰ we cannot completely exclude the possibility that we once had a Samoan-Luangiua Sprachbund which also partly influenced Tokelauan and maybe Anuta and which was characterised by a phonetic instability of dental and velar plosives and nasals with a large degree of phonetic overlapping in the phonemes concerned. But only further research on the Polynesian outliers and Tokelauan can clarify this hypothesis.

NOTES

1. This work is partly based on field studies supported by The Institute for Comparative Research in Human Culture, Oslo and The Scandinavian Institute of Asian Studies, Copenhagen. I wish to thank Niko Besnier and Sheldon Harrison for comments on specific points and especially Marianne Haslev Skånland for detailed comments on an earlier draft of this study. I am also grateful to the Kon-Tiki museum, Oslo, for giving me access to its excellent Polynesian library and to the School of Oriental and African Studies for giving me access to the archives of the London Missionary Society and the Methodist Missionary Society. All quotations below from the journals of the LMS missionaries and Methodist missionaries are based on material from those archives.
2. Except in quotations, the velar nasal will in this paper be written g conforming to the Samoan orthography.
3. PP = Proto-Polynesian.
4. In all descriptions of Samoan this phoneme is called a glottal stop or break. But in Mod. Sam. it is only realised as a glottal stop in phrase-initial position. In intervocalic position it is mainly realised as creaky voice and only sporadically as a glottal stop.
5. Mod. Sam. = Modern Samoan, i.e. the t/n-style as used today in speaking and writing, cf. Coll. Sam. = Colloquial Samoan, i.e. the k/g-style and Lit. Sam. = Literary Samoan, i.e. the written language of the Samoan Bible, etc.
6. Attested as cochì in Martin 1817, II.
7. The first missionaries (through most of them having a Tahitian background where a similar development $*k > '$ had occurred) also observed the correspondence Sam. ' = k in many other Polynesian languages, cf. e.g. A. Buzacott's journal from 1836/37 where we find the following note: "The true Samoan has neither the k nor the h mostly where those letters occur in the corresponding words of the Tahitian & Rarotongan dialects, the Samoan substitutes the f for the h, & a kind of break for the k."

8. The word is attested as early as 1793 in Tongan in the form *oucaméa fer*, cf. Rossel 1808:562, cf. also *ookumméa metal* in Martin 1817, II.
9. cf. *goolo pot* in Martin 1817, II.
10. Shore 1982:268 assumes that *saka* predates European contact, but this assumption is rather questionable, cf. Love 1983:142 and note 15 below.
11. cf. Shore 1982:267-283 for a survey of the social aspects of the two sociolects, their status and range of use and the rather strong emotional attitudes manifested towards improper use of them.
12. This may be a borrowing from Tongan, cf. Tongan *puke to take hold of, seize, make a grab at*, being used in a slang-like way in Samoan, cf. above.
13. A curious exception is *tītata*, *tīkata*, *kītata tea-kettle*, borrowed from English but probably via Tahitian (cf. Tahitian *tītata*). Let me also add that once during a Sunday service I heard the form *lesu Teriso* (= *lesu Keriso*).
14. Some of the hypercorrect forms have become standard in Mod. Sam. like e.g. *toniga uniform*, cf. *tōgiga* in Pratt 1977 and Milner 1966. Even in Lit. Sam. we find a few hypercorrect forms like *fesoasoani help* (< **fesoasoagi*, cf. Milner 1966:212) and *fealofani love each other* which should have been **fealofagi*, cf. *alofagia*. But as Niko Besnier has pointed out to me, some of these variations may be due to the productivity of the *-gia* suffix in Samoan, Tuvaluan and maybe other Polynesian languages of that area.
15. It is interesting to observe that the following note is added to the interjection *puke* in Pratt 1862:170: "It and the following compound (= *puketā*) are the only instances in which the *k* is used". In later editions of the dictionary (cf. Pratt 1977:236) he has made a significant change: "It and the next word were the only instances in which the *k* was used until the recent corruption of *t* into *k*."
16. Here quoted from the 4th edition of 1893.
17. Buse ends his note by quoting a "footnote added to the second edition of Pratt's *Samoan grammar and dictionary* (1876)" which is identical (except for a few minor details) to the quotation from Whitmee quoted by Von Bülow, above.
18. None seems explicitly to regard them as separate, but many mention only the change *t > k*, while *n > g* tends to pass unnoticed. On the other hand it is worthwhile to observe that Hale 1846 did not mention the change of plosives at all, but was fully aware of a certain instability of the nasals, cf. the following note.
19. cf. also Stair 1897:15-16: "Even the Samoan language is changing. I was lately speaking to a young Samoan, a Malua student too, and could hardly understand him, as he turned all the *t*'s into *k*'s". Stair lived in Samoa from 1838 to 1845 and his remark must imply that the change had not taken place or was quite uncommon in that period. It is also interesting to note that Hale 1846 does not mention *t > k* in Samoan at all, and seems to consider *n > g* as a sporadic change mainly representing a kind of assimilation or metathesis (Hale 1846:234), cf. e.g. *manogi > magogi/magoni* and *manutagi > magutagi* as well as the example *lagona > lagoga* quoted from Pratt 1862, cf. above.

20. cf. also Von Bülow 1897b:345, Smith 1898:141, and Hocart 1916:42. Violette 1870:208 states that k "paraît naturel aux habitants de la partie sud-est d'Upolu". An interesting, although perhaps not quite trustworthy socio-linguistic observation is found in Wendt 1977:50 where he tells the story about some young men visiting Apia for the first time (1921). They found "that the Samoan spoken by the inhabitants of Apia was quaint, unusual - they used the k instead of the t. Perhaps it had something to do with the language of the papalagi, surmised Osovae". Some authors are less precise, e.g. Churchward 1926:16 who talks about these changes having taken place "in most parts of the group" without further attempts to make the areas explicit.
21. There are not many who explicitly support this hypothesis, but curiously enough none who explicitly argue against it.
22. Shore 1982:271 lists as some of the most typical contexts for the formal pronunciation (= t/n-style) schools, churches, radio broadcasts, conversation with palagis, reading and writing.
23. Quotation from Milner 1966:xiv omitted (E.H.).
24. The book is called *E TALA A, E, F*, contains 11 pages and consists of spelling lessons and 14 short chapters of reading lessons. The book was printed at the Mission Press, Huahine 1834. No author is mentioned on the front page, but there is no doubt about the author, cf. G. Pratt's journal from 6 September 1835 and Barff's account of Buzacott's labours (written 1847/48, but referring to his and Buzacott's visit to Samoa in 1834).
25. cf. the following extract from G. Pratt's journal of 14 October 1835:
- In the evening with the help of the native teachers and some boys who also know Tahitian transposed a Hymn that they might at least sing with understanding as they have hitherto learned to read and to sing in a foreign language, tho the teachers give the sense of the Hymn in the language they always sing it in the Tahitian language which only a few who can read know.
26. cf. the following note from Hardie's journal of 1838:
- Found the settlement (in Palauli) althogether in a very unpromising state: the school being badly attended and but very little attention paid to divine things. The Tahitian teacher, who has been here for some time is very inefficient, being advanced in life and having acquired but a very inadequate knowledge of the language.
27. Unfortunately we know very little of the Samoan literary language established by the Wesleyan missionaries from Tonga. None of the books they published in Samoan have survived as far as I know, but judging from the words and sentences in Samoan in the letters and journals of Peter Turner, they seem to have chosen a norm quite similar to the one the LMS chose. Having Tongan as their starting point, this may be explained in the same way as the LMS missionaries' choice of a norm for the language. But I hesitate to draw any definite conclusions here since there are hints in Turner's journals that k was not a marginal letter in his alphabet, cf. his journal of 29 January and 21 May 1835.

28. cf. the quotations from the influential Methodist missionary George Brown (Brown 1916) given above.
29. /l/ is not included in (2), being outside the labial/dental/velar system of sounds.
30. Another problem is that we do not know the exact chronology of these sound changes in Luangiua. Brown 1910:414 gives the name of the island as Lua Niua which seems to indicate that the change $n > g$ is rather recent there. But until further material is available we cannot exclude the possibility that Brown was influenced by his Samoan background and invented a hyper-correct Luangiua form.

REFERENCES

BEAGLEHOLE, J.C.

- 1963 *The Endeavour journal of Joseph Banks 1768-1771*, I-II. Sydney: Angus and Robertson.
- 1967 *The journals of Captain James Cook on his voyages of discovery: the voyages of the Resolution and Discovery 1776-1780*, I-II. Published for the Hakluyt Society. Cambridge: At the University Press.

BIGGS, Bruce

- 1978 The history of Polynesian phonology. In S.A. Wurm and Lois Carrington, eds *Second International Conference on Austronesian linguistics: proceedings: Fascicle 2*:691-716. PL, C-61.

BROWN, George

- 1910 *Melanesians and Polynesians: their lifehistories described and compared*. London: Macmillan.
- 1916 Remarks on Samoan sound changes. *Man* 16:181-183.

BROWNE, Arthur H.

- 1897 An account of some early ancestors of Rarotonga. *Journal of the Polynesian Society* 6:1-10.

BUCK, P.H. (Te Rangi Hiroa)

- 1930 *Samoan material culture*. Honolulu: B.P. Bishop Museum Bulletin 75.

BÜLOW, W. von

- 1897a Samoanische Schöpfungssage und Urgeschichte. *Globus* 71:375-379.
- 1897b Die samoanische Sprache von Heute. *Zeitschrift für afrikanische und oceanische Sprachen. Mit besonderer Berücksichtigung der Deutschen Kolonien* 3:344-352.
- 1900 Die Namen der Samoa-Inseln. *Globus* 78:31-33.

BUSE, J.E.

- 1961 Two Samoan ceremonial speeches. *Bulletin of the School of Oriental and African Studies* 29:104-115.

CHURCHWARD, Spencer

- 1926 *A new Samoan grammar*. Melbourne: Spectator Publishing Co.

ELBERT, Samuel H.

- 1982 Lexical diffusion in Polynesia and the Marquesan-Hawaiian relationship. *Journal of the Polynesian Society* 91:499-517.

ELLIS, W.

- 1831 *A vindication of the South Sea Missions from the misrepresentations of Otto von Kotzebue*. London: Friedrich Westley and A.H. Davis.

FEINBERG, Richard

- 1982 Structural dimensions of sociopolitical change on Anuta. *Pacific Studies* 5/2:1-11.

FUNK, B.

- 1893 *Kurze Anleitung zum Verständnis der samoanischen Sprache: Grammatik und Vokabularium*. Berlin.

GILL, William Wyatt

- 1876 *Myths and songs from the South Pacific*. London: Henry S. King.

HALE, Horatio

- 1846 *Ethnography and philology. United States exploring expedition during the years 1838, 1839, 1840, 1841, 1842 under the command of Charles Wilkes*. Philadelphia: Lea and Blanchard.

HOCART, A.M.

- 1916 A Samoan sound change. *Man* 16:42-43.

KOTZEBUE, Otto von

- 1830 *A new voyage round the world, I-II*. London: Henry Colburn and Richard Bentley.

KRÄMER, Augustin

- 1897 Bericht über neue samoanische Überlieferungen. *Globus* 712:76-78.
1903 *Die Samoa-Inseln, II*. Stuttgart: E-Schweizerbartsche Verlagsbuchhandlung.

LOVE, Jacob Wainright

- 1983 Review of Shore 1982. *Pacific Studies* 7:122-145.

LUNDIE, G.A.

- 1846 *Missionary life in Samoa, as exhibited in the journals of the late G.A. Lundie, during the revival in Tutuila in 1840-41*. Edinburgh: Oliphant.

MARTIN, John

- 1817 *An account of the natives of the Tonga Islands, I-II*. London: John Murray.

MILET-MUREAU, L.A., ed.

- 1797 *Voyage de La Pérouse, I-IV*. Paris: L'Imprimerie de la République.

MILNER, George B.

1966 *Samoan dictionary*. London: Oxford University Press.

MOYLE, Richard

1981 *Fāgogo: fables from Samoa in Samoan and English*. Auckland: University of Auckland Press.

NEFFGEN, H.

1904 *Deutsch-samoanisches Konversationsbuch. O le Tusi-Fetalia'i fa'asiamani ma fa'asamoa*. Leipzig: Otto Fischer Verlag.

PRATT, George

1862 *A Samoan dictionary: English and Samoan and Samoan and English with a short grammar of the Samoan language*. Samoa: London Missionary Society Press.

1977 *Pratt's grammar & dictionary of the Samoan language*. 4th edn, 1911, reprinted. Apia: Malua Printing Press.

ROSSEL, E.P.E. de, ed.

1908 *Voyage de D'Entrecasteaux, envoyé à la recherche de La Pérouse ...*, I. Paris: L'imprimerie impériale.

SHORE, Bradd

1982 *Sala'ilua: a Samoan mystery*. New York: Columbia University Press.

SIERICH, O.

1900-04 *Samoanische Märchen*. *Internationales Archiv für Ethnographie* 13:223-237, 14:15-23, 15:167-200, 16:88-110, 17:182-188.

SMITH, S. Percy

1898 *Hawaiki: the whence of the maori: being an introduction to Rarotonga history*. *Journal of the Polynesian Society* 7:136-177.

STAIR, John B.

1897 *Old Samoa, or flotsam and jetsam from the Pacific Ocean*. London: Religious Tract Society.

STUEBEL, O.

1895 *Samoanische Texte*. Herausgegeben von F.W.K. Muller. Königliche Museen zu Berlin. Veröffentlichungen aus dem königlichen Museum für Volkerkunde IV. Baand - 2.-4. Heft. Geographische Verlagsbuchhandlung Dietrich Reimer. Berlin.

THOMSON, Basil, ed.

1915 *Voyage of H.M.S. Pandora*. London: Francis Edwards.

VIOLETTE, Le R.P.L.

1870 *Notes d'un missionnaire de Samoa (Océanie centrale)*. *Les Missions catholiques*. *Bulletin hebdomadaire de l'oeuvre de la propagation de la foi*, III. Lyon.

WALPOLE, Fred

1849 *Four years in the Pacific in Her Majesty's Ship "Collingwood" from 1844 to 1848*, II. London: Richard Bentley.

WENDT, Albert

1977 *Pouliuli*. Honolulu: The University Press of Hawaii.

WILLIAMS, John

1834 *E TALA A,E,F*. Huahine: Mission Press.

1837 *A narrative of missionary enterprises in the South Sea Islands*.
London: J. Snow.

