The Negative Existential Cycle Revisited

Abstract

Based on cross-linguistic data and the postulation of six language types, the Negative Existential Cycle was proposed by Croft (1991) as a way of modeling the evolution of standard negation markers from existential negators. The current investigation tests this model by applying it to two language families, Slavonic and Polynesian, checking which cycle types are instantiated in these families and outlining pathways of transition between different types. In Slavonic, we observe one type without variation and two types with internal variation. All cycle types are instantiated in Polynesian, which is correlated with characteristics specific to this family. Three pathways are outlined for the partial or complete transfer of negative existentials into the verbal domain. The first is contingent on negative existentials being used in specific constructions and the direct inheritance or expansion of use of these constructions; the second involves negative existentials being used as emphatic negators external to the proposition and their subsequent reanalysis as clause internal negators without any additional pragmatic content. The third pathway, observed in Polynesian only, is through subordination processes leading to the re-interpretation of negative existentials as general markers of negation. Additionally, a time dimension needs to be added when modeling this cycle, as its completion, i.e. the negative existential turning into a full-fledged marker of standard negation, appears to take longer than 2,000 years.

1. Introduction¹

The evolution of negation markers in verbal predications is often described as a grammaticalization process in which an emphatic element in the negated phrase gradually loses the sense of emphasis and is eventually interpreted instead as the regular negator. This process is commonly referred to as the *Jespersen Cycle*, a term suggested by Dahl (1979)². Croft (1991) has suggested negative existentials as another source of markers of verbal negation. Based on cross-linguistic data the current author proposes a diachronic model of this evolution called the *Negative Existential Cycle*. The goal of this investigation is to test the model presented in Croft (1991) by applying it to two distinct language families, Slavonic and Polynesian.

Before proceeding with a more detailed outline of the model, and the subject matter of this article, a note on terminology is in order. The term *Standard Negation (SN)* refers to the negation of simple indicative sentences using an overt verb predicate, as in (i) *Mary doesn't smoke* (Dahl 1979, Miestamo 2005). Sentences such as (ii) *Mary is not a nurse* (*ascriptive sentence*) and (iii) *There are no dementors* (*existential sentence*) are excluded from the domain of SN because in many languages they are negated by a strategy different from SN. The negators used in such clauses are labeled *ascriptive* and *existential negators*, respectively, in this work; collectively, they are called *special negators*. For the notion of *construction*, I follow (Croft 2001: 18), whereby constructions are defined as symbolic units of form and meaning linked by symbolic correspondence. Constructions can be *atomic*, that is consisting of a single lexical item, or they can cover collocational schemas such as *BE going to INF*, which expresses future time reference for the verb in the infinitive slot. In this article, I will be

¹ I would like to thank Matti Miestamo and William Croft for all the discussions we had in the course of this work; likewise, thanks are due to Östen Dahl for always sharp and to the point comments and references, to the two anonymous reviewers whose criticism, albeit harsh, guided the article into its current form, and finally, to Lamont Antieau for his careful proofreading. For the financial support I gratefully acknowledge The Bank of Sweden Tercenary Foundation (Riksbankens Jubileums Fond), grant nr P10-0348:1.

² See also van der Auwera (2010) for a more recent discussion on the development of negation markers.

looking at constructions in which there is a constant element: a negative existential. Such constructions are defined as *item-based* constructions in Radical Construction Grammar, cf. (Croft 2001: 3–74).

As stated above, Croft (1991) puts forth a hypothesis concerning the evolution of SN from existential negators as their use is gradually expanded into negating verbal predications. The hypothesis is formulated as cyclic model. It is based on cross-linguistic evidence and consists of six language types. Three of these types are invariant in their expression of negation, and the remaining three exhibit variation in their negation strategies. Croft subsequently uses these types to propose a diachronic cycle for the evolution of SN from existential negators. The types outlined in the cycle are as follows. In type A, the SN strategy is used to negate both verbal and existential sentences. In type A~B, there is a special existential negator that is limited to particular contexts; for example, this type includes languages in which the special existential negator is restricted to the present tense. Type B comprises languages in which existential predications are negated by a special strategy only. Type B~C covers languages in which the special existential negator is also used to negate verbs in certain contexts/grammatical categories, that is, there is variation within the domain of SN. In languages classified as type C, the existential negator is regularly used to negate verbs; however, the strategy used to negate existential predication still differs from SN in one or more respects. For instance, the existential negator may still replace the affirmative existential under negation, or there may be different syntactic constructions for the negation of verbal and existential predications. The final stage in the completion of the cycle is represented by type C~A, whereby the negative existential negator has begun to be used with the affirmative existential to yield emphatic/pragmatically marked constructions. Gradually, this additional pragmatic content is lost, and an SN marker that is used with all construction types effectively evolves, which is to say that the cycle of negation has returned to type A. The cycle is schematically presented in Figure 1. Only the invariant types are shown in the original graphic representation of the cycle.

Figure 1. *Negative Existential Cycle* (hereafter also Cycle), adapted from Croft (1991: 6)

As stated above, the model of the evolution of negation offered in Croft (1991) is a variationist model based on cross-linguistic data. It is typically quoted at face value, cf. Dahl (2010), Horn (2001), Hovdaugen and Mosel (1999), Kahrel and van den Berg (1994), van der Auwera (2010), and Mosegaard Hansen (2011), but it has never been tested on historical-comparative data, which is what the present investigation intends to do. As we shall see below, applying the model to comparative data from two distinct language families reveals that it is in need of revision in several respects. A byproduct of this study is the presentation of a basis for comparison between results yielded by samples with world coverage and a family-based sample. In my typologically diverse sample of 95 languages, the breakdown of the types in the negative existential cycle is presented in Figure 2 below, see also Map 1.

Figure 2. *Application of the Negative Existential Cycle to a cross-linguistic sample*

As shown in Figure 2, the most populated types are A and B. However, the types with variation A~B and B~C, as well as type C, prevail in both of the families examined here. On the other hand, in the Uralic languages, type A and B~C are the most populated ones (cf. Veselinova forthcoming). Hence, the types with variation need to be given greater prominence. Furthermore, complex variation patterns do not receive adequate coverage in this model. In order to rectify this, I have, when necessary, classified some languages into several types of the Cycle. In the figure above, the count includes only languages that clearly fall into one type of the Cycle, thus the sum of the languages presented as types in Figure 2 is 93. The remaining two languages, Babole and East Futuna, had to be classified into several types because of complex variation patterns.

The application of the model to Slavonic and Polynesian yields different results. With regard to the Slavonic languages, the Cycle, as currently formulated, does not appear to be operational for the Bulgarian and Macedonian negative existential; with some reformulation, however, it may be seen as operational for the negative existential in Russian. On the other hand, several different mechanisms for its operation can be outlined for Polynesian.

Generally, the data examined here suggest that the evolution of negative existentials into markers of SN is highly dependent on the inheritance or expansion of particular constructions. Croft (1991: 17, 23) addresses the use of existentials in general in auxiliary constructions as a channel by which they might break into the domain of SN. However, it needs to be emphasized that it is the constructions in which negative existentials are used that widen their domain of use and not simply the negative existentials as individual lexical items.

This article is organized as follows. In section 2, I discuss methodological issues. Overviews of negation strategies, followed by applications of the negative existential cycle to Slavonic and Polynesian data, are provided in sections 3 and 4, respectively. A discussion of the results and conclusions are presented in section 5.

2. Method

The current study is based on 15 Slavonic³ (Map 2) and 22 Polynesian languages (Map 4). These families were chosen because they were considered maximally different in several respects, namely, grammatical structure, geographic spread, and diachronic age.

The Slavonic languages are part of the Indo-European phylum. There are 18 Slavonic languages currently listed in Ethnologue, <http://www.ethnologue.com>. These languages are traditionally split into three groups – East, West, and South – and cover a more or less

³ The count 15 includes 14 modern languages plus Old Church Slavonic.

contiguous territory of about 4 million square kilometers in parts of Central and Eastern Europe. The diversification of Early Slavonic dialects is usually dated to the 7th–8th century, cf. Schenker (1993: 114).

Polynesian languages belong to the Oceanic branch of the Austronesian phylum, and, according to Ethnologue, consist of 37 individual languages. They are spread over a large territory in the Pacific of around 41 million square kilometers. Part of this area is conventionally referred to as the Polynesian Triangle, with Hawaii at the northernmost apex, Easter Island at the eastern edge, and New Zealand at the southwest end. Polynesian languages are divided into two main groups: Tongic and Nuclear Polynesian, with the Tongic group comprising two languages, Tonga and Niue, and the Nuclear Polynesian being further split into two sub-groups: the East and the Samoic Outliers,⁴ cf. Marck (2000), Clark (1976), Besnier (1992). The diversification of the family is thought to have begun some 2,000 years ago, cf. Spriggs (1995: 121) for further details.

What Slavonic and Polynesian languages have in common is that their proto-languages must have been fairly uniform, since the modern languages in each family exhibit very similar properties to one another, and reconstructions are possible for both families. With regard to negation marking, however, the two families show remarkable differences. There is no doubt that the most common negation marker in Proto-Slavonic was **ne*, cf. Table 2 in Appendix B in which comparative data are presented. In Polynesian, there are three main forms of the SN morpheme, plus several less common ones; all the forms are very diverse and clearly not reducible to a single Proto-Polynesian (henceforth PN) form, cf. Table 3 and Table 4 in Appendix B.

For the data collection, I followed the questionnaire presented in the Appendix C. My primary sources were grammars; however, since it was often the case that the information I needed was not provided by traditional descriptions, I had to consult either native speakers or researchers with a good command of the languages in question. Thus, elicitation was an important part of this investigation.

3. Negation strategies and the Negative Existential Cycle in Slavonic

3.1 A brief introduction to standard and existential negators in Slavonic

Standard negation in Slavonic is expressed by the pre-verbal particle *ne*, illustrated by Bulgarian in (1b) below. The particle is freestanding in the East and South groups, while in the West it is prefixed to the verb it negates⁵. Additionally, in the Slavonic languages of the Balkans, there are different standard negators for the future. In Bulgarian and Macedonian, the existential negator is used as a standard negator, cf. (1i). below. In Serbian/Croatian, forms of the verb ‘not want’, *neću* ‘not.want.1SG.PRS’, etc., are used in this function (cf. example (8), as well as a more detailed discussion on this issue in Section 3.3 below).

- (1) Bulgarian (South Slavonic)
 Standard negator, non-future *ne*
 a. *Maria pee*
 Maria sing.3SG.PRS
 ‘Maria sings.’
 (own data)

⁴ The label *Outliers* is used to refer to the fact that not all Polynesian languages are spoken in the area known as Polynesia, cf. Lynch (1998).

⁵ This may not be reflected in the orthography of a particular language. For instance, in Czech, Slovak and Sorbian, the negative particle is written together with the constituent it negates, whereas in Polish, it is not.

- b. *Maria ne pee*
 Maria NEG sing.3SG.PRS
 ‘Maria does not sing.’
 (own data)
 Existential negator *njama*
- c. *Ima div-i kotk-i*
 have.3SG.PRS wild-PL cat-PL
 ‘There are wild cats.’
 (own data)
- d. *Njama div-i kotk-i*
 Not.have.3SG.PRS wild-PL cat-PL
 ‘There aren’t any wild cats.’
 (own data)
- e. *Todor ne e tuk, a navən*
 Todor NEG is here but outside
 ‘Todor is not here but outside.’
 (own data)
- f. *Todor go njama*
 Todor 3SG.ACC not.have
 ‘Todor is not here’/‘Todor is dead.’⁶
 (own data)
 Standard negator, future: *njama* [*da* PROPOSITION]
- g. *Dovečera shte xodja na kino*
 Tonight FUT go.1SG.PRS to cinema
 ‘I will go to the movies tonight.’
 (own data)
- i. *Dovečera njama da xodja na kino*
 Tonight not.have.3SG.PRS SUB go.1SG.PRS to cinema
 ‘I will not go to the movies tonight.’
 (own data)

A special negative existential is observed in all languages of the Eastern group, plus Serbian/Croatian, Bulgarian, Macedonian, Polish and Kashubian, cf. Map 2.

The general characteristics of the existential negators in Slavonic are as follows: (I) They always replace their affirmative counterparts, cf. 0(1c-d) above for an example; (II) They are incompatible with contrastive focus constructions, cf. 0e, in which the negative existential *njama* would be ungrammatical. (III) Similarly to affirmative existentials, negative existentials collocate with indefinite subjects that typically have a generic reading. If the subject is definite, as in (1f), it has to be marked as an object. (IV) The existential negators are restricted to the present tense in most languages; this is illustrated by Ukrainian in (2). In Bulgarian and Macedonian, the existential negator *njama/nema* takes past tense morphology and is used in past tense contexts as well, cf. (3).

(2) Ukrainian (East Slavonic)

- a. *Moroz pripi kaje zaté komar-i:v nemaje*
 Frost bite.3SG.PRES but at least mosquito-M.PL.GEN there.is.not
 ‘The frost is biting, but at least there are no mosquitoes.’
 (Pugh and Press 1999: 292)

⁶ This latter interpretation depends on context.

- b. *Kontsert-u ne bu-lo*
concert-GEN NEG be-N.PST
'There was no concert.'
(Humesky 1980: 89)
- (3) Bulgarian (South Slavonic)
Včera njama-še koncert
Yesterday not.have-3SG.IMPFT concert
'There was no concert yesterday.'
(own data)

In terms of origin, Slavonic negative existentials are transparent fusions of the SN particle *ne* and a third person form of the verb *imam* 'have'⁷ in all languages, except Russian. The Russian existential negator *net* is the least transparent form. Generally, there is not much information available about the process whereby *net* evolved as a form and as a sentence predicate. A summary of the earliest occurrences of the form in Old Russian can be found in Veselinova (2010: 203). It is most likely that the form *net* resulted from the univerbation of the phrase **ne je tь* 'NEG is 2SG.DAT', lit 'not is to you', an erstwhile locative-possessive construction in which the subject is marked by the so-called dative of interest, cf. Stassen (2009: 101–108) for a more detailed discussion of such constructions.

3.2 Negative existentials in other domains of negation

As mentioned above, in Bulgarian and Macedonian, the existential negator *njama/nema* is used as the standard negator in the future tense. It should be noted that its negation requires a different construction than the negation of non-future tenses. Specifically, verbal sentences in the future tense are negated by a complex clause construction, in which the existential negator is a higher predicate in the main clause, and the negated proposition is in the subordinate clause, cf. (1i) above.

As pointed out in Veselinova (2013: 118–119, in passim), negative existentials are commonly used as *pro-sentences*. This latter concept was introduced by Bernini and Ramat to describe "sentences with the same propositional content as the utterance of the preceding context" (Bernini and Ramat, 1996: 89). It is also relevant to point out that while the functions of sentence particle, negative interjection and pro-sentence are all different from each other, they are often expressed by one and the same form. This is the case in Russian, cf. (4) below. We will also see similar examples in several Polynesian languages in Section 4.2.

- (4) Russian (East Slavonic) (Russian National Corpus)
Predicate
- a. *Sil u neě net*
strength.F.PL.GEN in her NEG.EX
'She does not have any strength'
lit. 'strengths in her there.is.not'
Russian National Corpus [Ordinamenti // "Screen and scene", 2004.05.06]

⁷ The Bulgarian citation form is used here.

- Sentence particle
- b. *Net, ja tak ne дума-л i tak ne ме́чта-л*
 No, I So NEG think-PST.SG.M and so NEG dream-PST.SG.M
 ‘No, I neither thought nor dreamed that way.’
 Russian National Corpus, Evgenij Grishkovets, *Odnovremenno* (2004)
- Pro-sentence
- c. *I tut my ne zna-em v kak-oj moment*
 And PART we NEG know-1PL.PRS in what-SG.M moment
my počuvstvu-em a v kak-oj net
 we feel-1PL.PRS but in what-SG.M not
 ‘And then we don’t know at which moment we feel and at which not.’
 Russian National Corpus, Evgenij Grishkovets, *Odnovremenno* (2004)

The counts on *net* in the Russian National Corpus cited in Veselinova (2013: 129) show that it is much more common to use this word as a pro-sentence or sentence particle than as a main predicate. In three out of four major parts of the corpus, the use of *net* as a sentence particle hovers around 60% and nears 70% in informal speech.

3.3 Application of the Negative Existential Cycle to the Slavonic data

Most Slavonic languages with a negative existential fall under the type A~B, since their special negators are restricted to the present tense, cf. (2) from Ukrainian above. Bulgarian and Macedonian fall under type B~C, since their existential negator is also used as SN to negate verb predicates in the future tense, as illustrated by Bulgarian in (1i). above. A complete presentation of the Cycle applied to the Slavonic family can be seen in Figure 2, as well as in Table 2 in Appendix B.

Figure 3. *The Negative Existential Cycle applied to Slavonic data*

At first glance, it appears that Bulgarian and Macedonian provide a good example of the existential negator expanding its domain. However, the data from Old Church Slavonic (OCS) reveal a different situation. In OCS, there were four different constructions used to express futurity, as shown in (5a). One of these involved the verb *iměti* ‘have’ plus an infinitive, cf. (5a) and (5b).

(5) Old Church Slavonic (South Slavonic)

- a. *iměti* ‘have’ + infinitive
xoteti ‘want’ + infinitive
nachati/vychati ‘begin’ + infinitive

bude ‘be.future’ + participle
(Duridanov 1991: 418)

- b. *ne imatъ ostati sьde kamenъ na kamen-i*
NEG have.3SG.PRS leave here stone on stone-ACC.PL
‘There will not be left here one stone on another.’
(Duridanov 1991: 418)

According to Duridanov (1991: 418), as well as Đorđić (1975: 200–201), the *have*-future construction appears to have been used much more frequently in negated sentences in OCS than in affirmative ones. Consequently, the construction with the fused form *njama* in modern Bulgarian, cf. (1i) above, results from the negated future construction in OCS. Thus, we observe an inherited construction. Apart from the fusion between *ne* and *imatъ* > *njama*, no other change has actually taken place⁸. The Negative Existential Cycle has not been operational in Bulgarian and Macedonian, which otherwise represent excellent examples of the transitional type B~C.

Generally, what is important to note is that a construction as a whole has been transferred from one diachronic stage of a language to another, cf. also discussions of this issue in Barðdal and Eythórsson (forthcoming), Hilpert (2009), Lehmann (2008), Traugott and Trousdale (2010). Data from Hawaiian in Section 4.2.2.1 below provide further illustration of the role of constructions in the transfer of negative existentials into the domain of SN.

The data on the Russian negative existential suggest that a contextually restricted existential negator may expand to other domains of negation. As already mentioned, in the Russian National Corpus *net* is more frequent as a sentence particle than as a predicate. It should also be noted that a form related to *net*, *netu*⁹, is adopted as SN in some Russian-based pidgins such as Sino-Russian¹⁰.

- (6) Sino-Russian (Pidgin) (Stern 2002: 23), also cited in Veselinova (2013: 129)
Naša ego ponimaj netu
1PL 3SG understand NEG
‘We don’t understand him.’

If the facts from the Russian National Corpus paired up with Sino-Russian are taken as evidence for a domain expansion of *net*, then we have partial confirmation of the Cycle. However, it is important to point out that there is a gap in the diachronic path in that stage B, in which a special negator fully established in all categories, is simply missing. In Russian, the special negator is restricted to the present tense in its predicate function, and there are no indications whatsoever that it can be used in existential or possessive predications with past or future time reference. Consequently, the expansion process can be represented as in (7).

⁸ It is unclear when and how the fusion took place. The uses of the fused form as a negative existential are dated to the 1200s, cf. Georgiev and Duridanov (1995). There is no information on the dating of *njama* as a fused form in the negated future construction.

⁹ The counts for *netu* in the Russian National Corpus were performed later than the ones for *net*, and the structure of the corpus had changed somewhat in the meantime. In addition, there is apparently a mistake somewhere in the corpus because I arrive at the same figure regardless of whether I search the entire spoken corpus or its main parts, and public or spontaneous speech. There is a third part to the spoken corpus called *Movies*, but it was inaccessible on March 25, 2011. This is why in the counts for *netu*, there is no distinction between its frequencies in formal and informal speech, whereas there is such a distinction in the counts for *net*. In any case, the frequencies for *netu* are as follows: 5250 / 74 893 217 (0, 007%) in fiction texts; 870 / 101 333 334 (0%) in non-fiction texts and 1727 / 9 526 425 (0, 02%) in the spoken corpus. The form *netu* is tagged as predicate only in all genres.

¹⁰ This was pointed out to me by Östen Dahl.

(7) $A > A \sim B > [\text{gap}] > B \sim C$

Thus, it is fully possible for a contextually restricted existential negator to widen its domains of use. Croft (1991: 22) comments that the sequence of diachronic processes (in my interpretation, stages of the Cycle) is not absolute. The data from Russian not only confirm this statement but also show that the stage where an existential negator is fully established as such can be skipped entirely. As we shall see below, the combination of $A \sim B$ and $B \sim C$ stages is observed also for other lexicalizations of negation.

The Slavonic data suggest that the Negative Existential Cycle can be expanded in yet another respect. Specifically, it should allow for lexicalizations of negation other than special negative existentials to enter the Cycle, thereby creating variation in the expression of negation for a particular sense but also in some parts of the domain of SN (in terms of the Cycle, types $A \sim B$ and $B \sim C$ appear together). In many languages, including Slavonic, we often observe a handful of verbs, other than the copula and the existential verb, that are negated in a special way. Such verbs tend to mean ‘want’, ‘like’, ‘know’, ‘can’, ‘be able to’ and a few other senses¹¹. Frequency counts from the Slovak National Corpus show that the negated counterparts of the verb senses mentioned above are at least as frequent as the positive words that correspond to them. This is unusual per se because negated forms typically exhibit much lower frequencies than affirmative ones, cf. Miestamo (2005: 8). In the Slavonic languages, such lexicalizations of negation show a western cline, cf. Map 4. In some languages, they remain lexicalized instances of a negative sense, restricted to the present tense, whereas in others, they expand to the domain of standard negation. For instance, in Serbian/Croatian the lexicalized forms of the sense ‘not want’ have become the standard negators for the future, as shown in (8c) below.

(8) Serbian (South Slavonic)

- a. *neću* ‘not want.1SG.PRES’/SN.FUT < *ne* + *hoću* ‘want.1SG.PRES’
nećeš ‘not want.2SG.PRES’/SN.FUT < *ne* + *hoćeš* ‘want.2SG.PRES’
neće ‘not want.3SG.PRES’/SN.FUT < *ne* + *hoće* ‘want.3SG.PRES’ etc.
(Dejan Matić p.c.)
- b. *Maria će pevati*
Maria FUT sing.INF
‘Maria will sing.’
(Dejan Matić p.c.)
- c. *Maria neće pevati*
Maria NEG.FUT sing.INF
‘Maria will not sing.’
(Dejan Matić p.c.)

Croft (1991: 14–15) comments on this issue with regard to special negative imperatives/prohibitives, but the entire issue of the lexicalization of negation must become more visible and explicit in a diachronic model of the evolution of negation, cf. also van der Auwera (2010).

To summarize, the application of the Negative Existential Cycle on the Slavonic family has revealed that the model can be elaborated in several respects. One, the mere occurrence of a negative existential in a particular construction does not have to imply that it expanded its domain of use. Constructions may be simply inherited from one diachronic stage to another; this is what we observed with the negated future construction in Bulgarian and Macedonian.

¹¹ See Jespersen (1917) for an early discussion of univerbations of similar words with the negator in English, Latin and a few other Indo-European languages.

Two, lexicalization and reanalysis of specially negated lexical items should be part of the model as these too can evolve into SN, cf. Serbian/Croatian [*ne* ‘SN’ + *hoću* ‘want.1SG.PRES’] > *neću* ‘not want.1SG.PRES’ > SN for future tense. Thus, it is a process in which not just negative existentials but also other lexicalizations of negation are involved. Three, contextually restricted special negators may begin to expand their domain of use into some partial takeovers of the domain of SN. This is shown both by the Russian negative existential *net*, and the Serbian *neću* ‘not want’-forms, both restricted to the present tense, cf. also Veselinova (forthcoming) for similar data from Uralic languages. Finally, negative existentials appear to be carried over into the domain of SN via their use as prosentences and/or negative interjections. Croft (1991: 21) cites (Schwegler 1988) on this issue. The data examined here allow us to specify stages of this development, outlined in (9) below

- (9) NegEx > Pro-sentence > SN
- (i) Negative existentials acquire phrasal properties easily >
 - (ii) Start to function as pro-sentences >
 - (iii) Negators external to the proposition at hand >
 - (iv) Negators internal to the proposition at hand.

The data from Russian illustrate stages (i), (ii) and (iii) of the pathway in (9) above; data from Sino-Russian illustrate (iv). The development from stage (iii) to (iv) is inferred rather than shown. We still need data to document this particular transition.

4. Negation strategies and the Negative Existential Cycle in Polynesian

Negation in Polynesian is a much more complicated phenomenon than in Slavonic. As already mentioned, negation markers in this family are very diverse, having several diachronic sources rather than a single one, which is a very unusual characteristic. The family is also well known for commonly employing higher verbs to express SN, a feature that is not considered to be common cross-linguistically¹². Other features, which are relevant for the issues discussed here and which most Polynesian languages appear to have in common, are as follows. The neutral word order in most Polynesian languages is VSO. In most of these languages, word class distinctions are syntactically defined. Verb phrases are introduced by TAM particles, while noun phrases are introduced by presentative particles and may take possessive marking.

This section is organized as follows. A general overview of negation strategies in Polynesian is presented in Section 4.1. Application of the Negative Existential Cycle to the Polynesian data can be found in Section 4.2. Comparative data on reconstructed Proto-Polynesian negation markers and their reflexes in modern Polynesian languages can be found in Section 4.3.

¹² The use of a higher verb to express SN is associated mostly with Malayo-Polynesian, not just Polynesian, cf. Dahl (2010) Miestamo (2005), and Payne (1985). Tongan is the language of choice when illustrating this phenomenon: it appears in all of the works just mentioned, with one and the same example from Churchward (1953). Due to the fact that I too have a rich data set for Tongan, this language will appear in my work as well. But generally, more systematic cross-linguistic study of this feature is still missing. In Miestamo (2005), it is subsumed under the category A/Fin/NegVerb, that is, asymmetric negation according to finiteness in which the marker of negation is a verb, either an auxiliary or a higher verb in a complex clause. An overview of the data presented in Miestamo (2005: 370-410) shows that languages with higher verbs are located mainly in North America, specifically in the Northwest (Salishan: Halkomelem, Shuswap and Squamish; Chimakuan: Quileute; Washakan: Makah). In addition, a couple occurrences are observed in Meso-America (Mam and Mixe-Zoque) and one in South America (Wari’). These data, paired up with erstwhile statements about negation in Polynesian, suggest that expressing negation by means of higher verb is most probably a phenomenon bound to very specific families and areas of the world.

4.1 Standard and existential negators

The two possible ways to express SN in Polynesian, by a particle or by a higher verb, are illustrated below. All Polynesian languages under study, except Niue, have a special negative existential.

In Samoan, SN is expressed by the particles *lē* or *le'i*, which follow the preverbal pronoun and the TAM particle, cf. (10b). Existential predications are negated by a different strategy: the lexical item *leai* replaces the affirmative existential *iai*, cf. (10c-d).

(10) Samoan (Nuclear Polynesian, Samoic Outlier)

Standard negation

- a. 'ou te alu
1SG GENR¹³ go
'I will go.'

(Aiga Jonsson p.c.)

- b. 'ou te lē alu
1SG GENR NEG go
'I will not go.'

(Mosel and Hovhaugen 1994: 376)

Existential negation (special strategy)

- c. E iai ta'vale i Sāmoa nei
GENR exist car LOC.DIR Samoa now
'There are cars in Samoa now.'

(Mosel and Hovhaugen 1994: 526)

- d. E leai ni ta'vale i Sāmoa nei
GENR not.exist ART.NSP.PL Car LOC.DIR Samoa now
'There are no cars in Samoa now.'

(Mosel and Hovhaugen 1994: 526)

In Tongan, SN is expressed by a complex clause in which the negation marker *'ikai* is the predicate of the main clause and the negated verb appears in the proposition of the subordinate clause, cf. (11b). Existential clauses are negated by *'ikai* as a sole predicate in a simple clause, cf. (11d). The non-existence of something can also be expressed by the lexical verb *hala* 'lack' in a simple verbal predication, cf. (11e).

(11) Tongan (Polynesian, Tongic)

Standard negation

- a. Na'e kei kata ((')a) e ongo ki'i ta'ahiné
PST still laugh ABS ART DU CLF girl.DEF
'The two little girls were still laughing.'

(Broschart 1999: 97)

- b. Na'e 'ikai ke kata 'a Pita
PST NEG SUB laugh ABS Pita
'Pita did not laugh.' ([It] was not that Pita laugh[ed])

(Broschart 1999: 104)

¹³ General tense-aspect mood particle. This particular abbreviation is used in the Samoan grammar.

- Existential negation (a special strategy)
- c. *'oku 'i ai ha me'a*
 PRS LOC there NSP thing
 'There is something/someone.'
 (Broschart 1999: 101)
- d. *'oku 'ikai ha me'a*
 PRS NEG NSP thing
 'There is not anything.'
 (Broschart 1999: 101)
- e. *'oku hala e pa'angd ki ai*
 PRS lack ART money.DEF ALL there
 'There is no money for it.' [lit. the money is lacking for it]
 (Broschart 1999: 102)

The existential negators in Polynesian languages are commonly used as pro-sentences or negative interjections, (cf. Samoan in (12) below for an example). In fact, this use is observed in 15 out of the 17 languages with special negative existentials.

(12) Samoan (Polynesian, Nuclear, Outlier)

A: *'Ua sai Seu*
 TAM come Seu
 'Has Seu come?'

B: *Leai*
 NEG.EX
 'No.'

(Mosel 1999: 9)

In three languages, Kapingamarangi, Hawai'ian and Samoan, the negative existentials are also used in some domains of SN. This is illustrated by Kapingamarangi below.

(13) Kapingamarangi (Polynesian, Samoic Outlier, Ellicean)

- a. *Ko au ku iroa, ko Iete tē iroa*
 NOUN.A I PRS know ACT Iete NEG know
 'I know, Iete does not know.'
 (Elbert 1948: 30)

- b. *Au tē hihai*
 1SG NEG like
 'I do not like it.'
 (Elbert 1948: 30)

- c. *Au hakarē hihai*
 1SG NEG.EX like
 'I don't like it. I don't want any.'
 (Elbert 1948: 30)

- Existential predications
- d. *Ti pāhi ngeiha i ai ti ēitu*
 POSS side northern in/at exist POSS spirit
 ‘There is a spirit at the northern side.’
 (Elbert 1948: 17)
- e. *Hakarē e roko*
 NEG.EX TAM many
 ‘There are not many.’
 (Elbert 1948: 30)

With regard to origin, negative existentials in Polynesian language appear to have resulted either from the univerbation of a negation marker and a collocate, cf. Samoan *leai* < *lē* ‘SN’ + *ai* ‘EX.PART’ or from a lexical item with a negative content, cf. Tahitian *’ore* ‘disappear, no longer exist’.

4.2 Application of the Negative Existential Cycle to the Polynesian data

Applying the Negative Existential Cycle to Polynesian languages yields very different results from its application to Slavonic. As shown in Figure 4 below, in Polynesian languages all of the stable types in the Cycle are represented, whereas this is not the case in Slavonic languages. Eighteen of the 22 Polynesian languages that were studied can be classified as a single type from the Cycle. There are also four languages in which complex variation patterns are observed. These languages are classified in more than one type of the Cycle. Since in these languages there are several alternative forms to express SN and negate existence, we can claim that these different expressions have reached different stages in the Negative Existential Cycle (William Croft, p.c.).

The Polynesian data are discussed according to assigned types from the Negative Existential Cycle in two subsections: one for languages that can be assigned to one type only and one for languages classified as several types.

4.2.1. *Languages that can be classified into one type only.* As stated above, 18 languages from the Polynesian dataset can be unequivocally classified as one of the types proposed in Croft’s Cycle, cf. 0 below with the number of languages assigned to each type.

Figure 4. *The Negative Existential Cycle applied to Polynesian languages with simpler variation patterns, classified in one type only*

In Polynesian, the most populated types are B and C. As discussed earlier, in type B existential predications can be negated only by a special negator, and in type C the special

existential negator is formally the same as SN, but the two differ in terms of their syntagmatic properties.

Niue is classified as type A despite the fact that there are two negation markers, *nakai* and *ai*. Both *nakai* and *ai* are used in more or less free variation in verbal, ascriptive and existential predications. *Nakai* is the more common one; it is also used as a pro-sentence and as the regular word for ‘No’. Syntactically, these negation markers behave as verbs in that they immediately follow the sentence-initial TAM marker.

(14) Niue (Polynesian, Tongic)

Standard negation

- a. *To fano a pogipogi a ia*
FUT go.SG ART tomorrow S 3SG

‘He will go tomorrow.’

(Kaulima and Beaumont 2000: 26)

- b. *Ne nakai fano kehe a ia*
PST NEG go.SG away S 3SG

‘He didn’t go.’

(Polinskaja 1995: 71)

Existential negation (=SN)

- c. *Hā i ai e tau maka he oneone i Avatele*
EX LOC LOC ART PL rock on sand in Avatele

‘On the beach in Avatele, there are rocks.’

Lit. ‘There are rocks on [the] sand in Avatele.’

(Polinskaja 1995: 78)

- d. *Nakai hā hinei e tama*
NEG EX here ART boy

‘There are no boys here.’

(Polinskaja 1995: 78)

In Tokelauan, Tuvaluan, Nukuoro, Rennell-Bellona, and Mele-Fila, the only way to negate existential predications is by a special negator; SN is completely ruled out for their negation. Consequently, these languages are classified as type B. Data from Tuvaluan are used to illustrate this in (15).

(15) Tuvaluan (Polynesian, Nuclear, Samoic Outlier, Ellicean)

Standard negation

- a. *Ne ffuti nee loane te ika teelaa.*
PST pull ERG Ioane the fish that

‘Ioane caught that fish.’

(Besnier 1986: 246)

- b. *Au see naa lookoo maalamalama nee au ana pati*
I NEG quite quite understand ERG I his word

‘I didn’t quite understand what he said.’

(Besnier 2000: 180)

Existential negation (a special strategy)

- c. *A suka koo isi i te sitoa*
CNT sugar INC exist at the store

‘Now there is sugar at the store.’

(Besnier 2000: 121)

- d. *Kae fai peefea telotou vai pulaka me e seeai*
and do how 3PL.POSS garden swamp.taro because NON.PST NEG.EX

se paepae i ei
a boundary.stone at ANP

‘And how [in the world] do they manage [to cultivate] their taro swamp given the fact that there are no [marked] boundaries around it?’

(Besnier 2000: 121)

As shown in (15b), in Tuvaluan, a particle, *see*, is used for the negation of verbal predications; the special negator *seeai*¹⁴ is used as the negation of existential predications, cf. (15d).

In Samoan, the negative existential can be used as SN in at least some contexts, cf. (16b). below, where the use of *leai* in a verbal predication produces a pragmatically marked negated statement. Following Croft’s definition, this language is classified as type B~C.

(16) Samoan (Polynesian, Nuclear, Outlier)

a. *E leai se mea*
TAM NEG.EX ART thing
‘There is nothing.’

b. *E leai gāoi sina*
TAM NEG move sina
‘Sina did not move at all.’

(Hovdauen and Mosel 1999: 18)

In Tongan, Maōri, Rapa Nui, Rarotongan and Vaekau-Taumako¹⁵, the SN marker is formally identical with the existential negator, cf. (11) above and (25) below. The constructions used for the negation of verbal and existential predications differ from those used for SN. As demonstrated by the data above from Tongan in (11), negating an existential predication is done by a simple sentence. In both of these languages, the negation of verbal predications results in a complex sentence in which the negation marker is the sole predicate in the main clause. This warrants classifying these languages as type C, which by definition includes languages in which the existential negator is used as SN but still exhibits special properties when used to negate existential predications.

4.2.2. *Languages that can be classified into several types of the Negative Existential Cycle.* Hawai’ian, Kapingamarangi, Tahitian and East Futuna are languages with very complex variation patterns. These have proven to be rather challenging to accommodate within the Cycle, but the data from them are also very instructive when trying to outline the possible pathways whereby negative existentials expand their domain of use.

4.2.2.1. *Hawai’ian.* The SN negator in Hawaiian is expressed by the sentence-initial word ‘*a’ole*. There is a special negative existential, ‘*a’ohe*, that is likewise sentence-initial. Before we proceed with the outline of the uses of these as negators, some introductory notes on their morpho-syntactic status and on the origin of ‘*a’ohe* are in order.

The morpho-syntactic category of the words ‘*a’ole* and ‘*a’ohe* is described differently by different authors. Elbert and Pukui (1979: 59, 142) make no explicit statement about their morpho-syntactic status. Schütz et al. (2005: 24) describe them as showing some verbal characteristics, and their arguments for this are as follows. First, the use of ‘*a’ole* triggers a change of word order when the subject is pronominal, cf. (17c-d). In the affirmative sentence,

¹⁴ The negative existential is pronounced *heeai* in the Nukulaelae dialect of Tuvalu (Besnier 2000: 179).

¹⁵ *Pileni* is probably a better known name for this language. However, Åshild Næss (p.c.) has informed me that its speakers do not approve of it, which is why the language is now referred to as Vaekau-Taumako. The latter name reflects the two island groups where the language is spoken.

the pronominal subject *'oia* follows the predicate as expected, since Hawaiian is verb-initial, whereas in the negated sentence it precedes it. This suggests that the true predicate of the sentence in (17d) is *'a'ole* and that the verb that follows it with its adjuncts is an infinitive used adverbially.

(17) Hawai'ian (Polynesian, Nuclear, Eastern, Marquesic)

- a. *Ua¹⁶ hele ke kanaka*
 PFV go the man
 'The man has (just now) gone.'
 (Elbert and Pukui 1979: 59)
- b. *'a'ole i hele ke kanaka*
 NEG NEG.PFV go the man
 'The man did not go.'
 (Elbert and Pukui 1979: 59)
- c. *Ua hele 'oia*
 PFV go 3SG
 'He has (just now) gone.'
 (Elbert and Pukui 1979: 142)
- d. *'a'ole 'oia i hele*
 NEG 3SG PFV.NEG go
 'He didn't go.'
 (Elbert and Pukui 1979: 142)

Second, another characteristic that makes *'a'ole* and *'a'ohe* look like verbs is that post-verbal markers¹⁷ follow them just like they do all other verbs. What makes *'a'ole* and *'a'ohe* less verb-like is that neither of them can be preceded by TAM markers.

The word *'a'ohe* is a rather transparent univerbation between the SN marker *'a'ole* and the indefinite article *he*. This is hardly surprising since the subjects of existential constructions take the indefinite article, cf. (18a); consequently, *'a'ole* must have become fused with *he* as a result of frequent collocation.

(18) Hawai'ian (Polynesian, Nuclear, Eastern, Marquesic)

- a. *He i'a i kapa 'ia he manini*
 INDF fish SUB call PART INDF manini
 'There is a fish called manini.'
 (Pila Wilson, p.c.)
- b. *'a'ohe i'a i kapa 'ia he manini*
 NEG.EX fish SUB call PART INDF manini
 'there is no fish called manini.'
 (Pila Wilson, p.c.)

The SN marker *'a'ole* and the negative existential *'a'ohe* appear to alternate in several different constructions shown in (19) and (20).

¹⁶ The particle *ua*, which is used to express perfect/perfective/inceptive, is restricted to affirmative predications. It is incompatible with negation and has to be replaced by the negative polarity item *i* in negated sentences.

¹⁷ These are words with adverb-like senses. Some examples are *nō* 'indeed, true, truly', *paha* 'perhaps', *kā* 'showing disapproval, annoyance', and *lā* 'expresses doubt'.

(19) Hawai'ian (Polynesian, Nuclear, Eastern, Marquesic)

- a. 'a'ohe o kana mai
NEG LOC tens towards.speaker
'There is no limit.' (idiom)
(Elbert and Pukui 1979: 142)
- b. 'a'ole o kana mai
NEG LOC tens DIR.towards.speaker
'There is no limit.' (idiom)
(Elbert and Pukui 1979: 142)

As the data in (19a-b), show, the negative existential 'a'ohe alternates with the SN marker 'a'o'le for the negation of existential predications. This warrants classifying this language as type A~B in the Negative Existential Cycle. However, 'a'ohe is also used for the negation of actions when those are expressed by predications with subjects marked by the possessive markers *o* or *a*¹⁸, cf. (20a,c-f). Because of such uses, Hawai'ian can be also classified as type B~C.

(20) Hawai'ian (Polynesian, Nuclear, Eastern, Marquesic)

- a. 'a'ohe o'u 'ike/lohe aku iā ia
NEG.EX 1POSS see/hear DIR.away.from.speaker PART 3SG
'I can't hear him/her' lit. 'not-exist my seeing/hearing away from him/her'
(Kahananui and Anthony 1970: 346)
- b. 'a'ole hiki ia'u ke 'ike/lohe aku iā ia
NEG can 1SG PART.MOD see/hear DIR.away.from.speaker PART 3SG
'I can't hear him/her.'
(Kahananui and Anthony 1970: 346)
- c. 'a'ohe o'u 'ai i ka limu
NEG.EX my eat OBJ the seaweed
'I don't eat seaweed' Lit. 'My eating seaweed is none.'
(Cook 2000: 347)
- d. 'a'ole au 'ai i ka limu
NEG I eat OBJ the seaweed
'I don't eat seaweed.'
(Cook 2000: 347)
- e. 'a'ohe o lākou hana
NEG.EX POSS 3PL work
'They didn't work.'
(Kahananui and Anthony 1975: 372)
- f. 'a'ohe ā lākou hana
NEG.EX POSS 3PL work
'They had no work.'
(Kahananui and Anthony 1975: 372)

In the sources cited above there is no comment on the kinds of factors that trigger the choice 'a'ole or 'a'ohe for the negation of actions. As already observed above, in the predications in which 'a'ohe is used as a negator, the verbs are formally action nominals¹⁹, since their subjects are marked by a possessive marker. It should also be noted that in most of them the

¹⁸ Subjects marked by possessive markers are also referred to as genitive subjects in the literature.

¹⁹ For a detailed discussion of action nominals in Polynesian cf. Comrie and Thompson (1985: 383) and Koptjevskaja-Tamm (1993: 209, 211, 256).

possessive marker of choice is *o*; it is *a* only in (20f). Kahananui and Anthony (1970: 346) observe that when *'a'ohe* is used in sentences with genitive subjects, the action expressed by the verb is incomplete. So, the examples in (20a) and (20b) contrast in terms of aspect; the action in (20a) is incomplete, whereas no such specification is given for (20b). Cook (2000: 347) comments that the example in (20c) represents a “curious variant of the negative possessive construction where the agent appears as a zero possessive with negative predicate, usually *'a'ohe*”. Furthermore, Cook states that the clause in (20c) describes a personal characteristic. Both clauses in (20c-d) are tenseless, so the contrast between them is in terms of habituality. No comment is offered on the use of *'a'ohe* in the predications in (20e-f). Nor is it clear whether the action nominal constructions being negated in (20) have corresponding affirmative variants. As mentioned, both *'a'ohe* and *'a'ole* have some verbal characteristics. Thus it is possible that what appears to be finite uses of action nominals may actually be uses of them in complex sentences in which the negative predicate is in the main clause and the action nominal in the subordinate one.

Generally, it is clear that the negative existential *'a'ohe* must be used with action nominals with genitive subjects when negating actions. These constructions tend to receive differing interpretations but there is a certain amount of semantic cohesion between them, since they all revolve around senses associated with imperfective aspect: incompleteness, habituality, intransitivity. cf. (Bybee et al. 1994, Comrie 1976, Dahl 1985). These observations can be related to other analyses in the literature relevant to the current issue. Duranti and Ochs (1990) point out that the possessive construction appears to be used to demote or background agents in Samoan. In Hawai'ian, backgrounding of agents also contributes to placing the focus on the action rather than its result or actor. This can in turn explain the implication of actions being incomplete, as they are seen as processes when genitive subjects are used²⁰. One of the uses of the possessive marker *o* is when the possessor uses the possessed as a location cf. (Cook 2000). So we can claim that a possessive construction expands to express location and later on incomplete action, habituality and intransitivity, cf. (Bybee et al. 1994) for similar developments cross-linguistically. Thus, what we observe in Hawai'ian is that via backgrounding of agents, the negated possessive construction expands into semantic domains associated with imperfectivity. But what needs to be stressed here is that it is the construction as a whole, and not the negative existential alone, that expands its domain of use. With regard to the constructions expressing standard negation in Hawai'ian, it is probably reasonable to postulate a possible flattening of the Proto-Polynesian complex sentence structure into a simple sentence. This is indicated by the fact that the negator appears to have lost some of its verbal characteristics and looks more like a particle.

The variation of negation strategies in Hawai'ian shows that an existential negator can alternate with SN for the negation of existential predications, cf. (19a-b) above, and that at the same time, it can be used for the negation of actions, as shown in (20a, c, e, f). In other words, it is not necessary for a special existential negator to be fully established in order to expand into the verbal domain.

According to Schütz et al. (2005: 23–4), *'a'ohe* is substantially less frequent than *'a'ole*, and it is used with noun phrases only. Veselinova (2013: 132) indicates also that the low frequency of *'a'ohe* has been maintained through the passage of time. Specifically, the word shows equally low frequency in texts from 1864 and blogs from 2010. As observed in the same work, regardless of its low frequency, *'a'ohe* is nonetheless used for the negation of existential and possessive predications, cf. (21) below, and also for the negation of actions

²⁰ This is not to say that backgrounding of agents and the use of action nominal constructions in general necessarily lead to the interpretation of an action as incomplete; focus on the action may also have quite the opposite effect, that is, it may lead to seeing it as a fact/completed whole, cf. also Koptjevskaja-Tamm (1993).

when they are expressed by predications with genitive subjects²¹. Since there is no doubt that ‘*a’ohe* was first used for the negation of existential and possessive predications, it seems reasonable to suggest that it has a stable association with the constructions shown in (21).

(21) Hawai’ian (Polynesian, Nuclear, Eastern, Marquesic)

- a. *‘elua a’u keiki*
Two 1SG.POSS child
‘I have two children.’/‘I have no children.’
(Elbert and Pukui 1979: 142)
- b. *‘a’ohe a’u keiki*
NEG.EX 1SG.POSS child
‘I have no children.’
(Elbert and Pukui 1979: 142)

This association led to its use in verbal predications with genitive subjects, such as those in (20), since those are modeled on possessive constructions. So, the use of ‘*a’ohe* as a negator of actions most likely depends on the expansion of the possessive construction. Similarly to Bulgarian and Macedonian, here again we have a case in which the negative existential is carried over to the verbal domain due to its association with a particular construction.

4.2.2.2. *Kapingamarangi*. In Kapingamarangi, an Outlier language spoken on the islands of Kapingamarangi and Ponape in Micronesia, we observe variation in the negation strategies both in the domain of SN and in the domain of existential negation.

- (i) SN is expressed by either *tē* or *hakarē* used as preverbal particles, see (22).
- (ii) There are two special negative existential, *tēai* and *hakarē*, see (24).

(22) Kapingamarangi (Polynesian, Samoic Outlier, Ellicean)

- a. *Ko au ku iroa, ko Iete tē iroa*
NOUN.A I PRS know ACT Iete NEG know
‘I know, Iete does not know.’
(Elbert 1948: 30)
- b. *Au tē hihai*
1SG NEG like
‘I do not like it.’
(Elbert 1948: 30)
- c. *Au hakarē hihai*
1SG NEG.EX like
‘I don’t like it. I don’t want any.’
(Elbert 1948: 30)

The SN marker *tē* is also used for the negation of ascriptive and locative predications, cf. (23b) and (23d) below. It is unclear whether *hakarē* can be used for their negation as well.

²¹ The literature on possessive constructions in Polynesian is enormous and cannot possibly be summarized here. Some of the most important references include Alexander (1864), Chung (1973), Chung and Seiter (1980), Clark (1976), Fischer (2000), Herd, Macdonald and Massam (2004), Lynch (1997), and Wilson (1976). In the early sources in particular, much of the discussion revolves around the choice of *o* or *a* marking and the semantic distinctions covered by these markers, which is not immediately relevant to the issues at hand. What appears to be more important is the general association of ‘*a’ohe* with the possessive construction.

(23) Kapingamarangi (Polynesian, Samoic Outlier, Ellicean)

Ascriptive predications (=SN)

- a. *Ko Utamatua tonono ingō*
 TOP Utamatua POSS.3SG name
 'Utamatua was his name.'
 (Elbert 1948: 30)

- b. *Au tē ika e utaina e au a Hina*
 I NEG fish TAM carry A I OBJ Hina
 'I am not the fish who will carry Hina.'
 (Elbert 1948: 30)

Locative predications (=SN)

- c. *Mē ikoro ko Tukohi*
 DET.ANIM here POSS Tukohi
 'Tukohi is here.'
 (Elbert 1948: 17)

- d. *matā 'tu hua ki thakahi tinan ku tē ikoro*
 look PL ? with children mother TAM NEG here
 'They looked for the mother and child but they were not there.'
 (Elbert 1948: 17)

Existential predications in Kapingamarangi are negated by *hakarē* or *tēai*, as illustrated in (24). Both can be described as special strategies in that they differ from the SN marker *tē*.

The word *hakarē* has two functions: that of a negative existential and of a marker of SN. When used as a negative existential, it replaces the affirmative existential *ai*, cf. (24a-b). As demonstrated in (22c) above, when used as an SN marker, it precedes the verb it negates, identical to the other SN marker *tē*.

The word *tēai* appears only in negated predications of possession in the work of Elbert (1948) and Lieber and Dikepa (1974). However, it is not too farfetched to describe it as a negative existential, seeing as it is a clear univerbation between the negation particle *tē* and the existential particle *ai*. Besides, predication of possession is expressed by the existential construction in Kapingamarangi (cf. Elbert 1948: 30). Both *hakarē* and *tēai* can be used as pro-sentences and the general answer 'No'.

(24) Kapingamarangi (Polynesian, Samoic Outlier, Ellicean)

Existential predications

- a. *Ti pāhi Ngeiha i ai ti ēitu*
 POSS side northern in/at exist POSS spirit
 'There is a spirit at the northern side.'
 (Elbert 1948: 17)

- b. *Hakarē e roko*
 NEG.EX TAM many
 'There are not many.'
 (Elbert 1948: 30)

Predicative possession

- c. *Etoru a-ku peinthir*
 Three POSS-1SG.POSS pencil
 'I have three pencils.'
 (Elbert 1948: 21)

- d. *ti māthane ku noho rā. ti ingō hakarē*
 POSS DET.ANIM man TAM stay/live there POSS name NEG.EX
 ‘There was once a man. He had no name.’
 (Elbert 1948: 30)
- e. *koe tēai tau mē e hai taiā*
 2SG NEG.EX 2SG.POSS thing LET’S do tomorrow
kitātou e hura ki wērua
 1PL.INCL TAM go DIR werua
 ‘If you have nothing to do tomorrow, we’ll go to Werua.’
 (Elbert 1948: 30)
tēai and *hakarē* used as pro-sentences
- f. A: *Ikoro tau hakatē*²²
 there is 2SG *Hakatē*
 ‘Have you any *hakatē* pudding?’
 B: *tēai*
 NEG.EX
 ‘No.’
 (Elbert 1948: 30)
- g. A: *Ikoro tau hakatē*
 Here 2SG.POSS *hakatē*
 ‘Have you any *hakatē*²³ pudding?’
 B: *hakarē*
 NEG.EX
 ‘No, I have none.’
 (Elbert 1948: 30)

Based on the variation described above, Kapingamarangi can be classified as two different types appearing in the Negative Existential Cycle. The first one is type B~C because the existential negator *hakarē* is also used for the negation of verbal predications. The second one is type B because there is a special existential negator *tēai* that is not used in verbal predications.

The Kapingamarangi data show that two special existential negators may co-exist, with very similar uses, cf. (24f-g) above. As already discussed, *tēai* is clearly a univerbation between the SN marker *tē* and the existential particle *ai*. Clark (1976: 87) proposes that *hakarē* may go back to **faka* ‘like, in the manner of’ + *tē* ‘NEG’. Thus, his hypothesis is that *hakarē* may be etymologically connected to the Proto-Polynesian negator **tae*, just like the current standard Kapingamarangi negator *tē* is. Clark goes on to say that the insertion of *r* in this word is a later development, specific to Kapingamarangi. I am not in a position to fully evaluate this etymology. Generally, it appears somewhat dubious to me since **faka* is described as a preposition. If this is correct, then the collocation of a preposition and a verbal item or a particle appears to be unusual, at best, in Polynesian syntax²⁴.

²² It should be noted that existence and possession are encoded in one and the same way in Kapingamarangi, either the particle *ai* or with the particle *ikoro*. Predications of existence and possession are also negated in one and the same way, either by *tēai* or by *hakarē*. Statements to this effect can be read throughout the descriptions available to me. Most of the examples are illustrations of predications of possession, which is why those predominate in the presentation above.

²³ A favorite native food that consists of baked coconut flakes plus *tara* ‘taro’ or *puraka* ‘Cyrtosperma’, both of which are types of breadfruit.

²⁴ I would like to suggest another hypothesis. The morpheme *ha-* is a causative suffix that is very productive in the language; **karē* is not found as a separate morpheme in Elbert (1948) and Lieber and Dikepa (1974). However, **kare* is formally very similar to the reconstructed form **kore* ‘lack, no longer exist’. Thus, the form

Whatever the etymology of *hakarē*, since *tēai* is a very transparent univerbation and *hakarē* is not, it is reasonable to suggest that the form *tēai* is diachronically younger and that *hakarē* is diachronically older. If this is correct, we may have a case of an older negative existential that shows a partial take-over of the verbal domain. There is no data on how such a takeover might have evolved; hence, our recourse in this case is to look at the ways both negative existentials are currently used and draw inferences from them. Both the older *hakarē* and the newer *tēai* have uses typical of negative existentials worldwide, such as pro-sentence and the general answer ‘No’. In fact, in my sample of 95 languages, which are reasonably well distributed around the globe, 35% of the observed negative existentials are also used as pro-sentences²⁵. Based on cross-linguistic data, as well as on facts from Kapingamarangi and also from Russian, we may suggest a possible initial stage for the expansion of the negative existential into the verbal domain. Specifically, such an expansion may have started with the word being used as a negator external to the entire proposition. Typically, such negative existentials already have or are currently acquiring phrasal properties by being regularly used as pro-sentences. Similarly to Russian, documentation of the transitional stages in Kapingamarangi is yet to be unearthed. It is also worth noting that the presumably older *hakarē* has not taken over the domain of verbal negation, but a new negative existential *teai* still evolved.

The facts from Kapingamarangi illustrate how a negative existential might have begun to be used in the verbal domain while retaining its older functions as pro-sentence and negative existential. The multi-functional *hakarē* and the co-existence of two existential negators provide nice instantiations of a general principle of language change. Namely, when a form acquires a new function, it does not necessarily lose its old one, and both functions can, in fact, co-exist for a very long time (cf. Disterheft and Viti (2010) and likewise Hock and Joseph (2009) for more detailed discussions of this issue). We shall see further illustrations of this principle in the Tahitian and in the East Futunan data presented below.

4.2.2.3. *Tahitian*. The negation markers most commonly used in verbal declarative sentences are *‘a’ita* and *‘e’ita*. Less commonly used negation markers are *‘a’ore* and *‘e’ore*, cf. Lazard and Peltzer (2000: 49). The verbal negators *‘a’ita/‘e’ita/‘a’ore/‘e’ore* are chosen based on aspect, and they are used as higher verbs in a complex clause structure, illustrated in (25) below. In (25b), the negator *‘ai’ta* is the predicate in the main clause; the entire proposition in the subordinate clause is in its scope, and the literal translation of the utterance is ‘It is not true that the doctor left’.

(25) Tahitian (Polynesian, Nuclear, East)

- a. *‘ua reva te taote*
TAM leave ART doctor
‘The doctor left.’

(Lazard and Peltzer 1999: 151)

hakarē might be an older univerbation of *ha-* ‘CAUSATIVE’ and **kore* ‘lack, no longer exist’. However, this hypothesis has problems as well, since it does not explain the vowel change **o > a* in **kore* to **kare*, and likewise the lengthening of the final vowel from **e > ē*. Besides, if this were true, then *hakare* would be the only reflex of **kore* outside of Nuclear Eastern Polynesian, which would have to be explained too.

²⁵ Here are some more specific figures: in my Veselinova’s sample of 95 distinct languages, negative existentials are observed in 63 languages (66%). In the languages with negative existentials, they (the negative existentials) are used as pro-sentences or general words for ‘No’ in 22 languages (35%), cf. (Veselinova 2013: 118).

- b. *'a'ita te taote i reva*
 NEG ART doctor TAM leave
 'The doctor did not leave.'
 (Lazard and Peltzer 1999: 151)

The negation markers in Tahitian are univerbations between aspect particles and current or erstwhile lexical items. The particle *'a* indicates inceptive aspect, whereas *'e* is the most neutral aspect particle, which often indicates incompleteness. The form **ita* is no longer observed with a lexical meaning of its own²⁶, whereas the stem *'ore* is. The latter means 'disappear, no longer exist'.

Negation of existential predications is performed either by the SN negators *'a'ita/'a'ore* being used in a simple sentence, as shown in (26b), or by *'ore* 'disappear, no longer exist' also being used in a simple verbal sentence, cf. (26c).

(26) Tahitian (Polynesian, Nuclear, East)

- a. *E manu tō ni'a i te tumurā'au*
 INCL bird ART.PREP high PREP ART tree
 'There is a bird (that is) up in the tree.'
 (Lazard and Peltzer 1999: 148)
- b. *'a'ita/'a'ore e manu tō ni'a i te tumurā'au*
 NEG INCL bird ART.PREP high PREP ART tree
 'There is no bird (that is) up in the tree.'
 (Lazard and Peltzer 1999: 148)
- c. *'ua 'ore te vī*
 TAM not.exist ART mango
 'There are no mangos any longer.' (The season is over.)
 (Lazard and Peltzer 1999: 148)

The following can be said with regards to placing Tahitian in the Negative Existential Cycle. The language can be classified as type C because the negators *'a'ita/'a'ore*, used for existential sentences, are also used for the negation of verbal sentences. As pointed out above, *'a'ita/'a'ore* are used in simple clause structures for the negation of existential predications; for the negation of verbal sentences, they are higher verbs in a complex clause. Tahitian can be also classified as type B, since a special existential negator *'ore* is present as well and is widely used for the negation of existence of a variety of objects or states, as illustrated by (26c) above and (27) below.

(27) Tahitian (Polynesian, Nuclear, East)

- a. *E 'ore te pape i teie mau mahana*
 TAM not.exist ART water PREP DEM PL day
 'The water will dry up one of these days.'
 (Lazard and Peltzer 1999: 148)
- b. *'ua 'ore tā-na fa'ariri*
 TAM not.exist ART.PREP-3SG sulkiness
 'He is no longer sulky.'
 Lit. 'There was no sulkiness at him [any more]'
 (Lazard and Peltzer 1999: 148)

²⁶ According to Lazard and Peltzer (2000: 49), it may once have meant 'shrug one's shoulders in denial'.

The facts from Tahitian show that a word with a negative content (**ita*, *'ore*) may become fused with a collocate (aspect particles such as *'a*, *'e*) and completely take over the domain of standard negation. However, the original simplex form of the word (in this case *'ore*) may continue to exist with a function of its own. So, expansion in one domain does not necessarily imply loss of function in another domain. In fact, what we see in the Tahitian data is the creation of a new form via a coalescence process: the form takes over the domain of verbal negation and completely splits from the original form. A similarly complex variation in which recently derived forms co-exist with older forms is also observed in East Futuna.

4.2.2.4. *East Futuna*²⁷. East Futuna is an Outlier language spoken mainly on the islands of Wallis and Futuna, French Overseas Territories. The negation markers in this language are shown in 0 below.

(28) East Futuna (Polynesian, Nuclear, Samoic-Outlier, Futunic), adapted from Moyse-Faurie (1999: 116)

Note: The forms in square brackets are not listed in the original. However, they are found in examples in descriptions of East Futuna by the same author (Moyse-Faurie 1997, Moyse-Faurie 1999), which is why I consider it justified to include them in the data presented below.

Denial	<i>le'ai</i> , <i>e'ai</i>	
Negation of verbal predicates	<i>le'ese</i> , <i>se</i> , [<i>le'e</i>]	<i>le'aise</i> , <i>le'ai'aise</i> , <i>le'ai'okise</i>
Negation of nominal predicates	<i>le'ese</i> , <i>se</i>	<i>le'aise</i>
Negative existential constructions	<i>le'e</i> , [<i>le'ese</i>]	<i>le'ai</i> , <i>lekiai</i>
Negation of possessive predicates	[<i>le'e</i>], <i>se</i>	
Negation of whole proposition	<i>se</i> , <i>le'ese</i>	
Lexical negation	<i>le'e</i>	
Negation of cleft NPs	<i>Se</i>	<i>le'aise</i>
Not yet	<i>ki se</i>	<i>lekiaise</i> , <i>le'aikise</i>
Negation of imperatives	<i>Auase</i>	<i>Auana</i>

The negation markers in declarative clauses, numerous at first glance, are derivationally related cf. *le'ai* > *le'aise* > *le'ese* > *se*, etc. (see more on this issue below). The negators used in imperative sentences, *auase/auana*, are distinct from the negators used in declarative sentences, just as they are in many other languages, cf. van der Auwera et al. (2013). Before we discuss the classification of the language as one of the Negative Existential Cycle types, however, a few general comments on the negation markers shown above are in order.

Negation markers in East Futunan have verbal characteristics in that they must occur immediately after a TAM particle, a position occupied by a verb in an affirmative sentence²⁸.

²⁷ The language is also known as Futuna-Aniwa. This name is confusing since it can refer to at least two languages. One, with the ISO-631 code FUD, is spoken on the islands of Wallis and Futuna, French Overseas Territories, as well as in New Caledonia. The other language has the ISO-631 code FUT; it is spoken in Vanuatu. The names used here are East Futuna for FUD and West Futuna for FUT. In Clark (1976), the name Futuna-Aniwa refers to West Futuna.

²⁸ Like many other Polynesian languages, East Futuna is verb-initial. The basic verbal predication consists of a verb phrase followed by one or more arguments. The verb phrase in its simplest form consists of a tense-aspect marker and the verb itself; optional elements are a negation marker, an adverb and a preposed pronoun. Topicalizations of focused elements precede the verb and are marked by the topic/presentative marker *ko*. East Futunan is an ergative language in that the sole argument S of an intransitive verb is marked in the same way as the patient (O) of a transitive verb, by the marker *a* or *o*. The agent (A) of a transitive verb is in the ergative, marked by the preposition *e*, cf. Moyse-Faurie (1997).

Despite the labels *weak* vs. *strong*, Moyse-Faurie (1997: 116) states that there is no pragmatic difference between them, “but most probably [there was] an evolution from the *le’aise* to the *le’ese* form, co-existing [...] mostly among the elders, with a stronger or weaker meaning being assigned by informants using both [kinds of] forms. Among young speakers *le’ese* is often reduced to *se*”.

In East Futuna, there is variation both in the domain of SN and in the domain of negation of existence. As will be shown below, this calls for classifying the language as several types in the Negative Existential Cycle.

Within the domain of SN, the following kinds of variation are observed: (i) a formal one in that there are weak and strong forms, and (ii) the use of the negative existential for negation of verbal predications. Regarding (i), it was already mentioned that the labels weak and strong need not imply a systematic pragmatic difference between the weak and the strong forms for all speakers. However, an additional sense of emphasis or other semantically richer content is present in the examples given in the description of East Futunan, cf. (29d), so we are most probably dealing with a change in progress. Both weak and strong negators are used in verbal and nominal predications, as well as for the negation of cleft NPs. The weak negators have a wider range of use in that they are the only ones used for the negation of predications of possession and for the negation of whole propositions, cf. the data in (28) above. Due to space restrictions, only a few examples can be shown here.

(29) East Futuna (Polynesian, Nuclear, Samoic Outlier, Futunic)

- a. *E tā’i e ia le fā tolo*
 GENR cut ERG 3SG ART CLF sugar cane
 ‘He cuts/is cutting the sugar cane.’
 (Moyse-Faurie 1997: 136)
- b. *E se tio a tātou ki ke fatu*
 GENR NEG see ABS 1PL.INCL OBL DEF stone
 ‘We do not see the stone.’
 (Moyse-Faurie 1999: 122)
- c. *Na le’ese māsau a Kalada i le fakatasi*
 PST NEG speak ABS Kalada OBL DEF meeting
 ‘Kalada did not speak during the meeting.’
 (Moyse-Faurie 1999: 122)
- d. *Na le’aise kau ano o mako i nānafi*
 PST NEG 1SG go COMP dance OBL yesterday
 ‘No, I didn’t go dancing yesterday.’
 (Moyse-Faurie 1999: 122)

The use of the negative existential *le’e* for the negation of verbal predications is observed only when the TAM marker is the neutral *e*, cf. (30). There is no further discussion of this use, so it is unclear whether it is restricted only to this aspect or not.

(30) East Futuna (Polynesian, Nuclear, Samoic Outlier, Futunic)

- E le’e ’au a Setefano ki le fai o le ga’oi*
 GENR NEG.EX come ABS Setefano OBL ART make/do POSS ART work
 ‘Setefano is still not coming to do the work’ (but he will come nonetheless),
 (Moyse-Faurie 1997: 98)

The kinds of variation observed in the domain of negative existentials are as follows. One, the distinction between weak and strong forms is present here, too, cf. (31b-c). Two, some of the SN negators are also used for the negation of existential predications: (i) the SN negator *le’ese*

is used in existential predications formed as questions, cf. (32A); (ii) the SN form *se* is regularly used for the negation of predicative possession (these predications are encoded as existential ones), cf. (33c).

(31) East Futuna (Polynesian, Nuclear, Samoic Outlier, Futunic)

- a. *E Iai le faletosi i Vasavasa*
 GENR exist DEF library OBL Vasavasa
*e se na'a ai se tosi mo Futuna*²⁹
 GENR NEG be there ANAPH INDF book with Futuna
 'In the library of Vasavasa there are no books on Futuna.'
 Lit. There is a library in Vasavasa, there are no books on Futuna.'
 (Moyse-Faurie 1999: 119)
- b. *E le'e ni vakauku i Futuna*
 GENR not exist INDF submarine OBL Futuna
 'There are not any submarines in Futuna.'
 (Moyse-Faurie 1999: 118)
- c. *Na le'ai se tagata ke tau ia le launiu*
 PST NEG.EX INDF man that wear ANAPH DEF coconut palm
 'No man could assume the crown.'
 Lit. 'There is no man who can wear the coconut palm'
 (Moyse-Faurie 1999: 119)

(32) East Futuna (Polynesian, Nuclear, Samoic Outlier, Futunic)

- A: *E le'ese iai se lāisi*
 GENR NEG exist INDF rice
 'Isn't there any rice?'
- B: *E'ai, e le'e se lāisi*
 No GENR NEG INDF rice
 'No, there is no rice.'
 (Moyse-Faurie 1999: 117)

(33) East Futuna (Polynesian, Nuclear, Samoic Outlier, Futunic)

- a. *E iai laku sele*
 GENR exist DEF.SG.POSS.1SG knife
 'I have a knife.' Lit. 'There is my knife.'
 (Moyse-Faurie 1999: 119)
- b. *E le'e se fā sikaleti ma Petelo*
 GENR not exist INDF CLF cigarette for Petelo
 'Petelo has no cigarettes.' Lit. 'There are not any cigarettes for Petelo.'
 (Moyse-Faurie 1999: 120)
- c. *Ku se iai so'oku gā kie*
 PFV NEG exist INDF.SG.POSS.1SG CLF loin cloth
 'I have no more loin cloth.'
 (Moyse-Faurie 1999: 120)

As demonstrated above, in East Futuna there is a distinction between SN, expressed by *le'ese/se*, etc., and existential negation, expressed by *le'e/le'ai*. However, as was also shown, the SN and the negative existential markers are not restricted to their own domains but rather

²⁹ Despite the translation, the second clause in this complex sentence is a verbal/locative predication, not an existential one.

crossover into the domains of one another. This is the only language dealt with in this study that falls into three distinct types of the Negative Existential Cycle.

First, East Futuna can be classified as type B~C, since the existential negator can be used for the negation of some verbal predications, cf. (30) above. Second, seeing as the SN *le'ese* is obviously derivationally related to the existential negator *le'e*, one can argue that East Futuna should be classified as one of the types in the Negative Existential Cycle in which the existential negator is part of SN. A broader interpretation of type C is appropriate here. As mentioned earlier, type C is one in which the existential negator is regularly used as SN, but it remains special when negating existentials. In the East Futunan case, most of the SN markers are derived from the negative existential and are used as higher verbs in a complex clause. The negative existential still replaces the positive one when used for the negation of existential predications; the resulting sentence is a simple one. Third, East Futuna can be also classified as belonging to type C~A, since the SN negators *le'ese* and *se* may also be used for the negation of existential predications, cf. (32A) and (33c). The classification of the language as type C~A is justified by the fact that both *le'ese* and *se* are diachronically new negators that have started to negate the existential particle they once stemmed from (at least in the case of *le'ese*).

What appears to have happened is that the existential negator fused with a collocate, the non-specific article *se*. This form is a regular collocate of the existential negator, since noun phrases under negation are always marked as non-specific, cf. (33b) above for an example. Gradually, the newly created form took over the domain of SN. This hypothesis has been put forth by Moyse-Faurie, cited in Hovdaugen and Mosel (1999: 18); specifically, this author suggests that the non-specific article *se* fused with the negator to yield a special negative existential *le'aise*. That form was subsequently re-interpreted as a marker of emphasis for negation in general. In a later development, the markers *le'ese* and *le'aise* were reduced to *se*; that is, the non-specific article effectively became a new SN marker. The question that remains unanswered here is how the negative existential as a marker of emphasis became interpreted as marking negation in general. A hypothesis about the possible stages in the evolution of the current negation markers in East Futuna is presented in (34) below.

(34) Hypothesis for the evolution of current SN markers in East Futunan

- Stage 1: Univerbation between an erstwhile SN marker *le* and the existential particle *iai*
 $le+(i)ai > le'ai$ 'Neg.Ex'. The existence of the SN *le* is confirmed by ample data from closely related languages, cf. Table 3 in Appendix B.
- Stage 2: The negative existential *le'ai* starts to be used as a pro-sentence. Its current eroded form *e'ai* can be used as evidence for its frequent use for this function.
- Stage 3: (maybe simultaneous with stage 2)
 Further univerbation of the existential negator with collocates
 $le'ai + se > le'aise$

The newly created form is gradually interpreted as an SN marker. This re-interpretation is plausible since the new form appears at the same position as the old SN marker, and, as in the case of the old SN marker, it is still interpreted as a verb. In addition, processes of subordination (in Clark's terms *relativization*) are apparently at work; see further discussion of these in 0.

- Stage 4: Simplification of the form $le'ai > le'e$
 Simplification of $le'aise > le'ese$
- Stage 5: Reduction of the newly created form $le'ese > se$

East Futunan provides not only an illustration of the Negative Existential Cycle but also an illustration of the Jespersen Cycle. It should be noted that although three consecutive stages of the Negative Existential Cycle are actually observed, the negator gaining ground is not the existential negator or a form derived from it but rather is the collocate of the existential negator, which for a while was unverbated with it. As shown above, the form *se* split from its host and is now taking over the host's function. Therefore, the important point for modeling the evolution of negation is that here we have an example of a negative existential cycle whose results expand to another Jespersen-cycle-like development. To my knowledge, such cases have not yet been reported in the literature, and at this point, the development we observe in East Futuna appears to be rather unique. Nonetheless, such a possibility should be taken into account when making generalizations about the development and interaction of negation markers. Whether it is truly rare or not remains to be verified by future research.

4.2.2.5. *The Negative Existential Cycle applied to languages with complex variation patterns.* The languages discussed in Section 4.2.2 are shown in the graphic representation of the Negative Existential Cycle in Figure 5 below. As the reader will notice, the picture is now much more complicated than the original presented in Figure 1 and the applications of the Cycle shown in Figure 3 for Slavonic and in Figure 4 for some of the Polynesian languages under study.

Figure 5. *Negative Existential Cycle applied to Polynesian languages with complex variation patterns*

The data from Hawai'ian have shown that a special negator need not be fully consolidated as such in order to expand into the verbal domain. A contextually restricted negative existential may still come to be reinterpreted as a marker of SN if the constructions in which it commonly occurs expand their domains and start to be applied to verbs. The data from Kapingamarangi demonstrate that two special negative existentials of different diachronic age may co-exist. This is indicated in the graph above by the splitting of type B into B1 and B2. Only one of them, presumably the older, has expanded into the verbal domain, but only partially. Furthermore, both the Hawai'ian and the Kapingamarangi data point to the fact that the erstwhile Polynesian complex clause structure used for SN has been flattened to a simple clause in which the negator is a particle (with some verbal characteristics in the Hawai'ian

case). In the cases of Tahitian and East Futuna, we have seen that a special existential negator may become fused with a collocate and completely take over the domain of SN; however, its simplex form may continue to be used with its original function. Finally, as already discussed above, the data from East Futuna also show that a process of change may begin and then go through some stages of the Negative Existential Cycle but ultimately evolve into an instantiation of the Jespersen Cycle.

These four languages also show that stages presented as non-sequential in the Negative Existential Cycle may actually co-exist in one and the same language. We observe two transitional types of the Negative Existential Cycle in Hawai'ian and East Futuna, and two stable types in Tahitian. Thus, the types in this Cycle are indeed variationist types, as also pointed out by Croft (1991: 6), and do not necessarily represent diachronic states. In fact, in a process of change several variation types may co-occur.

4.3 Reconstructed forms of the Proto-Polynesian negators and their suggested descendents in the modern Polynesian languages

Three different expressions of SN have been reconstructed Proto-Polynesian. They are **tae*, **kai*, and **kore*. Their reflexes in the modern Polynesian languages are presented in 0 in Appendix B.

Reflexes of **tae* predominate in the Outlier languages, both as simplex forms and in various fusions, one of the most frequent ones being with the existential particle *ai*. Descendants of **tae* are exemplified by Samoan *lē* 'SN, constituent negator' and *leai* 'NEGEX, No!', Nukuoro *de* 'SN', *tiqi* 'not yet' and *deai* 'NEGEX, No!', Tuvaluan *sē* or *hē* 'SN', *seki/heki* 'not yet', *seai/heai* 'NEGEX, No!' Clark (1976: 86–87) suggests that the original initial consonant should be reconstructed as *t* on phonetic grounds, specifically stating that a change from a stop such as *t* "seems to be more natural and expected" than a development from a fricative to a stop (*h* > *t*) or from a lateral approximant to a stop (*l* > *t*). Furthermore, Clark makes the following observations: (i) most Samoic Outliers in his dataset have a negator where the initial consonant is *s*, and (ii) an archaic negation marker *sē* is observed in Samoan. For these reasons, he postulates the following sound change **t* > **s* > **l*, in which the change from **t* > **s* is assumed to have occurred at the stage of Proto-Samoic, whereas the change from **s* to *l* is a more recent Samoan development. A similar reasoning is offered to explain the change from *s* to *h* in several Futunic Outliers. The reflexes of **tae* in the Eastern languages have an initial *t* that provides further support for its reconstruction in Proto-Polynesian (the structure of the Polynesian family tree can be seen http://www.ethnologue.com/show_family.asp?subid=812-16 and also in (Otsuka 2005: 23).

Reflexes of **tae* are observed in four of the Nuclear Eastern languages. In all of them, these forms are contextually restricted. In Māori, the negator *tē* is used in negative questions, but in northern dialects only. In Northern Marquesan, the use of *tē* to negate an action or state not only denies its occurrence but also brings in the implication that this particular action or state will be diminishing in the course of time; the same particle is used as a constituent negator in this language. In Mangareva, the corresponding form *tē* and in Rapa Nui, *tae*, are used as constituent negators only.

There are only two reflexes of **tae* in Tongic. One is represented by the fused form *te'eki* 'not yet' in Tongan and the other one by an obsolete negator *tē* in Niue.

With regard to the function of **tae* in Proto-Polynesian, Clark (1976: 91–92) appears to reconstruct it based on the functions of the assumed descendants of **tae* in the Samoic Outliers. He states that this word was a higher verb in Proto-Polynesian with the following motivations: (i) the reflexes of **tae* follow the tense marker and precede the verb they negate, which is a general characteristic of Polynesian verbs; and (ii) in a number of languages, **tae*

may be followed by a second tense marker, usually **e* (Clark 1976: 94), which, in turn, indicates that a new verb phrase follows.

The reflexes of **kai* are numerous in the Tongic languages but very limited in the other groups. In Tongic, reflexes of **kai* include simplex forms, various fusions or even shortened forms, cf. Tonga *'ikai* or Niue *nakai*, *fakai*, *ai* (all three in free variation). In the Outliers, we observe reflexes of **kai* in three languages, all of them from the Futunic subgroup. In Emae *ikai* and, in West Futuna, *fikai* and *jikai* are used as NegEx. In Tuvaluan, *'ikai/kai* is used as the general word 'No'. In the Eastern languages, reflexes of **kai* are postulated with reasonable certainty in two languages. In Rapa Nui, the particle *kai* is used to negate verbal predications marked past or perfect and also when a surprise at the non-realization of a certain action is expressed. In Māori, the form *kiihai* co-occurs only with the past tense marker *i*; its occurrence is also restricted to a couple of dialects, cf. (Bauer et al. 1993: 139)³⁰. With regard to the functions of **kai*, Clark (1976: 104) maintains that it was a negative existential and a pro-sentence in Proto-Polynesian. He considers its functions as SN a newer development and also that it came to replace **ta'e*, apparently in the Tongic languages only.

The following can be said about **kore*. The reflexes of this form abound in the group of Nuclear Eastern Polynesian languages, but they are completely absent in the Samoic Outliers and in the Tongic languages. Examples of forms clearly originating from **kore* include Rapa Nui *eko*, Hawai'ian *'a'ole*, Māori *kāore*, and Tahitian *'a'ore*. In the Nuclear Eastern languages, the descendants of **kore* are used with various functions: standard negator, negative existential or pro-sentence; in Hawaiian, Māori, and Rarotongan, the reflexes of **kore* are also used as constituent negators. The only function for which the descendants of **kore* are not used is negative imperative. According to Clark (1976: 100), **kore* was a verb indicating lack or non-existence in Proto-Polynesian. Its use as a verbal negator developed during the period between Proto-Nuclear Polynesian and Proto-Central Eastern Polynesian, cf. Otsuka (2005: 22–23) the chronological placement of these stages in the history of Polynesian languages.

To conclude, the reflexes of the three negative morphemes reconstructed for Proto-Polynesian differ in terms of their distribution in the Modern Polynesian subgroups, their functions, and also in their diachronic age as negators. A summary of these characteristics is offered in Table 1 below. The estimates of their diachronic age are based on Clark (1976) and on Greenhill, Blust, and Gray (2008).

Table 1. *Proto-Polynesian negative morphemes: distribution in the subgroups, functions and estimated age* (D = Dominant in group X; S = Sporadic in group X)

RECONSTRUCTED FORM	DISTRIBUTION IN DIFFERENT GROUPS			FUNCTIONS IN THE MODERN LANGUAGES	RECONSTRUCTED FUNCTIONS	AGE
	TONGIC	Nuclear East	Samoic Outliers			
<i>*tae</i>	S	S	D	SN, constituent	SN	More than

³⁰ Clark (1976: 96) also cites the form *kei* as a prohibitive and states that it is a descendent of **kai*. However, both Bauer et al. (1993) and Harlow (2007) cite *kaua ~ kauaka* as the only forms used to express the prohibitive. Clark (1976: 96) puts forth a hypothesis that the Tahitian forms *'a'ita* and *'e'ita* may be derived from **kai*, supposedly **kai* + ?. However, Clark does admit that this diachronic connection is rather tentative. Lazard and Peltzer (2000) state that the negation markers in Tahitian are univerbations between aspect particles and current or erstwhile lexical items. The particle *a* indicates inceptive aspect, whereas *e* is the most neutral aspect particle and often indicates incompleteness. As pointed out in section 4.2.2.3., the form **ita* is no longer observed with a lexical meaning of its own; according to Lazard and Peltzer (2000: 49) it have may have meant 'shrug one's shoulder's in denial.

RECONSTRUCTED FORM	DISTRIBUTION IN DIFFERENT GROUPS			FUNCTIONS IN THE MODERN LANGUAGES	RECONSTRUCTED FUNCTIONS	AGE
	TONGIC	Nuclear East	Samoic Outliers			
				negator, negative questions, negator with additional implications		2,000 years old
<i>*kai</i>	D	S	S	SN, NegEx, No (pro-sentence), negator with special implications, negator restricted to past in some Māori varieties	NegEx, pro-sentence	ca. 2,000 years old
<i>*kore</i>	none	D	none	SN, NegEx, pro-sentence, 'lack'	NegEx, 'lack'	Less than 2,000 years old

Clark (1976: in passim) considers **tae* to be older than **kai*. Greenhill and Gray (2008) cite the corresponding cognate forms as **ta* or **ta-i* and **qikai*. They appear to confirm Clark's view in that they associate **ta-(i)* with Proto-Central Malayo-Polynesian and **qikai* with Proto-Polynesian. As pointed out in Section 2, the latter is dated ca. 2,000 years ago; the stage of Proto-Central Malayo-Polynesian is a much earlier one. The diachronic age stated by the authors mentioned above appears plausible from a grammaticalization point of view as well. Specifically, **tae* must be the older form, since its reflexes have only a grammatical function, 'NEG'; reflexes of **kai*, on the other hand, are used with the grammatical function, 'NEG', but also with more specific, narrower and thus more lexical ones, such as 'not exist' and 'no'. Clark (1976: 105) states that **kai* ousted **tae* in Tongic, but the process of this replacement remains unclear. This issue is, however, very important if one is trying to understand the mechanism(s) whereby the negative existential cycle operates, since this suggested evolution of an erstwhile existential negator **kai* into a marker of standard negation is a straightforward illustration of the Cycle. The hypothesis I would like to put forth here is that **kai* was probably interpreted as a negator as a result of raising and relativization processes also referred to as processes of subordination or subject raising. In a nutshell, such processes have been said to take the subject of a complement clause and turn it into the subject of the governing verb, cf. Chung and Seiter (1980: 627); verbs that typically occur in a higher clause and hence as governing verbs are negative, aspectual, or modal verbs. Clark does not address these processes with regard to **kai*, but seeing that he considers it to have been a negative existential originally, it is plausible that it formed constructions such as 'it DOES NOT EXIST X that is VERB-ing'. Such constructions are well attested in Tongic as well as other Polynesian languages.

Unlike **tae* and **ikai*, reflexes of **kore* are restricted to Nuclear Eastern Polynesian. Their uses in the modern languages include marking of standard negation, prosentence, negative existential and also ‘lack’. Because they are restricted to this subgroup and also because some of them still have the lexical meaning ‘lack’, it is reasonable to assume that the form **kore* is the youngest one among the Polynesian negators. Clark describes its evolution to SN as a result of relativization processes; that is, its evolutionary path is very similar to that of the one suggested for **kai* in its development as an SN marker.

Raising and relativization in Polynesian languages have been widely discussed in connection with reconstructing case marking patterns in Proto-Polynesian. It is beyond the scope of this study to summarize the literature on this topic; some important references include Chung (1973), Chung and Seiter (1980), Clark (1976), and Williams (1938). The point about this relevant to the current inquiry is that a specific syntactic construction is apparently very productive in Polynesian languages. This construction involves a complex clause structure in which the subjects of the complement clause are raised to subjects of the main clause. One of the effects of the construction’s productivity is the proliferation of expressions of negation by higher verbs with a negative content, since, potentially, any lexical item with appropriate semantics can be incorporated into this construction. Therefore, I would like to suggest that synonymy and lexical replacement within one and the same construction led to the different negation markers in the Tongic and Nuclear Polynesian groups. The construction NEGATIVE VERB_SUBORDINATOR_PROPOSITION > NEGATED PROPOSITION has remained the same through the passage of time; the lexical items in the higher clause have undergone renewal. It is also worth mentioning that such processes of relativization are still active. This is demonstrated by data from Wallician, a Samoic Outlier language from East Uve’a. Pierre Bataillon was a missionary who spent about 40 years (1837–1877) on that island and wrote a dictionary of this language (Bataillon 1932). In his dictionary, the forms of standard negation include *kala mo*, *kailoa mo*, and *mole mo*. The dictionary also lists *mole* as a verb meaning ‘lack’. In descriptions of contemporary Wallician, SN is described as being expressed by a higher verb *e mole*, cf. Rensch (1982).

As shown by the data in Table 3, there are five languages in which the SN marker is described as a higher verb in a complex clause and another five languages in which the SN has some verbal characteristics and is still considered to be part of a complex sentence. The languages in question include all Nuclear Polynesian and also both Tongic languages. Consequently, we can say that the complex sentence construction survived in these groups. On the other hand, in the 14 Samoic Outliers the erstwhile negative verb has lost most of its verbal characteristics and is nowadays better described as a particle; the former complex sentence structure used to express sentence negation has been reduced to a simple one.

5. The Negative Existential Cycle: types, transition scenarios and beyond

As we have seen, applying the Negative Existential Cycle to comparative data from Slavonic and Polynesian yields different results in the sense that different types of the Cycle are instantiated in the two families.

Polynesian languages provide stronger evidence for the Negative Existential Cycle than Slavonic in the sense that all six of the postulated types are actually attested in the family alone or in combination with other types, cf. Figure 4 and Figure 5 above. A striking difference between the two families is the complete absence of types B and C in Slavonic, whereas there are plenty of Polynesian languages that fit into these types. Both of these types can be correlated with language/family specific characteristics that are present in Polynesian but absent in Slavonic. However, both Polynesian and Slavonic highlight, in different ways, one and the same cross-linguistic tendency, to be explicated shortly.

As we recall, type B comprises languages in which existential predications are negated by a special negator only. Lack of variation, however, may be due to very different features in different languages. In Polynesian languages, existential constructions are strictly non-verbal predications that do not admit any tense aspect marking. In Slavonic languages, as well as in Turkish, one of the languages used to illustrate type B in Croft (1991: 9), existential predications are grammaticalized constructions with special characteristics, but they can be marked for tense. This is expressed in various ways and may result in languages with variation in the negation of existential predications. In most Slavonic languages with a negative existential, that predicator is restricted to the present tense, cf. data from Ukrainian in (2) above for an example. Of the 30 languages classified as type B in the cross-linguistic sample, cf. Figure 2 above, the negative existentials in 22 languages do not admit of any tense-aspect marking, 4 can be inflected for a limited set of tense-aspect categories, and there is no information on this parameter for 2 languages. So both Polynesian and Slavic languages highlight one and the same cross-linguistic tendency, although in different ways.

Type C consists of languages in which the negative existential is used to negate verbal predications, but the negation of existential predications remains special in one or several respects, as in Tongan in (11). The occurrence of languages of type C in Polynesian but not in Slavonic is clearly due to the fact that SN is commonly expressed by a subordination strategy. This may facilitate the use of negative existentials as SN markers in the following sense. As has been pointed out, subordinating constructions are very common and very productive in Polynesian languages, so verbs of all kinds, including negative existentials and other verbs with negative content, can be easily incorporated in them. As we recall, it is impossible to reconstruct a common negator for Proto-Polynesian due to the great diversity of diachronic sources for SN markers. This diversity can be explained if we accept that speakers are likely to substitute lexical items in constructions that consist of a complex clause structure. In other words, greater variation is facilitated. Use of synonyms is much more limited with a grammaticalized particle that has a fixed position relative to the constituent it negates. Croft (1991: 23) also suggests that in languages in which predicate concatenation is very productive, special negative existentials most probably arise through replacement in a construction rather than fusion; he also goes on to say that such languages (Mandarin Chinese and Sedan being some examples) might have gone from type A (single negation strategy) directly to type C (SN=negative existential but negating existential predications is still different construction-wise). There is no evidence for such a development in Polynesian; rather, the transition path seems to go from type B or from type B~C to type C.

We have seen evidence for several separate transitions between different types of the Cycle. They are presented in (35) below.

(35) Transitions between different types in the Negative Existential Cycle

- a. $A \rightarrow A \sim B \rightarrow B \sim C$, cf. Russian, Hawai'ian
- b. $B \rightarrow C \rightarrow [(C \sim A) \rightarrow A]$, cf. cf. Tongan, Tahitian; cf. Niue for [the latter stages]
- c. $B/\text{NEG.EX} \rightarrow \text{pro-sentence} \rightarrow \text{emphatic external negator} \rightarrow \text{neutral negator, internal to the proposition}$, cf. Kapingamarangi, Sino-Russian

We have also seen more complicated scenarios in which processes that appear as instances of the Negative Existential Cycle gradually evolve into instantiations of the Jespersen Cycle.

The transition scenarios outlined in (35) can be further specified in terms of the processes involved in them, their cross-linguistic validity, and the amount of time for their realization. In (35a), the negative existential breaks into the verbal domain by virtue of being employed in a specific construction. This construction may be directly inherited or widen its domain of use; in any case, it is the construction as a whole that undergoes a change of

function and not the negative existential as an individual lexical item. Cross-linguistically, this is the most common way for negative existentials to break into the domain of SN. It has to be noted that it typically leads in partial takeovers of the domain. As already pointed out, the transition outlined in (35b) results from the negative existential being incorporated in a predicate concatenation or it becoming the main predicate in a complex clause. Such processes are cross-linguistically more restricted. Specifically, they appear tied to languages in which such constructions are productive. However, it is via pathway (35b) that negative existentials appear to eventually evolve into full markers of SN, cf. Niue above. It must be added, though, that the partial takeovers of the verbal domain by the negative existential outlined in (35a) or stage C can be maintained for very long periods of time such that they appear more as stable states rather than phases in a Cycle. Furthermore, the completion of the Cycle seems to require more than 2,000 years if we are to judge from the Polynesian data. This in turn requires that a dimension be added to the model; a similar observation is suggested by data from Uralic languages, cf. Veselinova (forthcoming). Finally, the transition described in (35c) is plausible but the least documented one among the three scenarios.

In conclusion, testing the Negative Existential Cycle on comparative data from two different language families has proven enlightening in several respects. First, it has been confirmed that the types postulated in the Cycle are variationist in nature and do not necessarily represent a sequence of diachronic states. In fact, we have seen evidence for developments that cover non-sequential types in the Cycle and that several types may co-exist in one and the same language for a very long time. This in turn allows us to specify several distinct transition processes within the Cycle that do not necessarily lead to its completion within an observable span of time. In this case, I consider the observable time to be about 2,000 years, the time period specified for the breakup of Polynesian varieties into separate languages. As mentioned earlier, the diachronic age of the Slavonic languages is much shallower.

Second, there is no doubt that negative existentials interact with standard negation in a variety of ways. However, the Negative Existential Cycle appears to be fully instantiated only when very specific conditions are present. In particular, negative existentials are more likely to develop into fully established verbal negators in languages in which subordinating constructions are very productive.

Finally, a note on the general methodology for modeling language change is in order. The Negative Existential Cycle is based on the dynamicization of typology, that is, on interpreting modern cross-linguistic data in order to suggest hypotheses about diachronic processes. Here, I have tested it using historical-comparative data. The purpose has not been to show the superiority of one method over the other; many historical studies are possible only because of dynamic typology, since there is simply no historical data for many families. Rather, what I hope to have demonstrated is that a historical model based only on typological data may overgeneralize, cf. also Cysouw (2007). This is why it is indispensable that such work be supplemented by as many historical-comparative studies as possible. In fact, family-based samples are becoming increasingly more common even in synchronic typological studies, much for the same reasons.

Appendix A: Abbreviations and presentation conventions

Examples were glossed according to the Leipzig glossing rules, <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>, and most grammatical abbreviations were taken from this source as well.

Abbreviations specific to this work are listed below:

ANAPH	anaphoric	INC	inceptive
ANIM	animate	MOD	modal
ANP	anaphoric pronoun	NP	noun phrase
ART	article	NSP	non-specific
ASCR	ascriptive	OCS	Old Church Slavonic
CIA	consonant-ia/polynesian transitive suffix	PART	Particle
CNT	contrastive absolutive marker	PN	Proto-Polynesian
DIR	directional	PREP	preposition
EX	existential	PRES	presentative
GENR	general tense-aspect-mood	S	subject
particle		SUB	subordinator
IMPFT	imperfect	TA	tense-aspect
		TAM	tense-aspect-mood

Appendix B: Comparative Data and Maps

Table 2. Overview of the standard and special negators in the Slavonic dataset

Unless otherwise indicated, the forms of the ascriptive and existential negators are 3SG.PRS *Type* type from the Negative Existential Cycle assigned to a particular language

Group	Language Name [ISO-693]	SN	Existential negator	Type
East	Byelorussian [ruw]	<i>ne</i>	<i>njama</i> 'not exist, not.have'	A~B
	Russian [rus]	<i>ne</i>	<i>net</i> 'not exist, not.have'	A~B
	Ukrainian [ukr]	<i>ne</i>	<i>nema/nemae</i> 'not exist, not.have'	A~B
South	Bulgarian [bul]	<i>ne</i>	<i>njama</i> 'not exist, not.have'	B~C
	Macedonian [mkd]	<i>ne</i>	<i>nema</i> 'not exist, not.have'	B~C
	Serbian/Croatian [srp]/[hrv]	<i>ne</i>	<i>nema</i> 'not exist, not.have'	A~B/A~B
	Slovene [slv]	<i>ne</i>	<i>ne obstaja</i> 'NEG exist'	A
West	Czech [ces]	<i>ne-</i>	<i>ne-existujou</i> 'NEG-exist.PL.PRES'	A
	Slovak [slk]	<i>ne-</i>	<i>ne-jestvujú/existujú</i> 'NEG exist.PL.PRS' (<i>nieto</i>) 'not exist'	?A~B → A
	Kashubian [csb]	<i>nie</i>	<i>ni ma</i> 'not.have'	A~B
	Polish [pol]	<i>nie</i>	<i>nie ma</i> 'NEG have'	A~B
	Upper Sorbian [hsb]	<i>nie-</i>	<i>nie-dawa</i> 'NEG-give' <i>nie-eksistuja</i> 'NEG-exist.PL.PRES'	A
	Lower Sorbian [dsb]	<i>nie-</i>	<i>nje-dajo</i> 'NEG-give' <i>nje-eksistěruju</i> 'NEG-exist.PL.PRES'	A

Table 3. Overview of the standard and special negators in the Polynesian dataset

The following conventions are used in the table

Type type from the Negative Existential Cycle assigned to a particular language

Group	Sub-group I	Sub-group II	Language Name [ISO-693]	SN		Existential negator	Type
				Form	Part of speech		
Tongic			Tongan [ton]	<i>'ikai</i>	higher verb	<i>'ikai</i>	C
			Niue [niu]	<i>nakai</i> <i>ai</i>	higher verb >	<i>nakai hā</i> 'EX' <i>ai fai</i>	A

Group	Sub-group I	Sub-group II	Language Name [ISO-693]	SN		Existential negator	Type
				Form	Part of speech		
				<i>fakaai tē</i>	particle	'be/do/have'	
Nuclear Polynesian	East	Rapa Nui	Rapa Nui [rap]	<i>kai</i> (R) <i>eko</i> (R) ' <i>ina</i>	particle particle particle	' <i>ina</i>	B~C
	East Central	Marquesic	Hawai'ian [haw]	' <i>a'ole</i> <i>a'ohe</i>	higher verb > particle	' <i>a'ole</i> ' <i>a'ohe</i>	A~B & B~C
			Mangareva [mrv]	<i>e kore</i> <i>kakkore</i>	higher verb higher verb	<i>kore</i>	C
			Marquesan, North [mrq]	' <i>a'o'e</i> ' <i>a'e</i> <i>tē</i>	Particle particle particle	' <i>a'o'e</i> ' <i>a'e</i>	C
		Tahitic	Maori [mri]	<i>kaōre</i>	higher verb	<i>kaōre</i>	C
			Tahitian [tah]	' <i>a'ita</i> /' <i>a'ore</i> , ' <i>e'ita</i> /' <i>e'ore</i>	higher verb > particle	' <i>a'ita</i> , ' <i>a'ore</i>	B & C
			Rarotongan [rar]	<i>kāre</i>	unclear	<i>kāre</i>	C
	Samoic Outliers	Samoaan	Samoaan [smo]	<i>lē</i>	Particle	<i>leai</i>	B~C
		Tokelaun	Tokelaun [tkl]	<i>hē</i>	Particle	<i>heai</i>	B
		Ellicean	Tuvaluan [tv]	<i>hē</i>	Particle	<i>heai</i>	B
			Kapingamara ngi [kpg]	<i>tē</i> <i>hakarē</i>	Particle Particle	<i>tēai</i> <i>hakarē</i>	B & B~C
			Nukuoro [nkr]	<i>de</i>	Particle	<i>deai</i>	B
		Futunic	Emae [mmw]	<i>sē</i>	Particle	<i>ikai</i>	B
			Futuna, East [fud]	<i>lee'se</i> <i>se</i> <i>le'aise</i>	higher verb particle higher verb	<i>le'e</i> <i>le'ai</i> <i>se</i> POSS PREDICATION	B~C & C & C~A
			Futuna, West [fut]	<i>se...ma</i>	Particle	<i>fikai</i> <i>jikai</i>	B
			Mele Fila [mx]	(<i>se</i> -)... <i>kē</i>	(prefix-)...Particle	<i>saai</i>	B
			Rennell-Bellona [mnv]	<i>he'e</i>	Particle	<i>si'ai</i>	B
			Vaeakau-Taumako [piv]	<i>sikiai</i> <i>hiai</i>	Higher verb > particle	<i>siai</i> <i>hiekhiloa</i> <i>khiloa</i>	C
			Uvean, West [uve]	<i>hē</i>	Particle	<i>siai</i>	B

Group	Sub-group I	Sub-group II	Language Name [ISO-693]	SN		Existential negator	Type
				Form	Part of speech		
		East Uvean Niufo'ou	Wallician [wls]	<i>mole</i>	Higher verb	<i>mole</i>	C

As has been pointed out, there was not a single standard negation in Proto-Polynesian, but rather, three different expressions have been reconstructed, which are **tae*, **kai*, and **kore*. Their reflexes in the modern Polynesian languages are presented in 0 below. The relationship of the modern forms to the reconstructed ones is indicated as follows: **bold face** is used for forms that can be shown to go back to **tae*, grey shade is for forms traced back to **kai*, and underline for the descendants of **kore*. Forms in *italics* only, without any additional markings cannot be related to any of the reconstructed forms.

Table 4. Reflexes of **ta'e*, **kai*, **kore* in the modern Polynesian languages

R restricted to particular contexts

? information not found in the sources available to me

LANGUAGE NAME [ISO-693]	SN	'NOT YET'	NEGATIVE EXISTENTIAL	PRO-SENTENCE	NEGATIVE IMPERATIVE	CONSTITUENT NEGATOR
Tongan [ton]	<i>'ikai</i>	<i>te'eki (ai)</i>	<i>'ikai</i>	<i>'ikai</i> <u>'ika'i</u> <i>hala</i> <i>atā</i> <i>te'eki ai</i>	<i>'oua'e</i>	<i>'ikai</i>
Niue [niu]	<i>tē (R)</i> <u><i>nakai</i></u> <i>ai</i> <u><i>fakai</i></u>	<i>ai lā,</i> <i>nakai lā</i>	<u><i>nakai</i></u> <i>ai</i> <u><i>fakai</i></u>	<i>nakai</i> <i>naha</i>	<i>aua (neke)</i> <i>ua</i> <u><i>Aha!</i></u>	<u><i>fakai</i></u> <i>ai</i>
Rapa Nui [rap]	<i>kai (R)</i> <u><i>eko (R)</i></u> <i>'ina</i>	?	<i>'ina</i>	<i>'ina</i>	<i>'ina ko</i> <u><i>eko</i></u>	<i>ta'e</i>
Hawai'ian [haw]	<u><i>'a'ole</i></u> <u><i>'a'ohe</i></u>	?	<u><i>'a'ole</i></u> <u><i>'a'ohe</i></u>	<u><i>'a'ole</i></u> <u><i>'a'ohe</i></u>	<i>mai</i> <i>ouki</i>	<i>'a'ole</i>
Mangareva [mrv]	<u><i>e kore</i></u> <u><i>kakkore</i></u>	?	<i>kore</i>	?	?	<i>tē (?)</i>
Marquesan, North [mrq]	<i>tē (R)</i> <u><i>'a'o'e/'a'e</i></u>	?	<u><i>'a'o'e</i></u> <u><i>'a'e</i></u>	<u><i>kore</i></u>	<i>umoi</i>	<i>te</i>
Maori [mri]	<u><i>kāore</i></u> <i>tē (R)</i> <i>kiihai (R)</i>	<i>kia</i>	<u><i>kāore</i></u>	<i>kāo</i> ³¹	<i>kaua</i> <u><i>kei</i></u>	<u><i>kore</i></u>
Rarotongan [rar]	<u><i>kāre</i></u>	?	<u><i>kāre</i></u>	<u><i>kāre</i></u>	<i>'auraka</i>	<u><i>kāre</i></u>
Tahitian [tah]	<i>'aita</i> <u><i>'a'ore</i></u>	<i>'aita e ā</i>	<u><i>'a'ore</i></u>	<i>'aita</i> <i>'eita</i>	<i>'eiaha</i>	<i>'e'ere</i>

³¹ From Jennifer Runner's list of 'No' answers in 520 languages, <http://users.elite.net/runner/jennifers/no.htm>; I also checked the Māori-English Online dictionary, <http://www.maoridictionary.co.nz/index.cfm?dictionaryKeywords=kao&search.x=0&search.y=0&search=search&n=1&idiom=&phrase=&proverb=&loan=> on Feb 4, 2013.

LANGUAGE NAME [ISO-693]	SN	‘NOT YET’	NEGATIVE EXISTENTIAL	PRO- SENTENCE	NEGATIVE IMPERATIVE	CONSTITUENT NEGATOR
	<i>'e'ore</i>			<i>'aore'</i>		
Samoan [smo]	<i>lē</i>	<i>le'i</i>	<i>leai</i>	<i>leai</i>	<i>aua (ne'i)</i>	<i>lē</i>
Tokelauan [tkl]	<i>hē</i>	<i>hēki</i>	<i>heai</i>	<i>heai</i>	<i>nahe nā iā inā eina</i>	<i>hē</i>
Tuvaluan [tv1]	<i>see hē</i>	<i>seki heki</i>	<i>seeai seki ai</i>	<i>(i)kai seai</i>	<i>saa</i>	-
Kapingamarangi [kpg]	<i>tē hakarē tiki</i>	<i>tiki</i>	<i>tēai hakarē</i>	<i>tēai teiai hakarē</i>	<i>hu tē</i>	<i>tē</i>
Nukuoro [nkr]	<i>de/te</i>	<i>tiqi (ai)</i>	<i>deai</i>	<i>deai</i>	<i>kana dee</i>	?
Emae [mmw]	<i>sē</i>	<i>sē...niki</i>	<i>ikai</i>	?	?	?
Futuna, East [fud]	<i>le'ese se le'aise</i>	<i>lekiai</i>	<i>le'e le'ai</i>	<i>le'ai e'ai</i>	<i>auase, auana</i>	<i>le'ese se le'aise</i>
Futuna, West [fut]	<i>se.. ma</i>	<i>siki...man a</i>	<i>fikai jikai</i>	<i>jikai, gkai</i>	<i>koisa, koina, kosou</i>	<i>se-</i>
Mele Fila [mxe]	<i>se-...kē (?)</i>	<i>keana saiana</i>	<i>saai</i>	<i>sai</i>	?	<i>kē</i>
Rennell-Bellona [mnv]	<i>he'e</i>	<i>heki, hoki</i>	<i>si'ai</i>	<i>si'ai</i>	<i>noka</i>	<i>he'e tau</i>
Vaeakau- Taumako [piv]	<i>siai</i>	<i>hikiai, sikiiai</i>	<i>siai</i>	<i>siai</i>	<i>auā, na</i>	<i>siai</i>
Uvean, West [uve]	<i>hee</i>	?	<i>siai</i>	<i>siai</i>	?	?
Wallician [wls]	<i>mole he'e</i>	<i>heéki, heékiai, he'eki</i>	<i>mole</i>	<i>kaihoa kailoa oho</i>	<i>'aua</i>	?

Map 1: The Negative Existential Cycle applied to 95 languages

Map 2: Negation of existential sentences in Slavonic languages

Appendix C: Questionnaire used for data collection in this study

The context descriptions are given in square brackets; further clarifications about the example sentences come in between parentheses. Neither the contexts, nor the clarifications are to be translated. Please translate only the **bold face text**.

Please provide a morpheme to morpheme translation for all of the translated examples below. Should it turn out that the English examples/situations are in any way culturally inappropriate, e.g. take up topics or objects that are tabooed or simply do not exist in your culture/language, feel free to substitute them with sentences that fit better into the reality of your language.

In case you are using a font different from Times New Roman or any other relatively common windows font, please send me that font too or give me a URL where I can download it.

If you can't produce the translations yourself, please provide a pointer to a source(s) where I would find similar constructions.

1. Language info

1.1. Language name

1.2. Genealogical affiliation

1.3. Where is it spoken? Or where did you study it?

This question is especially important for smaller languages; the more specific the info, the better. If you can give me place names or geographical coordinates, or both, that will be great. If you can't, I will make do with whatever information you can provide.

2. Are you a native speaker? If not, how did you gain knowledge of this language?

3. Verbal sentences

(1) Example

Mary sings

(2) Example

Mary does not sing

(3) Example

Mary likes movies

(4) Example

Mary does not like movies

The answers to 3 and sub-questions can be very short or just references to other sources.

3.1. Can you think of any tense-aspect categories where the negator used in 0 through 0 cannot be used?

If 'yes'

3.1.1. Please name these categories. It would be helpful to give examples too if possible (a pointer would be fine too, see above)

3.1.1.1. What negator is used with them? Again, examples or references are welcome.

4. Non-verbal sentences

4.1. Equational predicates

(5) Example

[Introducing a guest to the family]: **This is my friend Tom**

(6) Example

[A family gathering plus a guest]

Your mom [looking at the guest]: Is this Tom?

Speaker B: **This is not Tom, it's Jake.**

4.2. Descriptive (property ascribing) predicates

(7) Example

[Two people who met recently are talking about a common acquaintance]

Speaker A: What does Tom do?

Speaker B: **Tom is a teacher**

(8) Example

[Same context as in (7)]

Speaker A: Is Tom a teacher?

Speaker B: **Tom is not a teacher, he is a doctor**

(9) Example

[Talking about the appearance of a somebody I just met]

Tom is tall

(10) Example

[Same context as in (9)]

Tom is not tall

(11) Example
[Tom just heard some really good news]
Tom is happy

(12) Example
[Tom is waiting for some news that's long delayed]
Tom is not happy

4.3. Locative and locative-presentative predicates

(13) Example
[Somebody comes to your house, looking for your brother]
(Yes, wait a minute), **Tom/he is here**

(14) Example
[Same context as in (13)]
(Sorry), **Tom/he is not here**

(15) Example
[Same context as in (13)]
(Sorry), **Tom/he is not here, he is in town**

(16) Example
[Hearing trashing and noise, looking through the window]
There are some wild cats in the garden

(17) Example
[Same context as in (16)]
Speaker A: Do you think there are any wild cats in the garden?
Speaker B: **There aren't any wild cats in the garden.**

4.4. Clauses where only existence is predicated

(18) Example
[The teacher, in a zoology/natural sciences class]
There are wild cats (in Africa or somewhere else; there is such a thing as wild cats)

(19) Example
[Same context as in (18)]
There are no wild cats (in Africa or anywhere, there is no such thing as wild cats)

(20) Example
[Same context as in (18)]
Wild cats exist (The sense is the same as for 4.15; this is basically to check whether the language has an intransitive existential verb as the English *exist*, French *exister*, Modern Greek *ipárho*, Russian *sushtestvovat'*.)

(21) Example
[Same context as in (18)]
Wild cats do not exist

4.5. Predicative possession

(22) Example
[Talking about helping somebody to move]
(Tom can help), **Tom/he has a car**

- (23) Example
 [Same context as in (22)]
 (Tom cannot help), **Tom/he does not have a car**

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