

Reconstructing Proto-Atayalic negators*

OCHIAI Izumi

Muroran Institute of Technology

Summary

This paper attempts reconstruct four types of negators with different functions (i. verbal, ii. nominal, iii. existential, and iv. prohibitive) in the Atayalic languages Atayal and Seediq. This paper first reconstructs four negators in each of Proto-Seediq (i. *ini, *kani, ii. *adi, *uxay, iii. *uka, iv. *iya) and Proto-Atayal (i. *ini, *kana, ii. *iyat, iii. *uka, iv. *ka, *laxi) by comparing two dialects in each language. For the reconstruction of the Proto-Seediq negators, Paran Seediq and Truku Seediq are compared. For the reconstruction of Proto-Atayal, Squliq Atayal and C’uli’ Atayal are compared. Then, by comparing the forms and functions of the negators in Proto-Seediq and Proto-Atayal, the Proto-Atayalic negators are reconstructed (i. *ini, *kani, *kana, ii. *adi, iii. *uka, iv. *ka, *ija). The Proto-Saisiyat negators are also reconstructed to supplement the evidence for the reconstruction of Proto-Atayalic *ija, which is the negator used for prohibition.

Key words: negators, Seediq, Atayal, Saisiyat, reconstruction

關鍵詞：否定辭、賽德克語、泰雅語、賽夏語、構擬

*An earlier version of this paper was presented at the Workshop on Negation and Sino-Tibetan Languages 2 at the Institute for Research in Humanities, Kyoto University (January 11–12, 2020). I benefitted from the participants' comments and suggestions. The author is responsible for any errors that may remain in this paper.

1. Introduction

Atayalic is a subgroup in the Austronesian languages family. The Atayalic subgroup includes two languages: Atayal and Seediq. In Atayal, there are two main dialects, namely Squliq Atayal and C’uli’ Atayal. In Seediq, there are also two main dialects, namely Paran Seediq and Truku Seediq.¹ The Atayalic languages are spoken by indigenous people in Taiwan, which is the homeland of many other Austronesian languages. The Austronesian languages spoken in Taiwan, other than Yami on Orchid Island, which belongs to the Malayo-Polyne-sian subgroup, are collectively called the Formosan languages. The Atayalic subgroup is classified as one of the first-order subgroups, directly separating from Proto-Austronesian (Blust 1999). Therefore, the reconstruction of Proto-Atayalic has great significance for elucidating Proto-Austronesian. However, little work has been done on the Proto-Atayalic reconstruction, except for Li (1981), who reconstructed Proto-Atayalic phonemes.

This paper deals with negators in the Atayalic languages. However, the use of a negator is not limited to Atayalic; rather, it is a typological feature that is commonly seen in Formosa languages, as summarized in Lin (2011). In the process of discussing negators in Atayalic languages, cognate form negators in neighboring languages, such as Pazih, Puyuma, Rukai, Siraya, Thao, Tsou and Saisiyat, are also introduced.

In Atayalic languages, negators are placed in the clause-initial position to express a negative proposition. Perusal of the existing literature, specifically Huang and Wu (2018) for Squliq Atayal, Huang (1995) for C’uli’ Atayal, Ochiai (2016) for Paran Seediq, and Tsukida (2009) for Truku Seediq, led to an observation that there are four types of negators with different functions and that these are commonly used in both Atayal and Seediq. The functions of these negators are (i) verbal negation, (ii) nominal negation, (iii) existential negation, and (iv) prohibition.

The existing literature also points to the following typological observations. In both Atayal and Seediq, negators for (ii) nominal negation and (iii) existential negation are followed by nouns and express meanings of “A is not equal to B” and “there is not A (A does not exist),” respectively. Negators for (i) verbal negation and (iv) prohibition are followed by verbs, meaning “someone do not do something,” and “Do not do something!” The verbs following these negators have restrictions on their forms. Verbs in Atayalic languages are mainly divided into two classes, namely dependent and independent,² which are roughly analogous to irrealis and realis, respectively, from a semantic point of view. It is the dependent class that appears after these negators. Each class is characterized by a few forms of affixation for two voices: the actor voice and the undergoer voice. However, the voice distinctions are confined to verbs of high transitivity. The undergoer voice is further divided

¹ Ogawa and Asai (1935: 21, 559) were referred to for the classification of the Atayal and Seediq dialects.

² The terminology in this paragraph follows Ross (2009).

into three types (i.e., the patient, location and circumstance subject type). Therefore, the undergoer voice has more than one form of affixation for the dependent and independent class, as shown in Table 1.

Table 1 Paran Seediq affixation patterns for verbs of high transitivity³

	AV	UV patient	UV location	UV circumstance
<i>Independent</i>	< <i>um</i> >, <i>mu-</i>	- <i>un</i>	- <i>an</i>	<i>su-</i>
<i>Independent past</i>	< <i>umun</i> >, <i>mun-</i>	< <i>un</i> >	< <i>un</i> >...- <i>an</i>	—
<i>Independent future</i>	<i>umpu-</i>	—	—	—
<i>Dependent</i>	Ø-	- <i>i</i>	- <i>i</i>	- <i>ani</i>

Independent class affixations for verbs of high transitivity (Table 1) contain information relating to tense, whereas verbs of low transitivity have no distinction of tenses. There are inflectional forms for the neutral, past (a undergoer voice circumstance subject lacks this tense), and future tense (only actor voice). These negators for verbal negation and prohibition are followed by the dependent class of verbs. It follows that for verbs of high transitivity, the tense is neutralized in the negative construction. The neutralization of tense distinctions is reported cross-linguistically in Payne (1985).

Table 2 shows the affixation patterns for verbs of low transitivity. The voice distinction is neutralized in this type of verb. In addition, there is no distinction of tenses.

Table 2 Paran Seediq affixation patterns for verbs of low transitivity

<i>Independent</i>	<i>mu-</i>	Ø-	<i>tu-</i>
<i>Dependent</i>	<i>ku-</i> , <i>pu-</i>	<i>ku-</i>	<i>tu-</i>

This paper discusses negators in two dialects of Atayal and two dialects of Seediq. Some negators are common to both Atayal and Seediq, while others are not. Even within each language's own dialects, some negators are common, while others others are not.

The purpose of this paper is to first reconstruct four types of negators in Proto-Seediq (i. *ini, *kani, ii. *adi, *uxay, iii. *uka, iv. *iya) and four in Proto-Atayal (i. *ini, *kana, ii. *iyat, iii. *uka, iv. *ka, *laxi) by comparing two dialects in each language. For the reconstruction of the Proto-Seediq negators in Section 2, Paran Seediq and Truku Seediq are compared. For the reconstruction of Proto-Atayal in Section 3, Squliq Atayal and C'uli' Atayal are compared. Then, by comparing the forms and functions of the negators in Proto-Seediq and Proto-Atayal, the Proto-Atayalic negators are reconstructed as i. *ini, *kani, *kana, ii. *adi, iii. *uka, iv. *ka, *ija) in Section 4. Proto-Saisiyat negators are also reconstructed in Section 5 in order to supplement the evidence for the reconstruction of Proto-Atayalic *ija, which is the negator for the prohibitive.

³ Tables 1 and 2 are based on Ochiai's (2016) descriptions of Seediq verbs and their morphology.

2. Seediq negators

Section 2.1 first discusses the four negators in Paran Seediq in the following order: verbal negation, nominal nominal negation, existential negation, and prohibition. This is followed by a discussion of the four negators in Truku Seediq in Section 2.2. Based on the comparison of negators in these Seediq dialects, the Proto-Seediq negators are reconstructed in Section 2.3.

2.1 Paran Seediq

In Paran Seediq, the negator for verbal negation is *ini*, the negator for nominal negation is *uxe*, the negator for existential negation is *uka*, and the negator for prohibition is *iya*, according to the existing literature, specifically Chen (1996) and Ochiai (2016). These negators are shown in Table 3.

Table 3 Paran Seediq negators

Verbal neg.	Nominal neg.	Existential neg.	Prohibitive
<i>ini</i>	<i>uxe</i>	<i>uka</i>	<i>iya</i>

Examples for each negator are shown in (1–4), which are based on the author's field notes.⁴

- (1) The verbal negator *ini*

a. <i>ini</i>	\emptyset - <i>imah</i>	<i>sino</i>	<i>heya</i> . ⁵
NEG	AV.DEP-drink	wine	3SG

“I do not drink wine.”/“I did not drink wine.”

b. <i>ini</i>	<i>ku-ηacun</i>	<i>heya</i> . ⁶
NEG	STAT.DEP-stingy	3SG

“He is not stingy.”

⁴ Key to the abbreviations: ACC (accusative), ASP (aspect), AV (actor voice), CAUS (causative), DEP (dependent), DET (determiner), GEN (genitive), INCL (inclusive), INDEF (indefinite), INDEP (independent), NOM (nominative), NEG (negator), OBL (oblique), PART (particle), PL (plural), SG (singular), STAT (stative), UVL (undergoer voice location subject), UVP (undergoer voice patient subject), TOP (topic).

⁵ Its affirmative sentence is *m-imah sino heya* (AV-drink wine 3SG).

⁶ Its affirmative sentence is *mu-ηacun heya* (STAT-stingy 3SG).

(2) The nominal negator *uxe*

uxe *seediq* *hini* *ka* *heya.*
 NEG person here NOM 3SG

“He/she is not a person from this area.”

(3) The existential negator *uka*

uka = *ta* *sapah.*
 NEG =1PL.INCL house

“We do not have a house.”

(4) The prohibitive *iya*

a. **iya** *bube-i* *qedin* = *su.*
 NEG hit-UVP/UVL.DEP wife =2SG.GEN

“Do not hit your wife.”

b. **iya** *ku-ŋacun!*
 NEG DEP-stingy

“Do not be stingy!”

2.2 Truku Seediq

In Truku Seediq, the negator for verbal negation is *ini*, the negator for nominal negation is *adi* or *uxay*, the negator for existential negation is *uyat*, and the negator for prohibition is *iya*, according to the existing literature, specifically Tsukida (2009) and Juang (2012). These negators are shown in Table 4. Examples for each negator are shown in (5–9), which are cited from Tsukida (2009) and Juang (2012). Their transcriptions are presented here, with slight modifications.

Table 4 Truku Seediq negators

Verbal neg.	Nominal neg.	Existential neg.	Prohibitive
<i>ini</i>	<i>adzi, uxay</i>	<i>uyat</i>	<i>iya</i>

(5) The verbal negator *ini*

ini	\emptyset -taqi	<i>hini</i>	<i>ka</i>	<i>Kumu.</i>
NEG	AV.DEP-sleep	here	NOM	Kumu

“Kumu does/did not sleep here.”

(6) The nominal negator *adzi*

adzi	<i>payi</i>	$=mu$	<i>ka</i>	<i>hiya.</i>
NEG	grandmother	=1SG.GEN	NOM	3SG

“She is not my grandmother.” (Juang 2012: 101)

(7) The nominal negator *uxay*⁷

uxay	<i>payi</i>	$=mu$	<i>ka</i>	<i>hiya.</i>
NEG	grandmother	=1SG.GEN	NOM	3SG

“She is supposedly not my grandmother.” (Juang 2012: 101)

(8) The existential negator *uŋat*

uŋat	<i>qaya</i>	$=mu$	<i>da.</i>
NEG	stuff	=1SG.GEN	PART

“My luggage is not there.” (Tsukida 2009: 276)

(9) The prohibitive *iya*

iya	<i>mah-i</i>	<i>ka</i>	<i>qəsiya.</i>
NEG	drink-UVP/UVL.DEP	NOM	water

“Don’t drink the water!” (Tsukida 2009: 277)

2.3 Proto-Seediq

Based on a comparison of the four types of negators in the Seediq dialects, Proto-Seediq is reconstructed as shown in Table 5.

⁷ With regard to *uxay* and *adzi*, Juang (2012) observes a slight meaning difference and adds “supposedly” to the translation of *uxay*.

Table 5 Proto-Seediq negators

	Verbal neg.	Nominal neg.	Existential neg.	Prohibitive
Paran Seediq	<i>ini, kani</i>	<i>uxe</i>	<i>uka</i>	<i>iya</i> (< <i>iða</i>)
Truku Seediq	<i>ini, kani</i>	<i>adi, uxay</i>	<i>ujat</i>	<i>iya</i>
Proto-Seediq	* <i>ini, kani</i>	* <i>adi, uxay</i>	* <i>uka</i>	* <i>iða</i>

The negators for (a) verbal negation and (d) prohibition are easy to reconstruct. They each have the identical forms *ini* and *iya* in both Paran Seediq and Truku Seediq. The first form is directly reconstructed in Proto-Seediq. Recorded in the 1920s, the second form appears as *iða* in Paran Seediq (Asai 1953). There was a historical change from the early Paran Seediq *ð* to *y* in present-day Paran Seediq. Therefore, *ð* was reconstructed as the medial consonant of the prohibitive.

As for (c) existential negation, the two forms are similar but slightly different. Truku Seediq has the *t* word-finally whereas Paran Seediq does not have it. Further, Truku Seediq has the medial consonant *y*, which appears as *k* in Paran Seediq. It is the Paran Seediq form *uka* that shares cognates in other Formosan languages, such as Saisiyat *oka*, Bunun *uka*, Thao *uka*, and Tsou *ukða*, as proposed in Lin (2011: 200). Therefore, the form in Paran Seediq *uka* is reconstructed in Proto-Seediq. It follows that the near-cognate *ujat* in Truku Seediq shows sporadic sound changes, the addition of a final consonant, and the change of teh medial consonant from *k* to *y*. The identical form that appears in Truku Seediq is seen in Squliq Atayal (Section 3.1). This form seems to have been adopted into Truku Seediq by borrowing from Squliq Atayal, which is spoken by Truku Seediq tribe's neighboring tribe. In addition, the sporadic addition of the final consonants seen in negators are characteristic of Atayal (e.g., *uya-t, uka-s, iya-t*), as discussed in Section 3.

As for (b) nominal negation, *uxe* in Paran Seediq and *uxay* in Truku Seediq are cognates. The diphthong *ay* in the final syllable changed to *e* in Paran Seediq, as Ochiai (2015) points out. Therefore, Proto-Seediq is reconstructed as **uxay*. The other form, *adi*, is only used in Truku Seediq. However, a similar form, *kadi*, is marginally used as a negator in Paran Seediq, in phrases such as *kadi beyo* “soon (not taking a long time).”⁸ The negator *kadi* in this phrase can be replaced by *uxe*, so that it is also expressed as *uxe beyo*.⁹ It is therefore likely that Paran Seediq had *kadi* as another kind of nominal negator. This form in Paran Seediq has an additional *k* word-initially, whereas Truku Seediq lacks it. As discussed in Section 4, Truku Seediq *adi* has cognates that are identical to those in other Formosan languages, such as Puyuma and Rukai, as Lin (2011: 191) points out. Therefore, *adi* is

⁸ The meaning of *beyo* is unknown; however it is assumed to mean “a long time.” It is seen in the word *cubeyo*, meaning “in the past.” In this form, the prefix *cu-* indicating the past is attached to the root *beyo*.

⁹ This phrase is the only occurrence of *kadi* that the author collected during her fieldwork among the Paran Seediq. In this phrase, the negator *ini* can also be used (e.g., *ini beyo* “soon”).

reconstructed in Proto-Austronesian.¹⁰

There is another negator that could be reconstructed in Proto-Seediq. The form of this negator is *kani*, which is so rarely used that it has been overlooked. The author has never heard this form in spontaneous speech. The author somehow collected this form as “a kind of negator.” However, no detailed elicitation was conducted regarding this negator. For Truku Seediq, Rakaw et al. (2006: 350) lists the cognate negator *kani* with the meaning “should not do (such way).” Both dialects have *kani* as a negator; therefore, it can be reconstructed in Proto-Seediq. In addition, *kani* seems to be a verbal negator based on an example recorded in Rakaw et al (2006: 350), as shown in (10). Similar to the verbal negator *ini*, the verb following the negator *kani* (i.e., *usa* “to go”) appears in its dependent form. Thus, *kani* is reconstructed in Proto-Seediq as a verbal negator as shown in Table 5. The negator *kani* differs from *ini* in that it signifies deontic negation.

(10) Truku Seediq

<i>kani</i>	<i>su</i>	<i>usa.</i>
NEG	=2SG	AV.DEP.go

“You should not go.”¹¹

3. Atayal negators

Section 3.1 discusses the four negators in Squliq Atayal in the following order: verbal negation, nominal nominal negation, existential negation, and prohibition, followed by a discussion of the four negators in C’uli’ Atayal in Section 3.2. Based on a comparison of negators in these Atayal dialects, Proto-Atayal negators are reconstructed in Section 3.3.

3.1 Squliq Atayal

In Squliq Atayal, the negator for verbal negation is *ini*, the negator for nominal negation is *iyat*, the negator for existential negation is *uyat*, and the negator for prohibition is *ka* or *laxi*, according to the existing literature, specifically Rau (1992), Liao (2003), and Huang and Wu (2018). These negators are shown in Table 6. Examples for each negator are shown in (11–15), which are cited from Egerod (1980) and Huang and Wu (2018). Their transcriptions are presented here, with slight modifications.

¹⁰ The word-initial *k* seen in Seediq could be added by a sporadic sound change, or it could be a kind of prefix (however, the function of this prefix is unknown).

¹¹ The original translation is in Mandarin. The English translation is provided by the present author.

Table 6 Squliq Atayal negators

Verbal negator	Nominal negator	Existential negator	Prohibitive
<i>ini, kana</i>	<i>iyat</i> (or <i>yat</i>)	<i>ujat</i>	<i>ka12, <i>laxi</i></i>

(11) The verbal negator *ini*

ini	= <i>saku</i>	<i>qaniq</i>	<i>mami</i>	<i>na.</i>
NEG	=1SG.NOM	AV.DEP.eat	rice	yet

“I have not yet eaten.” (Egerod 1980: 227)

(12) The nominal negator (*i)yat¹³*

iyat	<i>tuqiy</i>	<i>na</i>	<i>mit</i>	<i>qani</i>	<i>hiya.</i>
NEG	trail	GEN	goat	this	DET

“This is not a goat trail.” (Huang and Wu 2018: 137)

(13) The existential negator *ujat*

ujat	<i>təməmiyan</i>	= <i>mu.</i>
NEG	pickled.meat	=1SG.GEN

“I do not have pickled meat.” (Huang and Wu 2018: 146)

(14) The prohibitive *ka*

ka	<i>Ø-usa</i>	<i>kuya!</i>
NEG	AV.DEP-go	there

“Do not go there!” (Huang and Wu 2018: 145)

(15) The prohibitive *laxi*

laxi	<i>pəbəbu-i</i>	<i>laqi</i>	= <i>su</i>	<i>la!</i>
NEG	breast.feed-UVP/UVL.DEP	child	=2SG.GEN	PART

“Do not breast-feed your child!” (Huang and Wu 2018: 144)

¹² In the existing literature on Squliq Atayal, which the present author consulted, only Liao (2003) and Huang and Wu (2018) report *ka* as the negator for the prohibitive. Others only report *laxi*.

¹³ According to Huang and Wu (2018: 137), *yat* is a the variant of *iyat*.

In Seediq, there is a negator *kani* “should not,” which is rarely used. For Squliq Atayal, Egerod (1980: 253) reports a similar form, *kana*, meanings “would prefer not to, in order not to, would want to prevent.” Given the similar meanings, it can be considered a cognate, even though the final vowels differ (See Section 4). The author could not find the negator *kana* in previous studies on C’uli’ Atayal. An example of *kana* in Squliq Atayal from Egerod (1980: 253) is shown in (16).¹⁴

(16) Squliq Atayal

<i>ini</i>	= <i>su</i>	<i>usa</i>	<i>taihok</i>	<i>ga</i> ,
NEG	=2SG	AV.DEP.go	Taipei	PART
<i>kana</i>	<i>su</i>	<i>agal</i>	<i>qilis</i>	
NEG	=2SG	AV.DEP.get	injury	

“If you had not gone to Taipei, you would not have been injured.”

Similar to the verbal negator *ini*, the negator *kana* is followed by a vowel in its dependent form (i.e., *agal* “to get”). Therefore, it is added as a verbal negator in Table 6.

3.2 C’uli’ Atayal

In C’uli’ Atayal, the negator for verbal negation is *ini*, the negator for nominal negation is *yakaat*, the negator for existential negation is *ukas* or *uka*, and the negator for prohibition is *ka* or *laxi*, according to the existing literature, specifically Huang (1995). These negators are shown in Table 7. Examples for each negator are shown in (17–21), which are cited from Huang (1995). Her transcriptions are presented here, with slight modifications.

Table 7 C’uli’ Atayal negators

Verbal negator	Nominal negator	Existential negator	Prohibitive
<i>ini</i>	<i>yakaat</i>	<i>ukas, uka</i>	<i>ka, laxi</i>

(17) The verbal negator *ini*

<i>ini</i>	= <i>mu</i>	<i>rasi-i</i>	<i>ku</i>	<i>qusia.</i>
neg	=1SG.GEN	bring-UVP/UVL.DEP	NOM	water

“I didn’t bring the water.” (Huang 1995: 63)

¹⁴ The interlinear glosses are provided by the present author.

(18) The nominal negator *yakaat*

<i>yakaat</i>	<i>itaal</i>	<i>i</i>	<i>Baicu.</i>
NEG	Atayal	NOM	Baicu

“Baicu is not Atayal.” (Huang 1995: 162)

(19) The existential negator *uka(s)*

<i>ukas</i>	<i>a</i>	<i>qulih.</i>
NEG	NOM	fish

“There is no fish.” (Huang 1995: 160)

(20) The prohibitive *ka*¹⁵

<i>ka</i>	<i>aras</i>	<i>cu</i>	<i>qusia!</i>
NEG	AV.DEP.bring	ACC	water

“Don’t bring water!” (Huang 1995: 61)

(21) The prohibitive *laxi*

<i>laxi</i>	<i>ku</i>	<i>m-nubuwaq</i>	<i>cu</i>	<i>quwaw.</i>
NEG	NOM	AV.INDEP-drink	ACC	wine

“Don’t drink wine!” (Huang 1995: 169)

3.3 Proto-Atayal

Based on a comparison of the four types of negators in the Atayal dialects, Proto-Atayal is reconstructed as shown in Table 8.

Table 8 Proto-Atayal negators

	Verbal neg.	Nominal neg.	Existential neg.	Prohibitive
Squliq Atayal	<i>ini, kana</i>	<i>iyat, yat</i>	<i>ujat</i>	<i>ka, laxi</i> ¹⁶
C’uli Atayal	<i>ini</i>	<i>yakaat</i>	<i>uka(s)</i>	<i>ka, laxi</i>
Proto-Atayal	* <i>ini, kana</i>	* <i>iyat</i>	* <i>uka</i>	* <i>ka, laxi</i>

¹⁵ Huang (1995) transcribes this negator with two *a*’s, i.e., *kaa*.

¹⁶ This form in Squliq Atayal, however, appears as *laxan* in Guérin (1868: 482). He transcribed it as *lakan*, but it is analyzed to represent *laxan*, which is the undergoer location voice form for *malax* “to give up.”

The negators for (a) verbal negation and (d) prohibition are easy to reconstruct. They each have identical forms, namely *ini* for verbal negation and *ka* and *laxi* for prohibition, in both Squliq Atayal and C’uli’ Atayal. These forms are reconstructed in Proto-Atayal.

As for (c) existential negation, Squliq Atayal has *uyat*, which is identical to the form in Truku Seediq. Proto-Seediq is reconstructed as **uka* (Section 2.3). The form that is identical to *uka* is seen in a C’uli’ Atayal subdialect that is spoken in Skikun, as reported in Li (1981: 289).¹⁷ Hence, this form, *uka*, is also reconstructed in Proto-Atayal. Another form reported in C’uli’ Atayal is *ukas*. This form shows the sporadic addition of the final consonant *s* (e.g., *uka-s*).¹⁸ Similarly, Squliq Atayal *uyat* also shows the sporadic addition of the final consonant *t* (e.g., *uya-t*). Further, the medial consonant is sporadically changed from *k* to *ŋ*.¹⁹

As for (b) nominal negation, the form *iyat* in Squliq Atayal is reconstructed in Proto-Atayal. In another form, *yat*, in Squliq Atayal, the initial vowel *i* seems to be deleted. In the C’uli’ Atayal form *yakaat*, an unknown segment, <*kaa*>, seems to be inserted before the final consonant of *yat*, e.g., *ya<kaa>t*. This type of infixation with an unknown function is characteristic of Atayalic languages, as observed in Tsuchida (1975), Li (1985), and Li and Tsuchida (2009).²⁰ As explained in Section 4, the Proto-Atayal form for nominal negation, **iyat*, originates in the prohibitive **iya* (which is reconstructed in Proto-Atayalic).

4. Proto-Atayalic reconstruction

Based on a comparison of the four types of negators in Proto-Seediq and Proto-Atayal, Proto-Atayalic is reconstructed as shown in Table 9.

¹⁷ Li (1981: 289) adds glottal stops before and after *uka*. However, these glottal stops before the initial vowel and after the final vowel are not shown in this paper. The same form is also reported in Iijima (1906: 141) as an Atayalic form. However, it is transcribed in Katakana as オカ, and it can be phonetically represented as [oka].

¹⁸ Although this sound change is sporadic, the same change is observed in another word. Proto-Atayalic **baki* “grandfather” is reflected as *baki* in Seediq dialects. Its cognate in Squliq Atayal is *bənəkis* (taken from Egerod (1980: 81)), and its meaning is changed to “old person.” The Atayal form is analyzed as *b<aŋ>əki-s*. The root *baki* is not only infixated by <*aŋ*>, which is a fossilized infix with an unknown function; it is also suffixed by *-s*, which would be the same sporadic sound change seen in *uka-s*. In addition, it also underwent vowel weakening of the *a* into schwa.

¹⁹ Although this sound change is sporadic, the same change is observed in another word: Proto-Atayalic **hakaw* is reflected as *hakaw* “ladder, bridge” (taken from Rakaw et al. (2006: 275)) in Truku Seediq. Its cognate in C’uli’ Atayal is *hawyu* (taken from Ogawa and Asai (1935: 13)), demonstrating the sound change of the medial consonant **k* into *ŋ*, which is, the same change seen in *uyat*. The vowels also show sound changes in the Atayal form.

²⁰ The process was probably *iyat* → *iya<kaa>t* → *ya<kaa>t*. This type of infixation before the final consonant is characteristic of Atayalic languages. However, this type of infix, referred to as fossilized infix in Ochiai (2020b), is usually composed of a CV, a consonant followed by a single vowel. Therefore, <*kaa*> in *ya<kaa>t* is likely to be phonemically represented as <*ka*> with a single vowel.

Table 9 Proto-Atayalic negators

	Verbal neg. ²¹	Nominal neg.	Existential neg.	Prohibitive
Proto-Seediq	*ini, *kani	*adi, *uxay	*uka	*iða
Proto-Atayal	*ini, *kana	*iyat	*uka	*ka, *laxi
Proto-Atayalic	*ini, *k-aní, *k-ana	*adi	*uka	*ija, *ka

The negators for (a) verbal negation and (c) existential negation are easy to reconstruct. They each have the identical forms, *ini and *uka, in both Seediq and Atayal. These forms are reconstructed in Proto-Atayalic.

As for the negator for (d) prohibition, *ija in Proto-Seediq is reconstructed in Proto-Atayalic. Proto-Seediq *ð dates back to Proto-Austronesian *j, which is a kind of voiced obstruent, as described by Blust (2013: 579). According to Blust (2013: 578), its reflex in Proto-Atayal should be *s*, *g*, or *r*. However, it appears as *y* in *iyat, which shows that its function shifted from prohibition to the negator of nominal negation.²² A piece of evidence supporting *ija in Proto-Atayalic is a cognate in Proto-Saisiyat that could be reconstructed as *iða (See Section 5). Proto-Saisiyat *ð also dates back to Proto-Austronesian *j.

As described in Section 3, the existential negator *uka (Proto-Atayal) is sporadically added to final consonants in Atayal dialects, e.g., *uka-s* or *uya-t*. The same process seems to be applied to early Proto-Atayal *iya, resulting in *iya-t. Further, the function of *iya-t changed from prohibition to nominal negation.

Proto-Atayalic *ija for prohibition changed its function to nominal negation, and the negator for the prohibitive is gapped. To fill this gap, the new words *ka* and *laxi* were introduced. Among these two forms, *ka* seems to be older than *laxi*. One reason is that the origin of *laxi* is clear. On the contrary, the origin of *ka* is unknown. Egerod (1980: 21) reports that *laxi* is derived from the verb *alax*, which means “to give up.” The negator *laxi* shows (*alax-i* > *lax-i*), the undergoer form of the dependent class. Another reason is their different syntactic behavior. The prohibitive *ka* is followed by a verb of the dependent class in both Squliq Atayal and C’uli’ Atayal, which is the typical pattern observed in the prohibitive construction. On the contrary, *laxi* is followed by the dependent class only in Squliq Atayal but followed by a case marker and an independent verb in C’uli’ Atayal. This indicates the grammaticalization of *laxi* from the imperative verb “Give up!” to a negator.

As for (b) nominal negation, one of the Proto-Seediq forms *adi is reconstructed in

²¹ Li (1981: 289) also reconstructs *ini in Proto-Atayalic; however, he does not reconstruct Proto-Seediq and Proto-Atayal.

²² Although the change from Proto-Austronesian *j to Proto-Atayal *y is exceptional, the same change is seen in another word: one of the Proto-Austronesian demonstratives reconstructed by Ochiai (2020a) is *hija “that, there.” Its reflex in Proto-Atayal is also *hija. Its reflex in early Paran Seediq is hiða “that, 3SG” (taken from Asai 1953). Its expected reflex in Proto-Atayal is either *hisa, *higa, or *hira. However, present-day Atayal reflects this as *hiya* (3SG), in which Proto-Austronesian *j is exceptionally reflected as *y*.

Proto-Atayalic because it shares cognates with other Formosan languages, such as Puyuma *adi* and Rukai *adi*, as Lin (2011: 191) points out. However, their function in Puyuma and Rukai are different from nominal negation. In Puyuma, it functions as verbal negation and prohibition, and in Rukai, it functions as prohibition, according to Lin (2011). It was found that there is one language that shares the identical cognate, that is, Siraya, an extinct Formosan language.²³ Siraya has the negator *asi*, which functions not only as verbal negation but also as nominal negation (Adelaar 2011: 99). With regard to the medial consonant *s*, Proto-Austronesian **d*, which is reflected as Proto-Atayalic **d*, corresponds to *s* in Siraya (Ross 2015: 31). Considering these, **adi* is likely to be reconstructed in Proto-Atayalic.

As for the other negator **uxay* in Proto-Seediq, the cognate *uzay* is found in Pazih.²⁴ The medial consonant *z* indicates that it dates back to Proto-Austronesian **s*²⁵ as Li and Tsuchida (2001: 6) point out. The Proto-Austronesian **s* is mostly reflected as *h* in Atayalic languages as previously described (e.g., Ross 2015: 32). However, it sometimes appears as *x* (Ochiai 2021). It can be said that **uxay* in Proto-Seediq and *uzay* in Pazih are perfect cognates. Examples of *uzay* in Li and Tsuchida (2001: 314) reveal that this negator functions not only as prohibition but also as nominal negation. The function of nominal negation overlaps in Proto-Seediq **uxay* and Pazih *uzay*. It is therefore supposedly reconstructed in Proto-Atayalic. However, the author is rather reserved about this judgement. The cognate is found in one language only, Pazih, which is a neighbor of Seediq. It is possible that **uxay* is an innovative form for nominal negation in Proto-Seediq and that it was somehow borrowed into Pazih.

Next, the cognacy and origins of the negators *kani* in Seediq and *kana* in Atayal are concerned. In Paran Seediq, there is an indefinite marker *ani*, e.g., *ani maanu* (INDEF what) “whatever.” This marker sometimes varies with *ana*, for example, *ani tikuh* or *ana tikuh* (INDEF a.little), meaning “not a little” (in a negative sentence). According to Rakaw et al. (2006: 67), Truku Seediq only uses *ana*. This variation of the indefinite markers *ani* and *ana* corresponds to that of the negators *kani* and *kana*. Hence, the negators *kani* and *kana* could be derived from *ani* and *ana*. If so, the negators *kani* and *kana* are analyzed as *k-ani* and *k-ana*, with *k* as the separate morpheme. Since *ani* and *ana* are indefinite markers without a negative meaning, the *k* must function as a negator. It seems possible that the prohibitive *ka* is the origin of this *k*. The combination of *ka* and the following *ani* or *ana*

²³ It is likely that Babuza also shares the cognate. Babuza has *alli* “not” (Ogawa 2003: 312), which was originally recorded by the Dutch in the 17th century, so it represents Dutch-style orthography. The phonetic representation could be [ali]. However, it is difficult to explain the medial consonant *l* since it is expected to appear as *r*. The reflex of Proto-Austronesian **d* in Babuza is *r* (Ross 2015: 31). The examples in Ogawa (2003: 312–313) indicate that it was used as a verbal negator.

²⁴ This form is from Li and Tsuchida (2001: 314).

²⁵ This is written as **θ* in Ross (2015: 32).

would produce **ka-ani or **ka-ana (** indicates a hypothetical form). The hiatus would coalesce and become *kani* and *kana*. It is difficult to decide which form should be reconstructed in Proto-Atayalic; therefore, both are tentatively reconstructed. The prohibitive *ka* is only reconstructed in Proto-Atayal; however, along these lines, it is also seen as a part of the morpheme in *k-ana, which is reconstructed in Proto-Seediq. Therefore, *ka as prohibitive is reconstructed in Proto-Atayalic.

5. Saisiyat Negators

By investigating the negators in Zeitoun (2001), the negators for the four functions can be classified as follows: (a) verbal negation *?oka?* or *i?ini?*, (b) nominal negation *?oka?*, (c) existential negation *?oka?*, and (d) prohibition *?izi?*. Based on these forms, Proto-Saisiyat is reconstructed as shown in Table 10. Those forms shown in bold are considered to be cognates in Proto-Saisiyat and Proto-Austronesian.

Table 10 Saisiyat negators and their reconstruction

	Verbal neg.	Nominal neg.	Existential neg.	Prohibitive
Saisiyat (Zeitoun 2001)	<i>?oka?</i> , <i>i?ini?</i>	<i>?oka?</i>	<i>?oka?</i>	<i>?iði?</i>
Proto-Saisiyat	*oka, *ini	*oka	*oka	*iða
Proto-Atayalic	*ini/*kani/*kana	*adi	*uka	*ija/*ka

It is evident that Saisiyat *?oka?*, which is seen across verbal, nominal, and existential negation, is the cognate of Proto-Atayalic *uka, which functions as existential negation.²⁶ In Saisiyat, it is supposed that the existential negator *oka extended its functional domain to include nominal and verbal negation. An example of the existential negator *?oka?* is seen in (22).

(22) The existential negator *?oka?*²⁷

<i>yako</i>	<i>?oka?</i>	<i>ka</i>	<i>rayhil.</i>
1SG	NEG	ACC	money

“I do not have money.” (Zeitoun 2001: 129)

²⁶ Lin (2011: 200–204) also recognizes that Saisiyat *?oka* appears in existential and verbal negation; however, he does not include nominal negation, which appears as *?okik* in his table. He also mentions semantic shift of the existential negator *?oka* into verbal negation. This paper proposes that the existential negator *?oka* spread not only to verbal negation but also to nominal negation.

²⁷ Note that word order in Saisiyat is different from those in the Atayalic languages. In Saisiyat, the pronoun *yako* (free form) appears clause-initially.

As for *?oka?* as a verbal and nominal negator, Zeitoun (2001: 128–129) points out that it is obligatorily followed by a ligature *?i?* as seen in example (23a). Her transcriptions are presented here, with slight modifications. In Saisiyat, similar to in the Atayalic languages, the verb following the verbal negator uses the dependent class. In (23b), an example of the stative verb *sarara?*, the prefix *k-*, indicating the dependent class, is phonetically attached to the preceding linker, resulting in the negator *?oka?* being followed by the complex *?ik*. In addition, as Zeitoun (2011) notes, these two elements, *?oka?* and *?ik*, further contract to *?okik* (<*?okaik* <*?oka?*-*?i=k*), as shown in (23c). In this contracted form of the negator, the final vowel *a* in *?oka?* is deleted.

(23) The verbal negator *?oka?*

a. A non-stative verb

<i>yako</i>	<i>?oka?</i>	<i>?i</i>	<i>shebet</i>	<i>ka</i>	<i>korkoring.</i>
1SG	NEG	LIG	AV.DEP.beat	ACC	child

“I did not beat the child.” (Zeitoun 2001: 129)

b. A stative verb

<i>yako</i>	<i>?oka?</i>	<i>?i=k</i>	<i>sarara?</i>	<i>hisia.</i>
1SG	NEG	LIG=STAT.dep	like	3SG.ACC

“I do not like him.” (Zeitoun 2001: 132)

c. A stative verb (contracted)

<i>yako</i>	<i>?okik</i>	<i>sarara?</i>	<i>hisia.</i>
1SG	NEG.LIG.STAT.DEP	like	3SG.ACC

“I do not like him.” (Zeitoun 2001: 132)

In Saisiyat, the nominal negator is also followed by a dependent form. Strictly speaking, nouns has no distinction of dependent or independent forms. This distinction is only applied to verbs. However, in Saisiyat, the prefix *k-*, indicating the dependent class of stative verbs is attached to nouns. Examples (24a–b) are variants. The negator *?oka?* is not contracted in (24a), whereas it is contracted in (24b).

(24) The nominal negator *?oka?*

a.	<i>yako</i>	?oka?	?i-k	<i>Saisiyat.</i>
	1SG	neg	LIG-STAT.DEP	Saisiyat

“I am not Saisiyat.” (Zeitoun 2001: 127)

b.	<i>yako</i>	?okik		<i>Saisiyat.</i>
	1SG	NEG.LIG.STAT.DEP		Saisiyat

“I am not Saisiyat.” (Zeitoun 2001: 127)

There is another form for verbal negation, *i?ini?*, which is also a clear cognate with Proto-Atayalic *ini. The Saisiyat form has an additional vowel, *i*, in front of the historical root *?ini?*. This could be a result of reduplication or some kind of prefixation. Although there are two forms for verbal negation, *?oka?* and *i?ini?*, their meanings are slightly different. In terms of semantics, *?oka?* is a typical negator for verbal negation, simply the negation a proposition, whereas, *i?ini?* means that “something is not yet done” (Zeitoun 2001: 129), as shown in (25). This negator is also obligatorily followed by the ligature *?i* (Zeitoun 2001: 128–129).

(25) The verbal negator *i?ini?*

<i>i?ini?</i>	?i=k		<i>sizaeh.</i>
NEG	LIG-STAT.DEP		finish

“It is not finished yet.” (Zeitoun 2001: 129)

As for the negator for prohibition, the present-day Saisiyat is *?iði?*, and this negator is also obligatorily followed by the ligature *?i* (Zeitoun 2001: 128–129), as shown in (26).

(26) The prohibitive *?izi?*

?iði?	?i	<i>hanjih</i>	<i>ila!</i>
NEG	LIG	AV.DEP.cry	ASP

“Don’t cry!” (Zeitoun 2001: 129)

This prohibitive form *?iði?*, which would be phonemically represented as *iði*, is similar to the Proto-Atayalic *ija that is reconstructed in Section 4. The first two segments correspond to each other. The initial vowel is the same, and as for the consonant, Saisiyat ð and

Proto-Atayalic *j are reflexes of Proto-Austronesian *j. The only difference is the final vowel, which is *i* in Saisiyat and *a* in Atayalic. Suppose that the Proto-Saisiyat form had *a* as the final consonant, appearing as *iða*. Then, a similar phonetic contraction as that seen in *?oka?* (22a–b) could have happened to *iða*, followed by the ligature *?i*. The sequence of *iða ?i* could have resulted in *iði* by deleting *a*. If this is on the right track, the contraction of the prohibitive *iða* (or *?iða?*) occurred earlier than the contraction of the verbal/nominal negator *?oka?*. For the prohibitive, only the contracted form *?iði?* is used in the present day, and *iða* is lost. On the contrary, for verbal and nominal negators, *?oka?* and its contracted form *?okik* are interchangeable. Further, *?iði?* includes the ligature; however, it seems that it has gradually fossilized, lost its function, and been recognized as a part of the root. Therefore, in the present day, the ligature *?i* is reintroduced after *?iði?*.

6. Concluding remarks

Table 11 shows the four Proto-Austronesian negators that Lin (2011) reconstructed by investigating negators and their functions in several Formosan languages including Atayal, Seediq, Saisiyat, Thao, Bunun, Paiwan, Puyuma, Rukai, Tsou, Amis, and Kavalan.

According to Lin (2011), the verbal negator in Proto-Austronesian is *adi, the nominal negator is *ini, the existential negator is *uka, and the prohibitive is *ka.

Table 11 Proto-Austronesian negators in Lin (2011) and Proto-Atayalic

	Verbal neg.	Nominal neg.	Existential neg.	Prohibitive
Proto-Austronesian (Lin 2011)	*adi	*ini	*uka	*ka
Proto-Austronesian (This paper)	general neg. *ini, *adi		*uka	*ka
Proto-Atayalic	*ini, *k-ani, *k-ana	*adi	*uka	*ka, *ija

For the sake of comparison, the Proto-Atayalic negators reconstructed in this paper are also presented in the table. Interestingly, they have four common forms: *adi, *ini, and *uka, and *ka. As for the prohibitive, Lin (2011) reconstructed *ka to Proto-Austronesian based on these forms: Atayal *ka*, Bunun *ka*, Amis *aka*, and Rukai *ka*.²⁸ This paper reconstructed the Proto-Atayalic prohibitive as *ka and *iya. The second form is seen in Seediq and Saisiyat. In Atayal, it appears as *iyat*, with the sporadic suffixation of *-t*. It also changed its function to nominal negation. This *iya seems to be a later innovation than *ka.

As for *uka, it is used as an existential negator not only in Proto-Atayalic but also in Proto-Austronesian. As for *adi, it is a verbal negator in Proto-Austronesian, whereas it is

²⁸ However, there are only two languages that reflect *ka as prohibitive. These languages are Atayal and Bunun.

a nominal negator in Proto-Atayalic. As for *ini, it is nominal negator in Proto-Austronesian, whereas it is a verbal negator in Proto-Atayalic. If Lin's (2011) reconstruction of Proto-Austronesian negators is on the right track, it follows that the negators the original functions of *ini and *adi were switched in Proto-Atayal, which seems to be less likely.

In order to fully understand the historical change negators underwent from Proto-Austronesian to Proto-Atayalic, some work remains to be done regarding the Proto-Austronesian negators Lin (2011) reconstructed. First, Lin's (2011) reconstruction did not deal with the historical development of negators in each language. This paper attempted to reconstruct Proto-Saisiyat negators (Section 5) and argued that the existential negator *oka extended its function to verbal negation as well as to nominal negation. The reconstructed verbal negator has two forms *ini and *oka. The original verbal negator should be *ini.

Second, some extinct Formosan languages are not included in the data on which Lin (2011) based his reconstruction. The reconstruction need to be revised by adding data for extinct languages, such as Pazih, Siraya, Babuza, and Basay. For instance, Proto-Austronesian *adi is reflected in Siraya as *asi*.²⁹ According to Adelaar (2011: 99), the Siraya negator *asi* is used for both verbal and nominal negation.³⁰

This paper tentatively suggests that Proto-Austronesian had three rather than four distinctions of negators. There was no distinction between verbal and nominal negators.³¹ Rather, there was a general negator used for both verbal and nominal negation. There were two forms used for this function: *ini and *adi. The other two negators were the existential negator *uka and the prohibitive *ka. In the time of Proto-Atayalic, the general negators *ini and *adi diverged into two functions, namely verbal and nominal negation, respectively. In addition, another innovative negator, *k-anī* or *k-ana*, was derived from *ka and the indefinite marker *ani or *ana, with the function verbal negation with a deontic meaning. The innovative prohibitive *ija was also produced.

An investigation of negators in extinct Formosan languages may reveal a different picture of Proto-Austronesian. Moreover, an investigation of the history of negators in each language may reveal a more accurate picture of Proto-Austronesian.

²⁹ This form is from Adelaar (2011: 99).

³⁰ However, for examples of *asi*, Adelaar (2011: 99) only lists instances of verbal negation. An example in which *asi* is used as a nominal negator can be found in Adelaar (2011: 177). The example is *āsi dīk na paul ta pakāwāx ki kaēwlung* (NEG only PART bread NOM CAUS-STAT-live OBL person) "Man shall not live by bread alone," which literally means "The thing causing a man to live should not only be bread" (the present author slightly modified the interlinear glosses).

³¹ According to Lin (2011: 189–217), among the languages he investigated, only the Atayalic languages, Saisiyat, and Puyuma show that distinct forms are used for verbal and nominal negation. Other languages, namely Tsou, Rukai, Bunun, Amis, Thao, and Paiwan use the same set of negators for both nominal and verbal negation. This also supports the present author's three distinctions with regard to Proto-Austronesian negators.

References

[English]

- Adelaar, Alexander
- 2011 *Siraya: Retrieving the phonology, grammar and lexicon of a dormant Formosan language*. Berlin: De Gruyter Mouton.
 - Asai, Erin (浅井惠倫)
 - 1953 *The Sedik Language of Formosa*. Kanazawa: Cercle Linguistique de Kanazawa. - Blust, Robert A.
 - 1999 Subgrouping, Circularity and Extinction: Some Issues in Austronesian Comparative Linguistics. In *Selected Papers from the Eighth International Conference on Austronesian Linguistics*, edited by Elizabeth Zeitoun and Paul Jen-kuei Li, 31–94. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.
 - 2013 *The Austronesian languages*. Canberra: Australian National University, Research School of Pacific and Asian Studies. - Egerod, Søren
 - 1980 *Atayal-English dictionary*. London: Curzon. - Guérin, M.
 - 1868 Vocabulaire du dialecte Tayal ou aborigène de l'île Formose. *Bulletin de la Société de Géographie* 16: 466–507. - Juang, Yu-Ning (莊郁寧)
 - 2012 Negation in Truku Seediq. National Kaohsiung Normal University. Master's thesis. - Huang, Lillian M.
 - 1995 *A Study of Mayrinax Syntax*. Taipei: Crane. - Li, Paul Jen-kuei (李壬癸)
 - 1981 Reconstruction of Proto-Atayalic phonology. *Bulletin of the Institute of History and Philology, Academia Sinica* 52(2): 235–301.
 - 1985 The position of Atayal in the Austronesian family. In: Andrew Pawley and Lois Carrington (eds.), *Austronesian linguistics at the 15th pacific science congress*, 257–280. Canberra: Pacific Linguistics. - Li, Paul Jen-kuei and Shigeru Tsuchida (李壬癸、土田滋)
 - 2001 *Pazih dictionary*. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.
 - 2009 Yet more Proto Austronesian infixes. In: Bethwyn Evans (eds.), *Discovering history through language: papers in honour of Malcolm Ross*, 345–362. Honolulu: University of Hawaii Press. - Liao, Ying-zhu (廖英助)
 - 2003 *Atayal-Atayal dictionary*. Nantou: Guojia Tushuguan. - Lin, Shu-yi (林書毅)
 - 2011 Reconstructing negative morpheme in Proto-Austronesian: Evidence from Formosan languages. Master's thesis, National Taiwan Normal University. - Ochiai, Izumi (落合いづみ)
 - 2021 Reconstruction of “one” in Proto-Atayalic: In connection with “ten” in some Formosan languages. 『北方人文研究』 14: 55–70. - Ogawa, Naoyoshi (小川尚義)
 - 2003 *English-Favorlang vocabulary*. Fuchu: Research Institute for Languages and Cultures of Asia and Africa.

Payne, John R.

- 1985 Negation. In: Timothy Shopen (eds.), *Language typology and syntactic description, vol. 1: Clause structure*, 197–242.

Rau, Der-Hwa Victoria

- 1992 A grammar of Atayal. Ph. D. diss. Cornell University.

Ross, Malcolm

- 2009 Proto Austronesian Verbal Morphology: A Reappraisal. In: Alexander Adelaar and Andrew Pawley (eds.), *Austronesian Historical Linguistics and Culture History: A Festschrift for Robert Blust*, 295–326. Canberra: Pacific Linguistics.

- 2015 Some Proto Austronesian coronals reexamined. In: Zeitoun, Elizabeth, Stacy Fang-Ching Teng, and Joy J. Wu (eds.), *New advances in Formosan linguistics*, 1–38. Asia-Pacific Linguistics.

Tsuchida, Shigeru (土田滋)

- 1975 Reconstruction of Proto-Tsouic phonology. Ph. D. diss, Yale University.

Zeitoun, Elizabeth

- 2001 Negation in Saisiyat: Another perspective. *Oceanic Linguistics* 40(1): 126–134.

[Chinese]

陳傑惠 (Chen, Jye-Huei)

- 1996 賽德克語中原地區方言否定詞初探. 國立清華大學語言學研究所碩士論文.

黃長興, 吉洛·哈蔓克, 許通益, 吳金城, 田信德, 金清山 (Rakaw, Lowsi, Jiru Haruq, Yudaw Dangaw, Yuki Lowsing, Tudaw Pisaw and Iyuq Ciyang) 編

- 2006 《太魯閣族語簡易字典》秀林鄉：秀林鄉公所.

黃美金, 吳新生 (Huang, Lillian M. and Wu, Xin-sheng)

- 2018 《泰雅語語法概論》新北市：原住民族委員會.

[Japanese]

飯島幹太郎 (Iijima, Mikitaro)

- 1906 『獮蕃語集』台北：台灣總督府民政部警察本署.

落合いづみ (Ochiai, Izumi)

- 2015 セデック語バラン方言の二重母音について. 『日本言語学会第150回大会予稿集』392–397. 日本言語学会.

- 2016 セデック語バラン方言の文法記述と非意志性接頭辞の比較言語学的研究. 京都大学博士論文.

- 2020a アタヤル語群から迫るオーストロネシア祖語の指示詞. 『フィールド言語学とフィールド言語学者のダイバーシティ』2020年9月22日, 口頭発表, オンライン.

- 2020b アタヤル語群における「肩」の再建『アジア・アフリカ言語文化研究』100: 141–153.

小川尚義・淺井恵倫 (Ogawa, Naoyoshi and Asai, Erin)

- 1935 『原語による台湾高砂族伝説集』台北帝国大学言語学研究室.

月田尚美 (Tsukida, Naomi)

- 2009 セデック語（台湾）の文法. 東京大学博士論文.