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# Reconstruction of Atayalic Demonstratives and Beyond\*

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## 1. Background

According to Blust (1999), there are ten first order branches diverging from Proto-Austronesian. Nine branches out of ten belong to the indigenous languages spoken in Taiwan, commonly referred to as the Formosan languages. These include Saisiyat, Pazih, Siraya, Papora, Babuza, Tsou, Saaroa, Kanakanabu, Amis, Rukai, Puyuma, Bunun, and Thao. The tenth branch is Malayo-Polynesian which includes all the non-Formosan languages. Yami, the language spoken on Orchid Island, belongs to the Malayo-Polynesian subgroup, even though the island geographically is part of Taiwan. One of these first order subgroups is Atayalic, including Atayal and Seediq (Blust 1999).

Fig. 1: First-order subgroups of Proto-Austronesian (based on Blust 1999: 45)

Proto-Austronesian

Atayalic subgroup (Atayal, Seediq)

East Formosan subgroup (Basay, Kavalan, Amis, Siraya)

Puyuma

Paiwan

Rukai

Tsouic subgroup (Tsou, Saaroa, Kanakanabu)

Bunun

Western Plains subgroup (Thao, Taokas, Babuza, Papora, Hoanya)

Northwest Formosan subgroup (Saisiyat, Pazih)

Malayo-Polynesian subgroup

This paper aims to reconsider and reconstruct the proximal and distal demonstratives in the Atayalic subgroup. In Proto-Atayalic, the proximal demonstrative is reconstructed by Li (1981: 294) as \*ni, whereas the distal demonstrative has not been reconstructed.

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This paper first reconstructs distal demonstratives in Proto-Atayal by identifying cognates in Atayal and Seediq and investigating their historical changes. Then, based on the forms reconstructed for the distal demonstratives, the proximal demonstratives are reinvestigated by supplementing a cognate set from other Formosan languages. As a result, Li's reconstruction is modified to \*hini.

Finney (2007: 79–80) comments that in Austronesian languages demonstratives such as “this” and “that” are related to demonstrative adverbs referring to place such as “here” and “there” in terms of semantics and forms. He goes on to say that in Austronesian languages demonstratives typically derive third-person pronouns.

In this paper demonstratives in Atayalic languages as well as other Formosan languages are searched for in three semantic domains: the words for “this” and “that”; the words for “here” and “there”; and third-person pronouns. Section 2 examines the distal demonstrative forms in Seediq (Section 2.1) and Atayal (Section 2.2), and reconstructs the proto-forms for each language. Based on these proto-forms, Section 2.3 reconstructs the distal demonstratives forms in Proto-Atayalic. Subsequently, Section 2.4 compares the distal demonstratives in Proto-Atayalic to those in other Austronesian languages, and the possible Proto-Austronesian forms are postulated. In Section 3 the proximal demonstratives in Atayalic languages are examined in order to reconstruct the Proto-Atayalic form. This is compared to the forms of proximal demonstratives in other Austronesian languages, and a possible Proto-Austronesian form is also postulated.

## 2. Distal demonstratives in Atayalic languages

The Atayalic group of languages includes Atayal and Seediq. According to Ogawa and Asai (1935), each of these languages diverged into two dialects. Atayal consists of the Squiliq dialect and the C'uli' dialect. Seediq includes the Paran dialect and the Truku dialect. Section 2.1 deals with both dialects of Seediq. Paran Seediq data are based on the author's field notes unless cited otherwise. Truku Seediq data are based on previous studies such as Pecoraro (1977) and Rakaw et al. (2006). Section 2.2 deals with the data for the Atayal dialects which are cited from previous studies such as Egerod (1980) and Li (1981). Section 2.3 reconstructs the distal demonstratives based on the forms in Proto-Seediq and Proto-Atayal reconstructed in Sections 2.1 and 2.2.

### 2.1 Seediq<sup>1</sup>

In Paran Seediq, “that” is *gaga* and “there” is *hiya*. In Truku Seediq, according to

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<sup>1</sup> Paran Seediq has five vowels /a e i u o/ and 18 consonants /p b t d ts k g q s x h m n ŋ l r w j/, and the diphthong /uj/ (Ochiai 2016a: 19). Truku Seediq has the four vowels /a i u ə/ and three diphthongs /aw/ /aj/ /uj/ (Tsukida 2006: 56–62). The consonants are the same as those in Paran Seediq, excepting /ts/, which becomes /s/ in Truku Seediq. Throughout this paper, /r/, /j/, and /ts/ are transcribed as *r*, *y* and *c*, respectively. According to Tsukida, *l* is [ɭ] and *g* is [ɣ] in Truku Seediq.

Tsukida (2009: 132–134), “that” is also *gaga* and “there” is also *hiya*. In Truku Seediq, *hiya* also refers to the third-person singular pronoun. In Paran Seediq, however, the third-person singular pronoun is *heya*. This form looks similar to *hiya* “there”, but they differ in the first vowel. However, the word for the third-person singular pronoun in Paran Seediq is recorded as *hiða* by Asai (1953: 42) from fieldwork he conducted in 1927. In this form, the first vowel appears as *i*. Based on Asai (1953: 48), *hiða* is also the word for “there” and the word for “that” is *gaga*. These are summarized in Table 1. In the table, the data for early Paran Seediq is from Asai (1953).

Table 1: “That”, “there”, and third-person singular pronoun in Seediq dialects

	“that”	“there”	third-person singular pronoun <sup>2</sup>
Paran Seediq	<i>gaga</i>	<i>hiya</i>	<i>heya</i>
Early Paran Seediq	<i>gaga</i>		<i>hiða</i>
Truku Seediq	<i>gaga</i>		<i>hiya</i>
Proto-Seediq	* <i>gaga</i>		* <i>hiða</i>

Proto-Seediq forms are reconstructed based on the forms of the two dialects. “That” is *gaga* in both dialects so it is reconstructed in Proto-Seediq. The form meaning both “there” and the third-person singular pronoun is *hiða* in early Paran Seediq and *hiya* in Truku Seediq. These forms differ in the medial consonant: *ð* in early Paran Seediq and *y* in Truku Seediq. Regarding this, Ochiai (2016b: 319–320) points out that the consonant *ð* in early Paran Seediq has changed to *y*. Then, it is likely that this consonant dates back to *ð* and this underwent the lenition to *y* in both Paran Seediq and Truku Seediq. Therefore, the word for “there, third-person singular pronoun” is reconstructed as \**hiða* in Proto-Seediq.

In Paran Seediq, the *hiða* further underwent a semantic split. Its reflex, *hiya*, now means “there”, while a third-person singular pronoun *heya* is derived from *hiða* (or the later form *hiya*) by changing the first vowel into *e*.

So far, two Proto-Seediq forms for distal demonstratives are reconstructed: \**gaga* “that” and \**hiða* “there, third-person singular pronoun”. As will be discussed in 2.2, it is the latter form \**hiða*, which has cognates in Atayal and dates back to Proto-Atayalic.

There is another form which is possibly reconstructed as a distal demonstrative in Proto-Seediq. According to Pecoraro (1977: 335), Truku Seediq has *haya*, which means “like that, that”.<sup>3</sup> Pecoraro’s example is cited in (1). The interlinear gloss and English

<sup>2</sup> Third-person plural pronouns in Seediq dialects are as follows: *deheya* (Paran Seediq) and *dəhiya* (Truku Seediq, cited from Rakaw et al. (2006: 295)). In these forms, a prefix \**də-*, which indicates plurality, is added to the singular form \**hiya*.

<sup>3</sup> To be precise, Pecoraro (1977) transcribed this word as *xaya*. However, it is recorded as *haya* in a

translation are provided by the author. The original translation in French by Pecoraro is in the footnotes.<sup>4</sup>

(1) Truku Seediq (Pecoraro 1977: 335)

*Wana haya ka biyax mu!*

only that NOM power 1SG.GEN

“That is all I can do. /My ability is only that much”.<sup>5</sup>

According to Pecoraro (1977), *haya* in Truku Seediq derives *məsə-haya*, a verb meaning “to behave like that” by adding the verbalizing prefix *məsə-*. Pecoraro’s example is cited in (2).

(2) Truku Seediq (Pecoraro 1997: 335)

*Məəguy ka isu o,*

AV.steal NOM 2SG PART

*məha məsə-haya ka leqə-laqi su uri!*

fut AV-like.that NOM RDP-child 2SG.GEN also

“If you steal, your children will also behave like that”.<sup>6</sup>

The root form, *haya*, is not seen in contemporary Paran Seediq. However, in his wordlist of Paran Seediq collected from 1900 to 1901, Torii (1901: 134) recorded the following sentence shown in (3). The first line shows Torii’s transcription. The second line shows its modified transcription, according to phonemic analysis, followed by an interlinear gloss and an English translation provided by the present author. The original translation by Torii is in the footnote.

(3) Paran Seediq (Torii 1901: 134)

marru **haza**

*malu haða*

good that

“That is good”.<sup>7</sup>

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Truku Seediq dictionary compiled by native speakers of Truku Seediq (Rakaw et al. 2006: 283).

<sup>4</sup> Keys to the abbreviations are the following: AV (actor voice), FUT (future), GEN (genitive), NOM (nominative), PART (particle), SG (singular).

<sup>5</sup> The original gloss in Pecoraro (1977) is “C’est tous ce que je puis faire = Voilà tout ce que j’ai comme forces!”

<sup>6</sup> (Si) tu voles, tes enfants deviendront aussi voleurs (voleront aussi)!

<sup>7</sup> The original gloss in Torii (1901: 134) is “それは善い”.

Ochiai (2018: 140) points out that, in Torii’s wordlist (1900a, 1900b, 1901), the consonant  $\delta$  in early Paran Seediq was transcribed by the letters such as “d”, “j”, “r”, “l” and “z”. For example, *hiða* in early Paran Seediq is transcribed as “hiza” by Torii (1901: 134). Therefore, Torii’s “haza” in (3) can be interpreted to be *haða*. This form is retained in the derived form, *muca-haya* “to behave like that” in contemporary Paran Seediq.<sup>8</sup> Table 2 summarizes the forms of another “that” in Seediq dialects.

Table 2: Another “that” in Seediq dialects

	“that”
Paran Seediq	---
Early Paran Seediq	<i>haða</i>
Truku Seediq	<i>haya</i>
Proto-Seediq	* <i>haða</i>

The form in early Paran Seediq has the medial consonant  $\delta$ , whereas that in Truku Seediq has  $y$ . This pattern is the same as \**hiða* in Table 1. Therefore, the  $\delta$  is chosen as the older segment, so the Proto-Seediq form is reconstructed as \**haða* as shown in Table 2. Then, as shown in Table 3, Proto-Seediq turns out to have three forms for distal demonstratives.

Table 3: Distal demonstratives in Proto-Seediq

	“that”	“there/third-person singular pronoun”
* <i>gaga</i>	* <i>haða</i>	* <i>hiða</i>

“That” is expressed by two forms in Proto-Seediq: \**gaga* and \**haða*. One of the forms is likely the original demonstrative and the other is a later innovation. Considering that \**haða* is similar in form to the other demonstrative \**hiða*, these two could be the original distal demonstratives. No cognate is found in Atayal for \**gaga*, while cognates are found in Atayal for \**haða* and \**hiða*. These cognates in Atayal are discussed in the next section.

<sup>8</sup> Based on *məsə-haya* in Truku Seediq and *muca-haya* in Paran Seediq, the Proto-Seediq form can be reconstructed as \**məcəhaya* “to behave like that”. The consonant \**c* is retained in Paran Seediq but changed to *s* in Truku Seediq. The vowels before the penultimate syllable undergo vowel weakening to schwa as seen in the Truku Seediq form as well as in Proto-Seediq. This weak vowel further became *u* in Paran Seediq. In addition, the weak vowel in the antepenultimate vowel further assimilates with the penultimate vowel when the onset of the penultimate syllable is *h*.

## 2.2 Atayal<sup>9</sup>

Similar to Section 2.1, distal demonstratives in Atayal are found in the words meaning “that”, “there”, and the third-person pronoun. In Seediq, only the singular form of the third-person, \*hiya (Proto-Seediq), was examined because the plural form, \*də-hiya (Proto-Seediq), is derived from the singular form by just adding a prefix *de-*, indicating the plurality. However, in Atayal, singular and plural forms for third-person pronouns are slightly different. Therefore, in Atayal, both forms need to be examined. Table 4 shows the forms for third-person pronouns, including the singular and plural for “that” and “there.” These forms are from Ogawa and Asai (1935: Appendix 48–49) unless noted otherwise.

Table 4: “That,” “there,” and 3<sup>rd</sup> person pronouns in Atayal dialects

	3 <sup>rd</sup> sg.	3 <sup>rd</sup> pl.	“that”	“there”
Squliq Atayal	<i>hiya</i>	<i>la-haga</i>	<i>q-asa</i>	<i>tə-hasa</i> <sup>10</sup>
C’uli’ Atayal	<i>hiya</i>	<i>la-ga</i>	<i>hasa/haca</i> <sup>11</sup>	<i>haca</i> <sup>12</sup>
Proto-Atayal	*hiya	*la-haga		*haca

The singular form of the third-person pronoun is *hiya* in both Atayal dialects, therefore it is reconstructed as \*hiya in Proto-Atayal. This is similar to \*hiða, the corresponding form in Proto-Seediq. These two forms are possibly cognates. However, they differ in their medial consonants. It is uncertain what consonant needs to be reconstructed in Proto-Atayalic. This issue is touched upon in the next section.

The plural form for the third-person pronoun is *la-haga* in Squliq Atayal, and *la-ga* in C’uli’ Atayal. The first syllable, *la*, is, according to Ogawa and Asai (1935: 28), a prefix indicating plurality.<sup>13</sup> The root for both these forms should be *haga*. It appears that the initial syllable *ha* is deleted in the C’uli’ form. Based on these, the Proto-Atayal is reconstructed as \*la-haga.

<sup>9</sup> Based on my field notes, Squliq Atayal has the following phonemes: the vowels /a e i o u ə/, and the consonants /p β t k γ q ʔ s x h z r l m n ŋ y w/. The consonants /β/ and /γ/ are written orthographically as *b* and *g*. Among these vowels, *e* and *o* are observed to date back to the diphthongs *ay* [aj] and *aw*. According to Huang (1995:16–17), C’uli’ Atayal has the same phoneme inventories except that it adds /ts/ (written as *c* in this paper) and lacks the /ə/.

<sup>10</sup> This form is from Egerod (1980: 705). His gloss for this word is “yonder, beyond”. The morpheme boundary is provided by the present author. There is another form derived from the same root, *sə-hasa* “over there, yonder” (Egerod 1980: 607).

<sup>11</sup> The second form *haca* is from Ferrell (1969: 399).

<sup>12</sup> This form in the Mayrinax subdialect is taken from the Council of Indigenous Peoples (2013).

<sup>13</sup> This prefix *la-* seems to be a cognate of the Proto-Seediq \*də-, which is also a prefix indicating plurality (in Paran Seediq, this is seen in the third-person plural pronoun only). The vowel underwent weakening in the Seediq form. It seems problematic that the consonants differ in two forms, *l* in Atayal and *d* in Seediq. In Seediq, the consonants *d* and *l* tend to be ambiguous, e.g., *dedax* “light” has its free variant as *ledax*. This intra-Seediq ambiguity can be observed in the two Atayalic languages.

The form for “that” and “there” are the same form, *haca*, in C’uli’ Atayal. Its variant, *hasa*, is also recorded as “that.” According to Li (1981: 260), a Proto-Atayal consonant \*c is retained in some subdialects of C’uli’ Atayal, whereas it is changed to *s* in other subdialects of C’uli’ Atayal as well as Squliq Atayal. This *hasa*, the form seen in some subdialects of C’uli’ Atalal, is also used in Squliq Atayal in its derived form. Squliq Atayal has *tə-hasa* “there”, in which the root *hasa* has the prefix *te-* attached.<sup>14</sup> Since the cognate is seen in both dialects, \**haca* is likely to be reconstructed in Proto-Atayal for the meaning of “that, there.” Only the form for “that” in Squliq Atayal, *qasa*, is slightly different in its initial consonant. The expected consonant is *h*; however, it appears as *q*. Regarding this form, Ogawa and Asai (1935: 28) noted that it could be derived from a speculative proto-form, \**qu-hasa*. The former *qu-* seems to correspond to a nominative case marker, *qu*. If so, the vowel of this nominative case *qu* and the initial consonant of the root *hasa* were deleted in the course of derivation, i.e., \**qu-hasa* > *qu-asa* > *q-asa*.

In fact, in Squliq Atayal there are other forms of demonstratives, which likely show the same type of derivation, the attachment of a case marker or other elements and the deletion of the initial consonant *h*.<sup>15</sup> Egerod (1980) refers to forms such as *yasa* “that,” and *nasa* “thereof,” *lasa* “that, those, there,” and *kasa* “that, there, like that,” and *kiasa* “do like that, be like that.” It is likely that *yasa* and *nasa* are attached with the case markers *i* (nominative) and *na* (genitive), i.e., \**i-hasa* > *i-asa* > *yasa* and \**na-hasa* > *na-asa* > *n-asa*.<sup>16</sup> For *lasa*, a marker for plurality seems to have attached, i.e. \**la-hasa* > *la-asa* > *lasa*.<sup>17</sup> For *kasa* and *kiasa*, the attached elements should be *k* and *ki*; however, it is uncertain whether they originate from case markers.<sup>18</sup> In sum, in early Squliq Atayal the forms for “that/there” is probably *hasa*, and the corresponding Proto-Atayal form can be reconstructed as \**hasa* based on the early forms in both dialects: *hasa* in Squliq Atayal and *haca* in C’uli’ Atayal.

<sup>14</sup> According to Huang and Wu (2018: 75), the prefix *tə-* in *tə-hasa* originates in the locative marker *te*. To be precise, this locative marker dates back to *tai*, as it is recorded so in Ogawa (1931: 10). Therefore, the diphthong *ai* became the monophthong *e*, i.e., *tai* > *te*. The old form *tai* is likely to be composed of *ta* and *i*. The latter, *i*, also seems to be another locative marker. Its usage as locative marker is reported in Huang and Wu (2018: 61). Probably, it was the former form *ta* that is attached to *hasa* as a prefix, and the vowel *a* underwent weakening, i.e., *ta-hasa* > *tə-hasa*.

<sup>15</sup> Regarding the attachment of a case marker to the demonstratives, Finney (2007) observed that demonstratives are a composite of a case marker and a genuine demonstrative in many Austronesian languages.

<sup>16</sup> These case markers are reported in Ogawa and Asai (1935: 26). The nominative case marker *i* is used for personal nouns; its counterpart used for non-personal nouns is *qu*, which is transcribed as *qo*: by Ogawa and Asai, but it was modified to *qu* according to the transcription in Huang and Wu (2018: 61).

<sup>17</sup> Egerod (1980: 321) also noted that it could have attached with the plural marker *l-*.

<sup>18</sup> It can be said that *ki* functions as a verbalizing prefix as Egerod’s gloss “do like that, be like that” indicates.



### 2.3 Proto-Atayalic

Based on the distal demonstratives in Proto-Seediq reconstructed in Table 1, and those in Proto-Atayal reconstructed in Table 4, this section reconstructs those in Proto-Atayalic. First, Proto-Seediq \*gaga has no cognate in Proto-Atayal, therefore it can be regarded as an innovation in Proto-Seediq. Next, Proto-Seediq \*hiða “third-person singular pronoun; there” and Proto-Atayal \*hiya “third-person singular” can be identified as cognates. They only differ in the medial consonant: *ð* in Seediq and *y* in Atayal. However, it is not easy to reconstruct this consonant in Proto-Atayalic.

The Proto-Seediq consonant \**ð* dates back to the Proto-Austronesian consonant \**j*. The exact phonetic value of this \**j* in Proto-Austronesian is uncertain but, according to Blust (2013: 579), it was likely to be a voiced obstruent.<sup>19</sup> For example, Proto-Austronesian \*pajay is reflected as *paðay* in early Paran Seediq.<sup>20</sup> In present day Seediq, \**j* either appear as *g* or *y*, and in a subdialect of Truku Seediq *g* further changes into *w* according to Li (1981: 255, 258–259). The reflexes of \**j* in Seediq are shown in Table 5.

The Proto-Seediq \*hiða could date back to \*hija, which could in turn be a Proto-Atayalic form. The remaining issue is the reflex of this consonant in Atayal. The Proto-Austronesian \**j* is, according to Blust (2013: 378), reflected as *g*, *r*, or *s*.<sup>21</sup> For example, the forms that show such correspondences are *pagay* “rice” (Proto-Austronesian \*pajay), *pira* “how many” and its variant *pisa* (Proto-Austronesian \*pija).<sup>22</sup>

If the Proto-Atayalic form is \*hija, the expected reflexes would be *higa*, *hira*, or *hisa*. None of these is identified with the actual form *hiya*. The Proto-Atayalic \**j* may have sporadically changed to *y* in Atayal in this case. Similarly, the Proto-Atayalic \**j* became Proto-Seediq *ð*, then changed to *y* in the current Seediq dialects.<sup>23</sup> If so, one of the reflexes of \**j* in Atayal could also be a *y* as it is in present day Seediq (shown in Table 5). In Proto-Atayalic \*hija can be reconstructed as shown in Table 6.

Next, \*haða “that” in Proto-Seediq and \*haga, the root of Proto-Atayal \*la-haga (third-person plural pronoun), are cognates. They only differ in the medial consonant: *ð* in Proto-Seediq and *g* in Proto-Atayal. These consonants are considered to be the reflexes of \**j* in Proto-Atayalic. As mentioned above, it is reflected as *ð* in Proto-Seediq and *g*, *r*,

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<sup>19</sup> Note that \**j* is not a semivowel /j/. Blust (2013: 578) notes that Proto-Austronesian \**j* becomes *y* in Seediq in a word-medial position. However, this paper further points out that *y* dates back to *ð*.

<sup>20</sup> This form in early Paran Seediq is based on the form for “rice” recorded as “padai” and “pazai” by Torii (1900a: 74). The consonant *ð* was transcribed by him in the letters “d”, “j”, “r”, “l”, or “z”.

<sup>21</sup> To be precise, Blust (2013: 578) notes that the reflexes of *g* and *s* in Atayal are sporadic.

<sup>22</sup> It seems that the choice of *pira* and *pisa* is dependent on dialects and sub-dialects in Atayal. According to Li (1981: 286), *pira* is seen in Squliq Atayal, while both *pira* and *pisa* are seen in C’uli’ Atayal.

<sup>23</sup> It is also possible that *hiya* in Atayal dialects was borrowed from Seediq. If so, this form was borrowed after the earlier form *hiða* in Seediq had changed into *hiya*, which seems unlikely because at least for Paran Seediq, this change happened quite recently. This happened after the 1920s, the time of Asai’s (1953) fieldwork.

or *s* in Proto-Atayal. In this case, its reflex in Atayal is *g*. Therefore, the Proto-Atayalic form can be reconstructed as \*haja.

The other form in Proto-Atayal \*haca (“that”) could also be a reflex of Proto-Atayalic \*haja. In the Atayal of the present day, it is reflected as either *haca* or *hasa*. The second form has the medial consonant as *s*, which is one of the regular reflexes of Proto-Atayalic \*j based on Blust (2013: 378). If Proto-Atayal \*haca is a reflex of Proto-Atayalic \*haja, it should turn out that the medial consonant changed to \*c. If so, the reflexes of consoannt Proto-Atayalic \*j would be *g*, *r*, and *c*. However, *c* changed to *s* in Squliq Atayal as well as some subdialects of C’uli’ Atayal according to Li (1981: 260); it is marginally retained in a few subdialects of C’uli’ Atayal. The revised reflexes of Proto-Atayalic \*j in Atayal and Seediq are shown in Table 5.

Table 5: Revised reflexes of Proto-Atayalic \*j

Atayal	<i>g, r, c, s (&lt; c), y</i>
Seediq	<i>g, w (&lt; g), y (&lt; ð)</i>

In sum, \*haja is reconstructed in Proto-Atayalic as shown in the right column in Table 6. In Proto-Seediq, one of the meaings of \*hiða is the third-person pronoun. In Proto-Atayal, one of the meanings of \*haja (in its derived form \*la-haga) is the third-person pronoun. As Finney (2007: 79–80) suggests, Austronesian languages usually derive third-person pronouns from the demonstratives “this, here”, or “that, there”. Along these lines, the third-person pronouns for the Proto-Atayalic \*hija and \*haja are derived from their original meanings as the demonstratives “that, there” as shown in Table 6.

Table 6: Reconstruction of the distal demonstratives in Proto-Atayalic

Proto-Seediq	*hiða	“third-person singular pronoun, there”	*haða	“that”
Proto-Atayal	*hiya	“third-person singular pronoun”	*la-haga	“third-person plural pronoun”
			*haca	“that, there”
Proto-Atayalic	*hija	“that, there”	*haja	“that, there”

Two reconstructed forms for distal demonstratives in Proto-Atayal differ only in the first vowel: *i* or *a*. It is uncertain whether these two forms were semantically distinct. This issue will be shortly touched upon in Section 2.4 in relation to distal demonstratives in other Formosan languages.

Incidentally, one of the distal demonstratives in Proto-Atayalic, \*hija, derives from a word meaning “yesterday”. Ochiai (2021) reconstructed “yesterday” in Proto-Atayalic

as \*cə-hija.<sup>24</sup> This form includes a prefix, \*cə-, which indicates past. The root of this form is \*hija, which is also the identical form for one of the distal demonstratives. It can be inferred that the distal demonstrative derives the meaning of yesterday by adding a suffix indicating past. The original meaning of \*ce-hija could be “that (day) in the past.” What is interesting is that the reflexes of \*j are different in the forms for “that” and “yesterday” in both Atayal and Seediq as shown in Table 7. In Atayal dialects, \*j is reflected as *y* in the forms for “that”; however, it is reflected as *r* or *s* in the forms for “yesterday”. Similarly, in Seediq dialects, \*j is reflected as *y* in the forms for “that”; however, it is reflected as *g* in the forms for “yesterday”. Probably, the speakers of these languages wanted to differentiate the forms for “that object” and “that day” to avoid homonymic clash by reflecting \*j in different consonants.

This distal form in Proto-Atayalic, \*hija, has a word family which is different only in the initial consonant. In Paran Seediq and Truku Seediq, *kiya* is a form for the non-referential distal demonstrative “that (matter)”. This form also means “later” in both Paran Seediq and Truku Seediq. In early Paran-Seediq, this form was *kiða*<sup>25</sup>, similar to *hiya* in present-day Paran Seediq and *hiða* in early Paran Seediq. Atayal has the cognate meaning “later” which appear as *kira* or *kisa* depending on the dialect<sup>26</sup>. Squaliq Atayal has *kira*. Some subdialects of C’uli’ Atayal also have *kira*. Other subdialects of C’uli’ Atayal have *kisa*. Based on *kiya* in Seediq dialects, and *kisa* or *kira* in Atayal dialects, \*kija can be reconstructed in Proto-Atayalic. \*kija probably signified the non-referential distal demonstrative “that”, and the time reference “later” likely derived from this.<sup>27</sup>

Table 7: Reflexes of \*hija in “that” and “yesterday”

	“that”	“yesterday”	“that (non-referential), later”
Proto-Atayal	*hija	* ce-hija	*kija
Squaliq Atayal	<i>hiya</i>	<i>hira</i>	<i>kira</i>
C’uli’ Atayal	<i>hiya</i>	<i>su-hisa, cə-hisa, cu-hisa, hira</i>	<i>kira, kisa</i>
Proto-Seediq	*hiða	* ce-higa	*kiða
Paran Seediq	<i>hiya</i> (< <i>hiða</i> )	<i>c-iga</i>	<i>kiya</i> (< <i>kiða</i> )
Truku Seediq	<i>hiya</i>	<i>sə-higa</i>	<i>kiya</i>
Proto-Atayalic	*hija	*ce-hija	*kija

<sup>24</sup> Li (1981: 297) reconstructed the form for “yesterday” in Proto-Atayalic as \*cu-hija; however, Ochiai (2021) modified this form to \*cə-hija.

<sup>25</sup> This form *kiða* is inferred from the record of Paran Seediq by Torii (1901: 134–135), where this word was transcribed as *kiza*.

<sup>26</sup> The Atayal forms for “later” is taken from Li (1981: 287).

<sup>27</sup> In addition, *kira* further extended its meaning to include “today” in some subdialects of Atayal, as highlighted in Ochiai (2021). The data she based her analysis on was taken from Sayama (1918: 366, 378, 390).

## 2.4 Proto-Austronesian

Table 8 shows the cognates of Proto-Atayalic \*hija and \*haja in other Austronesian languages. Those shown in bold are cognates that have sound correspondences for each segment; others are near-cognates with the replacement of the word-initial consonant or the loss of it.

As for the Proto-Atayalic \*hija, cognates are observed in three Formosan languages; Saisiyat, Pazih and Bunun. These forms are respectively: *hiza* “that”, *ziza* “there”, and *sia* “this, that”.<sup>28</sup> A cognate is also found in a Malayo-Polynesian language, Yami, as *sila* “third-person plural pronoun”.<sup>29</sup> Therefore, based on these forms, a Proto-Austronesian form can be reconstructed as \*sija. Tsou has the near-cognate *sico* “that”.<sup>30</sup> Another near-cognate without the initial consonant is seen in Kanakanabu, *isa* “that”.<sup>31</sup> A near-cognate with the replacement of the initial consonant is seen in Amis, in forms such as *k-ira-an* (this also has an affix *-an*) “that”, and *ts-ira* “third-person singular pronoun”.<sup>32</sup>

By analogy Proto-Atayalic \*haja may date back to a tentative Proto-Austronesian form, \*saja, although no perfect cognate is observed in other Formosan languages. A near-cognate, *sana* “that yonder” is seen in Kanakanabu. However, its medial consonant *n* is not a regular reflex of \*j, which would be expected to be *l*. A near-cognate without the word-initial consonant, *ana* “that”, is seen in Siraya.<sup>33</sup> Near-cognates with the replacement of the word-initial consonant is seen in *r-adza* “his” in Papora, and *k-ana?a* “that” in Saaroa.<sup>34</sup>

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<sup>28</sup> The Saisiyat form is taken from Ogawa and Asai (1935: Appendix 49). The Pazih form is taken from Li and Tsuchida (2001: 335), and the Bunun form is taken from Ogawa and Asai (1935: Appendix 49).

<sup>29</sup> The Yami form is taken from Ogawa and Asai (1935: 749).

<sup>30</sup> This form is taken from Ogawa and Asai (1935: Appendix 49). This Tsou form is considered a near-cognate because the medial consonant does not show the regular sound correspondence. Proto-Austronesian \*j becomes zero in Tsou (Tsuchida 1975: 223).

<sup>31</sup> In Kanakanabu, the expected reflex of \*j is *l* (Tsuchida 1975: 223). However it appears as *s* in this form. This is another irregularity.

<sup>32</sup> The forms in Saaroa and Amis are from Ogawa and Asai (1935: Appendix 49).

<sup>33</sup> The Siraya form is taken from Adelaar (2011: 301).

<sup>34</sup> The Papora form is taken from Tsuchida (1982: 154), and the Saaroa form is taken from Ferrell (1969: 399).

Proto-Austronesian \*j is reflected as *l* in Saaroa; however, it appears as *n* in this form. In addition, the existence of a glottal stop and a following epenthetic vowel indicates that there was a final consonant. However, the final consonant is not reconstructed for \*saja. These are the irregularities seen in the Saaroa form.

Table 8: A cognate set for demonstratives in Austronesian languages<sup>35</sup>

Proto-Austronesian	*sija “that; there” <sup>36</sup>	*saja “that yonder; over there” <sup>37</sup>
Proto-Atayalic	*hija	*haja
Saisiyat	<i>hiza</i>	
Pazih	<i>ziza/dida</i> <sup>38</sup>	
Bunun	<i>sia</i> <sup>39</sup>	
Yami	<i>silā</i>	
Tsou	<i>sico</i>	
Amis	<i>k-ira-an, ts-ira</i>	
Kanakanabu	<i>isa</i>	<i>sana</i>
Siraya		<i>ana</i>
Papora		<i>r-adza</i> <sup>40</sup>
Saaroa		<i>k-ana</i>

Although there is not enough data, \*sija and \*saja are tentatively reconstructed to Proto-Austronesian as the forms for the distal demonstratives “that, there”. Those cognates that show a different initial consonant, such as *k-ira-an* and *ts-ira* in Amis, *r-adza* in Papora, and *k-ana* in Siraya, could be the result of the attachment of case markers and the like in front of the root, and the contraction of the segments at the morpheme boundary. The initial consonant of the root \*h could be lost because of this contraction. A similar case is discussed in Section 2.2. The Proto-Atayal root \*haca loses the initial consonant in the derived forms such as *q-asa*, *y-asa*, *n-asa* and others. For these forms, the nominal case marker *qu*, the personal article *i*, and the possessive marker *na*, are attached before the root \*haca. Each form is obtained through the contraction at the

<sup>35</sup> The hyphens are added by the present author for the purpose of indicating possible morpheme boundaries.

<sup>36</sup> Siraya has *hia* (Adelaar 2011: 319), which resembles \*sija “that, there”, but its meaning is not “that/there” but “here.” It is not included in the table because it is not a regular reflex of the proto-form \*sija, which is expected to be \*sina.

Blust (1997: 7) proposes that \*si-ia, which corresponds to \*sija in this paper, is a Proto-Austronesian form for the third-person singular. The root is \*ia, and \*si, the element preceding it, is a personal article. However, as Finney (2007: 79–80) says, third-person pronouns in Austronesian languages are usually derived from demonstratives. Therefore, the initial consonant *s* in \*sija, or its word family \*saja, are unlikely related to the personal article \*si.

<sup>37</sup> Thao has *haya* (Niida 2018: 22), which resembles \*saja “that, there” but its meaning is not “that” but “this.” This form, however, is not included in the table because it is not a regular reflex of the proto-form \*saja, which is expected to become \*\*taða. Therefore, *haya* in Thao could be a loan form.

<sup>38</sup> The second form *dida* (Li and Tsuchida 2001: 108) is a variant of *ziza*.

<sup>39</sup> This is a root used in the forms such as *sia=ti* “this”, and *sia=ta* “that”. These two forms are from Ogawa and Asai (1935: Appendix 49).

<sup>40</sup> This form is recorded as *rajya* in Tsuchida (1982: 154). It is interpreted as *radza* in this paper.

morpheme boundary between the preceding elements and the root.

In Proto-Austronesian, \*sija and \*saja are reconstructed as the forms for distal demonstratives. The two forms differ only in the first vowel. They can be considered a word family. Then, it is questionable whether there was a semantic distinction between the two forms. Data indicating their distinction are scarce. One possibility would be proximal distance: \*sija is nearer than \*saja. The word with the vowel *i* can be used for nearer references than that with the vowel *a*. That is, \*sija could be “that; there” and \*saja could be “that yonder; over there”.

This tendency whereby the vowel *i* is for “near” and the vowel *a* is for “far” is noted by Finney (2007: 90), although this concerns the contrast between proximal and distal demonstratives. He says for all Austronesian languages that have demonstratives pairs *di* and *da*, or *ni* and *na*, *di* or *ni* is used to indicate proximity and *da* or *na* is used to indicate distance. He adds that the same principle holds for the epenthetic demonstrative pairs =*ti* (proximal) and =*ta* (distal) in Bunun.

A similar situation is likely seen between the distal demonstratives *hiza* and *haso* in Saisiyat. Ferrell (1969: 399) notes that *hiza* is “that (near)” and *haso* is “that (remote)”. The same situation is seen in Kananabu between the distal demonstratives *isa* and *sana* (Ogawa and Asai 1935: Appendix 49).<sup>41</sup> For *sana*, they noted that it is “farther”. It should become clear whether the distinction between the distal demonstratives \*sija and \*saja depends on the distance as more comparative data are found.<sup>42</sup>

### 3. Proximal demonstratives in Atayalic and other Austronesian languages

The words for proximal demonstratives in Paran Seediq are *ni* “this” and *hini* “here”. Those in Truku Seediq are identical: *ni* “this” and *hini* “here”.<sup>43</sup> These are directly reconstructed in Proto-Seediq as \*ni “this” and \*hini “here”. As these forms indicate, \*hini could be the original form, and \*ni is derived from it by deleting the first syllable. If so, it will turn out that “this” and “here” were not semantically distinct in an earlier time as this was also observed in the proximal demonstratives in Table 9.

<sup>41</sup> Both Kananabu forms of distal demonstratives are in Table 8; however, these do not perfectly reflect tentatively reconstructed proto-forms.

<sup>42</sup> Regarding the pairs of vowels *a* and *i*, proximal demonstratives in Saisiyat show that the distinction is dependent on visibility. Zeitoun et al. (2015: 219) say *hini* and *hani* are proximal demonstratives and that *hini* is used for a visible object and *hani* is used for a non-visible object. Then, it is also possible that the distinction between \*sija and \*saja is dependent on visibility.

For Proto-Seediq, it can be said that \*hiḏa is used for referential objects while \*haḏa is used for non-referential concepts. This is suggested by the Truku Seediq example in (1) in which *haya* is used non-referentially. For the Paran Seediq example in (2), it is uncertain whether haḏa is referential or non-referential because the Japanese translation accompanied with it (in footnote 7) suggests both possibilities: “That thing is good” or “That is a good idea”. If the Proto-Atayalic \*haja is non-referential “that”, another non-referential form \*kija seems to have arisen later, probably when \*haja began to drop out of use or lose its original non-referential meaning.

<sup>43</sup> These forms in Truku Seediq are from Rakaw et al. (2006: 292, 485)

Table 9: Proximal demonstratives in Seediq dialects

	“this”	“here”
Paran Seediq	<i>ni</i>	<i>hini</i>
Truku Seediq	<i>ni</i>	<i>hini</i>
Proto-Seediq	* <i>ni</i>	* <i>hini</i>

The word for proximal demonstratives in Squliq Atayal is *qani* “this, here” (Egerod 1965: 211). Those in C’uli’ Atayal are *hani* “here” (Ogawa and Asai 1935: Appendix 49), and *sani* (Ferrell 1969: 380).

Table 10: Proximal demonstratives in Atayal dialects

	“this”	“here” <sup>44</sup>
Squliq Atayal	<i>q-ani</i>	
C’uli’ Atayal	<i>hani</i>	<i>s-ani</i>
Proto-Atayal	* <i>hani</i>	

As discussed in Section 2.2, the distal demonstrative *q-asa* “that” in Squliq Atayal includes a fossilized nominative case marker *qu*. Its cognate in C’uli’ Atayal was *haca*, the root form with an initial consonant *h*, which is reconstructed in Proto-Atayal.

In a similar manner, the initial consonant *q* in *qani* “this, here” in Squliq Atayal could originate in the fossilized nominative case marker *qu*. In addition, C’uli’ Atayal shows the form with the initial consonant *h*, *hani*, which could be regarded as the root reconstructed in Proto-Atayal. If so, in Squliq Atayal changes such as \**hani* > *qu-hani* > *qu-ani* > *q-ani* may have occurred.

Likewise, the other form in C’uli’ Atayal, *sani* “here”, may have a fossilized locative case marker *sa* attached to it. A similar case is seen in Squliq Atayal. First, Huang and Wu (2018: 61) say that *sa* is a locative marker in Squliq Atayal. The proximal demonstrative in Squliq Atayal is *qani*, and its locative form is *sə-qani*, which is derived from *sa-qani* according to Ogawa and Asai (1935: 28). It is uncertain if this locative case marker *sa* was existent in C’uli’ Atayal; it is highly likely that *sani* is derived by attaching *sa*, i.e. \**hani* > *sa-hani* > *sa-ani* > *s-ani*.<sup>45</sup>

The reconstructed forms for proximal demonstratives are \**hini* in Proto-Seediq and \**hani* in Proto-Atayal. These forms are similar but differ in the vowel in the first syllable:

<sup>44</sup> For “here” in Squliq Atayal, Egerod (1980: 438–439) has *nuni* “here”, which shares the final syllable *ni* with the other forms in Table 10. It seems that *nu-ni* is an innovation in order to differentiate between “this” and “here”.

<sup>45</sup> Huang (2000) has *cku?* as a locative case marker for the Mayrinax subdialect of C’uli’ Atayal. Since this form has *c* as its initial consonant, the locative case marker *sa* in Squliq Atayal could date back to *ca*. In Squliq Atayal, \**c* changes to *s*, according to Li (1981: 260).

*i* in early Proto-Seediq and *a* in Proto-Atayal. It is uncertain which would be reconstructed in Proto-Atayalic based on these two forms.

However, the Proto-Seediq form \*hini has cognates not only in two Formosan languages, Saisiyat and Pazih, but also in other Austronesian languages of the Malayo-Polynesian subgroup including Aborlan Tagbanwa, Sangil, Kanyan, and Malay as shown in Table 11. Therefore, \*hini is reconstructed in Proto-Atayalic and \*sini is reconstructed in Proto-Austronesian.

Table 11: Proximal demonstratives in Atayalic and other Austronesian languages<sup>46</sup>

Proto-Seediq; Proto-Atayal	*hini; *hani “this; here”
Proto-Atayalic <sup>47</sup>	*hini “this; here”
Saisiyat	<i>hini; hani</i> “this”
Pazih	<i>dini</i> (from a hypothetical form <i>zini</i> ) “here”
Aborlan Tagbanwa	<i>sini</i> “here”
Sangil	<i>sini</i> “here”
Kayan	<i>hini-h</i> “here”
Malay	<i>sini</i> “here, this way, this place”
Proto-Austronesian	*sini “this, here”

The initial consonant in Pazih needs explanation. The Proto-Austronesian \*s is reflected as *z* in Pazih, according to Ross (2015: 32).<sup>48</sup> However, the actual Pazih form is *dini* with the initial consonant *d*, not the expected form *zini*. It seems likely that originally there was the form *zini*, but then the initial *z* began to alternate with *d*. A similar change is seen in the word for a distal demonstrative in Pazih. “There” is expressed by *ziza* (Li and Tsuchida 2001: 335), which is in turn a cognate of the Proto-Atayalic \*hija in Table 8. Li and Tsuchida (2001: 335) report this form as a dependent root seen in the word *kai-ziza* “to stay there”.

In addition, a distal demonstrative in Pazih is reported as *dida* “that; there” (Li and Tsuchida 2001: 108). They report a form with the same prefix, *kai-dida*, with the same meaning “to stay there”. Therefore, *ziza* (the expected reflex) and *dida* are variants in which the original *z* alternates with *d*. The same alternation could have happened to the proximal demonstrative *zini* so that it eventually became *dini*.

<sup>46</sup> The Saisiyat form is from Zeitoun, Chu, and Kaybawbaw (2015: 219). The Pazih form (*dini*) is from Li and Tsuchida (2001: 109). The other forms in Table 8 are from Blust and Trussel (2010), who reconstructs the identical form \*si-ni as Proto-Western-Malayo-Polynesian; in addition, *si* and *ni* are morphologically distinct in their analysis.

<sup>47</sup> Li (1981: 294) reconstructs the proximal demonstrative in Proto-Atayalic as \*ni. However, this study claims that it is a disyllabic form \*hini.

<sup>48</sup> To be precise, Proto-Austronesian \*s is reflected as *z* in Pazih in both word-initial and word-medial positions, but as *t* in a word-final position.



For the Proto-Atayalic proximal demonstrative \*hini is reconstructed. Then, the Proto-Atayal \*hani is likely an innovation. This innovation was probably motivated by the pair of distal demonstratives: Proto-Atayalic \*hija and \*haja. By analogy, the proximal demonstrative \*hini could have derived from \*hani and the original \*hini dropped out of use in Proto-Atayal. However, the Proto-Atayal \*hani also has a cognate in Saisiyat, which appears as *hani*. Zeitoun et al. (2015: 219) note that in Saisiyat *hini* is used for a visible object and *hani* is used for non-visible object. There is another possibility that this *hani* in Saisiyat might have been borrowed by Atayal.

Dempwolff (1938: 69) reconstructed \*ini as a proximal demonstrative in Proto-Austronesian.<sup>49</sup> To be precise, the data on which his analysis was based on were non-Formosan; therefore, the reconstructed form is regarded as Proto-Malayo-Polynesian. This study modified this reconstruction to \*sini with an additional initial consonant \*s, by supplementing data from Formosan languages including Atayalic, Saisiyat and Pazih as well as Malayo-Polynesian languages.

Near cognates of \*sini are also found in Formosan languages in which the initial consonant \*s is dropped or replaced by another segment. For example, Siraya has *t-ini* as the third-person singular form.<sup>50</sup> Papora has *p-ini* “here” and *h-ini* “this”. Babuza has *inz-ini* “here” and *m-ini* “this”.<sup>51</sup> Tsou has *ta-ini* “third-person singular pronoun” and *h-in?i* “third-person plural pronoun”.<sup>52</sup> Kananababu has *ini* “third-person genitive marker”<sup>53</sup> and Amis has *k-ini-an* “this”. Puyuma has *ini* “this”, and *iq-ini* “this”.<sup>54</sup> The hyphens in these forms are added by the present author for indicating possible morpheme boundaries. These segments replacing the initial consonant \*s could have originated as case markers as was discussed in Section 2.2 for Atayal, Section 2.4 for Amis, Papora and Saaroa, and earlier in this section for Atayal.

#### 4. Conclusion

This paper first reconstructed demonstratives in Proto-Seediq and Proto-Atayal. Then, the reconstructed forms for each proto-language are compared to reconstructed Proto-Atayalic demonstratives. As a result, \*hini is obtained as a proximal demonstrative in Proto-Atayalic. The proximal demonstratives in other Austronesian languages are compared against the Proto-Atayalic form. Based on the cognates in other Austronesian

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<sup>49</sup> Proto-Austronesian proximal and distal demonstratives are reconstructed as \*ini “this, here” and \*-Cu “that, there” (Blust and Trussel 2010). In this paper, \*-Cu is not reconstructed to Proto-Austronesian; it is considered an innovation occurring later than Proto-Austronesian.

<sup>50</sup> The form in Siraya is from Adelaar (2011: 91). The form cited there was *teni*, however its oblique form is *tini-an*. Therefore, the original form should be *tini*.

<sup>51</sup> The forms in Papora and Babuza are from Tsuchida (1982: 154–155).

<sup>52</sup> The forms in Tsou are from Zeitoun (2000: 81).

<sup>53</sup> The form in Kananababu is from Ogawa and Asai (1935: 726).

<sup>54</sup> The forms in Amis and Puyuma are from Ogawa and Asai (1935: Appendix 49).

languages, \*sini is reconstructed as the Proto-Austronesian form.

In Proto-Atayalic, two forms are reconstructed for the distal demonstrative: \*hija and \*haja. They only differ in the first vowel, so they are considered as a word family. For Proto-Atayalic \*hija, some Austronesian languages include it as a cognate. The form reconstructed in Proto-Austronesian is \*sija. For Proto-Atayalic \*haja, near cognates are found in some Austronesian languages. Using the analogy of \*sija, the Proto-Austronesian form reconstructed for this cognate set is \*saja. The distinctions between these two Proto-Austronesian distal demonstratives, \*sija and \*saja, is unclear. However, based on a scarce description, it can be inferred that \*siya is “nearer that, there” and \*saja is “farther that, there”.

## References

- Adelaar, Alexander (2011) *Siraya: Retrieving the phonology, grammar and lexicon of a dormant Formosan language*. Berlin: De Gruyter Mouton.
- Asai, Erin (1953) *The Sedik language of Formosa*. Kanazawa: Cercle Linguistique de Kanazawa.
- Blust, Robert (1997) The Proto-Austronesian pronouns and Austronesian subgroup: A preliminary report. *University of Hawaii Working Papers in Linguistics* 9 (2): 1–15.
- Blust, Robert (1999) Subgrouping, circularity and extinction: Some issues in Austronesian comparative linguistics. In: Elizabeth Zeitoun and Paul Jen-kuei Li (eds.) *Selected papers from the eighth international conference on Austronesian linguistics*, 31–94. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.
- Blust, Robert (2013) *The Austronesian languages*. Canberra: Australian National University, Research School of Pacific and Asian Studies.
- Blust, Robert, and Stephen Trussel (2010) *The Austronesian comparative dictionary: A work in progress, web edition*. <http://www.trussel2.com/acd/> Accessed 2020/09/04.
- Council of Indigenous Peoples (2013) *Yuanzumin zuyu e leyuan*. <http://web.klokah.tw/> Accessed 2020/09/04.
- Dempwolff, Otto (1938) *Vergleichende Lautlehre des Austronesischen Wortschatzes*, Supplement 3. *Austronesisches Wörterverzeichnis*. Berlin: Reimer.
- Egerod, Søren (1965) An English-Atayal vocabulary. *Acta Orientalia* 29: 203–220.
- Egerod, Søren (1980) *Atayal-English dictionary*. London: Curzon.
- Ferrell, Raleigh (1969) *Taiwan aboriginal groups: Problems in cultural and linguistic classification*. Taipei: Institute of Ethnology, Academia Sinica.
- Finney, Joseph C. (2007) Toward reconstruction of demonstratives in Proto-Austronesian. In: Mark Alves, and David Gil (eds.) *SEALS VIII: Papers from the 8th meeting of the Southeast Asian Linguistics Society (1998)*, 72–92. Canberra: Pacific Linguistics.

- Huang, Lillian M. (1995) *A study of Mayrinax syntax*. Taipei: Crane.
- Huang, Lillian. M. (2000) *Taiyayu cankao yufa* [Atayal reference grammar]. Taipei: YuanLiou. [In Mandarin]
- Huang, Lillian M. and Wu Xin-sheng (2018) *Taiyayu yufa gailun* [Introductory grammar of Atayal]. New Taipei: Council of Indigenous Peoples.
- Li, Paul Jen-kuei (1981) Reconstruction of Proto-Atayalic phonology. *Bulletin of the Institute of History and Philology, Academia Sinica* 52(2): 235–301.
- Li, Paul Jen-kuei and Shigeru Tsuchida (2001) *Pazih dictionary*. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.
- Niida, Sumino (2018) *Taiwan yuanzhumin pinwei yuyan thaoyu* [Endangered language Thao]. Taipei: Dahhsin. [In Mandarin, Japanese, English]
- Ochiai, Izumi (2016a) *Sedekkuo Paran hōgen no bunpō kijutsu to hiishisei settouji no hikaku gengogakuteki kenkyū* [A descriptive grammar of Paran Seediq and a comparative study of non-volitional prefixes], Ph. D dissertation, Kyoto University.
- Ochiai, Izumi (2016b) Bu-hwan vocabulary recorded in 1874: Comparison with Seediq dialects. *Asian and African Languages and Linguistics* 10: 287–324.
- Ochiai, Izumi (2018) Ryuzo Torii's Paran Seediq glossary (1900): Annotation and observation, *UST Working Papers in Linguistics* 10: 113–143. Hsinchu: Graduate Institute of Linguistics, National Tsing Hua University.
- Ochiai, Izumi (2021) *Atayarugono asa no saiken: tokini kansuru gono zurekara* [Reconstruction of “morning” in Atayal: From the perspective of time lags], paper presented at the 115th meeting of Kijutsuken: Descriptive Linguistics Study Group, 29 Aug, 2021. [In Japanese]
- Ogawa, Naoyoshi (1931) *Atayaru goshū* [Atayal word lists]. Taihoku: Taiwansōtokufu. [In Japanese]
- Ogawa, Naoyoshi and Erin Asai (1935) *Gengo ni yoru taiwan takasagozoku densetsushū* [The Myths and Traditions of the Formosan Native Tribes]. Taipei: Taihoku Imperial University. [In Japanese]
- Pecoraro, Ferdinando (1977) *Essai de Dictionnaire Taroko-Français*. Paris: Société pour l'Etude et la Connaissance du Monde Insulindien.
- Rakaw, Lowsi, Jiru Haruq, Yudaw Dangaw, Yuki Lowsing, Tudaw Pisaw, and Iyuq Ciyang ed. (2006) *Tailugezuyu jianyi zidian* [Concise Dictionary of Taroko Seediq]. Xiulin: Xiulin Township Administrative Office. [In Mandarin]
- Ross, Malcolm (2015) Some Proto Austronesian coronals reexamined. In: Elizabeth Zeitoun, Stacy Fang-Ching Teng, and Joy J. Wu (eds.) *New advances in Formosan linguistics*, 1–38. Asia-Pacific linguistics.
- Sayama, Yūkichi (1918) *Banzoku Chousa Houkokusho* [An investigative report of indigenous people in Taiwan: Atayal], Vol. 1. Taihoku: Board of Inquiry for Old Customs in Taiwan. [In Japanese]

- Torii, Ryuzo (1900a) Taiwan horisha mushaban no gengo (toobu yuugeimen bango) [The language of Musha, Horisha, Taiwan (Eastern Tattooed tribe)], *The Journal of the Anthropological Society of Tokyo* 176: 71–74.
- Torii, Ryuzo (1900b) Taiwan horisha mushaban no gengo (toobu yuugeimen bango) [The language of Musha, Horisha, Taiwan (Eastern Tattooed tribe)], *The Journal of the Anthropological Society of Tokyo* 177: 100–104.
- Torii, Ryuzo (1901) Taiwan horisha mushaban no gengo (toobu yuugeimen bango) [The language of Musha, Horisha, Taiwan (Eastern Tattooed tribe)], *The Journal of the Anthropological Society of Tokyo*. 178: 133–137.
- Tsuchida, Shigeru (1975) *Reconstruction of Proto-Tsouic phonology*. Ph. D. diss, Yale University.
- Tsuchida, Shigeru (1982) A comparative vocabulary of Austronesian languages of sinicized ethnic groups in Taiwan, part I. West Taiwan. *Memoirs of the Faculty of Letters, University of Tokyo* 7: 1–166. Tokyo: Faculty of Letters, University of Tokyo.
- Tsukida, Naomi (2009) *Sedekkugo (Taiwan) no bunpo* [A grammar of Seediq (Taiwan)]. Ph.D dissertation, The University of Tokyo.
- Zeitoun, Elizabeth (2000) *Zouyu cankao yufa* [Tsuu reference grammar]. Taipei: Yuan-Liou. [In Mandarin]
- Zeitoun, Elizabeth, Tai-hwa Chu, and Lalo a tahesh kaybaybaw (2015) *A study of Saisiyat morphology*. Honolulu: University of Hawai‘i.

## Summary

This paper reconstructs Proto-Atayalic (Austronesian) distal demonstratives based on the data from two Atayalic languages, Atayal and Seediq. The distal demonstratives are also used as third-person pronouns in these languages. Two types of distal demonstratives are observed depending on the vowel of the first syllable. In one type, the vowel of the first syllable appeared as *i* as seen in Seediq *hiya* “there” and Atayal *hiya* “third-person singular pronoun”. In the other type, the vowel of the first syllable appeared as *a* as seen in Atayal *haga* “third-person plural pronoun” and Seediq *haya* “that”. The first type is reconstructed in Proto-Atayalic as \*haja “that/there” and the second type as \*hija “that/there”. Based on a small data set of near-cognates in other Formosan languages, these proto-forms could be distinct in their distance to the referred object: \*haja could refer to a thing/place farther away than \*hija. As for the Proto-Atayalic \*hija, there are cognates in other Formosan languages such as *hiza* “that” in Saisiyat, *ziza* “there” in Pazih, and *sia* “third-person singular pronoun” in Bunun. Proto-Austronesian could be reconstructed as \*siya based on these forms. Proximal demonstratives in Atayalic languages are Atayal *nuni* “here”, *qani* “this”, and Seediq *hini* “here”. Although these are

not perfect cognates, Saisiyat and Pazih share cognates with Seediq: *hini* “this” in Saisiyat and *dini* “here” in Pazih (the initial consonant *d* seems to alternate with *z*, the proper reflex of *\*s*). Based on these, the Proto-Atayalic form could be reconstructed as *\*hini* “this/here”, and the Proto-Austronesian could be reconstructed as *\*sini*. Then, applying analogical inference, *\*saja* could also be reconstructed in Proto-Austronesian. In sum, Proto-Atayalic *\*hini*, *\*hija*, and *\*haja* could potentially correspond to the Proto-Austronesian forms *\*sini*, *\*sija*, and *\*saja*.

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