The Forms and Meanings of Past Tense

A Contrastive Study of Papua New Guinea

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Ⅰ　Introduction

This study attempts to clarify the areal features of past tense forms in four languages of the Madang area of Papua New Guinea. Past tense forms occur in almost all major languages (except Chinese and Indonesian, for example), but their forms and functions vary, and it is not easy to analyze them. A goal of this study is to examine the tense and aspect features of these languages.

Specifically, this study investigates past tense forms from morphological and semantic perspectives and moreover, considers their grammaticalization paths. Morphologically, this study considers the degrees of grammatical and semantic complexity of the forms, defines the past tense features of this area, and examines the relationships between past and perfect/perfective aspects. We examined four languages and checked the past tense features in terms of form-meaning relationships. The languages were Amele and Kobon (Trans–New Guinea languages), Bel (Austronesian), and Tok Pisin (an English-based creole). Generally, Trans–New Guinea languages such as Amele and Kobon are considered to have more complicated tense/aspect system than Austronesian languages (such as Bel) and Tok Pisin (Roberts 1987, Davies 1989).

In this article, section Ⅱ is a theoretical overview of tense/aspect studies and provides basic information of the sample languages. Section Ⅲ shows the specific data for the past tense forms of each language and summarizes their characteristics. Section Ⅳ discusses their morphology and semantics, and finally, we summarize our findings in section Ⅴ.

Ⅱ | Theoretical background and the languages of Papua New Guinea

This section introduces several general studies on tense and aspect and then reviews the method of this study. The most prominent goal of this study is to discuss temporal concepts in terms of universal grammar (cf. Sinha et al. 2011, Nose 2016, Velupillai 2016), and specifically, we will try to explain how universal tendencies relate to past tense and related temporal features. First, we provide a typological overview of previous studies on tense and aspect, and second, we review the previous studies on the languages of Papua New Guinea.

Tense and aspect are basic and necessary features of verbal structures, and a number of studies have been done in this area from typological and theoretical perspectives. The classic studies of Comrie (1976, 1985) are representative. Subsequently, Bybee and Dahl (1989), Bybee et al. (1994), and Velupillai (2016) proposed typological approaches to tense/aspect systems. Sasse (2002) reviewed studies of tense and aspect up to 2000; the review examined the studies of aspect from the previous 50 years and raised several questions for future study.[1]

Next, Dahl and Velupillai (2005) revealed the diversity of past tense forms. Dahl and Velupillai examined past tense forms from 222 languages and classified them morphologically (see Figure 1). Overall, 88 languages lacked past tense (white squares in Figure 1), a trait particularly observed in Southeast Asia and Africa. For example, Indonesian is a typical language without tense, as shown in (1).
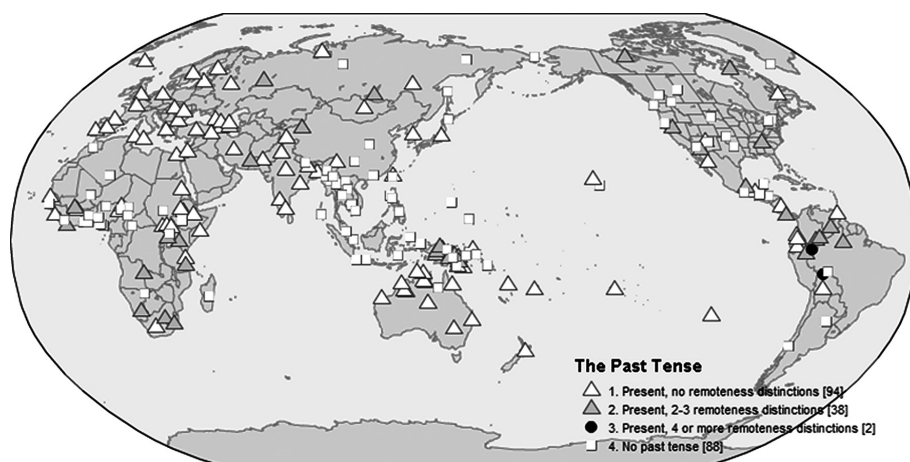

The Past Tense
△ 1. Present, no remoteness distinctions [94]
▲ 2. Present, 2-3 remoteness distinctions [38]
● 3. Present, 4 or more remoteness distinctions [2]
☐ 4. No past tense [88]

Figure 1. The past tense (Dahl and Velupillai 2005)

[1] A viewpoint approach by Johanson (2000)). Recently, Binnick (2012) summarized the general surveys of tense and aspect as a book in the Oxford Handbook series.

(1) Indonesian: Dahl and Velupillai (2005)

    Air   itu   dingin.

    water   that   cold

    "The water is/was cold."

In contrast, the majority of languages have past tense features of various kinds. The white triangles (including almost all European languages) indicate simple binary distinctions between past and present. Grey triangles and black circles (observed in the South America languages Yagua and Chácobo) have several kinds of past tenses, such as today's past, yesterday's past and remote past. The Figure 1 map to New Guinea Island is shown in detail in Figure 2. Some languages in New Guinea and the Melanesian region have no past tense (Motu, Nakanai, Arapesh), simple past (Imonda, Daga, Tok Pisin), or several remoteness distinctions (Amele, Kewa, Alamblak).

Amele is marked with a gray triangle in Figure 2, which indicates 2–3 remoteness distinctions. For Amele, these are today's past, yesterday's past, and remote past tense, as shown in (2).

(2) Amele: (Roberts 1987: 224–225)

Present: Ija fi-gi-**na**. "I see"

Past: Today's past: Ija fi-g-**a**. "I saw (today)"

Yesterday's past: Ija fi-g-**an**. "I saw (yesterday)"

Remote past: Ija fe-**em**. "I saw (before yesterday)."

In Figure 2, around 20 languages are marked around the area, but more than 240 languages occur only in the Madang Province of Papua New Guinea. Thus, this study will add to the understanding of the past tense in Figure 2 and specifically, will serve as a pilot study of past tenses by examining the sample languages: Amele, Kobon, and Bel, spoken in Madang Province, and Tok Pisin, spoken across Papua New Guinea, as shown in Figure 3.
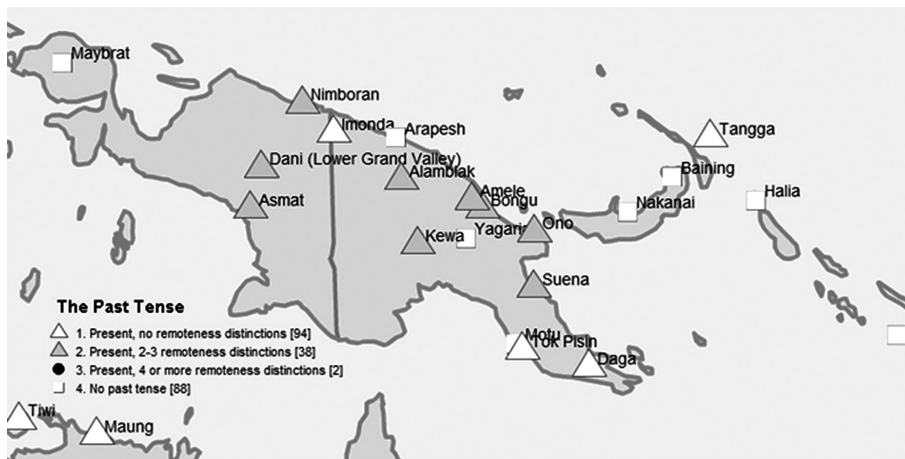

Figure 2. The past tense, detail of New Guinea Island (Dahl and Velupillai 2005)
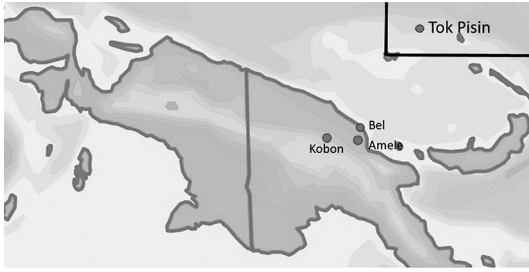
Figure 3. The four sample languages, three of Madang Province and Tok Pisin (generated by WALS language viewer)

Here, we provide a brief introduction to the morphological characteristics of the languages of New Guinea (cf. Foley 2000, Aikhenvald 2014), followed by a brief overview of each language under discussion.

Generally, New Guinea languages (except the Toricelli languages) have complex verbal morphology (Foley 2000: 376) and their verbal tense and aspect systems are realized differently (Foley 2000: 381). Foley claimed that Austronesian languages have simple tense systems and often lack grammatical categories, while in contrast, Trans–New Guinea languages may have complex tense systems through multiple deictic distinctions of distance (see also, Bradshaw and Czodor 2005 and examples from Amele in (2)).

Next, this study provides a brief introduction of the sample languages, Amele, Kobon, Bel, and Tok Pisin. Amele and Kobon are Trans–New Guinea languages characterized by complex verbal and nominal morphology. Amele is spoken near the coastal area and was possibly influenced by contact with several Austronesian languages. In contrast, Kobon is spoken in the highland area and isolated in geographic area. Bel is an Austronesian language previously called Gedaged/Graged; it is quite

similar to Takia (Dempwolff n.d. and Ross 2002). Bel seems to have had contact with the Trans–New Guinea languages, since its grammatical features differ from those of typical Austronesian languages. Finally, Tok Pisin is an English-based creole spoken throughout Papua New Guinea. The indigenous languages spoken in Papua New Guinea are diverse, but Tok Pisin is the national lingua franca (Mihalic 1971).

This study pays special attention to past tense or tenses, which differ from unmarked present tense. Moreover, the previous descriptions of the sample languages vary in depth and content, making it difficult to compare them directly. Nevertheless, this study organizes the data in typological terms and adds additional data from my fieldwork.

III Data and observations on the past tense forms

This section shows the data of the past tense forms in the sample languages. We utilized the following descriptive grammars: Amele (Roberts 1987 and my field data), Kobon (Davies 1989), Bel (Dempwolff n.d., Ross 2002, and my field data), and Tok Pisin (Mihalic 1971 and my field data).

This study focused on the points shown in (3). (3a) and (3b) are morphological features of the past tense forms, (3c) and (3d) are semantic features, and (3d) and (3e) are forms and meanings for perfective aspect.

(3) Past tense and related features in this study:
    a. Forms of past tenses
    b. Inflections (persons and numbers)
    c. Meanings of past tenses
    d. Semantic contexts for perfective aspect

e. Morphological perfective aspect

Amele has a present tense and three kinds of past tense forms with three remoteness distinctions, as shown in (4). It also has additional past tense forms, such as habitual and negative past forms, as in (5). These past tense forms are realized in the final morphemes of verbal inflections, but their forms are incorporated into person and number inflections (portmanteau forms: Roberts 1987: 223). The verbal inflections for present, today's past, and negative past in Amele are shown in (6).

(4) Present and past tenses in Amele: (Roberts 1987: 224–225)[2]
Present: Ija hu-gi-**na**. "I come"
Past tenses:
Today's past: Ija hu-g-**a**. "I came (today)"
Yesterday's past: Ija hu-g-**an**. "I came (yesterday)"
Remote past: Ija ho-**om**. "I came (before yesterday)"

(5) Additional past forms in Amele (Roberts 1987: 224–225)
Habitual past: Ija ho-**l**-ig. "I used to come"
Negative past: Ija qee (not) ho-**l**-om. "I did not come"

(6) Tense inflections in Amele: (224–245)[3]
Present tense:
   1s: hu-gi-na "I come"
   2s: ho-go-na "You come"
   3s: ho-na "He/she comes"
   1d: ho-wo-na "You and I come"
   2/3d: ho-si-na "You two come"
   1p: ho-go-na "We come"
   2/3p: ho-gi-na "You/they come"

Today's past tense:
   1s: hu-g-a "I came (today)"
   2s: ho-g-a "You came (today)"
   3s: ho-i-a "He/she came (today)"
   1d: ho-w-a "You and I came (today)"
   2/3d: ho-si-a "You two came (today)"
   1p: ho-q-a "We came (today)"
   2/3p: ho-ig-a "You/they came (today)"
Negative past tense:
   1s: ho-l-om "I did not come"
   2s: ho-l-om "You did not come"
   3s: ho-l "He/she did not come"
   1d: ho-lo-h "You and I did not come"
   2/3d: ho-lo-sin "You two did not come"
   1p: ho-lo-m "We did not come"
   2/3p: ho-l-oin "You/they did not come"

Currently, however, Amele speakers prefer to use universal tense forms in everyday conversation (many such usages are observed in my data). Roberts (1987: 227) also noted this type of universal tense, whose meanings including present and past, as in (7). It is notable that the universal tense form -a is the same as the today's past tense form -a.

(7) Universal tense in Amele:
Ija hug-a. "I come, I came." (present and past)

While Amele has several kinds of past tense forms, it has a limited aspect system. Therefore, perfect/perfective meanings are realized by using the the today's past tense form (Roberts 1987: 227), or by using the adverbial word wele "already," as in (8).

(8) Uqa wele nui-a. "He has already gone." (Roberts 1987:232)

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2) Moreover, Amele has future, relative future, and negative future tenses.

3) Abbreviations: s: singular, d:dual, p:plural, and 1,2,3 : first person, second person, and third person, respectively.

Kobon is spoken in the Highland area of Madang Province and has complex morphology. Kobon has two kinds of past tenses: simple and remote past. Simple past indicates rather recent situations, while remote past describes events taking place before the day of utterance (Davies 1989:166–167), as in (9).

(9) Kobon: (Davies 1989: 166–167)
Simple past: Yad au-īn. I have come.
Remote past: Nöŋ-be. "You (2pl) saw."

According to Davies (1989), Kobon has present, simple past, remote past, future tenses, and perfect aspect, but no habitual past or negative past like those of Amele. The verbal inflections in Kobon tense systems are illustrated in (10). Tense forms are portmanteau suffixes that also encode person and number. However, in (10), the perfect marker *-b-* is inserted between the verb-stem and inflection form, as in (11). Thus, the tense forms are fully inflectional, but aspect forms are simpler.

(10) Tense and aspect inflections in Kobon:

	Present	Simple past	Remote past
1s:	ab-in[4)	-in	-nö
2s:	ab-ön	-an	-na
3s:	ab-	-ip	-a
1d :	ab-ul	-ul	-lo
2/3d :	ab-il	-il	-lö
1p:	ab-un	-un	-no
2p:	ab-im	-im	-be/-pe
3p:	ab-öl	-al	-la

Perfect aspect
1s:	-b-in
2s:	-b-an
3s:	-öp

1d:	-b-ul
2/3d:	-b-il
1p:	-b-un
2p:	-b-im
3p:	-b-al

(11) Perfect aspect (Davies 1989: 168):
Um-öb. "He had died."

Although Kobon has a perfect aspect form, the past tense forms (simple and remote) imply perfective meaning as well. In particular, the simple past forms are often used with perfect aspectual meanings, and the simple past and perfect forms are in many cases interchangeable (Davies 1989: 167). Thus, past tense forms are rich in that they encode remoteness distinctions and imply aspectual meanings. However, Kobon differs from Amele in that it has a simple morphological aspect form.

Bel is an Austronesian language spoken in the coastal area of Madang Province, neighboring the Amele-speaking area. Bel has almost the same grammar and lexicon as another Austronesian language, Takia (Ross 2002). Ross (2002) noted that Takia (and Bel) have experienced long contact with the Trans–New Guinea languages; consequently, many Austronesian features were lost and Trans–New Guinea features were acquired. Dempwolff (n.d.) is an old grammatical description of Bel[5) and it is thought to have been written between 1930–1940. According to Dempwolff's description, the enclitic *-lak* was a marker of past, past perfect, and perfect tenses (Dempwolff n.d.: 11). Verbs with the enclitic–*lak* encoded realis past, past perfect, and prefect meanings as in (12). There is no person/number inflection, and Ross (2002: 235) described Takia as lacking

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4) For example, the present verb formations are shown as g(do)-ab "He is working", ar(go)-ab-in "I am going."

5) Dempwolff named it "Graged," an alternative name for Bel.

tense and distinguishing only realis, irrealis, and imperfective meanings. Thus, the enclitic–*lak* could be considered to be a realis marker.

(12) a. Am a-god-lak. "we asked for/ we have asked for / we had asked for"
b. Ad i-du-lak. "the sun had set"

I interviewed several Bel speakers in 2010. The Bel consultants recognized the enclitic usage of–*lak* in (12) and (13), but they also clearly distinguished present, past, and perfective, with each tense/aspect form having a certain suffix, as in (13). In contrast, perfective meanings were realized by use of the adverb *get* "already," and thus, like Amele (8), Bel employs a lexical perfective.

(13) Bel (my data in 2010):
Present and future: Ŋa ŋar-agoi. "I go (I will) somewhere."
Past: Ŋa ŋare-**lak**. "I went somewhere."
Perfective: Ŋa **get** ŋare. "I have already gone." (*get*: "already")

(14)Bel (my data in 2010):
Present: Ŋa book mushuti-**ŋame**. "I read a book."
Past: Ŋa book mushuti-**n**. "I read the book."

In (14), however, the verb "read" shows different inflections from (13). The form "-n" in the verb "read" represents the past situation and the longer form "-ŋame" indicates the present situation. The form "-n" is not found in Dempwolff's description, so is considered a newly emerged past tense form. The past verb form *mushuti-n* carries the implication "I had

read the book a long time ago which implies a remote past meaning.[6]

The final language in the sample, Tok Pisin, is the lingua franca of Papua New Guinea and spread across Papua New Guinea during the 19th and 20th centuries. The population of Papua New Guinea is bilingual in Tok Pisin and their native languages, such as Amele, Bel, or Kobon. Tok Pisin is an English-based creole whose grammar is quite simple and that tends to have isolating morphology. Tense and aspect markers are also unbound forms not included in verb inflection, as in (15).

(15) Tok Pisin:
Past: Mi **bin** kam long Madang. "I came to Madang."
Perfective: Mi kam long Madang **pinis**. "I have come to Madang."

In (15), the past tense marker *bin* is derived from English "been," and the perfective marker *pinis* originated from English "finish." Thus, bilingual speakers of the area have grammatical knowledge of past and perfective through Tok Pisin grammar.[7]

To summarize the observations, Amele has rich past tenses with tense forms that are incorporated into verbal morphology, but my field data found a universal tense indicating both present and past. Kobon has two distinct (simple and remote) past tenses in verbal morphology and has a perfect aspect form as well. Bel is an Austronesian language with morphological past forms that encode perfective meanings as well. In Tok Pisin, tense and aspect markers are realized separately. These findings are summarized in Table 1.

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6) According to Bradshaw and Czobor (2005), Jabem (another Austronesian language spoken in Morobe Province) has the present and the aorist form for tense system.

7) When I gathered the past tense data in Amele, Amele speakers freely translated past and perfective sentences between Amele and Tok Pisin.

Table 1. Past tense forms and functions of the sample languages

	Amele	*Kobon*	*Bel*	*Tok Pisin*
Past tense forms	Yes (remoteness, negative, etc.)	Yes (simple/remote)	Yes (-*lak*/-n) (realis marker)	Yes (*bin*)
Inflections	Rich	Rich	No	No
Meanings	Rich	Rich	Simple (reality)	Simple
Perfective implication	Today's past	Simple past	Reality meaning	Perfective marker Independent marker *pinis*
Perfective aspect form	Adverb *wele* "already"	–*b*– inside the verb	Adverb *get* "already"	

IV | Discussion

The data in section Ⅲ show that each of the sample languages has at least one past tense form, but the Trans–New Guinea languages (Amele and Kobon) have remoteness distinctions. Nevertheless, Amele has a diverse tense system including habitual and negative past as well as a universal tense, based on the today's past form. In contrast, Kobon has a grammaticalized perfect aspect form that forms part of the verbal morphology. Bel has a simple tense/aspect system, but it has a newly acquired past tense form, and this tense system is determined by realis meaning. Finally, Tok Pisin has another grammaticalization path that evolved from English grammar; it has a distinctive one form: one function tense/aspect system.

This section will discuss two issues. First, this study explores the common features of tense in Madang Province, and second, we discuss the relationship between past and perfect and their grammaticalization path (cf. Aikhenvald 2014).

When we investigated the nature of the past tense forms of the sample languages of the Madang Province, Papua New Guinea, we observed that their past tense behaviors are diverse, with each language having at least one simple past tense marker. Moreover, the four languages all have some perfective marker or usage, but the Trans–New Guinea languages utilize several tense distinctions based on temporal distance in their markings, while Bel (Austronesian) distinguishes only realis meanings and employs a lexical perfective. Tok Pisin has both past and perfective markers, and is used as a lingua franca in everyday communication along with the native languages. Thus, speakers of every language have knowledge of the past/perfective distinction through their knowledge of Tok Pisin. Next, we ask why Amele and Kobon have several kinds of past tense forms. The Trans–New Guinea languages encode several points in a time sequence (Velupillai 2016), but have few distinctions in aspectual meanings. Austronesian languages, by contrast, do not mark tense but instead en-

code clear distinction between realis and irrealis meanings. Each of these features of these Trans–New Guinea and Austronesian languages was included in the grammars of their languages at an earlier stage (cf. Foley 2000).

Second, we consider past and perfective in terms of grammaticalization. The near past form in the Trans–New Guinea languages (Amele and Kobon) is a grammaticalization of the "simple past" with an implication of perfective meaning. The Austronesian language (Bel) acquired its past tense and perfective aspect meanings by encoding the relationship between events and reality. These tendencies mean that Trans–New Guinean languages developed the past tense long ago while the Austronesian languages have morphologically distinguished realis and irrealis for a long time. Later contact between the two groups affected their grammars. Another influence in these languages is Tok Pisin, which had another path to tense and aspect; its use of distinctive tense and aspect markers influenced the native languages of Papua New Guinea. The relation between past and perfective found in this study is shown in (16).

(16) Grammaticalization of past tense and perfective implication[8]:

Amele, Kobon: near past >>> perfective

Bel: real situation >>> past and perfective aspect

Tok Pisin: past (*been>>bin*), perfective (*finish >>> pinis*): independently grammaticalized

V Conclusion

This study investigated past tenses and related perfective features of four sample languages of Papua New Guinea. We examined the past tense in a global context in Figure 1 and found that the majority of languages do not have tense form (88 of 222 languages) or have one single past tense only (94 languages). This study found that Austronesian languages such as Bel have a grammatical motivation for distinguishing realis and irrealis, and they have just one realis form for past and perfective. In contrast, Trans–New Guinea languages such as Amele and Kobon have numerous past tense forms based on near/remote distinctions.

These findings mean that these languages' grammaticalization paths differ significantly and the languages themselves are radically different from English and other European languages. It is also remarkable that Tok Pisin has distinctive past/perfective forms, in contrast to the native languages. Furthermore, bilingual native speakers of other local languages recognize the distinction between past and perfective in Tok Pisin and successfully translate past/perfective meanings into each language.

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8) Chris Sinha (personal communication) suggested that Amondawa in South America has a similar situation. Sinha et al.'s (2011) remarkable paper shows that there are few concepts of time in Amondawa, which has a limited and simple tense and aspect system as well. Moreover, the lingua franca there, Portuguese, plays the same role in Tok Pisin in New Guinea.

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The Forms and Meanings of Past Tense
A Contrastive Study of Papua New Guinea

Masahiko Nose

This study clarifies the functions of tense forms in the Madang Province, Papua New Guinea; particularly, the past tense forms in the following four languages: Amele, Bel, Kobon, and Tok Pisin. Amele and Kobon are Trans–New Guinea languages, which arrived in New Guinea Island 30,000–50,000 years ago. Bel is an Austronesian language. The people brought their language to the Island by canoes, 5,000–7,000 years ago. Tok Pisin, an English-based creole, was born in the 19th century because of the slave trade in the South Pacific. Tok Pisin is now the lingua franca in Papua New Guinea and people there are bilingual in Tok Pisin and each native language.

This is a contrastive study of the languages of Madang Province, and this study tries to explore the tense-aspect features of this area and explains them in functional terms (Bybee et al. 1994). Moreover, this study adds a discussion on how grammar deals with time (Sinha et al. 2011), particularly past tense and perfective aspect.

When we investigated the nature of past tense forms of sample languages, we observed that the past tense behaviors of the sample languages are diverse, and we can indicate that there is at least one simple past tense marker in each language. Moreover, the four languages have either a perfective marker or usage, but Trans–New Guinea utilizes the near past tense marker, and in contrast, Bel (Austronesian) has only a realis marker or lexical perfective usage. Finally, Tok Pisin has both past and perfective markers independently. People in the area use Tok Pisin as a lingua franca and they have knowledge of the distinction between the meanings of the past and perfective forms.

Nevertheless, this study claims that past tense is one of the basic and necessary features in Trans–New Guinea languages, whereas it is not an important feature in Austronesian languages.