The Grammaticalization of Tense/Aspect Auxiliaries in Seediq

Lin, Hsiuhsu (hhlin@mail.cyut.edu.tw)
Department of Applied Foreign Languages, Chaoyang University of Technology
English Department, National Taiwan Normal University

Abstract

The purpose of this paper is two-fold. It aims at a general exploration of the auxiliaries that mark tense/aspect in Seediq from a grammaticalization perspective on one hand, and on the other hand, argues that the future-marking auxiliary maha and musa ‘to go AF’ are cognates. The co-existence of maha and musa is the result of a split of the verb *muSa due to the grammaticalization of maha as an auxiliary to mark futurity. The finding that Seediq musa and maha are cognate with the PAN *kuSa ‘to go’ implies that a competition change between *S > s and *S > h might have occurred in the Proto-Atayalic as well as in the PAN, a finding that is historically significant.

Keywords: Seediq, grammaticalization, auxiliary, GO, PAN *S

* The author owes much of his gratitude for the present paper to Prof. Shuan-fan Huang of National Taiwan University, under whom the author worked as a research assistant on a NSC-funded project (NSC87-2411-H-002-027-M6) on Seediq. A special note of gratitude goes to Prof. Lillian M. Huang for her encouragement and guidance in the author’s pursuit of a doctorate degree at the English Department of National Taiwan Normal University. The author would like to thank Prof. Paul Jen-kuei Li at Academia Sinica for acquainting me with the Seediq language, Dr. Elizabeth Zeitoun for reading an early version of the draft and providing insightful comments, and Dakis Pawan and Takun Walis for their native intuitions, patience, and hospitality. Anonymous reviewers are thanked for their valuable comments that help revise the paper to its present shape for publication. The author is responsible for all errors.
1. Introduction

The purpose of this paper is two-fold. It aims at exploring the auxiliaries that mark tense/aspect in Seediq from a grammaticalization perspective in general on one hand, and on the other hand, argues that the future-marking auxiliary *maha* and the verb *musa* ‘to go AF’ are cognates with the Proto-Austronesian (PAN) *kuSa* ‘to go’. The grammaticalization perspective on tense/aspe ct marking in Seediq has been noted and taken for granted (Chang 2000:96, 101, 103), but left unexplored in the literature except for Huang et al. (1998). For example, Seediq *maha* ‘to go AF’ has been correctly recognized as a common verb, as well as an auxiliary denoting ‘future’ or irrealis context (Holmer 1996; Chang 2000), but how it develops historically has not been pursued in detail. The present study is intended to bridge such a gap by tracing its grammaticalization process, in which an important sound change from PAN *S > h* is involved.

There are two verbs ‘to go’ in Seediq, viz. *musa* ‘to go AF’ and *maha* ‘to go AF’. The grammatical distribution of them suggests that they are highly related. *Musa* appears in all the contexts in which *maha* appears, except for the future context. Such a distribution is complementary and is by no means accidental. Historical and comparative evidence suggests that *musa* and *maha* are cognate with

---

1 Seediq here refers to the Paran dialect. The other two dialects of the language are Toda and Truku. Seediq, along with the Atayal group formed by the Squliq and C’uli’ dialects, forms the Atayalic branch of the Formosan language (Li 1985).

2 It seems that Li (1995:656) follows Dyen (1963) in distinguishing between *S₁* and *S₂ (f) and gives *kuSa* ‘to go’ as its PAN form. Such a distinction is also found in *pataS₁* ‘to write’. However, in other cases *S* is used by Li. Because of Li’s general description of ‘the retention of PAN *S*’ in Formosan languages (i.e. *S > s*) (Li 1995:652), we will simply use *kuSa* here in this paper.
the PAN etymon *kuSa ‘to go’. The use of maha to mark futurity is the result of grammaticalization, and because of such functional shift it is found to be co-existent with its cognate musa ‘to go AF’ in the language.

We follow Heine, Claudi and Hünnemeyer (1991:261) by assuming that grammaticalization is an abstraction process where concepts of more concrete grammatical domains (e.g. space, time, etc.) evolve into more abstract ones (e.g. sequentiality). Grammaticalization is triggered by grounded cognitive (i.e. metaphor, metonymy) (Huang 1982; Traugott and König 1991) and/or context-based mechanisms (Hopper and Traugott 1993; Traugott et al. 2002, cf. Huang 2000, occurrences in turns (turn-initial vs. turn-final) in conversational interaction), which results in the emergence of polysemous morphemes of different ‘layers’ co-existent in the synchronic grammar (Hopper 1991:22).

The corpus on which the present study bases is in order. Three pear-story narratives and three dialogs form the major basis of the present study. The pear narratives are adopted from Pear 4, 5, and 6 in Huang et al. (1998); Pear 1, 2, and 3 are neglected for the reason that they are told in a different dialect, i.e. Toda. Pear 4 is a rendered version from Toda by the Paran informant. Other minor text resources referred include Ogawa & Asai (1935:576–581), Chang C.L. (1996:93–100), Chen (1996), and Chang Y.L. (2000:151–159), and the author’s own fieldnotes, which consist of a dozen short texts. Reference to data drawn from any text or study other than my own will be noted after the example. Numbers after the pear narratives refers to the intonation unit(s) (Chafe 1994) rather than page(s) or example sentence(s) found in minor resources.

2. Tense/Aspect in Seediq

Tense/aspect in Seediq is encoded by various means. They are: 1) verbal inflection, i.e. affixation, 2) auxiliaries, and/or 3) utterance final particles (Huang et al. 1998). We will focus on the tense/aspect auxiliaries. In this paper, an auxiliary is
shortly defined as the verbal element, usually the first in a clause, other than a connective (ma ‘and’, kiya ka ‘and that’), a subjunction (netun ‘if’), a negation (uxe ‘not’), a question (ye ‘yes-no’) or a verb, to which clitic pronouns are attached\(^3\). Its main function is to serve as a temporal marker on the verb and/or a carrier of focus-marking. According to Holmer (1996), Seediq auxiliaries are either purely temporal (wada ‘PRET’, maha ‘FUT’), or directional/Aktionsart-related (maha ‘get started’, musa ‘go to’, muda ‘pass along doing’)\(^4\). Temporal auxiliaries are fixed in form, whereas the directional auxiliaries can receive focus affixation\(^5\), but are not affixed for tense when occurring as auxiliaries, since the implication of these auxiliaries is inherently future (Holmer 1996:61). We don’t think that Holmer’s classification between tense auxiliaries (those that are purely temporal) and focus auxiliaries (those that can be focus-marked) a clear one for two reasons. First, maha is a member of both types. Second, while agent-focus marked maha, musa, can be affixed by -un (PF) or -an (LF), muda is not found to be affixed with -un (PF) or -an (LF) in marking future, which suggests that muda is a purely AF marked verb.

Following the definition given in the above passage, the auxiliaries to be

\(^{3}\) Under such a definition, it seems that tena should be treated as a temporal auxiliary because it can occur clause-initially and it can be attached by clitic pronouns. It is excluded from our discussion for the reason that it cannot stand alone to mark temporality. Chang (2000:102) suggests that tena be treated an aspectual adverb.

\(^{4}\) Holmer (1996:61) points out that there is another auxiliary asi ‘Aux-just’, which is modal. He cautions that it should not be confused with the homophonous subjunctive asi ‘if’. Whether there exists any relationship between the two of them falls beyond the scope of the present study, and will not be covered here in the present paper.

\(^{5}\) For example, ha-an ku di ‘I am leaving.’ (ha-an ‘go LF’, ku ‘1s.g., di ‘Part.’)
covered include: 1) preterite *wada*; 2) future *maha* that develops from the verb *maha* ‘to go AF'; 3) progressive *gisu/wisu* that develops from the verb *gisu* ‘to approach AF’, and 4) durative *gaga/waga/wa* from *gaga* ‘there’. As will be made clear in what follows, Seediq auxiliaries are developed from the grammaticalization of two kinds of words, i.e. motion verbs, viz. ‘GO’ and ‘PASS’\(^8\), and the locative demonstrative *gaga* ‘THERE’.

2.1 Preterite *wada*

To begin with, the terminology of ‘preterite’ (temporal in nature) that we use to describe *wada* has to be made clear. Such a terminology is used by Holmer (1996) to describe *wada* and the infix *-n-* (< PAN *-in-*), which others would term ‘perfect’ or ‘perfective’ (aspectual in nature).

The incompatibility between *wada* and *-n-* suggests that they belong to the same kind of grammatical category. Compare (1a) and (1b); example (1a) is ungrammatical, whereas (1b) is grammatical. And it has been shown that *-n-* is ‘perfective’, e.g. (2)

(1) a. *wada mntakun* ka Takun.
   left/went fall AF PRET Nom Takun

\(^6\) The word *wada* will be glossed as ‘passed’ or ‘went’. We speculate that *wada* is derived from *m-oda* ‘pass AF’. Because we don’t have a solid proof for our speculation for the present time, we will focus our discussion on its usages and their implications.

\(^7\) Though it receives NAF-focus affixation, we do not treat *musa* ‘to go AF’ as a fully grammaticalized auxiliary for the reason that it cannot be used as a future marker (see §3 for discussion). It seems that *musa* is undergoing the process of grammaticalization, which is not completed yet.

\(^8\) Seediq does not grammaticalize motion verb ‘COME’, i.e. *meyah*, for tense/aspect marking.
“Takun fell.”

b. *wada mtakun* \(^9\) ka Takun.
   left/went fall AF PRET Nom Takun
   “Takun fell.”

(2) a. *mnegan* ku ido saya.
   eat AF PERF 1s.n. rice now
   “I have just eaten now.”

If we are to treat *wada* as ‘perfective’, we will have to explain why *wada* do not co-occur with the present or future adverbials, *saya* ‘now’, *kusun* ‘tomorrow’, which suggests that *wada* denotes ‘past’ in nature. We are not sure of why *wada* overrides -n-, but we are sure that it designates an action or an event in the past context. The terminology ‘preterite’ is thus used as a compromise\(^{10}\).

\(^9\) One of the reviewers questioned the transcription of *mtakun*, and suggested that it should be *mtakur*, instead. Albeit its etymology, I am confident with the transcription for the reason that I was one of the compliers of the pear narratives in Huang *et al.* (1998). It is interesting to note that while the word-final *l > n* alternation is common, e.g. *manga* ‘take ‘AF’(< /m-anga/), the Paran dialect has an innovation to substitute word-final *r* with *n*, e.g. *mtakun* ‘fall ‘AF’ < /mu-taku/ and *bgihu* ‘wind’ < /bgihu/. The innovation can be best accounted for by the name of our informant Takun Walis. According to Takun himself, he was so named by his parents because he *m-takun* ‘fall AF’ a lot when he was a toddler.

\(^{10}\) Chang (2000:105) argues that *wada*, besides ‘perfective’, is ‘inceptive’ or ‘inchoative’:

\[ \text{wada ku mkkesa da.} \]
\[ \text{Aux 1s.n. walk AF Part.} \]
\[ \text{‘I am leaving.’} \]

According to our informant, the sentence cannot be used in a face-to-face interaction. The sentence is used to describe a past event where the first person *ku* ‘I’ is projected in the discourse world. In a face-to-face interaction, *maha ku di* ‘I am leaving.’ is frequently used as an excuse of leaving early in
The preterite auxiliary *wada* can be shown to have derived from motion verb *wada* ‘passed AF’ in (3) by the metaphorical extension of “departure from a specific point in space” to “departure from a specific point in time”.

(3) ma laqi.. mntakun ki
    Conj.  child  fall AF PRET  Det.
    ..*wada* mhedu naq--.. posa rulu *wada* naq--
    Aux.  finish AF  self  put  car  passed  self
    *wada* naq di.
    passed  self  Part.
    “The child that fell finished re-loading the car (with spilt pears), and then left by himself.”

The first occurrence of *wada* in (3) is an auxiliary to the verb marking the finishing of an action in the past, while the second and third occurrences of *wada*’s maintain their status as a verb in designating a simple act of leaving in the past. The use of *wada* as a verb can be seen clearly in (4), where the agent argument, *laqi* ‘child’, of the verb is overtly marked by the nominative *ka*.

(4) ma psaan na rulu na
    Conj.  put LF  3s.g. car  3s.g.
    ..*kiya* ka *wada* ka laqi ki di.
    Conj. KA  passed  Nom.  child  Det.  Part.
    “And his car was loaded (by him). And then that child left.”

As an auxiliary, the regular position of *wada* is utterance/sentence-initial. However, if the yes/no interrogative *ye* and/or negator *uxe/init* is present, *wada* runs after them, e.g. (5):

(5) ye uxe dheya *wada* gmeeguy di?  
    Yes/No Neg.  3p.l.  Aux.  steal AF  Part
    “Have/Had they steal (the basket of pears)?”

---
a social gathering.
An interesting observation to be noted is that *wada*, when used as a verb, cannot be used with the first singular person *ku/yaku*. Whereas (6a) is grammatical, (6b) is not.

(6) a. Wada sapah ka heya. (Holmer 1996:90)
    went house Nom 3s.s.
    “S/he went home.”

    b. *Wada sapah ka yaku. (= *wada ku sapah)
    went house Nom 1s.n. went 1s.n. house
    “I went home.”

Such a distribution suggests that *wada* is used to designate something (action or event) that is away from the speaker as a deitic center. For (6b) to be grammatical, *mnosa* ‘go AF PRET’ is used.

2.2 Future *maha*

Future auxiliary *maha* is developed from a motion verb through metaphorical extension. *Maha* as a verb means ‘go AF’ and is illustrated in (7):

(7) maha su inu? (Dilog3)
    go AF 2s.n. where
    “Where are you going?”

Examples (8a) and (8b) show that the grammatical function of *maha* parallels that of *wada*. It appears at the utterance/sentence-initial position if no interrogative and/or negator are/is present in the sentence. (8a) and (8b) show that *maha* retains the status of a verb, which suggests that the sentences are in fact a serial verb construction. However, *maha* in (9a) has lost its meaning as a main verb meaning ‘to go’ because no argument can be found or restored for it. It is used as a sole marker of futurity for the verbal interrogative, *huwa mesa* ‘how’ that follows in
If *maha* is a full-fledged verb, it will take an argument, which can be found or recovered from the discourse, e.g. (9b). In (9b), *ku* ‘I 1s.n.’ serves as an argument for the verb *maha* ‘to go AF’.

(8) a. ye.. *maha* tmabu(w) miric na peni,  (Pear6:23)
yes/no go AF feed goat 3s.g. PENI
“It might be the case that (S/he) is going to feed her/his goat.”

b. (y)e *maha* theyaq inu peni ini klai,  (Pear6:102)
yes/no go AF play where PENI Neg. know PF IMP
“As for where they will go to play, I don’t know.”

(9) a. ki ka ye mesa
Det KA yes/no say
ye *maha* huwa mesa Ingelung uri
yes/no Aux. how say think too
ini mu klai...  (Pear6:186)
Neg. 1s.g. know PF IMP
“And then (he) seems to say... (he seems) how (he) is going to think about (it)... I don’t know...”

b. *maha* ku sapah
go AF 1s. n. house/home
“I am going home.”

Taking (9b) as a starting point, where *maha* is a full-fledged verb, its status as a verb is still retained in a serial verb construction like (8a) and (8b). The grammaticalization of *maha* as a future maker is completed when the serial-verb-construction usage is expanded to co-occur with verbal interrogatives such as *huwa mesa* ‘how’, e.g. (9a).

---

11 Example (22d) is another example in which *maha* is fully grammaticalized as an auxiliary.
2.3 Progressive *gisu/wisu* vs. Durative *gaga* (*waga/ga/wa*)

The progressive marker *gisu/wisu* and the durative marker *gaga* (*waga/ga/wa*) will be presented in this section. The progressive *gisu/wisu* develops from the motion verb meaning “to approach/on the way to” and durative *gaga/waga/ga/wa* “there, Det.” develops from the locative determiner “there”. They are ‘imperfective’ in nature.

2.3.1 *gisu/wisu*

The motion verb *gisu* (10a) meaning “approach/on the way to” has a variant form *wisu* (10b) in the Paran dialect of Seediq. It is different from *maha* ‘to go’ and/or *musa* ‘to go AF’ in that the terminal point of the moving action is unbound, which by metaphorical extension develops into the progressive aspect marker as shown in (11):

(10) a. *gisu* teru laqi... (Pear5:72)
    approach three child
    “Three children are coming...”

    b. ma *wisu* ka teru laqi dung(an).. (Pear6:100)
    Conj. approach KA three child again
    “And there came three children (still).”

(11) *gisu* qmiyuc laqi huling. (Shen 1994:13)
    Aux. bite AF child dog
    “The dog is biting a child.”

The *gisu* in (11) is best taken as an auxiliary as the meaning of the expression *gisu qmiyuc* ‘approach and bite’ forces that interpretation. Another similar example of *gisu* is given in (12).

(12) seediq paran haan ta ptheruy naka-hara,
    people Paran go PF lp.g. move Nakahara
    *gisu* niqan saya. (Chen 1996:106, (13))
Aux. exist/live LF now
“We, the Paran people, were moved to the village of Nakahara, where we are living now(adays).”

2.3.2 gaga/waga/ga/wa

The durative marker *gaga*, has three variant forms *waga*, *ga*, and *wa*\(^\text{12}\). The original meaning of *gaga* is a locative determiner meaning “there”, e.g. (13):

(13)a. rudan *gaga*
    b. rudan *waga*
    c. rudan *ga*
    d. rudan *wa*

“...that old man/the old man over there.”

*Gaga/waga/ga/wa* acts as a predicate and often appears clause-initially in denoting location:

(14)a. D: *wa* su *INU*?
    be at 2s.n. where
    “Where are you?”
    T: *wa* ku *sapah.*         (Dialog3)
    be at 1s.n. home/house
    “I’m home.”

b. *waga* baro ka rudan *ki*   (Pear6:24)
    be at above KA old:man Det.
    “That old man was above (on the tree).”

(14a) is drawn from a telephone dialogue, and (14b) is drawn from a pear narrative. In both sentences, *waga/wa* appears together with a locative expression, i.e. *INU* ‘where’ and *sapah* ‘home/house’ in (14a) and *baro* ‘above’ in (14b). In (15),

\(^{12}\) Conversational data in our corpus show that both *wada* and *waga* can be reduced to *wa*, i.e. they are phonologically merged, which is an interesting topic worth investigation.
ga is used to mark the place where an action/event takes place. For example, in (15b), it marks the place, i.e. baro ‘above’, where the action of gathering, i.e. lmamu ‘pick/gather AF’ takes place.

(15)a. ma lmamu na we,
    Conj. pick PRET 3s.g. Top.
    ga na psaun dheran di,
    Aux. 3s.g. put PF ground Part.
    ga na psaan rawa truma ha,               (Pear6:45–47)
    Aux. 3s.g. put PF basket inside Part.
    “And what he picked/gathered was being placed on the ground, was being placed inside the basket.”

b. qtaan na ka rudan ga lmamu baro hi, (Pear6:52)
    see PF 3s.g. KA old:man Aux. pick AF above there
    “The old man who was picking (pears) above was seen (by him).”

In example (16) and the first occurrence of ga in (17), a location where the action associated with the verb takes place is implied. However, the second occurrence of ga in (17) marks the progressive status of the action/event, i.e. sdara ‘bleed’13. It manifests another example of a full-fledged verb developing into a tense/aspect-marking auxiliary.

(16) eh... qtaan na, ga lmamu heyi qhuni
    see PF 3s.g. there pick body tree
    ka kingan rudan ga,                   (Pear6:40–41)
    KA one old:man there
    “(It is probable that) he saw an old man there who was gathering (pear) fruit.”

13 It is possible to argue that the implied/omitted luqah ‘wound’ being the place, where the action of bleeding takes place.
(17) ki ka ga qmita luqah na,
DM Aux. see AF wound 3s.g.
ma ye mesa, “ga sdara,” peni.. (Pear6:98–99)
Conj. yes/no say AF Aux. bleed PENI
“And then (he was there) checked his wound, and (he) seemed to say, “(It) is bleeding,” something like that.”

To sum up, the tense/aspect auxiliaries in Seediq may be schematized as follows:

The focal point in the schema above is the utterer (U)\textsuperscript{14} facing the FUTURE rather than the PAST on a timeline. The gray dotted lines represent lines of vision of the utterer, who serves as the deitic center for reference. The shaded dot represents a specific place or an entity in the dotted square that represents a distal area within the eyesight of the utterer. An arrow is used to represent the direction of a movement (e.g. maha and wada), and consecutive arrows are used to represent that emphasis is

\textsuperscript{14} Utterer is used as a cover term for addressee or speaker/narrator in different modes of discourse such as conversation and narration.
being put on both the direction and the dynamic nature of the movement (e.g. *gisu*).

*Wada* and *maha* are not given on the same axis for the reason that the utterer can *maha* but not *wada* (see example (6a, b)), when both are being used as plain verbs. *Moda* is given in gray and dotted lines to show the indeterminacy of *wada* and *moda* to be related.

By recognizing the utterer as a deitic center facing the FUTURE on a timeline, the above schema has at least two advantages. First, temporality in Seediq is marked by grammaticalizing movements (*maha* and *wada*), whose directions are AWAY FROM THE DEITIC CENTER U, whereas aspectuality is marked either by a movement TOWARD THE DEITIC CENTER U (*gisu*), or a distal station (*gaga*). A cognition-grounded classification of Seediq tense/aspect auxiliaries can thus be achieved. Second, it explains why *meyah* ‘come AF’ is not grammaticalized. On the one hand, the verb *meyah* ‘come AF’ denotes a movement toward the U facing the FUTURE on the timeline; the direction of movement is not consistent with the FUTURE and is not grammaticalized to mark future. On the other hand, *meyah* is goal-oriented and lacks the dynamic nature that *gisu* designates.

3. **Musa vs. maha: synonymous?**

*Musa* and *maha* both mean ‘to go AF’ in Seediq. While both can be used interchangeable in daily greetings such as (18a) and (18b),

(18)a. *maha* su inu?
   b. = *musa* su inu?

they are by no means synonymous. An apparent morphological difference is that

15 Such an organization of time can be treated as a ‘moving ego metaphor’, “where front is equivalent to future and back to past” (Huang 1982:161).
musa may be infixed by preterite -n-, m-n-usa/m-n-osa\textsuperscript{16}, whereas maha cannot, i.e. *m-n-aha is not attested in the language. Furthermore, the repair of musa by maha as a future auxiliary in (19) shows clearly that musa and maha are not synonymous that can be used interchangeably; otherwise, the repair would not have occurred.

\textbf{(19)}

cbeyo hayan.
past then
e\~..
daha bale rseno si ma kingan ka mqedin si.
two true man one Nom. woman
ma, ini kela mesa maha huwa mesa mrana ka seediq si.
Neg. know say go AF how say reproduce people
kiya ka <throat> e\~.
Conj.

$\rightarrow$ tlam-an daha so huwa mesa ka musa ..
run/try PF 3p.g. how say go AF

$\rightarrow$ maha .. maha niqan laqi ka mqedin si.
go AF go AF exist child Nom. woman

“Once upon a time, there were two men and a woman. They didn’t know how to give birth to a child. Therefore, they’d try to have a child.”

It is clear by now that musa and maha are synchronically different. In the

\textsuperscript{16} Both musa ‘go AF’ and mosa ‘go AF’ can be observed in Seediq. We don’t find meaning differences in them, which seems to suggest that /a/ and /o/ alternation is phonetic. Similar alternation can be observed in muda ‘pass AF’ and moda ‘pass AF’. Diachronically, the alternation may be of import, otherwise Li (1981:285) would not have reconstructed *m-a-usa? ‘go AF’ for it, suggesting that /o/ is the result of a vowel coalescence of /au, aw/ commonly found in the Atayalic languages. Synchronically, Chiang and Chiang (2005), based on a different dialect Truku, suggests that the differences may vary from speakers to speakers and the use of different vowels by different speakers has to do with gender and stress.
following section, we suggest that diachronically *musa* and *maha* are cognates of the same etymon *kuSa* in Proto-Austronesian (PAN).

4. Cognate *musa* and *maha*: Historical and Comparative Evidence

It would take little efforts for one with the least knowledge in historical linguistics to identify Seediq *musa* (< *m-usa*) to be cognate with the reconstructed PAN *kuSa*. To argue that *maha* is cognate with *kuSa* would take comparative evidence to justify it.

Thanks to previous researchers, the complicated development of PAN *S* can be summarized (Blust 1995:604):

(20)

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>MP</th>
<th>PAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>-s-</td>
<td>-h-</td>
<td>-S-</td>
</tr>
<tr>
<td>II</td>
<td>-s</td>
<td>-h/0</td>
<td>-S</td>
</tr>
<tr>
<td>III</td>
<td>-s</td>
<td>-h-</td>
<td>(?)</td>
</tr>
</tbody>
</table>

Table 1 *S* metathesis and the Formosan/Malayo-Polynesian language boundary

Table 1 in (20) sums up to say that PAN *S* is reflected by *s* in Formosan (F) languages, and *h* or lost in Malayo-Polynesian (MP) languages. For example, PAN *iSiq* ‘urine’ is /iʃiq/ in Paiwan, a Formosan language spoken in the southern Taiwan, and /ihiʔ/ in Tagalog, a Malayo-Polynesian language. Such a development is commonplace, and has been deemed one of the most important phonological features in determining Formosan vs. Extra-Formosan languages in the Austronesian family (Li 1995:652). Given the fact that PAN *S* is lost in Saaroa and Puyuma (Li 1995:652), and is reflected as *h* in Siraya, an extinct Formosan language spoken in the southwestern coastal Taiwan (Li 1993:313), it will not be surprising that residual reflex *h* of PAN *S* is to be found in Seediq. The Seediq word *daha* ‘two’ is such an example.

(21)
*DuSa PAN ‘two’ /dha/ Seed(iq) /duha, zuha/ Siraya17

Such a residue is rare, but important. The cardinal daha ‘two’ for counting can hardly be a loan. In such a case, h can only be seen as a reflex of PAN *S. If we are on the right track, the word maha ‘go AF’ that pairs with daha ‘two’ are then reflexes of PAN *kuSa and *DuSa18 respectively. Seediq musa and maha are then cognates of the same etymon *kuSa. But why are they co-existent in Seediq? We suggest that it is the result of grammaticalization.

5. Grammaticalization Chain for Auxiliary maha

Seediq maha is polysemous. Syntactically, it appears as a main verb as in (22a). It also appears in serial verb construction in a non-Agent-Focus (NAF) sentence, (22b) and (22c). It can also be used as an auxiliary marking futurity, (22d). While haun, and hae in (22b, c) seem to have retained the meaning of a verb of motion, the meaning is bleached or completely lost in (22d).

(22)

17 To date, Siraya seems to be the only Formosan language found to reflect PAN *S > h change. And Seediq is the only Formosan language that seems to reflect the same kind of change as can be seen from its word daha ‘two’. A complete wordlist of the cardinal ‘two’ in a dozen of Formosan languages can be found in Li (2004:1528).

18 Given PAN *u and *u are retained (Li 1981:275), the sporadic reflex a of PAN *u in maha (< PAN *kuSa) and daha (< PAN *DuSa) remains a mystery. It is likely that the innovative a is a result of vowel harmony (or assimilation as Li (1991) terms it), which is attested in Paran Seediq for an antepenultimate vowel to assimilate to the penultimate vowel when h appears between them; h lacks an oral gesture in articulation and is suggested not to be a ‘true’ consonant. Readers are referred to Li (1991) for details and examples.
Examples (22b) and (22c) are worth attention. Both *haun* in (22b) and *hae* in (22c) seem to have retained the meaning of a verb of motion, suggesting that they are serial verb constructions. What is interesting is that *haun* is morphologically affixed by a patient focus marker -un. MAHA\(^{19}\) ‘go’ is a verb of motion, which has just

\(^{19}\) As *aha* is not attested in the language MAHA is used to represent the underlying meaning of the verb GO for convenience sake.
ONE argument, i.e. agent, why can it be suffixed by a patient focus marker -un? Such a development has to do with the dual function of focus-marking and tense/aspect marking for the suffix -un. The suffix on the one hand marks patient focus, and on the other hand marks the irrealis modality of the utterance, hence rendering ha-un the status of an auxiliary. Maha in (22d) is a full-fledged auxiliary in that no agent argument is present in the sentence. The interpretation is completely future in sense.

Historically and syntactically, the grammaticalization chain for auxiliary maha can be charted as (23):

\[(23)\]

In Stage I, *musa split into musa and maha, with each functioning differently, Stage II. Maha then goes on to be grammaticalized into a full-fledged auxiliary, Stage III.

Semantically, the shift from COME/GO > FUTURE is common and widely attested in literature (Heine and Kuteva 2002:75–78, 161–163). It is usually treated as an example of metaphor SPACE > TIME. As suggested in Section 2, maha in Seediq can be treated as that of a ‘moving ego metaphor’, where the future is the front and the past is behind\(^{20}\).

\(^{20}\) We are not sure whether INTENTION is grammaticalized modally or not in Seediq in the
Pragmatically, the futurity can be inferred. In a greeting exchange like (24), which is quite common in Seediq, the futurity of ‘seeing Takun’ can be inferred.

(24)

P: maha su inu?
D: maha ku mita Takun.

“Where are you going?”
“I am going to see Takun.”

In (24), D is moving on his way to see Takun, meaning that he hasn’t seen him yet, but has the intention to. The implicature can easily be inferred by P from his world knowledge of Takun’s being absent at the scene, where the exchange takes place. The utterance token meaning is then grammaticalized into an utterance type meaning, resulting in the coded meaning of futurity for the maha construction (Traugott et al. 2002:38).

6. Theoretical Implications

At least, two theoretical implications are of import from the present study in historical linguistic sense. The development of MAHA in terms of SPACE > TIME metaphor and the unidirectionality of grammaticalization from Discourse > Syntax (> Morphology) tally with the cross-linguistic studies of verbs of motion in grammaticalizing them into tense/aspect marking morphemes. Polysemous morphemes of different ‘layers’ co-existent in the synchronic grammar (Hopper 1991:22) may also be attested by the Seediq grammar (ref. (22)).
The finding of the sound *h to reflect PAN *S in basic words such as maha ‘to go’, which is grammaticalized into an auxiliary, and numeral daha ‘two’ suggests that the split happened at an early stage in the development of PAN into PF and MPF, or extra Formosan languages. The co-existence of both retained *s and innovative *h of *S, reflecting in musa and maha in Seediq, is of highly historical significance in the thinking of whether *S > h development should be deemed as ‘extra-Formosan’ at all. Co-existent Seediq words musa and maha suggest a competing scenario between *S > s and *S > h in the Proto-Atayalic as well as in the PAN; lexical residues musa and maha are witnesses to such a competition.

7. Conclusion

We have presented in our discussion the grammaticalization of Seediq tense/aspect auxiliaries in general, and charted a chain for the development of future auxiliary maha. We propose a scheme to account for the grammaticalization of Seediq tense/aspect auxiliaries and suggest that the Seediq organization of time is developed from a ‘moving ego metaphor’, where the future is in front and the past is behind. By offering the grammaticalization of maha as an auxiliary in Seediq, the gap between synchronic description and diachronic development is bridged. The paper also suggests that musa and maha are cognate with the PAN *kuSa ‘to go’, which implies that a competition change between *S > s and *S > h might have occurred in the Proto-Atayalic as well as in the PAN, a finding that is of great historical significance.

References

Blust, Robert. 1995. ‘The Position of the Formosan Languages: Method and Theory in Austronesian Comparative Linguistics’. In Paul J.-K. Li et al. eds.,


[In Chinese]


Hopper, Paul J. 1991. On some principles of grammaticalization. In Traugott,


Li, Paul Jen-kuei. 1995. Formosan vs. Non-Formosan Features in Some


Appendices

Appendix 1  Seediq Phonemic Inventory

Consonants*

<table>
<thead>
<tr>
<th></th>
<th>labial</th>
<th>alveolar/palatal</th>
<th>velar</th>
<th>uvular</th>
<th>pharyngeal</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>p</td>
<td>t</td>
<td>k</td>
<td>q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Vd</td>
<td>b</td>
<td>d</td>
<td>g</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>affricate</td>
<td>ts(c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fricative</td>
<td>s</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nasal</td>
<td>m</td>
<td>n</td>
<td>η(ng)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td>η(l)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flap</td>
<td>r(r)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>glide</td>
<td>w</td>
<td>j(y)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The letters in parenthesis are used in this paper to replace the IPA symbols for convenience.

Vowels

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>mid</td>
<td>e</td>
<td>o</td>
</tr>
<tr>
<td>low</td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>

Appendix 2  Abbreviations

1p.g.  first plural genitive
1s.g.  first singular genitive short
1s.n.  first singular nominative short
1s.n.l first singular neutral long
2s.n.  second singular nominative short
3p.l.  third plural
3p.g.  third plural genitive short
3s.g.  third genitive short
3s.s.  third person singular

AF    Agent focus
Aux.  Auxiliary
Conj.  Conjunction
Dem.  Demonstrative
DM    Discourse Marker
Imp.  Imperative
NAF   Non-agent focus
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>Nominative</td>
</tr>
<tr>
<td>Part.</td>
<td>Particle</td>
</tr>
<tr>
<td>PF</td>
<td>Patient focus</td>
</tr>
<tr>
<td>Pref</td>
<td>Prefective</td>
</tr>
<tr>
<td>Pret.</td>
<td>Preterite</td>
</tr>
<tr>
<td>Top.</td>
<td>Topic</td>
</tr>
</tbody>
</table>
賽德克語時式 (貌) 助動詞之語法化

林修旭
朝陽科技大學應用外語系
國立台灣師範大學英語系

摘要
本文主要探討賽德克語時式 (貌) 助動詞之語法化，並主張其動詞 ‘musa’ 与 ‘maha’ 之助動詞 *muSa 与 maha 語法化之標記未來形之助動詞向一個形態的結果。賽德克語 ‘musa’ 与 ‘maha’ 同源顯示在泰雅古語 (Proto-Atayalic) 甚或南島古語 (PAN) 可能曾經存在 *S > s 與 *S > h 之聲變競爭，此發現有其學史意義。

關鍵詞：賽德克語，語法化，時式 (貌) 助動詞，助動詞 ‘musa’，PAN *S