# THE ASPECT SYSTEM IN G|UI: WITH SPECIAL REFERENCE TO POSTURAL FEATURES

Hirosi NAKAGAWA
*School of Language and Culture Studies, Institute of Global Studies, Tokyo University of Foreign Studies*

ABSTRACT This study presents a new analysis of the aspect system of G|ui, the Western Kalahari Khoe branch, the Khoe-Kwadi family. Topics to be discussed include a Khoisan areal typological property of the G|ui aspect system, a set of semantic features for an adequate description of the nine aspect markers attested in G|ui, an interpretation of the unexpected semantic extensions of two progressive markers, and the importance of posture verbs in the evolution of the G|ui aspect system.

Key Words: Aspect; Posture verb; Khoisan.

## 1. INTRODUCTION

This paper aims to explore an aspect of the linguistic encoding of posture in G|ui, inspired by Kazuyoshi Sugawara's (2010) short ethnography of "posture." Describing the conventionalized postural patterns of G|ui and G||ana speakers, Sugawara (2010: 95–96) presented a profound insight into the socio-cultural importance of postures in their community. He identified 22 postures as the "primary patterns of sitting and lying" and presented a set of figures originally drawn in his field notes to clearly illustrate the distinct postural configurations. Using the identified patterns, he revealed the association between the conventionalized postures and certain socio-cultural characteristics of the G|ui and G||ana, such as social attitudes (humbleness, timidity, hostility, etc.) and sex-specific social activities, and also commented on a detailed postural description of characters in a myth.

In addition to identifying the conventionalized physical patterns of sitting and lying, he listed the specific G|ui labels (lexemes and phrases) for the "primary patterns" and implicitly indicated that 19 out of the 22 postural patterns could be regarded as overt categories. Since Sugawara did not discuss the underlying linguistic forms and meanings of the labels for the distinct postural configurations, many labels are not linguistically intelligible. Therefore, they will have to be further analyzed in future research using additional morphological and semantic elicitation, in order for researchers to adequately understand this potential semantic field. At this stage, the following two observations are worth making in relation to the topic of the present study.

Firstly, the 19 overt categories are generally described by compounds, phrases or juncture constructions (see Section 4) that contain posture verbs: Among the 19 categories, only one is solely described by a single lexeme. Secondly, every

compound, juncture construction, and phrase expressing an overt category contains a posture verb meaning either 'sit' (11 cases), 'lie' (4 cases), or 'stand' (3 cases).[1] This suggests that G|ui and G‖ana speakers categorize various types of postural patterns associated with their socio-cultural properties and tend to analyze them in terms of the three basic postural modes expressed by 'sit,' 'lie,' and 'stand,' rather than individually lexicalizing these postural categories.

A similar posture-sensitive conceptualization involving the three-way distinction of 'sit,' 'lie,' and 'stand' is also observed in the grammatical structure of G|ui, namely, the system of aspect markers, especially particles of progressives. For this reason, the G|ui system of aspect markers will be described through an analysis of their distribution and semantics. In the course of the description, I will identify nine aspect markers, including five progressive particles, and demonstrate that the three-way distinction of posture ('sit' vs. 'lie' vs. 'stand') is elaborately conceptualized and encoded in the grammar as an essential feature of the five-way contrast of the progressive aspects of G|ui.

Section 2 reviews two relevant previous descriptions, Vossen (2013) and Nakagawa (1993). Section 3 then elaborates on the inventory of tense and aspect markers using recently elicited data. Section 4 describes the typical meanings of all nine aspect markers using a minimally contrastive set of nine sentences differing in the aspect marker. Section 5 discusses a five-way semantic contrast of progressive aspects and employs three features, [Accompanied motion/posture], [Mobility], and [Posture], to interpret their distinctions adequately. Section 6 explores the unexpected semantic extensions of two progressive markers. Finally, Section 7 looks into the etymological sources of the aspect markers and discusses what historical roles the posture verbs play in the aspect system.

## 2. PREVIOUS STUDIES

As a starting point, I summarize Vossen's (2013: 211–214) description of the "tense/aspect" markers of G|ui. His description is based on data collected during his fieldwork in 1983. It was the first systematic field investigation of the G|ui-G‖ana group of Kalahari Khoe.

Vossen proposed the "morphological sequence structure" of the verb consisting of six slots for different classes of morphemes, as schematically shown in Fig. 1. He identified six tense and aspect markers in G|ui as listed in (1) to (6). Five of them occur in the preverbal position, which he calls slot 1, and the other one occurs in the post-juncture position, which he calls slot 5.

| Slot 1 | Slot 2 | Slot 3 | Slot 4 | Slot 5 | Slot 6 |
|---|---|---|---|---|---|
| **tense/aspect** | verbal base | derivative suffix | juncture (passive) | **tense/aspect** | negation |

↑ ↑

| |
|---|
| (1) ke PRESENT |
| (2) n|gè NEAR PAST |
| (3) hĩ NEAR FUTURE |
| (4) kx'àwà FUTURE |
| (5) kua PRESENT (PROGRESSIVE) |

| |
|---|
| (6) ha~hã IMPERFECT |

**Fig. 1**. Vossen's (2013) "morphological sequence structure" and six "tense/aspect markers" of G|ui

Vossen (2013: 213) further made two generalizations about the tense and aspect markers in the G|ui-G‖ana group; (i) it is morphologically "hardly possible… to distinguish between tense and aspect," and (ii) these tense/aspect markers "can never be combined."

In 1992, ten years after Vossen's investigation, I started my field research on G|ui, and provided an outline of G|ui grammar in Nakagawa (1993),[2] which included a list of seven tense markers and four aspect markers. Their forms and distributions are shown in Fig. 2.

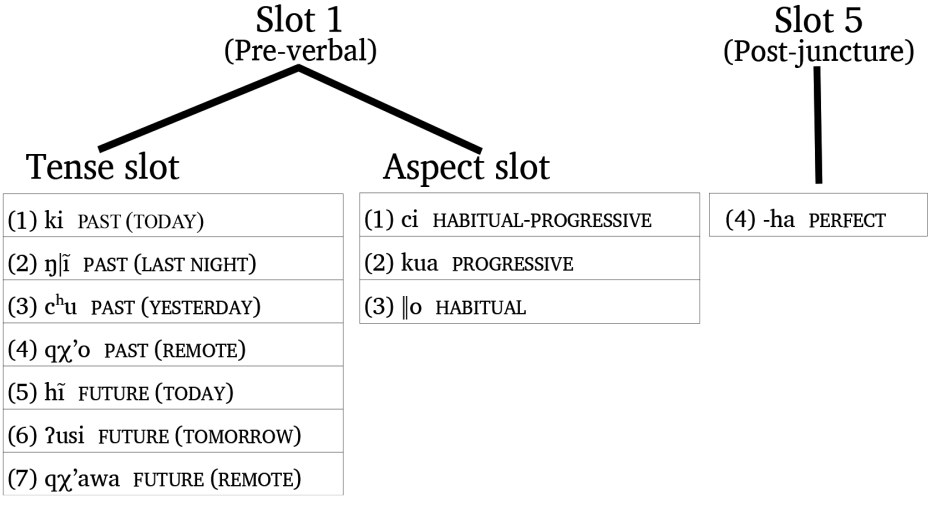


**Fig. 2**. Nakagawa's (1993) report on the tense and aspect markers of G|ui

As illustrated in Fig. 2, Vossen's slot 1, which is placed before the verb phrase, is divided into two sub-slots, i.e., the slot on the left, where only tense markers occur (tense slot), and the slot on the right, where only aspect markers occur (aspect slot). In addition, a tense marker and an aspect marker can co-occur in a clause. For example, the past (today) tense marker *ki*, which is equivalent to Vossen's present tense marker *ke*, occurs in the tense slot, and at the same time, the progressive aspect marker *kua*, which is equivalent to Vossen's present progressive marker *kua*, can occur in the aspect slot, as in (1), or the perfect aspect marker *-ha*, which is equivalent to Vossen's imperfect marker *ha~hã*, can occur in the post-juncture slot, as in (2).

(1) ʔàbì **kì** **kùà** !úṹ.
he **PST** **PROG** walk
'He was walking (today).'

(2) ʔàbì **kì** !úṹ-a [!ūwã̄] (3) **-hā**
he **PST** walk-JNCT **PRF**
'He had walked/gone (e.g. when I visited his house earlier today).'

As exemplified in (1) and (2), a clause can contain both a tense marker and an aspect marker, and tense and aspect markers can in principle be combined freely as long as the combinations are interpretable semantically and pragmatically.

Therefore, Vossen's generalizations were revised to the following:

(i) Tense and aspect can be distinguished in terms of their distribution.
(ii) Tense and aspect markers can be combined.

## 3. THE LATEST FINDINGS

My recent field research has updated the understanding of the tense and aspect system of G|ui, especially in the paradigm of aspect markers. Table 1 shows the latest list of the tense and aspect markers attested in G|ui.

**Table 1**. The latest inventory of the tense and aspect markers of G|ui

Tense slot

| | |
|---|---|
| (T1) kì | past (today/immediate) |
| (T2) ŋ\|ĩ̄ | past (last night) |
| (T3) c$^{h}$ū | past (yesterday/proximate) |
| (T4) qχ'ō | past (remote) |
| (T5) hĩ̄ | future (today/immediate) |
| (T6) ʔūsì | future (tomorrow/proximate) |
| (T7) qχ'āwā | future (remote) |
| (T8) ∅ | present |

Aspect slot

| | |
|---|---|
| (A1) cì | imperfective |
| (A2) ‖ò | trait |
| (A3) ‖ò-cì | habitual |
| (A4) hā-cì | progressive: neutral |
| (A5) kùà | progressive: mobile |
| (A6) cìĩ̄cì | progressive: stand |
| (A7) ‖ùĩ̄‖ò | progressive: lie |
| (A8) wà | progressive: sit |

Post-juncture slot

| | |
|---|---|
| (A9) -hā | perfect |

Both slots

| | |
|---|---|
| (A10) ∅ | perfective |

The inventory of tense markers is the same as in Nakagawa (1993); there are seven tense markers occurring in the tense slot, i.e., four past tenses (T1 to T4), and three future tenses (T5 to T7). A clause that lacks a tense marker is possible, and the absence of any tense marker indicates the present tense (T8).

The inventory of aspect markers has been extended from the four-way aspect system reported in Nakagawa (1993) to a system with nine markers, namely, A1 to A8, which occur in the aspect slot following the tense slot, and the perfect in (A9), which occurs in the post-juncture slot. A clause can lack an aspect marker, and the absence of any aspect marker in either the aspect slot or the post-juncture slot indicates the perfective aspect in (A10).

It should be pointed out here that the three aspects (A1), (A9) and (A10) shown in gray boxes in Table 1 constitute the core structure of the G|ui aspect system. This structure is characterized by a three-way contrast (i.e., perfective vs. imperfective vs. perfect), the position of each marker (i.e., ∅ vs. post-tense vs. post-verbal), and the origin of the perfect marker (i.e., the verb 'exist'), as summarized in Table 2.

**Table 2.** The tripartite structure of core aspect marking in G|ui

| Perfective | Imperfective | Perfect |
|---|---|---|
| Tense + ∅ + VP | Tense + **cì** + VP | Tense + VP + **hā** ('exist') |

This is an interesting feature in the context of the areal typology of Khoisan languages. Güldemann (2006: 116–117) identified essentially the same tripartite structure of basic time marking shared by Khoekhoe languages (such as Nama and !Ora) and Tuu languages (such as |Xam and East !Xóõ). He proposed interpreting this inter-genetically shared feature as one of the isoglosses in favor of his hypothesis of substrate interference from Tuu.

In addition to the three basic aspects involved in the core structure, G|ui has two non-progressive meanings (A2 and A3) and five distinct progressive meanings (A4 to A8), shown in Table 1.

In principle, any of the tenses can be combined with one of the ten aspects (i.e., the nine markers and ∅). No aspect marker occurring in the aspect slot can co-occur with the perfect marker in the post-juncture slot (in other words, the eight aspect markers for the aspect slot and the perfect marker in the post-juncture slot are in complementary distribution). The aspect slot and the post-juncture slot constitute a single complex slot divided into two parts for aspect markers.

As is clear from their categorization and distribution, tense and aspect are analytic in G|ui. The same analytic type is attested in G‖ana and Tshila, and a similar type is reported by Visser (2013) for Naro. The analytic type of tense and aspect is probably a typological feature of the southwestern Kalahari Khoe group, as opposed to the fused type attested in Khwe and ‖Ani, in which some tenses and aspects are fused as unanalyzable distinct markers; tense/aspect markers occur in the same slot, and tense and aspect markers cannot be combined (Vossen, 2013: 178–179; Kilian-Hatz, 2002: 315–316).

The remainder of this paper focuses on the nine aspect markers listed under the aspect slot and the post-juncture slot in Table 1. It describes the essence of the semantics of each aspect marker and further discusses the distinction of the five distinct progressive aspects, A4 to A8 in Table 1.

## 4. SEMANTICS OF THE NINE ASPECT MARKERS

First, I sketch the typical meaning of each aspect marker by using a simple frame as in (3), where one of the nine markers occurs in the aspect slot or post-juncture slot.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (3) | ʔàbì | ∅ | ___ | súrì | =sà | ‖ʰáī | _____. |
| | he | PRS | **ASP** | tobacco | =3F.SG.ACC | smoke | -JNCT-**ASP** |

'He smokes tobacco (with a certain aspect).'

### 4-1. [Imperfective], [abilitive-habitual], and [habitual]

Examples (4), (5), and (6) illustrate [imperfective], [abilitive[(4)]-habitual] and [habitual], respectively. The three aspect markers each occur in the aspect slot, following the unoccupied tense slot, which indicates the present tense.

(4) ʔàbì ∅ **cì** súrì =sà ‖ʰáī.
he PRS **IPFV** tobacco =3F.SG.ACC smoke
'He smokes tobacco./He is smoking tobacco.'

(5) ʔàbì ∅ **‖ò** súrì =sà ‖ʰáī.
he PRS **ABIL/HABT** tobacco =3F.SG.ACC smoke
'He is able to smoke tobacco./He is a smoker.'

(6) ʔàbì ∅ **‖ò-cì** súrì =sà ‖ʰáī.
he PRS **HABT** tobacco =3F.SG.ACC smoke
'He habitually smokes tobacco.'

All three markers more or less involve habituality. First, *cì* in (4) has a generic meaning ranging from various continuous to habitual situations; therefore, I adopt the label [imperfective]. The marker *‖ò* in (5) indicates [abilitive-habitual] (abbreviated as ABIL/HABT), which can be rendered 'be able to do,' 'do as one's trait,' or 'do as a custom.' The third one is *‖ò-cì,* exemplified in (6), and its form can be analyzed as the sequence of *‖ò* and *cì,* though this is not directly transparent from a componential semantic analysis. The marker *‖ò-cì* indicates plain [habitual] and does not imply an abilitive situation.

Among the three aspects above, [abilitive-habitual] is uncommon cross-linguistically. Therefore, it is worthwhile to provide additional examples of this aspect from G|ui story texts here:

(7) ʔàm̀ ts'íī-qχ'àì è qχ'ō ‖ò ǂq'āī̃-sì.
3M.SG.GEN buttock-face SBJ PST ABIL/HABT peel-REFL
'His anus peeled itself as its trait.'
(Because he always eats raw gemsbok cucumber)

Sentence (7) is from the introductory part of a story about a trickster-mantis, who used to eat raw gemsbok cucumbers because he did not know the use of fire and therefore did not cook. The raw gemsbok cucumbers caused inflammation and pain in his anus, and his anus skin peeled off chronically. The chronic peeling off was a trait of his anus surface. The marker *‖ò* is rendered 'do as one's trait' in (7).

(8) cúá kʰóè =bì ‖ò ʔáā =sà g‖àēkò-ts'áū̃.
NEG person =3M.SG.NOM ABIL/HABT DEM =3F.SG.ACC wife-make
'A man never marries her (a female aardvark) as a custom./A man is never able to marry her.'

Sentence (8), which comes from a story about a man who has married a female aardvark, is said to the man by his senior, who is reproaching him for his unusual marriage. The [ability-habitual] marker used in (8) is rendered 'as a custom' or 'be able.'

(9) ʔá‖àà ‖ò cúá ŋ|ì̀ =dzì χò =dzì ǂʔúū́.
1M.PL.INCL ABIL/HABT NEG DEM =3F.PL.GEN thing=3F.PL.ACC eat

'As a custom, we never eat these things.'

The mantis-trickster sees a warthog eating inedible bitter roots and says sentence (9) to the warthog, assuming that the warthog and the mantis eat the same foods. The marker ‖*ò* here indicates the situation (i.e., we, people, do not eat these things) that is expected as part of their custom.

In concluding this section, I raise a question on the interpretation of the markers ‖*ò* [abilitive-habitual] and ‖*ò-cì* [habitual]. An alternative interpretation is illustrated below:

| **Marker** | **Semantic analysis** | | **Pragmatic meaning** |
|---|---|---|---|
| ‖ò -∅<br>HABT PFV | [habitual]+[perfective] | → | abilitive-habitual |
| ‖ò -cì<br>HABT IPFV | [habitual]+[imperfective] | → | (plain) habitual |

Under this interpretation, ‖*ò* is ‖*ò*-∅ semantically analyzed into [habitual]+[perfective] and, in parallel, ‖*ò-cì* is semantically analyzed into [habitual]+[imperfective]. In addition, ‖*ò*-∅ has the pragmatic meaning of abilitive-habitual, and ‖*ò-cì* has the pragmatic meaning of (plain) habitual. Under this alternative interpretation, the semantic difference between ‖*ò* and ‖*ò-cì* is the difference between the habituality of a perfective situation and that of an imperfective situation.

However, the question of how [habitual]+[perfective] yields the pragmatic meaning abilitive-habitual still remains be answered. Therefore, this alternative interpretation will have to be further examined in future research.

4-2. The five-way contrast of progressives

As mentioned, there are five different progressive markers, illustrated in (10) to (14), respectively.

| | | | | | | |
|---|---|---|---|---|---|---|
| (10) | ʔàbì | ∅ | **hā-cì** | súrì | =sà | ‖ʰáī. |
| | he | PRS | **PROG.NEUTRAL** | tobacco | =3F.SG.ACC | smoke |
| | 'He is smoking tobacco.' | | | | | |
| (11) | ʔàbì | ∅ | **kùà** | súrì | =sà | ‖ʰáī. |
| | he | PRS | **PROG.MOBILE** | tobacco | =3F.SG.ACC | smoke |
| | 'He is smoking tobacco while walking, running, limping, etc.' | | | | | |
| (12) | ʔàbì | ∅ | **cìī̀cì** | súrì | =sà | ‖ʰáī. |
| | he | PRS | **PROG.STANDING** | tobacco | =3F.SG.ACC | smoke |
| | 'He is smoking tobacco while standing.' | | | | | |
| (13) | ʔàbì | ∅ | **‖ùī̀‖ò** | súrì | =sà | ‖ʰáī. |
| | he | PRS | **PROG.LYING** | tobacco | =3F.SG.ACC | smoke |
| | 'He is smoking tobacco while lying (down).' | | | | | |
| (14) | ʔàbì | ∅ | **wà** | súrì | =sà | ‖ʰáī. |
| | he | PRS | **PROG.SITING** | tobacco | =3F.SG.ACC | smoke |
| | 'He is smoking tobacco while sitting.' | | | | | |

In order to understand the semantic properties of these markers, I propose three features: [Accompanied motion/posture], [Mobility], and [Posture]. The feature [Accompanied motion/posture] distinguishes the plain progressive that specifies no accompanied motion or posture (represented as [–AcMP]) from the progressives accompanied by a certain motion or posture (represented as [+AcMP]). The feature [Mobility] denotes whether the situation involves a change in location or not, in other words, whether it is [+mobile] or [–mobile]. The feature [Posture] signifies whether the situation involves the stative meanings of [stand], [lie], or [sit].

The marker *hā-cì* in (10) represents the plain progressive that is mobility-neutral and posture-neutral, namely, [–AcMP]. Thus, sentence (10) can also apply to all situations expressed in (11) to (14). In contrast, the other four markers are [+AcMP], indicating progressives accompanied by a certain motion or stative posture.

Among the four [+AcMP] markers, *kùà* in (11) indicates a [+mobile] (i.e., non-stative) situation. Accordingly, sentence (11) is rendered 'He is smoking tobacco, while changing in location,' such as while walking. Examples (12), (13), and (14) are progressive situations involving a [–mobile] (i.e., stative) situation with the stative postures of standing, lying, and sitting, respectively. For this, they are rendered 'He is smoking tobacco while standing' (12), 'while lying (down)' (13), and 'while sitting' (14). The three features [Accompanied motion/posture], [Mobility], and [Posture] and their values will be further discussed in Section 5 with attention to their hierarchical structure.

## 4-3. Perfect

The aspect marker *-hā* is the only marker that occurs in the post-juncture positiona.

| | | | | | | |
|---|---|---|---|---|---|---|
| (15) | ʔàbì | ∅ | súrì | =sà | ‖ʰáī-a [‖ʰájā][5] | **-hā.** |
| | he | PRS | tobacco | =3F.SG.ACC | smoke-JNCT | **-PRF** |

'He has smoked tobacco.'
(e.g., He already completed smoking but the place is still smoky.)

In sentence (15), the perfect marker *-hā* follows the juncture -a. This marker derives from the verb *háã̃* 'exist,' which is the final verb of the "juncture construction." The function of the juncture is typically an integrator of two semantic events, and some verbs in the post-juncture position are grammaticalized, such as *máã̀* 'give' for the benefactive. The perfect marker *-hā* is one such grammaticalized form.[6]

Vossen (2013) identifies this marker as the "imperfect." It indicates the "continuing present relevance of a past situation," which is the common definition of "perfect" (Comrie, 1976: 52). In example (9), *‖ʰáī-a-hā* <SMOKE+juncture+perfect> can be rendered 'has smoked' in English. It can be used in situations like 'He finished smoking, but the air is still smoky.' It indicates that his smoking in the past is still relevant in the present. This type of continuing present relevance of

a past situation is the essential meaning of the marker.

## 5. THE FIVE-WAY CONTRAST OF THE PROGRESSIVE ASPECTS

This section discusses the five-way contrast of progressives. Their semantic distinction can be analyzed according to the three features [Accompanied motion/posture], [Mobility], and [Posture], as shown in Table 3.

**Table 3.** Semantic contrast of the five progressives

| | Accompanied m/p | Mobility | Posture |
|---|---|---|---|
| (4) hā-cì | [–AcMP] | [∅mobile] | [∅posture] |
| (5) kùà | [+AcMP] | [+mobile] | [–posture] |
| (6) ciǐcì | [+AcMP] | [–mobile] | [stand] |
| (7) ‖ùǐ‖ò | [+AcMP] | [–mobile] | [lie] |
| (8) wà | [+AcMP] | [–mobile] | [sit] |

As mentioned in Section 4, [Accompanied motion/posture] distinguishes *hā-cì* from the other four markers (i.e., the [+AcMP] class). The feature [Mobility] has three values, [∅mobile] (i.e., mobility-neutral), [+mobile], and [–mobile], which captures the stative class. The feature [Posture] has five values, [∅posture] and [–posture], together with a set of three values, [stand], [lie], and [sit], which specify (6), (7), and (8), respectively.

Thus, (4) *hā-cì* is mobility-neutral and posture-neutral, i.e., [∅mobile, ∅posture]; and (5) *kùà* is [+mobile, –posture] because of the change in location. Markers (5) to (8) constitute the [+AcMP] class. Markers (6), (7), and (8) fall into the [–mobile] class, and they are specified in [Posture] by the three static posture values [stand], [lie], and [sit].

The analysis presented in Table 3 captures all the distinctions across the five progressives and the semantic subclasses within the five-way progressive distinction. We should notice that the three features are not mutually independent, and therefore, some feature values are redundant because of their dependencies. Table 3 can be reanalyzed and more adequately expressed by the hierarchical representation shown in Fig. 3. This tree diagram shows how the three features are related: [Posture] is a dependent of [Mobility], which is in turn a dependent of [Accompanied motion/posture]. First, the five progressives are classified by [Accompanied motion/posture]; then, the [+AcMP] progressives are classified by [Mobility], and finally, the [–mobile] progressives are classified by [Posture].

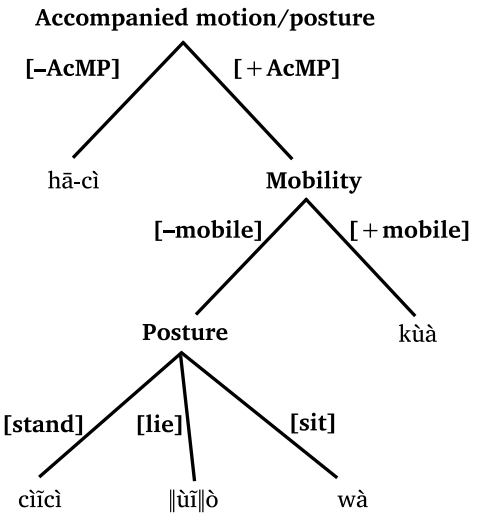


**Fig. 3.** Reanalysis of the five progressives in terms of the three mutually dependent features

The analysis of the five progressive markers in terms of the three features discussed above is applicable to clauses with a wide range of dynamic verbs in G|ui, but there are unexpected cases in which this analysis does not work out straightforwardly. Section 6 deals with such cases.

## 6. SEMANTIC EXTENSIONS OF TWO POSTURE-SPECIFIC PROGRESSIVES: 'BE WALKING WHILE LYING/SITTING'

Motion verbs, such as *!úũ̀* 'walk,' *!àrò* 'run,' *!ʰáǹ* 'crawl,' or *ts'íì* 'limp,' involve a change in location, and in this sense, they can be classified as [+mobile]. By using the frame sentence in (16), we can test the co-occurrence of a motion verb with each progressive marker.

(16) ʔàbì ∅ ___ !úũ̀.
he PRS PRG walk
'He is walking.'

The prediction is that the three co-occurrences in (6), (7), and (8) in Table 4 will be ruled out semantically, because their feature value [–mobile] is incompatible with the feature value [+mobile] of the verb 'walk.' However, this prediction is not borne out by the test.

**Table 4.** Predictions of well/ill-formed progressives occurring with a motion verb

| | Mobility | Prediction | |
|---|---|---|---|
| (4) hā-cì | ∅ | hā-cì !úǔ̀ | be walking |
| (5) kùà | + | kùà !úǔ̀ | be walking |
| (6) cìì̀cì | − | *cìì̀cì !úǔ̀ | *be walking while standing |
| (7) ‖ùì̀‖ò | − | *‖ùì̀‖ò !úǔ̀ | *be walking while lying (down) |
| (8) wà | − | *wà !úǔ̀ | *be walking while sitting |

The outcome is shown in (17) to (21).

(17) ʔàbì hā-cì !úǔ̀. 'He is walking.'
(18) ʔàbì kùà !úǔ̀. 'He is walking.'
(19) *ʔàbì cìì̀cì !úǔ̀.
(20) ʔàbì ‖ùì̀‖ò !úǔ̀. 'He is walking.'
(21) ʔàbì wà !úǔ̀. 'He is walking.'

First, sentences (17) and (18) are regarded as well-formed and (19) as ill-formed, as predicted in Table 4. Second, contrary to the predictions, (20) and (21) are accepted as well-formed by native speakers. If *‖ùì̀‖ò* [progressive: lie] and *wà* [progressive: sit] can be combined with the motion verb, the question is what meanings these combinations yield and how they are accounted for.

In order to understand their meanings and their semantic contrast adequately, it is necessary to introduce the concept of the line of sight and to specify the movement of the object with reference to the speaker's line of sight.

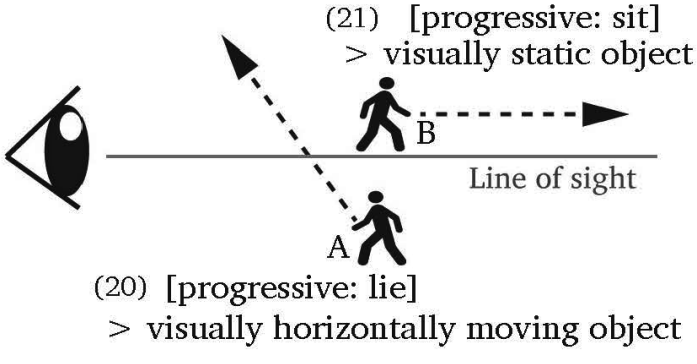


**Fig. 4.** Extended meanings of two posture-specific progressives

The contrastive meanings of (20) and (21) are illustrated in Fig. 4. The solid bar represents the speaker's line of sight. A and B are the moving objects seen and described by the speaker. The two arrows indicate the movements of the objects in reference to the line of sight.

Object A is walking crossing the line of sight, so that the speaker can see the side of Object A moving horizontally. The combination <**[progressive: lie]** + **'walk'**> in (20) is used for this visually horizontally moving object, which can be rendered 'be walking crossing the line of sight.' In contrast, Object B is walking away from the speaker along the line of sight, so that the speaker can see the back of the object going away, which is relatively static in the horizontal and vertical dimensions within the speaker's field of view. This visually static object moving away from the speaker is expressed by the combination <**[progressive: sit]** + **'walk'**> in (21), which can be rendered 'be walking away along the line of sight.'

In order to capture the semantic link between the two posture-specific progressives and account for the meanings 'be walking while lying/walking' in (20) and (21), it is necessary to consider **the movement of the object within the field of view of the speaker** mentioned above. Within the speaker's field of view, <[progressive: lie] + motion verb> indicates the object's horizontal movement, while <[progressive: sit] + motion verb> indicates the object's static position, lacking horizontal and vertical movement. The meanings of the two posture-specific progressives in (20) and (21) are regarded as semantic extensions of the spatial configurations of the two postures, which Newman (2002: 1–2) calls "horizontal elongation" for lying down, and "a compact shape" for sitting.

## 7. HISTORICAL SOURCES OF THE G|UI ASPECT MARKERS

Having so far dealt with the aspect markers from a synchronic point of view, I now conclude this paper by presenting a brief discussion of their etymology. Table 5 lists the words that relate to the aspect markers.

The origin of (5) *kùà* is not clear. The source word for (8) *wà* is a locative postposition. The other seven aspect markers are all historically related to posture verbs and/or the verb 'exist.' Generally, posture verbs constitute important sources for the grammaticalization of tense/aspect markers (Austin, 1998; Heine et al., 1993; Newman, 2002), as is common with other Khoe languages, such as Khwe (cf. Kilian-Hatz, 2002).

**Table 5.** Historical sources of G|ui aspect markers

| Markers | Meaning | Sources[7] |
|---|---|---|
| (1) cì | imperfective | céé/cìì̃ 'stand' |
| (2) ‖ò | abilitive-habitual | ‖óé/‖ùì̃ 'lie' |
| (3) ‖ò-cì | habitual | ‖óé/‖ùì̃ 'lie' + céé/cìì̃ 'stand' |
| (4) hā-cì | progressive: neutral | háã̄ 'exist' + céé/cìì̃ 'stand' |
| (5) kùà | progressive: mobile | loanword? |
| (6) cìì̃cì | progressive: stand | céé/cìì̃ 'stand' + céé/cìì̃ 'stand' |
| (7) ‖ùì̃‖ò | progressive: lie | ‖óé/‖ùì̃ 'lie' + ‖óé/‖ùì̃ 'lie' |
| (8) wà | progressive: sit | wà 'in/at' (postposition) |
| (9) –hā | perfect | háã̄ 'exist' |

With regard to Table 5, I should here make four remarks: (i) 'stand' and 'lie' are the historical sources of six aspect markers, but 'sit' is not exploited as the grammaticalization source of any aspect markers; (ii) 'stand' and 'lie' have lost their original postural meanings in the course of grammaticalization, resulting in the posture-neutral aspect markers in (1), (2), (3), and (4); (iii) the original postural meanings of 'stand' and 'lie' have been preserved as essential features in (6) and (7), while the non-posture word *wà* has acquired the new meaning of 'sitting posture' in (8); (iv) there may be different layers of grammaticalization of 'stand' and 'lie' in that *cì* and *‖ò* are more advanced than *cìì̃cì* and *‖ùì̃‖ò*. These findings indicate that in G|ui, the posture verbs for 'stand' and 'lie' have a closer link to the aspectual concepts than that for 'sit,' which is not the case in Khwe, where 'sit' is grammaticalized as the marker of the habitual aspect (Kilian-Hatz, 2002: 328).

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NOTES

(1) As expected from the label "primary patterns of sitting and lying," the 22 patterns shown in his illustrations all seem to be variants of either sitting or lying, rather than standing, in the sense of English or Japanese (i.e., either *suwaru* or *neru*, rather than *tatsu*).

(2) Ono's (2010a, 2010b) descriptions are slightly modified English versions of Nakagawa

(1993), and they provide essentially the same information summarized in Fig. 2.

(3) The surface form is derived by four processes in this case: tonal alternation (HL→MM), suffixation (-a), nasal spread (a→ã), and high vowel gliding (ũ→w). See Nakagawa (2006: 64–74).

(4) The term "abilitive" is used for a modal meaning (e.g., Palmer, 2001) rather than an aspectual meaning, but I treat ǁ*ò* as an aspect marker because it occurs in the aspect slot like other non-perfect aspect markers, and it involves a habitual meaning.

(5) The surface form is derived by three processes in this case: suffixation (-a), tonal spread, and high vowel gliding (i→j). See Nakagawa (2006: 64–74).

(6) Some speakers use the full form *háã̄* for this marker, instead of its shortened form *hā*. Throughout this paper, I use the latter, which is used by most speakers.

(7) The root alternation in 'stand' and 'lie' is also attested in 'sit' *ŋǂúũ̌/ŋǂùĩ̀*. Phonologically,the first form of each pair has H tone, and the second has L tone with final /ĩ/; semanti cally, the second form has the meaning of temporary stative posture, *céé* 'stand' vs. *ciĩ̀* 'stand temporarily,' ǁ*óé* 'lie' vs. ǁ*ùĩ̀* 'lie temporarily,' *ŋǂúũ̌* 'sit' vs. *ŋǂùĩ̀* 'sit temporarily.'

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Author's Name and Address: Hirosi NAKAGAWA, *School of Language and Culture Studies, Institute of Global Studies, Tokyo University of Foreign Studies, 3-11-1 Asahi-cho, Fuchu City, Tokyo 183-8534, JAPAN.*
E-mail: nhirosi [at] tufs.ac.jp