

Auxiliaries in spoken Sinhala*

Martin Hilpert

Rice University

This paper discusses whether there are elements in spoken Sinhala that can be appropriately labeled auxiliary verbs, adopting the framework of grammaticalization theory (Hopper and Traugott 1993). While auxiliaries are thought of as a nearly universal cross-linguistic category (Steele 1978), the term is not mentioned in standard works on Sinhala (Gair and Paolillo 1997, Gair 1998). On the basis of elicited data, it is argued that a number of elements can be fruitfully analyzed as auxiliaries, while other elements resist such a classification, and thus pose a challenge to current definitions of the term auxiliary in grammaticalization theory.

1. Introduction

This paper discusses whether there are elements in spoken Sinhala that can be appropriately labeled auxiliary verbs, and surveys the evidence to motivate such a label. While auxiliaries are considered a nearly universal cross-linguistic category (Steele 1978), the term is not mentioned in standard works on Sinhala (Gair and Paolillo 1997, Gair 1998), which warrants a closer examination of the existing data.

Sinhala is an Indo-Aryan language spoken in Sri Lanka, its closest relative being Maldivian. Sinhala differs considerably from other Indo-Aryan languages due to language contact with the neighboring Dravidian languages Tamil and Malayalam, which has not only resulted in heavy lexical borrowing, but also in the adoption of syntactic patterns such as cleft sentences (Paolillo 1994). As an important distinction between varieties, Sinhala exhibits diglossia. Literary Sinhala is the language of written communication and texts that are written to be read out, while spoken Sinhala is used for oral communication at all levels of formality (Gair and Paolillo 1997). Spoken Sinhala is thus not stigmatized socially, but merely very different from the written variant. To illustrate, subject-verb agreement is present in literary Sinhala but does not occur in spoken

Sinhala. The basic word order of both varieties can be categorized as SOV, but it is much more flexible in spoken Sinhala. For the study of auxiliaries, Sinhala provides an interesting comparison to Indo-European languages, which exhibit a high degree of uniformity with respect to auxiliation (Kuteva 1998:309). It will be argued in this paper that there are in fact auxiliary verbs in Sinhala, but that some of these challenge current definitions of this term (Heine 1993, Kuteva 2001).

Auxiliaries have been studied under various aspects in a multitude of theoretical frameworks (Heine 1993). Accordingly, there is more than one definition of the term *auxiliary*. The present study adopts the framework of grammaticalization theory (Heine and Traugott 1991, Hopper and Traugott 1993) and a definition of auxiliary that presupposes some assumptions of that theory. While grammaticalization theory is adopted for an analysis of the Sinhala data, the theory is also subject to modification or even falsification in the event of anomalies (Kuhn 1970) that are observed in the data.

With Heine (1993:70), auxiliaries are understood here as 'a linguistic item covering some range of uses along the Verb-to-TAM chain.' To explicate this definition, a frequent, cross-linguistically attested development is that main verbs over time develop into grammatical markers. This development happens gradually, so that main verbs shed some of their lexical meaning and acquire the grammatical meanings of tense, modality, or aspect, and thus change into auxiliaries. Auxiliaries may grammaticalize even further, reduce in form, and ultimately change into affixes. Elements occupying the middle ground of the continuum from main verb to affix can be called auxiliaries. This view acknowledges the fact that it is impossible to define auxiliaries cross-linguistically in terms of necessary and sufficient criteria. It also does not endorse the perspective that auxiliaries are a universal cross-linguistic category. Rather, it makes room for empirical data to decide whether there are elements that exist somewhere along the Verb-to-TAM chain, what their lexical sources are, and how far they have come in the process of grammaticalization.

The present study uses functional and formal criteria to heuristically arrive at a set of possible candidates for auxiliary status, which are then analyzed in terms of syntactic behavior, morphology, and grammatical function. The database for this study consists of elicited data from two adult speakers of Sinhala. The materials, which were collected over a period of nine months in 2004 and 2005, comprise 15 texts that include personal narratives, traditional stories, and recipes. These texts are further supplemented by data from elicitation sessions which explored verbal paradigms, different basic sentence types, and other syntactic constructions, such as complement clauses. Taken together,

Table 1. Sinhala elements taking infinitive or not fully finite verbal complements

Element	English gloss	Function	Complement types
yannə	go	FUTURE	INF
dennə	give	PERMISSIVE	INF
paṭan gannə	start take	INCEPTIVE	INF
wennə	become	EQUATIVE	CLAUSE
nəhə	not	NEGATION	V-FOCUS, AUX
bəhə	impossibly	EPISTEMIC	INF, AUX
əti	definitely	EPISTEMIC	INF, V-FIN, AUX
puluwaŋ	possibly	EPISTEMIC	INF, AUX, CLAUSE
kəməti	like	AFFECTION	INF, CLAUSE
kanəgaatu	sorry	REGRET	INF
bayə	afraid	FEAR	INF, CLAUSE
oone	need	DESIRE	INF

the materials approximate 5,000 words, which does not warrant a quantitative study, but allows for the qualitative exploration of the chosen subject matter.

A definitional criterion of auxiliaries is that they take verbal complements that are not fully finite (Bolinger 1980:297). As there is an infinitive verb form in Sinhala, this means that elements co-occurring with an infinitive complement may qualify as auxiliaries. Finiteness in Sinhala, as in many other languages, is a matter of degree. For this reason, elements which are not maximally finite verbal complements should also be considered. Table 1 gives an overview of Sinhala elements that take non-finite verbal or clausal complements, and thus form the object of investigation for the present study.

Table 1 presents a provisional classification into verbal elements (*yannə*, *dennə*, etc.), epistemic elements (*bəhə*, *nəhə*, etc.), and stance elements (*kəməti*, etc.). The first category is motivated by morphological form, while the two others are based on semantics. The present study analyzes these elements in terms of distribution across different construction types, difference in morphology from regular main verbs, the semantics of their lexical sources, and their grammatical function. All of these characteristics either allow a placement of an element on the Verb-to-TAM chain, and hence are suggestive of auxiliary status, or characterize the element as belonging to a different category. All the evidence considered is synchronic. Since the Verb-to-TAM chain is an inherently diachronic notion, the evidence is not explanatory, but merely suggestive. All the present study can aim for is to generate reasonable hypotheses that are empirically testable against diachronic data.

The structure of this paper is as follows. Section 2 elaborates on the notion of auxiliation and provides the theoretical background. Section 3 discusses the evidence and proposes a classification of the elements listed in Table 1. Section 4 concludes and puts auxiliation in spoken Sinhala into typological perspective.

2. Auxiliation and lexical sources of auxiliaries

This paper treats auxiliaries as grammatical markers that develop out of lexical verbs. In accordance with a view of grammar as emergent and continually changing through usage (Hopper 1987, Barlow and Kemmer 2000, Bybee and Hopper 2001), auxiliaries are not assumed to form a uniform category. Instead, they are defined operationally as participating in the process of auxiliation (Benveniste 1968), which is schematized below as the development of 1a into 1b (adapted from Kuteva 2001:1):

- (1) a. verb – argument
- b. grammatical marker – main verb

In auxiliation, argument-taking verbs undergo a semantic change from their lexical meaning towards more schematic, grammatical meaning. Along with the semantic change, the verb changes syntactically from taking nominal arguments to taking various kinds of complements, ultimately developing a preference for non-finite verbal complements. At the same time, the verb may be subject to morphological and phonological reduction.

While 1b can be seen as the endpoint of auxiliation, auxiliaries tend to develop further into affixes, which motivates Heine's (1993) concept of the Verb-to-TAM chain. While grammaticalization along the Verb-to-TAM chain may proceed in different ways, Heine (1993:58ff) suggests the following stages as an approximation.

Stage A — The verb has its full lexical meaning and takes an argument which refers to a concrete object, as in *Bob enjoyed his cigar*.

Stage B — The verb has its full lexical meaning, but it takes a complement which typically refers to a dynamic situation, as in *Bob enjoyed visiting his friends*. Verbs at this stage differ with respect to the range of complements they preferably take. Different options in English are infinitival, gerundive, participial, and clausal complements, and verbs differ with respect to their preferences. Verbs such as *enjoy* almost exclusively occur with gerundive complements, while *strive* exhibits a strong tendency to take infinitives with *to*.

Stage C — At this stage the selection restrictions of the lexical meaning loosen and the verb acquires some grammatical meaning. The verb may take an etymologically identical complement, as in *I am going to go*. Stage C items typically relate to the duration, speed, or boundary characteristics of the denoted event. Even when these items take a nominal argument, these are likely to refer to events or activities. Another difference with respect to stage B is that stage C items tend to form a single semantic unit with their complements, as in *He stopped smoking*.

Stage D — This stage includes the loss of morphological variety. Items lose their ability to form imperatives, nominalizations, or the passive. Thus, stage D items show formal signs of decategorialization; they do not behave like lexical verbs anymore. Stage D items also take fewer types of complements than stage C items. For example, English *try* takes the infinitive and the gerund, English *want* does not occur with the gerund.

Stage E — At this stage syntactic indicators of decategorialization emerge. Items in this stage may start to cliticize to the verbal complement and lose phonological substance; they also lose the ability to be separated from their complements for topicalization. The English auxiliaries *can*, *may* and *must* are stage E items. Semantically, stage E items encode only grammatical meaning.

Stage F — This stage marks the transition from a clitic to an affix. The element can still bear secondary stress.

Stage G — The affix reduces phonologically to a monosyllabic affix without stress.

Section 3 presents an analysis of the elements in Table 1 according to the criteria in Heine's stage model. All elements in Table 1 are phonological words, so that stages F and G will not be discussed any further.

Since the process of auxiliation frequently goes along with polysemization, some items may display behaviors associated with different stages in different uses. For an example, consider the English sentences *I used a toothpick* and *I used to collect toothpicks*. The second sentence shows that the lexical verb *use* has grammaticalized into an auxiliary that codes habituality. However, the first sentence shows that *use* still persists as a full lexical verb. The semantic and formal differences between *use* and *used to* motivate a synchronic treatment of these as two separate items, but the development up to this state of affairs has been gradual. Hence, individual items may cover a certain range on Heine's stage model.

A cross-linguistic observation is that some types of lexical verbs seem particularly amenable to development into auxiliaries. General movement verbs,

Table 2. Lexical sources of auxiliaries with associated grammatical functions (= Table 2.2, Heine [1993:47])

Source	Grammatical functions
LOCATION	PROGRESSIVE, INGRESSIVE, CONTINUOUS
MOTION	INGRESSIVE, FUTURE, PERFECT, PAST
ACTION	PROGRESSIVE, CONTINUOUS, INGRESSIVE, COMPLETIVE, PERFECT
VOLITION	INGRESSIVE, FUTURE
CHANGE OF STATE	INGRESSIVE, FUTURE
EQUATION	RESULTATIVE, PROGRESSIVE, PERFECT, FUTURE
ACCOMPANIMENT	PROGRESSIVE
POSSESSION	RESULTATIVE, PERFECT, FUTURE
MANNER	PROGRESSIVE

posture verbs, and verbs of possession are attested as grammatical markers in many of the world's languages (Heine and Kuteva 2002). It needs to be pointed out that these verbs do not only grammaticalize into auxiliaries. Movement and posture verbs are also productive sources of serial verbs (Aikhenvald 2006) and other complex predicates (Alsina *et al.* 1997), which need to be distinguished from auxiliaries proper.

These cross-linguistically common grammaticalization clines do of course not preclude more idiosyncratic developments, such as for example Korean *pelita* 'throw away' changing into a perfect marker (Bybee and Dahl 1989:58), or even Hup *teg* 'wood, stick' turning into a marker of futurity (Epps to appear). Although the exact pathways of grammaticalization are not predictable, certain developments occur regularly across genetically unrelated languages. Verbs of location show a tendency to develop into aspect markers, while movement verbs frequently grammaticalize into tense markers. Heine (1993:47) identifies a number of common lexical sources of auxiliaries along with the grammatical functions that these typically evolve into.

Cross-linguistic tendencies such as those in Table 2 should not be taken as explanatory evidence for or against an observed change in a given language. However, they can serve as heuristics in elicitation, as the above lexical sources are good starting points to look for grammaticalizing elements. Conversely, comparing auxiliariation in a given language against the backdrop of cross-linguistically common tendencies may illuminate interesting grammatical peculiarities of that language.

3. Auxiliaries and related forms in spoken Sinhala

This section discusses the elements from Table 1 in terms of their syntactic distribution, their morphological similarity to regular main verbs, their grammatical function, and, where possible, the semantics of their lexical sources. The section is organized in accordance with the provisional classification made in Table 1 into verbal, epistemic, and stance elements.

The schema of auxiliiation in 1 is not meant to specify the order of elements; auxiliaries may emerge at either side of the verbal complement, depending on word order in the respective language. Word order in spoken Sinhala is extremely flexible (Premawardhena 2002, 2003), and the concept of basic word order in general has been challenged by Mithun (1987), who shows that discourse factors may strongly interact with word order. These caveats have to be kept in mind when considering basic word order. The view that constituent order in Sinhala is SOV is motivated by its adherence to all of the Greenbergian word order correlates of SOV languages (Greenberg 1963); constituents strongly tend to be right-headed (Gair and Paolillo 1997:2). The basic constituent order in a transitive sentence is exemplified in 2a. In complex verb phrases, the fully finite element occurs at the right edge of the phrase, as in 2b. Auxiliating elements can thus be expected to be found to the right of a non-finite verb.

- (2) a. *laməya a~bə gedī-yak kəæwa*
 child mango CL.INDEF eat.PST
 'The child ate a mango.'
- b. *mamə kannə yanəwa*
 1SG eat.INF GO.NPST
 'I will eat.'

3.1 Verbal elements

The elements discussed in this section can be used as main verbs in spoken Sinhala, as shown in 3a–3d. The paragraphs below discuss uses of the elements that diverge in both meaning and form from these examples. In contrast to the usages shown in 3a–3d, the grammaticalized counterparts of the respective verbs have evolved into markers of tense, aspect, and modality.

- (3) a. *eyaa gedəra yanəwa*
 3SG home GO.NPST
 'He goes home.'

- b. *eyaa ma-tə a~bə geḍi-yak dunna*
 3SG 1SG-DAT mango CLF-INDF give.PST
 ‘He gave me a mango.’
- c. *eyaa pot gatta*
 3SG book.PL take.PST
 ‘He took the books.’
- d. *eekə ratu wenəwa*
 3SG.N red become.NPST
 ‘It turns red.’

The element *yannə* ‘go’ shows a number of signs of auxiliation. Much as with the English items *use* and *used to*, it is justified to distinguish between usage of *yannə* as a main verb and as an auxiliary. The grammatical meaning associated with the auxiliary is futurity. The grammaticalization of a movement verb like *yannə* into a future marker is cross-linguistically very common. The construction is not mentioned in Gair and Paolillo (1997), but Garusinghe (1962:64) points out that futurity in spoken Sinhala is expressed through a periphrastic construction with *yannə*. The semantic change has loosened selection restrictions in the auxiliary. While the main verb is restricted to animate subjects, the auxiliary also occurs with inanimate subjects. The auxiliary takes only non-finite verbal complements. By the criteria outlined in Section 2, *yannə* is a stage D auxiliary. The auxiliary cannot form the imperative. Imperatives are generally understood to refer to some future action, so 4d and its English gloss are ungrammatical.

- (4) a. **gee yanəwa*
 house go.NPST
 ‘The house goes.’
- b. *gee kaḍaṅ wəṭennə yanəwa*
 house break fall.INF FUT.NPST
 ‘The house will collapse/is about to collapse.’
- c. *gedərə yannə*
 home go.IMPER
 ‘Go home!’
- d. **gedərə yannə yannə*
 home go.INF FUT.IMPER
 ‘Will go home!’

There are compound verb constructions in Sinhala which are formed from two verbs in conjunction. The first of the verbs receives the converb suffix *-la*, the second is finite. While this is a very productive process that does not necessarily

alter the semantics of the individual elements, some collocates may develop a new meaning. To illustrate, the verb *pənnə* ‘jump’ in conjunction with *yannə* has acquired the meaning ‘escape’:

- (4) e. *gamba bootələ-yey pənnə-la giyaa*
 frog bottle-LOC jump-CVB go.PST
 The frog escaped from the bottle.

Similar compound verb constructions can be observed with *gannə* ‘take’; they are discussed later in connection with that element.

The element *dennə* ‘give’ can also be identified as a fully grammaticalized auxiliary. A distinction between usage of *dennə* as a main verb and as an auxiliary is useful, as the two elements have distinct meanings. The grammatical meaning associated with the auxiliary is permissive, which as a grammatical function falls into the domain of deontic modality. The development of a verb of giving into a permissive marker has been described by Newman (1996:236), who discusses the metaphorical motivation for the semantic extension. In an act of giving, a recipient gains control over a transferred object. In giving someone permission, the permittee gains control over an action. Permissives that derive from verbs of giving are found also in Russian, Finnish, and Mandarin (Newman 1996:189). An example is shown in 5a.

- (5) a. *eyaa ma-tə a~bə gedī-yak kannə dunna*
 3SG 1SG-DAT mango CLF-INDF eat.INF PERM.PST
 ‘He let me eat a mango. / He gave me a mango to eat’
 b. *eyaa ma-tə a~bə gedī-yak kannə idə denəwa*
 3SG 1SG-DAT mango CLF-INDF eat.INF room give.NPST
 ‘He lets me eat a mango.’

Example 5b shows a possible source construction for 5a. The collocation *idə dennə* ‘give permission’, literally ‘give room’, may have been reduced to just the verb, making it structurally an auxiliary. In the absence of diachronic evidence, it is hard to determine what exactly has led to the structure that is found in Sinhala today.

Due to the permissive semantics, the auxiliary retains the ability to form the imperative and remains restricted to animate subjects. The auxiliary takes only non-finite verbal complements, which makes it a stage-D element.

The verb *gannə* ‘take’ differs from the two previously discussed elements, because it does not take infinitival complements by itself. It only occurs as the head of a complex predicate, which in turn may have an infinitival complement. Consider 6a–6d.

- (6) a. *miniha laməya-wə balaa gannəwa*
 man child-ACC look take.NPST
 ‘The man looks after the child.’
- b. *miniha a~bə geḍi-yak labaa gannəwa*
 man mango CLF-INDF get take.NPST
 ‘The man obtains a mango.’
- c. *miniha horaa-wə allə gatta*
 man robber-ACC touch take.PST
 ‘The man caught the robber.’
- d. *miniha duwannə paṭan gannəwa*
 man run.INF start take.NPST
 ‘The man starts running.’

In 6a to 6c, *gannə* heads a light verb construction which includes a verb form ending in a long *-a*. In 6a, the collocation *balaa gannə* ‘look take’ has acquired the meaning ‘to look after someone’. Similarly in 6b, *labaa gannə* ‘get take’ means ‘obtain’, and in 6c, *allə gannə* ‘touch take’ means ‘catch’. In 6d, a similar construction functions as a complex auxiliary. The collocation *paṭan gannə* ‘start take’ has fused into an auxiliary meaning ‘begin’. The word *paṭan* never occurs outside this construction; it is unclear what part of speech it derives from, or what its own lexical meaning would be.

The behavior of *gannə* differs from the grammaticalization paths that have been taken by *yannə* ‘go’ and *dennə* ‘give’. While the latter take non-finite complements of any kind, *gannə* primarily takes specific finite complements that form collocations and develop a constructional meaning of their own. The case of *paṭan gannə* ‘start take’ is the only one of these constructions that takes a non-finite complement and thus qualifies as an auxiliary with inceptive grammatical function, which puts it into the domain of aspectual markers. As shown in 6e and 6f, *paṭan gannə* allows the formation of the imperative, and it also takes nominal arguments. Accordingly, it can be classified as a stage C item in Heine’s taxonomy.

- (6) e. *duwannə paṭan gannə*
 run.INF start take.IMPER
 ‘Start running!’
- f. *miniha ranḍuwa-k paṭan gannəwa*
 man fight-INDF start take.NPST
 ‘The man starts a fight.’

The form *paṭan gannə* illustrates that grammaticalization does not only operate on single lexical items, but that entire phrases can develop into grammatical

constructions (Kuteva 2001:1). Cross-linguistically, lexical verbs meaning 'take' are a particularly productive source for grammaticalization. Common grammatical domains deriving from it include causatives, as well as markers of futurity, possession, and completion (Heine and Kuteva 2002:286).

In its non-lexical uses, *wennə* 'become' functions as a tense-carrying verbal element that is comparable to an equative copula. Attributive sentences and predicate nominals in the present tense do not require a verbal element. However, if the attribute is meant to hold in either the future or the past, a finite form of *wennə* is required.

- (7) a. *eyaa hor-ek*
3SG robber-INDF
'He is a robber.'
- b. *laməya bohoma santoosa unaa*
child very happy EQ.PST
'The child was very happy.'
- c. *eyaa hor-ek wey*
3SG robber-INDF EQ.FUT
'He will be a robber.'

A form of *wennə* is found with constructions that involve one or more of the verbal, epistemic and stance elements mentioned in Table 1. The order of these elements is regular, as the form of *wennə* occurs after stance elements like *oone* 'want/need' and *bayə* 'be afraid', but before epistemic elements like *æti* 'definitely/probably'. This syntactic distribution motivates the distinction between epistemic and stance elements that was made on semantic grounds in the introductory section. The form of *wennə* is inflected only if it occurs as the last element in the clause.

- (7) d. *ma-ṭə a~bə geḍi-yak kannə oonə wey*
1SG-DAT mango CLF-INDF eat.INF need EQ.FUT
'I will need to eat a mango.'
- e. *oyaa gedərə yanna bayə wey*
2SG home go.INF afraid EQ.FUT
'You will be afraid to go home.'
- f. *eyaa hor-ek wennə æti*
3SG robber-INDF EQ.INF EPIST
'He must be a robber.'

Since *wennə* does not take complements that are clearly non-finite in nature, it cannot be appropriately called an auxiliary. The complements it takes are

predicative structures that are syntactically complete clauses. The reason it was included in the initial set of potential candidates was that in examples like 7d and 7e, it appears that the form of *wennā* is the only inflected element. While that is indeed the case, its complement structures are not non-finite, but simply do not require a finite element in the present tense.

The development of a verb denoting change of state into an equative copula is cross-linguistically common. Hengeveld (1992:253) discusses data from Ngalakan and Turkish. Similar to Sinhala, the occurrence of the copula appears to be confined to specific verbal tenses in these languages.

3.2 Epistemic elements

The elements discussed in this section are used to indicate the likelihood, probability, or improbability of some event. As such, they fall into the grammatical domain of epistemic modality.

Gair and Paolillo use the label quasi-verbs (1997:26) to group epistemic elements and stance elements together. Their evidence for classifying these as verb-like is that they occur as predicators of clauses, and share a number of inflectional properties with lexical verbs. The rationale for grouping them together is that they share the negative characteristic of being not entirely verb-like, but distributed in very similar ways. While all of these observations are accurate, the classification will not be adopted, but the two classes of elements will be kept apart. Section 3.3 below summarizes the syntactic, morphological, and semantic evidence motivating this decision.

Neither epistemic nor stance elements are readily accommodated in Heine's stage model of auxiliiation, because these elements lack the characteristic twin role of auxiliaries, which tend to have lexical verb counterparts. For example, for the element *puluwan* 'possibly' there is no corresponding lexical verb. Another hallmark of auxiliaries is polysemy. While all elements discussed in Section 3.1 are polysemous to some extent, this is not the case for *næhæ* 'not' and *bæhæ* 'impossibly'.

It is a core assumption of grammaticalization theory that grammatical elements develop out of some lexical source that over time sheds its lexical meaning and acquires grammatical meanings that become increasingly schematic and subjectified (Traugott 1989). However, when an element has become sufficiently decategorized as to be fully opaque, it is no longer possible to determine the lexical source in the absence of historical evidence. Accordingly, the following paragraphs do not attempt to resolve the history of these elements, but instead discuss the synchronic evidence that would motivate a

classification of these elements either as auxiliaries, or as some other category. This evidence includes syntactic distribution, morphology, and the interplay of these elements with the auxiliaries discussed in Section 3.1.

For grammatical markers of negation, likely source candidates are lexical verbs meaning ‘lack’ or ‘leave’ (Heine and Kuteva 2002:333). Neither of these seems to apply in Sinhala, which leaves us with synchronic evidence. The element *næhæ* ‘not’ marks negation in a range of different constructions, such as existential, possessive, transitive, and intransitive clauses. Existential and possessive clauses are closely related, as possessives are merely existentials with a dative possessor. Compare 8a and 8b.

- (8) a. *lamə-yek næhæ*
 child-INDF NEG
 ‘There is no child.’
- b. *eyaa-tə lamay næhæ*
 3SG-DAT children.PL NEG
 ‘She has no children.’ (Lit. There are no children to her.)

Evidence for a verb-like status of *næhæ* is that different construction types involve a set of morphologically similar negation markers that form a paradigm. Similarly, the Sinhala verb inflects for different syntactic environments, such as co-temporal clauses, concessive clauses, and causal clauses. Besides *næhæ* there are two more forms. Predicate nominals are negated by *newey*, as shown in 8c, and negation of causal sentences with *hinda* ‘because’ involves *næti*, as shown in 8d. While Gair and Paolillo (1997) view these forms as one paradigm, one could make the case that they are in fact three separate particles.

- (8) c. *mamə šišyə-yek newey*
 1SG student-INDF NEG
 ‘I am not a student.’
- d. *balənə-koṭə miniha la-gə hæ-dunum paṭə tibun-e*
 look-SIM man close identity card EX.PST.EMPH
 ‘When we inspected the man closely, it turned out that because he had no ID on him
næti hinda bayəwe-laa duwə-la
 NEG because afraid-CVB run-CVB
 he got scared and started running.’

Evidence for regarding *næhæ* as an auxiliary stems from the fact that it takes not fully finite complements. In 8e the complement is marked with the continuative *-genə*, while in 8f it takes the emphatic *-e* suffix.

- (8) e. *eyaa loogu-wak æ~dā-genā næhæ*
 she coat-INDF wear-CONT NEG
 ‘She is not wearing a coat.’
- f. *lamāya wæḏee karann-e næhæ*
 child task do-EMPH NEG
 ‘The child doesn’t do the work.’

Gair and Paolillo (1997:27) state that the emphatic verb form is the default case for negation with *næhæ*. We see this point corroborated in similar sentences with auxiliaries between the lexical verb and the negating element, where the auxiliary bears the emphatic suffix, as illustrated in 8g and 8h.

- (8) g. *minih-ek hiṭiy-e næhæ*
 man-INDF EX.PST-EMPH NEG
 ‘There was no man.’
- h. *mamā lamāya-ṭā a~bā geḏi-yak kannā denn-e næhæ*
 1SG child-DAT mango CLF-INDF eat.INF PERM-EMPH NEG
 ‘I won’t let the child eat a mango.’

Only in conjunction with the element *næhæ* are the above sentences finite. This, and the fact that distinct forms similar to *næhæ* appear in different construction types, makes it verb-like, but that also is where the similarity ends. While the term quasi-verb may thus be appropriate, there are four reasons not to view *næhæ* as an auxiliary.

First, from the data it appears that elements that can be clearly identified as auxiliaries do not occur next to each other. The tendency to avoid auxiliary stacking is cross-linguistically common (Heine 1993:23), although there are numerous counterexamples. Second, *næhæ* can be found in cliticized form, as shown in examples 8i and 8j.

- (8) i. *ma-ṭā a~bā geḏi-yak oon=næhæ*
 1SG-DAT mango CLF-INDF need=NEG
 ‘I don’t need a mango.’
- j. *ma-ṭā a~bā geḏi-yak oone unee=næhæ*
 1SG-DAT mango CLF-INDF need become.PST=NEG
 ‘I didn’t need a mango.’

Third, it is problematic to view *næhæ*, *næti*, and *newey* as finite auxiliary forms, because there is no corresponding non-finite form. The fourth problem is that the negation markers are monosemous, lacking the characteristic polysemy of auxiliaries.

This evidence does not preclude that *næhæ* at some point actually was an auxiliary, and it certainly does not say anything about its lexical origins, but it shows that it does not fit the adopted definition of an auxiliary in present-day spoken Sinhala.

The element *bæhæ* ‘impossibly’ carries meaning that is expressed in English through epistemic uses of the modal *can*, as in *That can’t be right*. Unlike English modals, *bæhæ* does not code deontic modality, but is confined to epistemic meaning. The element is morphologically almost identical to *næhæ*, but it differs in its morphosyntactic behavior. It does not cliticize, and it is restricted to infinitive complements, which means that in predicate nominals and attributive clauses the infinitive form *wennə* is required. In this use, the equative copula *wennə* does not add to the meaning of the sentence. Occasionally it carries the implicature of futurity, though. Like *næhæ*, *bæhæ* has an alternate form. The alternative form *bæri* occurs in subordinate clauses, as shown in 9d.

- (9) a. *eyaa hor-ek wennə bæhæ*
 3SG robber-INDF EQ.INF IMPOSS
 ‘He can’t be a robber.’
- b. *eyaa-ṭə tibaha wennə bæhæ*
 3SG-DAT thirsty EQ.INF IMPOSS
 ‘He can’t be thirsty.’
- c. *eyaa wæḍee kərannə bæhæ*
 3SG task do.INF IMPOSS
 ‘He can’t possibly do the work.’
- d. *eyaa hor-ek wennə bæri hinda hir-ee yann-e næhæ*
 3SG robber-INDF EQ.INF IMPOSS because jail-LOC go-EMPH NEG
 ‘Since he can’t be a robber, he will not go to jail.’

In summary, *bæhæ* shows some parallels with *næhæ* that warrant a classification into the same category. It is required in certain structures to yield a finite sentence, and it takes non-finite complements, but that is not enough evidence to call it an auxiliary.

The element *æti* ‘definitely/probably’ is polysemous. It codes weak and strong epistemic meaning, the two of which are complementarily distributed across different construction types. The entry in Table 1 renders the meaning as ‘definitely’, but there are contexts where it means ‘probably’. The strong epistemic meaning ‘definitely’ co-occurs with infinitive complements. As 10a shows, *æti* requires a copula in predicate nominals, just like *bæhæ*. Example 10b illustrates how *æti* can modify regular non-finite verb phrases. What sets

æti apart from *næhæ* and *bæhæ* is that it does not have an alternate form in subordinate clauses, as shown in 10c.

- (10) a. *eyaa hor-ek wenna æti*
 3SG robber-INDF EQ.INF DEFIN
 ‘He must be a robber.’
- b. *eyaa gedərə yanna æti*
 3SG home go.INF DEFIN
 ‘He must be going home.’
- c. *eyaa hor-ek wenna æti hinda hir-ee yay*
 3SG robber-INDF EQ.INF DEFIN because jail-LOC go.FUT
 ‘Since he must be a robber, he will go to jail.’

Where the complement of *æti* is a complete finite structure, it has the meaning ‘probably’. It functions syntactically as a sentence adverbial in these examples, rather than as a quasi-verbal element. In 10d below, the main verb is fully finite, leaving *æti* with no grammatical function, but merely its semantic adverbial function.

- (10) d. *eyaa wæḍee kərənəwa æti*
 3SG task do.NPST PROB
 ‘He is probably doing the work.’

Gair and Paolillo (1997:36) point out another, lexical use of *æti*, which possibly is the lexical source of the two grammatical uses discussed above. In spoken Sinhala, the noun phrase *salli æti* is ambiguous between the meanings ‘enough money’ and ‘[someone] probably has money’. The grammaticalization of an adjective meaning ‘enough’ into a marker of deontic and epistemic modality has been studied in Luo by Bavin (1995), who considers this grammaticalization path an areal phenomenon pertaining to African languages. The case of Sinhala suggests that the cline from ‘enough’ to modality may be more common than that. However, in order to argue for the similarity of these developments, a crucial piece of evidence would have to show that *æti* at some point had deontic modal meaning. This evidence is not apparent at present. Despite the fact that *æti* takes non-finite complements, there is insufficient evidence to classify it as an auxiliary. In comparison to *næhæ* and *bæhæ* it appears to be even less verb-like, since it does not have alternate forms, and co-occurs with fully finite examples such as 10d.

There is evidence for viewing the element *puluwan* ‘possibly’ as either an epistemic or a stance element, depending on what aspects of it are in focus. Gair and Paolillo (1997:26) render its meaning as English ‘can’, which is the deontic

counterpart to its epistemic meaning ‘possibly’. While the deontic meaning relates to a speaker’s stance towards some state of affairs, the epistemic meaning relates to the likelihood of some event. In the data on which this study is based, the epistemic meaning dominates. It only takes infinitive complements. Like *æti*, it has the same form in subordinate clauses. There are morphological and syntactic criteria that correspond with the two meanings. Epistemic *puluwaŋ* is found to the right of auxiliaries, as shown in 11a and 11b. Stance *puluwaŋ* can occur to the left of auxiliaries, as shown in 11c.

- (11) a. *ma-ṭə a~bə geḍi-yak oone wennə puluwaŋ*
 1SG-DAT mango CLF-INDF need EQ.INF PROB
 ‘I will probably need a mango.’
- b. *eyaa-ṭə tibaha wennə puluwaŋ hinda mamə waturə geenəwa*
 3SG-DAT thirsty EQ.INF PROB because 1SG water bring.NPST
 ‘Because he is probably thirsty, I bring some water.’
- c. *ma-ṭə a~bə geḍi-yak gannə puluwaŋ unaa*
 1SG-DAT mango CLF-INDF take.INF ABLE EQ.PST
 ‘I was able to get a mango.’

Another feature that sets *puluwaŋ* apart from the other epistemic elements is that it can occur pre-verbally, as shown in 11d.¹ This is unusual, given that Sinhala has a strict preference for right-headed constructions. Example 11d also shows that stance *puluwaŋ* requires dative subjects. Epistemic elements, by contrast, are found with both nominative and dative subjects.

- (11) d. *aliyan-ṭə Jiip puluwaŋ perəlanə*
 elephant.PL-DAT Jeep ABLE overturn.INF
 ‘Elephants can overturn jeeps.’

Overall, the evidence rules out a classification of *puluwaŋ* as an auxiliary; rather, it is a quasi-verb that seems to have grammaticalized from an adjective. The grammaticalization of epistemic markers from lexemes with the meaning ‘ability’ is very common (Bybee *et al.* 1994:187).

3.3 Stance elements

The elements discussed in this section are used to indicate a speaker’s stance towards some event, such as for example appreciation, fear, or regret. These concepts are not generally recognized as grammatical, although stance and emotion lexemes do frequently give rise to more grammatical meanings. What warrants a discussion here are distributional similarities between stance

elements and the auxiliaries discussed earlier. Grammaticalization theory acknowledges that there is no strict division of ‘grammar’ and ‘the lexicon.’ To illustrate, the English verb *try* is a less grammaticalized element than for example *will*, but it shows some distributional similarities. While *will* takes only infinitive complements and regularly cliticizes, *try* takes infinitive and gerund complements. If we adopt Hopper’s (1987) idea of emergent grammatical categories, we commit ourselves to the view that categories are in flux at all times. Such an open-ended view of grammar allows for degrees of auxiliarihood.

The elements *kæmæti* ‘like’ and *oone* ‘want/need’ are classified as quasi-verbs in Gair and Paolillo (1997:26), *bayə* ‘(be) afraid’ and *kanəgaatu* ‘(be) sorry’ are discussed in Garusinghe (1962). All of these can take nominal arguments and non-finite verbal complements. However, there are also differences. In simple attributive sentences, *kæmæti*, *bayə* and *kanəgaatu* behave like regular adjectives, which leaves *oone* with a special status in this category. The latter is also the only polysemous element, meaning either ‘want’ or ‘need’. The paragraphs below discuss each element in detail and analyze the interplay of auxiliaries, epistemic elements, and stance elements.

The element *kæmæti* ‘like’ can take nominal arguments, and clausal and infinitive complements. These are illustrated in 12a–12c. The subjects of sentences with *kæmæti* are in the nominative. If *kæmæti* is the last element in the sentence, it can take the assertive marker *-y*, which also occurs on regular adjectives in attributive clauses.

- (12) a. *mamə sattun-ṭə kæmæti-y*
 1SG animal.PL-DAT like-ASS
 ‘I like animals.’
- b. *ballat ekkə sellam kərənə ekəṭə tamay laməya kæmæti*
 dog with game do.PRS.REL COMP ASS child like
 ‘It is playing with the dog that the child likes.’
- c. *mamə gedərə yannə kæmæti-y*
 1SG home go.INF like-ASS
 ‘I like to go home.’

A characteristic of stance elements is that they precede auxiliaries and epistemic elements, as shown in 12d and 12e. Auxiliaries, in turn, precede epistemic elements, as shown in 12f. The correspondence of a threefold semantic distinction to syntactic distribution is the main argument made in this paper for a distinction of auxiliaries proper, epistemic elements, and stance elements.

- (12) d. *mamə sattun-ʔə kəməti nəhə*
 1SG animal.PL-DAT like NEG
 'I don't like animals.'
- e. *redi hoodəpu ekəʔə ʔamay mamə kəməti une-e*
 clothes wash.PST.REL COMP ASS 1SG like EQ.PST-EMPH
 'It was washing clothes that I liked.'
- f. *mamə sattun-ʔə kəməti weenne nəhə*
 1SG animal.PL-DAT like EQ.FUT NEG
 'I will not like animals.'

Gair and Paolillo (1997:26) suggest that *kəməti* inflects for syntactic context in the same way that lexical verbs and the epistemic elements *əti* and *nəhə* do, and present the elements that are listed in the first column of 12g. The language consultant who produced the examples cited in this paper was skeptical of these forms, and also an anonymous referee expressed doubts about their usage in spoken Sinhala. If they indeed exist in a variety of spoken Sinhala, it is likely that the forms given in the first column of 12g are fused with a form of *wennə*, as shown in the second column of 12g. However, this fusion has not taken place in the varieties of the mentioned native speakers.

(12) g.	BASIC	<i>kəməti</i>	<i>kəməti</i>
	CONDITIONAL	<i>kəməttot</i>	<i>kəməti unot</i>
	CONCESSIVE	<i>kəməttə</i>	<i>kəməti unat</i>
	EMPHATIC	<i>kəməttə</i>	<i>kəməti unee</i>

In summary, *kəməti* does not behave in a very verb-like manner in the variety of Sinhala investigated. Its broad range of complements indicates a low degree of grammaticalization; it cannot be classified as an auxiliary.

The element *kanəgaətu* 'sorry' takes non-finite verb phrases as complements. It assigns dative case to its subjects. Also *kanəgaətu* takes the assertive marker *-y* in sentence-final position.

- (13) a. *ma-ʔə ranḍuwə gənə kanəgaətu-y*
 1SG-DAT fight about sorry-ASS
 'I'm sorry about the fight.'
- b. *ma-ʔə yanə ekə gənə kanəgaətu-y*
 1SG-DAT going about sorry-ASS
 'I'm sorry to leave.'

Without the assertive marker the whole structure would not be finite, and hence ungrammatical. The marker is absent in examples with auxiliaries and

epistemic elements, as shown in 13c and 13d. In summary, *kanəgaatu* needs to be regarded as a weakly grammaticalized adjective, not an auxiliary.

- (13) c. *ma-ṭə randuwə gənə kanəgaatu wennə wey*
 1SG-DAT fight about sorry EQ.INF FUT
 ‘I will be sorry about the fight.’
 d. *ma-ṭə yanə ekə gənə kanəgaatu wenne nəhə*
 1SG-DAT going about sorry EQ-FUT NEG
 ‘I won’t be sorry to leave.’

The element *bayə* ‘afraid’ takes nominal arguments, and clausal and infinitive complements. These are illustrated in 14a to 14c. Thus *bayə* behaves exactly like *kəməti* with respect to complementation; it also requires its subjects to be in the nominative case.

- (14) a. *mamə sattun-ṭə baya-y*
 1SG animal.PL-DAT afraid-ASS
 ‘I am afraid of animals.’
 b. *ballat ekkə sellan kərənə ekəṭə tamay ma-ṭə bayə*
 dog with game do.PRS.REL COMP ASS 1SG-DAT afraid
 ‘It is playing with the dog that I’m afraid of.’
 c. *mamə gederə yannə baya-y*
 1SG home go.INF afraid-ASS
 ‘I’m afraid to go home.’

A difference between the two is that *bayə* can occur with a bare subject, as in example 14d. This is due to the fact that *bayə* is also a noun ‘fear’: a literal gloss for 14d would be *To me there is fear*. Note that the subject is in the dative case, unlike in 14a to 14c. Like the other elements, *bayə* sheds the assertive marker when another finite element is following it, as shown in 14e.

- (14) d. *ma-ṭə baya-y*
 1SG-DAT fear-ASS
 ‘I am afraid.’
 e. *mamə gedərə yannə bayə nəhə*
 1SG home go.INF afraid NEG
 ‘I’m not afraid to go home.’

The distributional and morphological evidence suggests that *bayə* is a weakly grammaticalized adjective that has developed out of a noun. Like the previous stance elements, it is not an auxiliary.

The element *oone* can express both the concepts ‘need’ and ‘want’. Gair and Paolillo (1997:27) identify ‘must’ as another sense, which is likely to be related to examples like 15c, where the meaning of ‘need’ shades into ‘should’, and maybe even ‘must’. The development of weak into strong modality is a common process. *Oone* takes nominal and clausal complements, which are illustrated in 15a and 15b. The subjects are in the dative case. In sentences with auxiliaries and epistemic elements, *oone* precedes the other elements.

- (15) a. *ma-ṭə a~bə ged̥i-yak oone*
 1SG-DAT mango CLF-INDF need
 ‘I need a mango.’
- b. *redi hoodənə ekə ṭamay ma-ṭə onee*
 clothes wash.REL.PRS COMP ASS 1SG-DAT need
 ‘It is washing clothes that I want.’
- c. *ma-ṭə a~bə ged̥i-yak oone wey*
 1SG-DAT mango CLF-INDF need EQ.FUT
 ‘I will need a mango.’
- d. *ma-ṭə a~bə ged̥i-yak oone wennə puluwaṇ*
 1SG-DAT mango CLF-INDF need EQ.INF PROB
 ‘I will probably need a mango.’

The element *oone* is different from the other stance elements in a number of respects. In attributive sentences, *kəməti*, *bayə* and *kanəgaatu* take the assertive suffix *-y*, which *oone* does not. It is also the only polysemous stance element. Finally, it is the only stance element that occasionally cliticizes to epistemic elements, as shown in 15e.

- (15) e. *ma-ṭə a~bə ged̥i-yak oon=nəhə*
 1SG-DAT mango CLF-INDF need=NEG
 ‘I don’t need a mango.’

In summary, despite a number of morphological and syntactic differences, *kəməti*, *bayə*, *kanəgaatu*, and *oone* form a discernable category of their own which can be appropriately called stance elements.

4. Auxiliaries, epistemic elements, and stance elements

There are two basic conclusions that can be drawn from the observations in Section 3. First, there is evidence for a lexical category auxiliary in spoken Sinhala. On the basis of synchronic semantic, morphological, and syntactic evidence it

can be reasonably hypothesized that a small number of lexical verbs have come to acquire grammatical functions in Sinhala, losing some of their original category characteristics in the process. These elements have grammaticalized to different extents, as measured by Heine's (1993) stage model of auxiliiation.

The auxiliary *yannə* 'go' is a fully grammaticalized, stage D element with the function of indicating future tense. The same characterization holds for *dennə* 'give', which codes permission. The verb *gannə* 'take' differs from the two previously discussed elements, because it is no auxiliary by itself. In the complex auxiliary *paṭan gannə* 'start take', it codes inceptive aspect. This construction illustrates a frequent pattern in Sinhala, which is the creation of complex verbs by conventionalization of a nominal compound element. Examples of such complex verbs based on *gannə* 'take' are *balaa gannə* 'look take', which means 'to look after someone', *labaa gannə* 'get take' which means 'obtain', and *alla gannə* 'touch take', which means 'catch'. The element *wennə* 'become' functions as a tense-carrying verbal element that is comparable to an equative copula. It is a highly grammaticalized, semantically bleached element. Despite these facts, since it does not take clearly non-finite complements, it cannot be appropriately called an auxiliary.

All grammaticalization processes that can be observed in the above elements are fairly well-attested cross-linguistically. However, the idiosyncrasies and polysemies of the individual constructions also underscore the finding that grammaticalization paths can only be motivated in a post-hoc fashion, but can never be predicted.

The second conclusion from this study is that the category of quasi-verbs, as proposed by Gair and Paolillo (1997:26), can be divided into epistemic elements and stance elements along semantic, morphological, and syntactic criteria. Syntactically, we can draw the following generalization. Stance elements are followed by auxiliaries proper, which are followed by epistemic elements. This is schematized in (16).

(16) COMPLEMENT > STANCE > AUX > EPISTEMIC

Auxiliaries, stance elements and epistemic elements have in common that they make structures finite if they occur as the last element in a sentence.

A morphological difference between stance and epistemic elements is that the former take the assertive suffix, and the latter inflect for different syntactic contexts. Semantically, epistemic elements refer to the likelihood or factuality of some event, while stance elements code a cognizer's attitude towards some state of affairs.

As quasi-verbs are a somewhat unusual lexical category from an Indo-European point of view, it would be interesting to further analyze the lexical sources of these elements, and to investigate whether the rise of this category is a language-internal development, or if it is the result of language contact.

These two conclusions raise a theoretical point. In the works of Heine (1993), Kuteva (2001), and others, it is a theoretical given that auxiliaries develop out of lexical verbs. The process by which main verbs grammaticalize into auxiliaries is well-documented and therefore Heine's notion of the Verb-to-TAM chain is a valid approach to auxiliation. However, the existence of quasi-verbs in Sinhala show that elements can come to function in very similar ways to auxiliaries, but have nouns (*bayə*) or adjectives (*kanəgaatu*) as their lexical sources. A similar case is reported by Epps (to appear), who discusses a future tense marker in Hup with the nominal origin 'wood, stick'. By extension, the marker acquired the meaning of an instrument used for a purpose, and as a purposive marker it proceeded to develop into a marker of future tense.

The general question that these examples bring up is this: If auxiliary-like elements can be recruited from other than verbal sources, should we rather define auxiliaries in terms of their synchronic function or in terms of their historical verbal origins? It has been tacitly assumed that these aspects are commonly in agreement, but the above examples suggest that a revision of this assumption might be necessary. A broader definition of auxiliaries and auxiliation would encompass grammatical markers of tense, aspect, or modality, which co-occur with not fully finite verbal complements, and which have originated from a source element with lexical meaning.

Received 17 October 2005

Revised version 4 August 2006

Notes

* The author wishes to thank Nissanka Wickremasinghe for bearing with a seemingly endless series of questions about his native language. I am also indebted to Robert Englebretson, all students of the 2004–2005 field methods class at Rice, and the organizers and participants of the 2005 UCSB workshop on Sinhala linguistics. Thanks are also due to the German Academic Exchange Service (DAAD).

1. An anonymous referee found this example to be ungrammatical, which suggests that preverbal *puluwanj* is only found in certain dialects of spoken Sinhala. This is expected, given the unusual nature of this particular structure.

Interlinear abbreviations

1 – first person, 2 – second person, 3 – third person, ABLE – dynamic modality, ACC – accusative, ASS – assertive, CLF – classifier, COMP – complementizer, CONT – continuative, CVB – converb, DAT – dative, DEFIN – strong epistemic modality, EMPH – emphatic, EPIST – epistemic, EQ – equative, EX – existential, FUT – future, INDEF – indefinite, INF – infinitive, IMPER – imperative, IMPOSS – impossibly, LOC – locative, NEG – negation, N – neuter, NPST – nonpast, PERM – permissive, PL – plural, PRS – present, PST – past, PROB – weak epistemic modality, REL – relative tense, SG – singular, SIM – simultaneous

References

- Aikhenvald, A.Y. (2006) Serial Verb Constructions in Typological Perspective. In A.Y. Aikhenvald and R.M.W. Dixon (eds.) *Serial verb constructions. A cross-linguistic typology*. Oxford: Oxford University Press. 1–87.
- Alsina, A., J. Bresnan, and P. Sells. (eds.) (1997) *Complex predicates*. Stanford: CSLI.
- Barlow, M. and S.E. Kemmer (eds.) (2000) *Usage-based models of language*. Stanford: CSLI.
- Bavin, E.L. (1995) The obligation modality in Western Nilotic languages. In J.L. Bybee and S. Fleischman (eds.) *Modality in grammar and discourse*. Amsterdam: Benjamins. 107–134.
- Beneviste, E. (1968) Mutations of linguistic categories. In W.P. Lehmann and Y. Malkiel (eds.) *Directions for historical linguistics: A symposium*. Austin: University of Texas Press. 85–94.
- Bolinger, D. (1980) Wanna and the gradience of auxiliaries. In G. Brettschneider and C. Lehmann (eds.) *Wege zur Universalienforschung: Sprachwissenschaftliche Beiträge zum 60. Geburtstag von Hansjakob Seiler*. Tübingen: Narr. 292–299.
- Bybee, J.L., R. Perkins, and W. Pagliuca. (1994) *The evolution of grammar: Tense, aspect and mood in the languages of the world*. Chicago: University of Chicago Press.
- Bybee, J.L. and Ö. Dahl (1989) The Creation of Tense and Aspect Systems in the Languages of the World. *Studies in Language* 13.51–103.
- Bybee, J.L. and P. Hopper (eds.) (2001) *Frequency and the Emergence of Linguistic Structure*. Amsterdam: Benjamins.
- Epps, Patience (to appear). From ‘wood’ to future tense: nominal origins of the future construction in Hup.
- Gair, J.W. (1998) *Studies in South Asian linguistics: Sinhala and other South Asian languages*. New York: Oxford University Press.
- Gair, J.W. and J.C. Paolillo (1997) *Sinhala*. München: Lincom.
- Garusinghe, D. (1962) *Sinhalese: The spoken idiom*. München: Hueber.
- Greenberg, J. (1963) *Universals of language*. Cambridge: MIT Press
- Heine, B. (1993) *Auxiliaries: Cognitive forces and grammaticalization*. Oxford: Oxford University Press.
- Heine, B. and T. Kuteva (2002) *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.

- Hengeveld, K. (1992) *Non-verbal predication: Theory, typology, diachrony*. Berlin: Mouton de Gruyter.
- Hopper, P. (1987) Emergent grammar. *Berkeley Linguistic Society* 13: 139–57.
- Hopper, P. and E.C. Traugott (1993) *Grammaticalization*. Cambridge: Cambridge University Press.
- Kuhn, T. (1970) *The structure of scientific revolutions*. 2nd edition. Chicago: University of Chicago Press.
- Kuteva, T. (1998) Large linguistic areas in grammaticalization: Auxiliation in Europe. *Language Sciences* 20(3): 289–311.
- Kuteva, T. (2001) *Auxiliation*. Oxford: Oxford University Press.
- Mithun, M. (1987) Is basic word order universal? In R. Tomlin (ed.) *Grounding and coherence in discourse*. Amsterdam: Benjamins. 281–328.
- Newman, J. (1996) *Give: A cognitive-linguistic study*. Berlin: Mouton de Gruyter.
- Paolillo, J. (1994) The co-development of finiteness and focus in Sinhala. In W. Pagliuca (ed.) *Perspectives on grammaticalization*. Amsterdam: Benjamins. 151–170.
- Premawardhena, Ch.N. (2002) *Referenz-Indizes im Deutschen und im Singhalesischen: Eine kontrastive Studie*. Siegen: Universitätsverlag Siegen.
- Premawardhena, Ch.N. (2003) Internationalismen im Singhalesischen. In P. Braun, B. Schaefer, and J. Volmer (eds.) *Internationalismen- Studien zur interlingualen Lexikographie II*. Tübingen: Niemeyer. 169–182
- Steele, S. (1978) The category AUX as a language universal. In J. Greenberg (ed.) *Universals of human language*. Vol. 3. Cambridge: MIT Press. 7–45.
- Traugott, E.C. (1989) On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language* 57(1): 33–65.
- Traugott, E.C. and B. Heine. (1991) *Approaches to grammaticalization*. Vols. 1 and 2. Amsterdam: Benjamins.

