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ADVERBIAL VERB CONSTRUCTIONS IN TRUKU SEEDIQ

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Formosan languages are known to employ verb-like entities (adverbial verbs) for adverbial expression. This study presents a comprehensive analysis of adverbial verb constructions in Truku Seediq, an Austronesian language of Taiwan, and explores historical and typological implications. I will demonstrate that all Truku adverbial verbs have the ability to occur in two distinct constructions: (i) serial verb constructions in which they behave like stative verbs, and (ii) constructions in which they behave on a par with preverbs. The observed bifunctionality of adverbial verbs as an entire class is a typologically unique feature, which I argue represents the advanced stage of adverbial verb grammaticalization in Truku as compared to other Formosan languages.

1. INTRODUCTION**.** Adverbs are a controversial grammatical category that lacks a uniform definition. Adverbial *meanings*, on the other hand, can be encoded via a wide range of lexical items and constructions. Starosta (1988) first noted that Formosan languages tend to use verbs to express adverbial meanings. These adverbial elements have been variously analyzed as serializing verbs (Yeh and Huang 2009 for Kavalan, Saisiyat, Squliq Atayal, and Tsou), complement-taking verbs (Chang 2006 for Kavalan; Chang 2010 for Amis, Bunun, Kanakanavu, Kavalan, Mayrinax Atayal, Paiwan, Puyuma, Saaroa, Seediq, Siraya, Squliq Atayal, and Tsou; Wu 2006 for Paiwan) and functional heads (Chang 2009 for Tsou; Holmer 2006, 2010, 2012 for Tkdaya Seediq). Even though these are commonly called "adverbial verbs" for their verb-like syntactic properties, semantically they align with meanings typically reserved for adverbs in languages such as English. I will adopt this traditional terminology while acknowledging its misleading nature; it will be clear in later sections that adverbial verbs do not demonstrate the full range of properties typically associated with verbs.

The purposes of this study are to present the first analysis of Truku Seediq adverbial verb constructions (AVCs) and to explore the historical, as well as typological, implications that the current data provide. I will demonstrate in the following sections that Truku AVCs function in two ways: (1) as serial verbs, and (2) as preverbs. Furthermore, I will argue that the latter construction is a case of grammaticalization. It will be shown that adverbial verbs are at an advanced stage of grammaticalization in Truku as compared with other Formosan languages. First, problems regarding defining adverbs as a grammatical category will be discussed. This will be followed by a basic description of Truku syntax. Then the paper will explore the range of adverbial expressions in the language before focusing on the two AVCs. The final sections will discuss the historical and typological significance of these findings.

2. ADVERBS AS A CATEGORY

2.1 PARTS OF SPEECH**.** Traditionally, nouns, verbs, adjectives, and adverbs have been thought of as the classical parts of speech. At the same time, it is widely acknowledged today that not all languages exhibit the set of all four categories present in many Indo-European languages. Hengeveld's (1992) Amsterdam model of parts of speech systems clearly exemplifies this point by classifying languages into seven possible types. The classification is based on the number of basic categories present, with the maximal distinction being four-way (i.e., noun, verb, adjective, and adverb). Languages with fewer than four categories are further distinguished in terms of whether its system is flexible or rigid. In a flexible system, members of a single category may serve multiple functions (e.g., non-verbs in a two-way flexible system can be used as head of a referential phrase, modifier of a referential phrase, or modifier of a predicate phrase). On the other hand, languages with rigid systems simply do not possess the functions associated with the categories they lack. Salazar-Garcia (2008) further points out that a language may align with more than

one of the seven types simultaneously, indicating that the difference is more gradient than mutually exclusive.

2.2 CLASSIC DEFINITION OF ADVERBS AND ALTERNATIVE EXPRESSIONS. Although adverbs as a part of speech are notoriously difficult to define, the following working definition captures many of its major characteristics. Adverbs function as modifiers of constituents other than nouns (Schachter 1985, Hengeveld 1992) and have no predicative function (Hengeveld 1992). Semantically, they express a very loose concept of "circumstance" or "scenery" (Sasse 1993:666). In the generative framework, adverbs are traditionally treated as cases of adjunction (Ernst 2002). However, gaining popularity more recently is Cinque's (1999) hypothesis of adverbs being located in distinct Specifier positions of universally ordered functional heads. Adverbial meanings—that is, information regarding circumstance and scenery—need not be expressed via adverbs, however. Alternative means of expression include auxiliaries, affixes, particles, noun-incorporation, verb serialization or subordination, parataxis of a verb and an adjective, special markers used with adjectives, and adpositional phrases. Before I discuss the range of adverbial expressions in Truku, it is necessary to give an overview of the language's syntax.

3. OVERVIEW OF TRUKU SYNTAX. Truku belongs to the Atayalic primary branch of the Austronesian language family. It is commonly thought to be a dialect of Seediq, although some speakers consider it an independent language. Like most other Formosan languages, Truku has a four-way Philippine-type voice distinction. The noun phrase (NP) marked by the nominative case marker *ka* corresponds to the thematic category indicated by verbal morphology. The nominative NP can be considered the syntactic "pivot" in the sense of Dixon 1979; that is, a language specific, surface "subject." It is worth noting that the properties typically associated with the "subject" in Standard European languages are divided between two syntactically prominent entities: the Actor and the pivot, the latter of which is also called focus, topic, nominative NP, and so forth (Schachter 1976). Actor Voice (AV) is indicated by *-m-, m-,* or *Ø* (1), Patient Voice (PV) by *-un* (2), Locative Voice (LV) by *-an* (3), and Circumstantial Voice (CV) by *se-*. Circumstantial Voice selects Instrument (4) and Benefactive (5) as pivot.

(1) s\<m>bug=ku   kingal   boyak
     shoot\<AV>=1SG.NOM   one   wild.pig
     'I hunted a wild pig.'

(2) biq-un=ta   lqi-an   ka   patas
     give-PV=1PL.INCL.GEN child-OBL   NOM   book
     'We will give the book to a child.'

(3) krut-an qsurux bubu   ka   puy-an
     cut-LV   fish   mother NOM cook-LV
     'Mother cut the fish in the kitchen.'

(4) s-krut=mu   qsurux ka   yayu   nii
     CV-cut=1SG.GEN   fish   NOM   knife   PROX
     'I cut fish with this knife.'

(5) s-barig=na   phpah ka   kuyuh=na
     CV-buy=3SG.GEN   flower NOM   woman=3SG.GEN
     'He bought flowers for his wife.'

Aside from their prototypical LV/CV function, *-an* and *se-* are also commonly used as a PV marker (6–7). Time, aspect, and mood (TAM) are usually marked by a preverb with an exception of the perfective verbal affix -n- or *n-*. This perfective affix yields a PV reading unless it cooccurs with a voice marker (8).

(6) biq-an=ku=na　　　　　　pila　ka　　hia.
　　give-PV=1SG.NOM=3SG.GEN　money　NOM　3SG
　　'I gave him money.'

(7) s-bgay Abus　Lking-an　　　ka　　pila
　　CV-give Abus　Lowking-OBL　NOM　money
　　'Abus gives money to Lowking.'

(8) k<n>rut　bubu　ka　　sagas　　　　nii
　　cut <PRF>　mother　NOM　watermelon　PROX
　　'Mother cut this watermelon.' (Tsukida 2009:230)

Truku word order is predicate-initial. There are three types of case: nominative, oblique, and genitive. The approach taken here is in line with Foley's (2007) symmetrical voice system, in which, unlike asymmetrical voice (i.e., nominative-accusative or ergative-absolutive) languages, no one NP with a particular thematic role is preferred as pivot, and all voice alternations are equally marked syntactically. Nominative NPs overtly marked by *ka* are sentence-final, while oblique NPs are medial. Oblique case is optionally marked by *-an* on human NPs, but otherwise unmarked. Topicalization is frequent, in which an argument is preposed to the initial position and accompanied by the topic marker *o* (9).

(9) huling　o,　m-kla　　balay　kari
　　dog　　TOP AV-know　INT　　word
　　'Dogs really knew how to speak.'

3.1 CLITIC PLACEMENT. There are two sets of pronominal clitics,[1] nominative and genitive (table 1). The nominative set is used to mark the syntactic pivot such as the Actor in AV sentences and the Patient in PV sentences. Genitive clitics are used to mark the possessor of possessive constructions as well as the Actor of non-AV (NAV) constructions. When the pivot and the Actor in an NAV sentence are both pronominal, clitics appear adjacent to each other.[2] Each clitic is obligatorily in the second position of the sentence, unless there is a conjunction marker.

TABLE 1. Truku pronominal clitics

	Nominative	Genitive
1SG	=ku	=mu
1PL.INCL	=ta	=ta
1PL.EXCL	=nami	=nami
2SG	=su	=su
2PL	=namu	=namu
3SG	Ø	=na
3PL	Ø	=dha

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[1] These are morphosyntactic clitics in the sense of Anderson 2005: "… linguistic [elements] whose position with respect to the other elements of the phrase or clause follows a distinct set of principles, separate from those of the independently motivated syntax of free elements in the language" (31). In the case of Truku, such principles include the obligatory second-place position in the clause, obligatory clitic climbing from the embedded clause to the matrix clause, and clitic doubling: coocurrence of a clitic and its corresponding independent form within a single clause.

[2] Some combinations result in idiosyncratic portmanteau forms.

3.2 PARTS OF SPEECH. In Truku, nouns and verbs are distinguished in the lexicon. However, many voice-marked verb forms can be used as a nominal without further modification. The language lacks a class of adjectives, but has stative verbs. Adverbs form a closed class. In particular, manner adverbs are lacking almost completely. Furthermore, no productive adverbial morphology exists.

4. STRATEGIES FOR ADVERBIAL EXPRESSIONS. This section summarizes the wide range of adverbial expressions available in Truku besides AVCs. These include sentence-final particles, adverbs, clausal juxtaposition, stative verbs describing nominalized actions, and stative verbs in serial verb constructions (SVCs).

4.1 SENTENCE-FINAL PARTICLES. Sentence-final particles affect the entire proposition. Their functions are aspectual or pragmatic. For instance, *da* indicates completion of an action or a change of state (10b):

(10)   a. s-krut=na   qsurux ka   payi
             CV-cut=3SG.GEN fish   NOM   old.woman
             'He cuts fish for the old woman.' (habitual)

        b. s-krut=na   qsurux ka   payi   da
             CV-cut=3SG.GEN fish   NOM   old.woman PART
             'He is already cutting fish for the old woman now.'

4.2 ADVERBS. Adverbs are typically placed after a verb phrase and express temporal and locative information including 'every day', 'yesterday', 'now', 'here', and 'there', as well as 'again' and 'only'.

(11)   ida   m-hapuy   kdjiyax   ka   Kuras.
        surely AV-cook   every.day NOM   Kuras
        'Kuras always cooks.'

4.3 CLAUSAL JUXTAPOSITION. Expressions pertaining to evaluation (e.g., 'fortunately'), speech act (e.g., 'frankly'), and evidentiality (e.g., 'allegedly') are clauses juxtaposed to the main clause.

(12)   malu   utux=mu,   s<m>bug=ku   kingal bowyak
        good   spirit=1SG.GEN shoot<AV>=1SG.NOM one   wild.pig
        'Fortunately, I was able to (shoot and) catch a wild pig.'

4.4 STATIVE VERBS WITH NOMINALIZED ACTIONS. Stative verbs can be used to describe the result of an action. An action verb is nominalized and serves as the pivot of a stative sentence, being marked by the nominative case marker *ka*.

(13)   m-klay   bi ka   b<n>kuy=dha
        STAT.REAL-tight   INT NOM   tie<PRF>=3PL.GEN
        'They tied the knot tightly.' (lit. [what] they tied is tight)

4.5 STATIVE VERBS IN SVCs. Stative verbs can also act as the V1 of an SVC. In such constructions, stative verbs are followed by an action verb with no intervening elements but a pronominal clitic or a degree marker, and typically depict the manner of an action expressed by V2.

(14)   m-blaiq   bi m-taqi   ka   laqi   gaga
        STAT.REAL-good   INT AV-sleep   NOM   child   DIST
        'That child is sleeping soundly.'

(15)   p-knhuway-un=mu   p-karag   sapah ka   laqi
        CAUS-light-PV=1SG.NOM   CAUS.AV-clean house NOM   child
        'I gently made the child clean the house.' (Tsukida 2009:705)

The definition of SVCs that I adopt here is *two or more verbs juxtaposed without any intervening coordination marker, complementizer, or NPs.* Together, the first verb (V1) and the second (V2) have a single argument structure. Consequently, the nominative-marked NP is semantically related to V2, but is syntactically a pivot of V1, as its thematic role matches the voice marking of the latter.

(16)   d<m>uuy=nami   sawki t<m>atak rnaaw
        hold<AV>=1EXCL.NOM hatchet cut<AV>   bush
        'We use a hatchet to cut the bush.' (Tsukida 2009:697)

(17)   diy-un=nami   t<m>atak rnaaw ka   sawki   nii
        hold-PV=1EXCL.GEN   cut<AV>   bush   NOM   hatchet PROX
        'We use this hatchet to cut the bush.'

Whereas V1 can take all types of verbal inflection, V2 is always AV and TAM-less.

(18)   *diy-un=nami   tatak-un   rnaaw ka   sawki   nii
        hold-PV=1EXCL.GEN   cut- PV   bush   NOM   hatchet PROX
        Intended: 'We use a hatchet to cut the bush.'

(19)   *m-n-sa   brig-un daya   ka   bawa
        AV-PRF-go buy-PV upper.place NOM   bread
        Intended: 'He went up to buy some bread.' (Tsukida 2009:715)

It should be noted that (16) and (17) are not instances of complementation, which in Truku involves psychological or perceptual verbs, which indicate, for example, knowing, seeing, and hearing. These matrix verbs impose no restriction on the verb form of their complements. Complements are introduced by the complementizer *ka*, which can be omitted in some environments.

(20)   q<m>ita=ku   (ka)   wada=na   p-sa-un   bingxiang
        AV-see 1SG.NOM   COMP   PRF=3SG.GEN   CAUS-go-PV   refrigerator
        ka   sagas
        NOM   watermelon
        'I saw that s/he put the watermelon into the refrigerator.' (Tsukida 2009:770)

Moreover, SVCs contrast with their control-like counterparts in which V2 can have inflections other than AV (21). Rather, the restriction on these constructions is for the matrix nominative NP to correspond to the voice marking of both V1 and V2. While the participant whose thematic role matches the embedded verb's voice morphology is not phonetically realized (indicated as a gap below), it is understood to be co-referential with the matrix nominative NP. In other words, each verb has its own argument structure:

(21)   s<m>kuxul   [s-apa ___]   ka   laqi   nii
        like<AV>   CV-carry.on.back NOM   child   PROX
        'This child likes to be carried on [somebody's] back.' (Tsukida 2009:715)

4.6 PREVERBS. Preverbs are preverbal elements that largely lack predicative function.[3] Preverbs host pronominal clitics just as verbs do. On the other hand, they take no voice or TAM inflection except for some marginal cases. Following verbs are either fully inflected or inflected for voice with no TAM marking. Nevertheless, preverbs do not involve complementation, since the complementizer *ka* cannot appear.

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[3] These items are distinct from auxiliaries, since they typically lack the ability for verbal inflection and impose little or no restriction on the following verb's inflectional morphology. For lack of a better term, I use "preverbs" for the items that occur before the first lexical verb and that may host a clitic. Examples of preverbs include *hana* 'finally,' *yaa* 'uncertain,' *naa* 'should, had better,' *ida* 'surely,' *ana* 'even, even if,' *gisu* (progressive), *wada* (perfective), and *mha* (future), to name a few (Tsukida 2009:421–22).

(22) **ida** (*ka) b-n-hraw rudan ka dhiya
surely COMP CV-PRF-drive.away elder NOM 3PL
'They were surely driven away by the elders.' (Tsukida 2009:476)

(23) **wada**=na (*ka) ds-an ka wawak da
PRF=3SG.GEN COMP take-PV NOM meat PART
'He already took the meat.'

The negation marker *ini* may appear after, but not before, preverbs. This is an important feature that will be revisited in the next section.

(24) a. **mha** ini p-suupu lnglung-an=mu ka lnglung-an=namu
FUT NEG CAUS-be.together think-LV=1SG.GEN NOM think-LV=2PL.GEN
'Your (pl.) idea will not be the same as my idea.' (Tsukida 2009:423)

b. *ini **mha** p-suupu lnglung-an=mu ka lnglung-an=namu
NEG FUT CAUS-be.together think-LV=1SG.GEN NOM think-LV=2PL.GEN
Intended: 'Your (pl.) idea will not be the same as my idea.'

5. ANALYSIS OF ADVERBIAL VERBS. In addition to the six strategies for adverbial expressions presented above, Truku also utilizes adverbial verbs, the focus of this paper. It will be clear in this section that they bear much resemblance to some of the aforementioned constructions. Adverbial verbs are a closed set of verb-like lexical items with adverbial semantics. So far, I have discovered five such items: *hmut* 'casually; at will; as one pleases', *tgmlux* 'randomly; for no reason', *sprang* 'on purpose', *ensuil* 'occasionally; sometimes', and *knteetu* 'often; repeatedly'. They are usually placed before an action verb to describe the manner of the action. They have the ability to take verbal inflection (voice and TAM) and host pronominal clitics when in the sentence-initial position. I propose here that two distinct AVCs exist in Truku.

5.1 SVCs. Like stative verbs, adverbial verbs can be used as the V1 of an SVC. In other words, V1 and V2 share a single argument structure; the nominative-marked NP is semantically related to V2, but is syntactically a pivot of V1, as it corresponds to the voice marking on V1. V1 carries all inflectional morphology, while V2 must be in the AV, TAM-less form.

(25) hmut=ku m-imah sinaw
carelessly.AV=1SG.NOM AV-drink wine
'I drink wine excessively.'

(26) Masaw o, s<n>prang-an=na g<m>rung ka pratu
Masaw TOP intentionally<PRF>-LV=3SG.GEN break<AV> NOM plate
'As for Masaw, he broke the plate on purpose.'

(27) hmut-an=mu m-imah / *m-n-imah / *mah-an ka sinaw
reckless-LV=1SG.GEN AV-drink / AV-PRF-drink / drink-LV NOM wine
'I drank wine excessively.'

Unlike stative verbs, however, adverbial verbs predominantly lack predicative functions. While they can optionally be used on their own, an action is necessarily implied in such instances. Thus, V2 in such constructions is elided.

(28) ?sprang bi ka hia
intentionally.AV INT NOM 3SG
'His actions were intentional.'

(29)   ensuil=ku
       occasionally.AV=1SG.NOM
       'Sometimes I [do].'

When negated with *ini*, the adverbial verb in an SVC takes on irrealis morphology (30a), just as regular verbs do (30b):

(30)   a. ini=mu   hmut-i   s<m>ipaq   ka   huling
          NEG=1SG.GEN   carelessly-IRR.PV   hit<AV>   NOM   dog
       'I don't hit the dog at will.'

       b. ini   thi-i   m-taqi   bubu=na   ka   laqi
          NEG   accompany-IRR.PV   AV-sleep   mother=3SG.GEN   NOM   child
       'The child did not sleep with his mother (lit., the child was not accompanied by his mother in sleeping).'

Altogether, adverbial verbs in these constructions behave like V1 of SVCs, in a way similar to stative verbs (§4.5).

5.2 ADVERBIAL VERBS AS PREVERBS. Unlike stative verbs, all five adverbial verbs can also function as preverbs: adverbial verbs occur sentence-initially, but without inflection, and the nominative-marked NP corresponds to the morphology of the action verb. Just as other preverbs do, adverbial verbs in this construction host pronominal clitics and occur without the complementizer. I will refer to the adverbial verbs used in this position as manner/frequency preverbs.[4]

(31)   knteetu=mu   (*ka)   paq-an ka   huling nii
       often=1SG.GEN COMP   hit-LV   NOM   dog   PROX
       'I often hit this dog.'

(32)   knteetu (*ka)   paq-an Watan ka   huling nii
       often   COMP   hit-LV   Watan NOM   dog   PROX
       'Watan often hits this dog.'

Note that the verb 'hit' in (31–32) is inflected for NAV. This would result in ungrammaticality if these sentences were SVCs, in which V2 is obligatorily in the AV form. Alternatively, one can analyze adverbial verbs as exceptionally permitting an NAV-inflected V2 of an SVC. However, this hypothesis must be abandoned in light of facts about negation.

While SVCs like (25–27) can be negated using the negative marker *ini* (33–34), manner/frequency preverbs cannot (35), as previously identified as a general property of preverbs (24 a–b).[5]

(33)   ini=ku   hmut   s<m>ipaq huling (SVC)
       NEG=1SG.NOM carelessly.IRR.AV   hit<AV>   dog
       'I don't hit the dog at will.'

(34)   ini=mu   hmut-i   s<m>ipaq ka   huling (SVC)
       NEG=1SG.GEN carelessly-IRR.PV   hit<AV>   NOM   dog
       'I don't hit the dog at will.'

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[4] I acknowledge that the term "adverbial verbs" is not compatible with this analysis that preverbs are not verbs; thus the term can be misleading. However, to emphasize its relevance to previous literature on these phenomena, I will continue to use this label.

[5] Note that in theory, the reverse order, *hmut=ku ini paq-i ka huling*, is possible. However, such a sentence is probably illicit due to semantic anomaly (i.e., 'I carelessly don't hit the dog').

(35) *ini=mu   / =ku   hmut   paq-an ka   huling (preverb)
       NEG=1SG.GEN / =1SG.NOM carelessly   hit-LV   NOM   dog
       Intended: 'I don't hit the dog at will.'

Thus, *hmut* 'carelessly' in (35) does not function as a verb, while it does in (33) and (34). It is evident that these sentences differ structurally.

Nevertheless, this analysis is not without problems. Adverbial verbs exhibit some features atypical of preverbs. A manner/frequency preverb cannot cooccur with another preverb while two preverbs can (36a–b).

(36) a. ida=mu   naa   spg-un ka   patas   nii
        surely=1SG.GEN should read-PV NOM   book   PROX
      'I surely have to read this book.' (Tsukida 2009:463)

      b. *wada=mu   hmut   mah-un   ka   sinaw
         PRF=1SG.GEN   carelessly drink-PV   NOM   wine
      Intended: 'I drank wine at will.'

Furthermore, manner/frequency preverbs cannot be used to modify adverbial SVCs (37a), while other preverbs can (37b).

(37) a. *ensuil=na   sprang-un   g<m>rung ka   pratu
         occasionally=3SG.GEN   intentionally-PV   break<AV> NOM   plate
      'He sometimes breaks plates on purpose.'

      b. wada=mu   hmut-an   m-imah   ka   sinaw
         PRF=1SG.GEN   carelessly-LV AV-drink   NOM   wine
      'I drank wine at will.'

Thus, while adverbial verbs behave like preverbs in these constructions, they do not exhibit the full range of properties of preverbs. Table 2 below summarizes the properties of the two types of AVCs (SVC and preverb) and their parallel constructions without adverbial verbs:

TABLE 2. Properties of two AVCs, stative SVCs, and preverbs

	Stative verbs in SVCs	Adverbial verbs in SVCs	Manner/frequency preverbs	Other preverbs
Independent usage	yes	no	no	no
Voice/TAM inflection	yes	yes	no	no
Voice/TAM inflection on following verb	AV only	AV only	yes	yes
Negation with *ini*	yes	yes	no	no

6. HISTORICAL IMPLICATIONS. I propose here that the use of adverbial verbs in Truku is the result of reanalysis. Given the parallel structure of adverbial SVCs and stative SVCs, it is possible that adverbial verbs in Truku initially functioned merely as stative verbs that could serve as V1 of SVCs (i, table 3). Due to the AV-only constraint, NAV inflection on V2 would result in an ungrammatical sentence (ii). Preverbs, on the other hand, may be followed by AV or NAV verb forms. What is of key importance is that the AV form of the adverbial verb is zero-marked (i), creating surface identity with non-inflecting preverbs when followed by another AV verb (iii). Thus, the following construction is ambiguous between an SVC (38a) and a single-verb sentence with a preverb (38b). The only difference is indicated by the gloss.

(38) a. sprang   g\<m\>rung pratu   ka   Masaw (SVC)
          intentionally.AV break\<AV\> plate   NOM   Masaw
        'Masaw broke the plate on purpose.'

        b. sprang   g\<m\>rung pratu ka   Masaw
          intentionally break\<AV\> plate   NOM   Masaw
        'Masaw broke the plate on purpose.'

Over time, adverbial verbs in some SVCs could have been reanalyzed as preverbs. In turn, V2 and all following constituents would be interpreted as a fully inflected clause. Reanalysis of adverbial verbs as preverbs would enable the adverbial verbs to be followed by NAV-inflected action verbs (viii, table 4), in accordance with preexisting preverbs (iv, x). The original SVCs remain as an option (v), but naturally, the AV-only constraint is still observed (vi).

TABLE 3. Adverbial verbs vs. preverbs before reanalysis

SVCs	(i) Adv.AV V2.AV ka NP	(ii) *Adv.AV V2.NAV ka NP
Preverbs	(iii) Prev V.AV ka NP	(iv) Prev V.NAV ka NP

TABLE 4. Two AVCs vs. preverbs after reanalysis

SVCs	(v) Adv.AV V2.AV ka NP	(vi) *Adv.AV V2.NAV ka NP
Manner/frequency preverbs	(vii) Prev(adv) V.AV ka NP	(viii) Prev(adv) V.NAV ka NP
Other preverbs	(ix) Prev V.AV ka NP	(x) Prev V.NAV ka NP

Preverbs in Truku in general can be considered a functional category. They are a closed category and unlike lexical verbs, they show no voice inflection with limited inflection that typically expresses Aspect or Mood-like semantics. Despite the comparatively richer semantic content, the syntactic behavior of manner/frequency preverbs identifies them as functional items. The coexisting usages of adverbial verbs in SVCs on the one hand and as preverbs on the other can be seen as a case of ongoing grammaticalization. By considering nouns and verbs as cardinal categories, loss of nominal or verbal properties can be associated with "decategorization": a type of grammaticalization (Heine, Claudi, and Hünnemeyer 1991; Hopper and Traugott 2003). Hopper and Traugott (2003) assign nouns and verbs to "major" categories that are relatively open, while adpositions, conjunctions, auxiliary verbs, pronouns, and demonstratives are placed in the relatively closed minor categories. Adjectives and adverbs belong to intermediate categories. Under the assumption that grammaticalization is unidirectional, the authors hypothesize that "diachronically all minor categories have their origins in major categories" (107). Truku adverbial verbs have lost verbal properties of TAM marking as well as the ability to have their own argument structure, indicated by the lack of voice alternation. Note that this loss of verbal properties is restricted to the preverbal usage of adjectival verbs; when adverbial verbs appear in SVCs, they can show TAM-marking and voice alternation. While maintaining some verbal properties, they still set themselves apart from prototypical verbs in being syntactically dependent, as they are unable to stand alone as predicates. Thus, this category is gradually shifting from fully lexical elements to more functional, and thus less lexical, ones. In a similar vein, Chang (2010) claims that Formosan adverbial verbs form an in-between category that is both functional and lexical. For these reasons, stative verbs, adverbial verbs, and preverbs can be considered to form a continuum in terms of their lexical vs. functional properties. Truku is unique among Formosan languages in that the range of such properties that adverbial verbs exhibit is wider than in other languages, depending on which of the two constructions they participate in.

A similar process of grammatical morphemes emerging from previous SVCs can be found in Oceanic languages (Big Nambas, Jabêm, Nakanai, Ulithian, to name a few) that possess "verbal prepositions" or "prepositional verbs" that introduce a peripheral argument and shows reduced verbal properties (Durie 1997). If the scenario posited here is correct, adverbial verbs in Truku are entering the class of preverbs, hence expanding the closed category. This process is schematized in figure 1. Adverbial modification that was achieved exclusively by lexical items in the past has an option of being achieved via functional items today. An obstacle to this claim is that aside from *hmut* 'carelessly', and possibly *tgmlux* 'randomly', there exists no evidence that adverbial verbs in Truku were previously stative verbs.

FIGURE 1. Directionality of grammaticalization

More lexical   More functional

Stative verbs   Adverbial verbs   Preverbs

7. TYPOLOGICAL IMPLICATIONS. Truku AVCs present two unique features in comparison with other Formosan languages described in literature: (1) freedom in voice inflection, and (2) a high degree of grammaticalization.

7.1 INFLECTION. Chang (2010) observes that Formosan adverbial verbs generally have a reduced, two-way voice distinction of AV vs. PV. For instance in Tsou, Locative (39c) and Instrumental (39d) NPs cannot serve as pivot of an AVC.

(39)   a. mi-ta   b-utas-o   eobak-o   ta   oko
            AV-3SG AV-violent-AV hit-AV   OBL   child
            'He hit the child violently.'

       b. i-ta   utasv-a   eobak-a   'e   oko
            NAV-3SG violent-PV hit-PV   NOM   child
            'He hit the child violently.'

       c. *i-ta   utasv-i   eobak-i ta   oko   'e   eona bonx
            NAV-3SG violent-LV hit-LV OBL   child NOM   be.at eat
            Intended: 'He hit the child violently at the restaurant.'

       d. *i-ta   utasv-eni eobak-neni ta   oko   'e   kaapana
            NAV-3SG   violent-IV hit-IV   OBL   child NOM   stick
            Intended: 'He hit the child violently with the stick.' (Chang 2010: 204-5)

Holmer (2010) echoes this observation as regards to Tkdaya Seediq, stating that even though LV and CV morphology is permitted on adverbial verbs, the construction obtains a PV reading only; LV or CV reading is unavailable. However, at least some Truku adverbial verbs enjoy a full four-way voice distinction: AV, PV, LV, and CV.

(40)   ensuil-an=mu   m-imah   sinew ka   sapah Rubiq
         occasionally-LV=1SG.GEN AV-drink wine   NOM   house Rubiq
         'Ocassionally, I treat Rubiq's house as a place to drink wine casually.'

(41)   s-tmlux=na   s<m>ipaq huling ka   qhuni nii
         CV-randomly=3SG.GEN hit<AV>   dog   NOM   wood PROX
         'He hits dogs randomly with this stick.'

7.2 ADVANCED STAGE OF GRAMMATICALIZATION. In Truku, all five adverbial verbs may participate in both of the two constructions introduced above. It is possible that the homophonous items in the two constructions now belong to separate grammatical categories, although this point requires further investiga-

tion. To the extent that the same situation is not found in other Formosan languages, it can be said that Truku adverbial verbs are at an advanced stage of grammaticalization. For instance, Holmer (2010) draws a clear distinction between "high adverbs" (located above inflectional categories) and "low adverbs" (located below) in Tkdaya Seediq. Even though he claims both classes of adverbs to be realizations of functional heads, the former bears inflectional morphology, while the latter never does. This rigid structure does not capture the bifunctionality of Truku adverbial verbs that may or may not appear with inflectional affixes. Yu (2008) also observes in Mayrinax Atayal two distinct classes of adverbs that correspond to Holmer's with no overlap between the two categories. Bifunctionality similar to that of Truku is found only for a subset of adverbial verbs in Kavalan (Chang 2010) and Paiwan (Wu 2006). Table 5 compares the distribution of more lexical vs. more grammatical means of adverbial modification using preverbal elements in five Formosan languages.

TABLE 5. Comparison of lexical vs. grammatical modes of preverbal adverbial modification
in five Formosan languages

	More lexical	More grammatical
Truku Seediq	all adverbial verbs	
	stative verbs	preverbal particles
Tkdaya Seediq (Holmer 2010)	low adverbs	high adverbs
Mayrinax Atayal (Yu 2008)	predicate-like adverbs	non-predicate like adverbs
Paiwan (Wu 2006)	non-finite complementation	finite complementation
	modal (denotic)/emphatic	
Kavalan (Chang 2006)	SVC-I (manner, etc.)	SVC-II (epistemic, etc.)
	frequency	

8. CONCLUSION. This paper illustrates the two usages of adverbial verbs in Truku Seediq: as the V1 of SVCs and as preverbs followed by a fully inflected clause. Truku adverbial verbs are in the process of grammaticalization at an advanced stage, since all five of them may be used as preverbs, which are a functional category. At the same time, it is also unique is that they can all participate in SVCs, and at least some of them enjoy the full four-way voice inflection that is reserved for regular, non-stative verbs in other Formosan languages.

LIST OF ABBREVIATIONS

1: first person	GEN: genitive	PART: particle
2: second person	INCL: inclusive	PL:plural
3: third person	INT: intensifier	PRF: perfective
AV: actor voice	IRR: irrealis	PROG: progressive
CAUS: causative	IV: instrumental voice	PROX: proximal
COMP: complementizer	LV: locative voice	PV: patient voice
CV: circumstantial voice	NAV: non-actor voice	REAL: realis
DIST: distal	NEG: negation	SG: singular
EXCL: exclusive	NOM: nominative	STAT: stative
FUT: future	OBL: oblique	TOP: topic

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