Secondary concepts and internal dynamics of Emai Serial Verb Constructions

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Abstract

We examine verbs in series as they relate to Dixon’s (1991, 2010) notion of secondary concepts. Our verb samples and their structures derive from an Edoid language of southern Nigeria. Emai shows asymmetrical and symmetrical serial verb constructions. However, our analytic concern is the differential realization of secondary concepts according to form class. Most verbs that realize secondary concepts appear in A-SVCs as a minor component. Some verbs that code secondary concepts shun serialization and generally take complements that are clausal, truncated, or obliquely marked gerundives. Other form classes expressing secondary concepts are preverb and particle. Members reveal a verb heritage that is either lexical or phrasal. Even a few nouns convey secondary concepts. Auxiliaries, while referencing secondary concepts, do not disclose a verb heritage. Secondary concepts in A-SVCs reveal an asymmetry as occupants of positions V1 or V2 in series. V1 manifests event and participant qualifiers, whereas V2 exhibits primarily event qualifiers. Both positions also evidence serial-within-serial structures. Overall, secondary concepts only partially align with Emai verbs in series. Since a significant number of preverbs and particles actualize secondary concepts and have a verb heritage, we assume they have grammaticalized from earlier verb-in-series structures. Furthermore, we hypothesize that the preverbstem position in the canonical simplex clause of Emai has had a privileged role in the emergence of secondary concepts as preverbs from verbs in series and in the continual development of serialization as an expressive means for event and participant qualifiers.

Keywords: Emai; Edoid; serial verb constructions; secondary concepts; preverbs
1. Introduction

Serial verb constructions anchor a historical phenomenon toward which and from which other linguistic categories and structures can be identified. Direct evidence articulating the diachronic range of this phenomenon is scarce (Aikhenvald 2018). Consequently, linguists rely on a variety of comparative and typological strategies to discern its nature. One such strategy is presented by R.M.W. Dixon’s (1991; 2010) analysis of conceptual types. Primary concept types tend to actualize as verbs cross-linguistically. Secondary concepts are less restricted in their realization. In some languages they occur as affixes or grammatical morphemes, in others as verbs. Giving only slight attention to the primary type in this paper, we examine the encoding of secondary concepts in Emai, a language of south-central Nigeria.

Emai is a minor language in the Edoid group (Elugbe 1989). It is spoken in over 10 villages with approximately 20-25,000 speakers. A tonal language, Emai shows lexical and grammatical tones high (ˊ), low (ˋ), and downstep high (ˊ'). Its morphological template for the basic verb is X-stem-Y. X identifies a persistive qualifier prefix and Y encompasses contrasting perfective/imperfective toneme suffixes. Tones from these suffixes spread onto lexically toneless verbs. The imperfective suffix is a floating low tone. Traces of perfective suffix -í and its high tone are evident in simple clauses with an intransitive verb or a monotransitive verb whose direct object has left dislocated. Generalizing beyond this template to the syntactic predicate, a similar templatic arrangement emerges with X-predicate-Y, where X refers to pre-predicate classes of auxiliaries and preverbs and Y to a post-predicate class of particles, which can then be followed by adverbs or prepositional phrases. Predicates in Emai can be simple intransitive, transitive, or ditransitive verbs as well as complex verb plus particle constructions or serial verb constructions (SVCs).

The evolution of component verbs from SVCs into non-serial, non-verb word classes has been often discussed as has their grammaticalization into semantic markers of various sorts (Heine and Kuteva 2002; Kuteva et al. 2019). Verbs of different semantic profiles have evolved into auxiliary forms or bound morphemes for tense, aspect, modality (Ameka 2006; Hellwig 2006; Killian-Hatz 2006; Lichtenberk 2006; McWhorter 1997; Meakins 2010), adpositions or bound morphemes for clause-level semantic roles and valency changers (Lichtenberk 1985; Lord 1993; Killian-Hatz 2006; McWhorter 1997), particles for direction (Lichtenberk 2006), and complementizers for clausal mood (Lawal 1991). Less attention has been directed to specific clausal positions that verbs occupy in SVCs and the associated word classes that they might hold concurrent with verb status. In Emai the positional character of verb or verb-related forms that express secondary concepts is uneven. Some event and participant qualifiers occur in pre-predicate X position, while others appear in post-predicate Y position. Ultimately, we view this asymmetry as having its semantic origin in the basic morphological template characterizing the Emai verb. Pre-predicate position favors preverbs, whereas post-predicate position privileges particles.

2. Background serial verb types in Emai

As a prelude to examining secondary concepts and their grammatical realization we illustrate SVCs that do not manifest secondary concepts. Emai SVCs are either asymmetrical (A-SVC) or
Symmetrical (S-SVC) with verbs in a V1 slot and a V2 slot, as discussed by Aikhenvald (2006; 2018). Regardless of type, verbs in series tend largely toward non-contiguous, concordantly marked, and multi-word structures. In addition, minor components in A-SVCs often exist in a condition of concurrent grammaticalization since simultaneously they occur as independent verbs in non-SVCs and as forms with grammatical meanings in SVCs.

2.1 Symmetrical serial verb constructions

A symmetrical serial verb construction consists of two or more component verbs, each of which derives from a large open and unrestricted class. One subtype in Emai is cause-effect. Exemplars convey a change of material state expressed by the verb in the V2 slot. The construction argument that undergoes change appears as direct object of V1 and as logical subject of V2, a relation of switch function. Verbs that appear as V1 include transitive *hoo úkpùn* ‘wash a cloth.’ As V2, we find intransitives such as *fuan* ‘become clean.’

(1)  
\[ òjè hóó ólí úkpùn fúán. \]
Oje NPST.wash\PFV the cloth become.clean\PFV
“Oje washed the cloth clean.”

A second S-SVC type reflects a temporal relation of sequence between verb events. Order of the two verbs in sequence is iconic with respect to pragmatic real-world conditions. The verbs share subject and direct object arguments (1). Both construction slots in the SVC filled with verbs from large open classes. In a simple clause each component verb occurs as a transitive form *de émà ‘buy yam,’ e émà ‘eat yam,’ sa áfìánmì ‘sting bird,’ gbe áfìánmì ‘kill bird.’

(2)   a.  
\[ òjè dé émà é. \]
Oje NPST.buy\PFV yam eat\PFV
“Oje bought yam and ate it.”

b.  
\[ ìsàmìsákóì sá ólí áfìánmì gbé. \]
soldier.ant NPST.sting\PFV the bird kill\PFV
“The soldier ant stung the bird and killed it.”

S-SVCs of a resultative subtype have unrestricted, open class transitive verbs in V1 and V2 slots. In combination they articulate repositioning an entity to a maximum extent. V1 is filled by a verb of handling (‘carry’, ‘throw’, ‘take’) that expresses a causative function relative to its immediately following nominal, which is displaced to a maximum extent. However, V1 does not take the displaced nominal as a subcategorized direct object in a simple clause (*fi óràn ‘project/throw a tree’, *re úkpùn ‘take a wrapper’). In contrast, V2 as monotransitive in a simple clause does (gbe óràn ‘fell a tree’ and ruan úkpùn ‘tie a wrapper’).

(3)   a.  
\[ òjè fí ólí óràn gbé. \]
Oje NPST.project\PFV the tree fell\PFV
“Oje felled the tree flat out. / Oje got the tree completely down.”

b.  
\[ âlèkè ré úkpùn rúán. \]
Aleke NPST.take\PFV wrapper tie\PFV
“Aleke tied heri wrapper way around herselfi. / Aleke got the wrapper around.”

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In most resultative SVCs, it is the nominal following V1 that is maximally repositioned. When the displaced nominal is a locative noun and V2 accepts it as direct object, e.g. heen ùdékèn ‘climb wall,’ it is SVC subject that undergoes maximum displacement.

(4) òjè  nwú            ùdékèn  héén.
   Oje  NPST.take.hold\PFV wall  climb\PFV
   “Oje climbed up top the wall. / Oje got to the top of the wall.”

2.2 Asymmetrical serial verb constructions

An asymmetrical serial verb construction consists of component verbs that contrast in their grammatical status. A minor component is from a restricted verb class, its major partner from an unrestricted, open class. Semantically, minor verb forms tend to convey grammatical meanings in SVCs, whereas in non-SVCs they express their lexical meaning.

One A-SVC type increases verb valency with minor verb gbe ‘hit’ in the V2 slot. When a major component occupies the V1 slot, gbe conveys the meaning ‘against.’ Transitive verbs that realize the major component express movement of their direct object. The resulting SVCs exhibit a switch function relation since the direct object of V1 is also the logical subject of V2 gbe. In a simple clause gbe exhibits a range of senses related to hitting, as in gbe ibè ‘hit drum,’ gbe ábò ‘clap hands,’ or gbe òybèkhàn ‘beat a youth.’

(5)  a. òjè gbúlú       ólí  ókò   gbé    ìmátò.
       Oje NPST.roll\PFV the mortar hit\PFV car
     “Oje rolled the mortar against the car.”
   b. ólí  òkpòsò  fí            úkpóràn  gbé    ùdékèn.
       the woman  NPST.throw\PFV stick    hit\PFV wall
   “The woman threw a stick against the wall.”

Another A-SVC of the valency increasing type specifies an instrument or means for the action of a major component verb in V2 position. V1 re ‘take’ serves as a minor component. Major component verbs include kpìákpiù órán ‘trim a tree’ or dia vbi  ağá ‘sit in a chair.’ A switch function relation among construction arguments appears to vary according to whether re direct object serves as event instrument or means, since cutlass in (1a) directly causes the tree to be trimmed but pillow in (1b) does not directly cause the chair to be sat in. Rather, the pillow allowed the chair to be sat in.

(6)  a. òjè  ré          ópìà   kpíákpíá  óràn.
       Oje NPST.take\PFV cutlass trim\PFV tree
     “Oje trimmed a tree (bark) with a cutlass / took a cutlass and trimmed a tree.”
   b. òjè  ré            ùkpènùhùnmì   díá     vbì    ágá.
       Oje    NPST.take\PFV pillow              sit\PFV LOC chair
     “Oje sat in the chair on a pillow. / Oje took a pillow and sat in the chair.”
Minor verb *re* never occurs as simple predicate in a clause. It is limited to complex predicates, either SVCs with a change of state verb such as *chian* ‘become’ (74a) or postverbal particle constructions with applicative *li/ni* that add an argument (74b).

(7) a. óli ókpọsọ ré ógèdè chíán ísì ọi.
    the woman NPST.take\PFV banana become\PFV ASS her
    “The woman made the banana hers.”
b. òjè ré ikhùnmì li òhí.
    Oje  NPST.take\PFV medicine APP Ohi
    “Oje gave / provided medicine to Ohi.”

3. **Secondary concepts in SVCs**

As noted in §1, Dixon assigns verb forms in English to primary and secondary conceptual types. Assignments depend on verb grammatical properties, thus leading to a principled relation between semantic conceptual structure and grammatical form. Verbs identified as primary can form a sentence with noun phrases as subject and direct object. In contrast, verbs recognized as secondary often modify another verb and its arguments.

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**Table 1:** Secondary concept classes from Dixon (1991; 2010)

Crosslinguistically, secondary concepts show variable coding as lexical verbs or non-lexical, grammatical forms. Verbs fall into four secondary classes: A, B, C, and D. Secondary (SEC)-A members like *start* have the same subject or object as the action they modify (*She started eating the turkey.*). A SEC-B exponent of the *want* type adds an additional argument to an action, although its subject may also be coreferential with the subject of a complement clause (*He wants Mary to eat turkey.*). SEC-C forms, e.g. *help*, introduce an argument that becomes part of the subject of the main action (*John helped Mary eat the turkey.*). And SEC-D verbs like *appear* may introduce an argument into an action with “to” (*It appeared to John that Mary ate the wrong drumstick.*). Each secondary conceptual class exhibits further division. Table 1 arranges secondary concepts according to class and subclass.
Secondary concepts represent one of eight recurring semantic groupings of A-SVCs according to Aikhenvald (2006; 2018). The others include direction/orientation, aspect/extent, valency increasing, valency decreasing, complement clause, comparative/superlative, and event argument. Aikhenvald makes several observations regarding the serialization of secondary concepts. Verbs expressing secondary concepts appear in the minor slot of A-SVCs. SEC-A concepts do not add an argument to the main action of a clause. SEC-B concepts, which may add an argument, occur as a minor component in SVCs more often than SEC-A concepts. Negators under SEC-A are expressed as a verb in the minor slot only occasionally, as in Dravidian languages. SEC-A and SEC-B concepts in A-SVCs differ in the linear order of their components, as happens in Tariana (Arawakan) where SEC-B has the order minor major while SEC-A displays the order major minor. Verb classes containing secondary concepts in the minor slot of A-SVCs may be large or small. Lastly, it is semantic dependency that verbs encoding secondary concepts have in common. They do not occur on their own without an additional verb for which they provide modification.

In the conclusion we come back to these observations of Aikhenvald. Before that we examine SVCs and Non-SVCs in Emai that articulate Dixon’s secondary concepts. We commence with Class D, moving from there to Classes C, B, and A. Example serial verb constructions from all four secondary concept classes are assessed.

3.1 Secondary D class

Emai verbs that reflect the SEC-D-2 HAPPEN class are u and ruan. The latter appears in a serial verb construction; the former does not. Verb u appears as transitive or intransitive in highly constrained syntactic patterns. Its transitive constructions are syntactically and lexically rigid. As subject, it requires nominal émì ‘things’ and permits only animate nouns as direct object (8a). In addition, transitive u is limited to negative structures; it has no corresponding affirmative that is grammatical. In contrast intransitive u occurs in affirmative main clauses (ò ú wèé ‘It happened a bit later’) as well as in subordinate clauses marked by temporal Anterior ke ‘after’ (8b).

(8) a. émì ósò i i ù ólì ómòhè.
   thing certain SC NEG happen.to ART man
   “Nothing happened to the man.”

b. ò kèè ú wèé, ólì ókpósó ó’ vbi iwè.
   it NPST.ANT happen\PFV short.time ART woman RPST.enter\PFV LOC house
   “After a bit of time happened, the woman entered the house.”

The HAPPEN verb ruan is limited to intransitive structures. In addition to simple clauses (9a), ruan appears as major component in the V1 slot of an A-SVC (9b). In the V2 slot is minor verb ye ‘move toward’ in its allative function.

(9) a. émì lì òbè rúán-i.
   thing R bad NPST.happen-PFV
   “Something bad happened.”

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b. émí lì óbè ruán yé iyàìn.
thing R bad NPST.happen move.towardPFV them
“Something bad happened to them.”

Emai verbs related to Dixon’s SEC-D-2 HAPPEN class differ in the event types to which they associate. Pertinent are responses to information questions framed by each HAPPEN verb. Consider émé’ ‘what’ questions with ruan and u in (10) and the responses deemed acceptable and unacceptable. Verb ruan limits responses to non-reversible changes of state (u ‘die’), whereas u permits reversible changes (khonme ‘become sick’).

(10) émé’ ó ruán’ yé ólí óvbèkhàn?
what 3SG RPST.happen move.to ART youth
“What happened to the youth?”
ó’ ú'-l.
3SG RPST.die-PFV
“He died.”
/ *ó’ ó khònme.
3SG H become.sick
“He is / got sick.”

(11) émé’ ó ó u ólí óvbèkhàn?
what 3SG H happen.to ART youth
“What happens to the youth? / What affects the youth?”
ó’ ó khònme.
3SG H be.sick
“He is sick.”
/ *ó’ ó u.
3SG H die
“He dies.”

Secondary concepts from the Sec-D-1 SEEM class occur as verbs in Emai. They include forms ree and vbiee, each of which appears as a minor component in SVCs expressing information exchange.

Verb ree ‘take after’ occurs as minor component in the V2 slot of an A-SVC. It combines with major component ye ‘send’ in the V1 slot. SVCs with ye ree expect a response from the addressee. Direct object of ree designates addressee. Direct object of ye is a messenger or message nominal úhùnmì (also meaning ‘head’); either exhibits a switch function relation, serving as direct object of ye and logical subject of ree.

(12) a. òjè yé óvbèkhàn réé ólí ókpòsò.
Oje NPST.send youth take.after ART woman
“Oje sent a youth after the woman.”

b. òjè yé úhùnmì réé ólí ókpòsò.
Oje NPST.send message take.after ART woman
“Oje sent a message after the woman.”

In a simple clause, ree has the sense ‘physically take after/resemble someone.’ It occurs as an intransitive in construction with an obligatory bi phrase conveying a similitive standard (òjè rée bi érá óì ‘Oje physically resembles/takes after his father’).
SVCs of ye ree stand in contrast to ye ye SVCs. The latter do not expect a response from the addressee. As major component in an A-SVC, verb ye ‘send’ occupies the V1 slot relative to minor component ye ‘move toward’ in slot V2. Direct object nominal of the major verb is either a human messenger or message nominal úhùnmì. SVCs with either manifest a switch function relation since the direct object of V1 also functions as logical subject of V2.

(13) a. òjè yé óvbèkhàn yé àlèkè.
   Oje NPST.send youth move.toward Aleke
   “Oje sent a youth to Aleke.”

b. òjè yé úhùnmì yé àlèkè.
   Oje NPST.send message move.toward Aleke
   “Oje sent a message to Aleke.”

Verb ye ‘send,’ which is a primary verb of Class A, manifests an unusual property in some SVCs of information exchange. In a simple clause ye ‘send’ is transitive and takes a human noun direct object (ye óvbèkhàn ‘send a youth’), not a message nominal (*ye úhùnmì ‘send a message’). The verb ye ‘send’ also occurs as a ditransitive with two following arguments (òjè yé òhí úhùnmì ‘Oje sent Ohi on an errand / with a message’). Rather unusual for Emai ditransitives, ye and its two arguments can occupy the V1 slot in A-SVCs while ye ‘move toward’ in its allative function fills the V2 slot (14).

(14) òjè yé òhí úhùnmì yé àlèkè.
   Oje NPST.send Ohi message move.toward Aleke
   “Oje sent Ohi with a message to Aleke.”

Another information exchange expression employs a verb whose meaning associates with a secondary concept from the SEEM class. Verb vbíee ‘become apparent, visible, show’ occurs as minor component in relevant A-SVCs. It occupies the V2 slot and designates the addressee argument. Various communication verbs can occupy slot V1. However, vbíee SVCs carry no expectation of a verbal response from the addressee.

(15) óli òkpòsò zé èín vbíéé ólí òmòhè.
   ART woman NPST.disclose secret become.apparent.to ART man
   “The woman disclosed a secret to the man.”

In A-SVCs vbíee displays meanings related to events of direct causation. Verb vbíee occurs as major component in slot V2. In slot V1 we find the minor component re ‘take.’ Its direct object is here limited to the body-part nominal égbè ‘body.’ SVC meaning relates to causing the body to become apparent or visible to someone.

(16) àlèkè rè égbè vbíéé ìvíá óí.
   Aleke NPST.take body show children her
   “Aleke appeared to her children. / Aleke showed herself to her children.”

Verb vbíee, again as major component of an A-SVC, occurs in another construction whose form is partially similar but whose meaning is not limited to an inalienable relation between subject

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and direct object of verb \(re\). Minor component \(re\) ‘take’ requires a non-body-part nominal as direct object; construction sense is ‘show.’

\[(17)\]  
\[\text{òjè } \text{ré } \text{úháóbi } \text{vbíéé } \text{àlèkè}.\]  
\[\text{Oje NPST.take}^\text{PFV} \text{poison.arrow show}^\text{PFV} \text{Aleke} \]

“Oje made a poison arrow apparent to Aleke. / Oje showed a poison arrow to Aleke.”

There is still a third A-SVC with minor component \(re\) and major component \(vbíéé\). In this instance \(re\) in the V1 slot does not permit a direct object. Verb \(vbíéé\) in the V2 slot takes a marked (\(khi\)) sentence complement characterized by a BE verb. Construction sense is ‘cause to become apparent / evident.’

\[(18)\]  
\[\text{ùéén } \text{ísì } \text{òjè } \text{ré } \text{vbíéé } \text{khi } \text{óì } \text{óò}.\]  
\[\text{behavior ASS Oje NPST.take}^\text{PFV} \text{show}^\text{PFV} \text{IND thief be} \]

“Oje’s behavior proved /made evident that he was a thief.”

In a simple clause \(vbíéé\) appears as a ditransitive verb with meanings related to making something apparent or teaching something to someone. Compared to \(ye\) and its ditransitive shape, \(vbíéé\) ditransitives and their double object complement do not participate in serial constructions.

\[(19)\]  
\[\text{òjè } \text{vbíéé } \text{álèkè } \text{óli } \text{ébè}.\]  
\[\text{Oje NPST.make.become.apparent.to}^\text{PFV} \text{Aleke ART book} \]

“Oje taught Aleke the book.”

### 3.2 Secondary C class

Some Emai verbs reflect secondary concepts of the SEC-C-1 MAKING class. They appear in A-SVCs. As a minor component in slot V1, we find a class of verbs that express the handling of physical objects. They include \(re\) ‘take’ and \(nwu\) in its ‘take hold’ sense (\(òjè \text{ nwú ákpázèvà} [\text{Oje NPST.take.hold}\setminus \text{PFV second.position}] \) ‘Oje took second position / Oje came in second’). The major V2 slot is occupied by a verb in simple clauses that conveys change of state (\(òlì \text{ úrùkpà rùn-i} [\text{the lantern PRP.light-PFV}] \) ‘The lantern got lit / is lit’ and \(òlì \text{ imátò múzán-i} [\text{the car halt-PFV}] \) ‘The car halted’). SVCs of this type show the subject argument as direct cause of the associated change of state. They can also exhibit a switch function relation given that the direct object of V1 serves as the logical subject of V2 (20b).

\[(20)\]  
\[a. \text{òjè } \text{ré } \text{úrùkpà } \text{rùn}.\]  
\[\text{Oje NPST.take}^\text{PFV} \text{lantern light}^\text{PFV} \]

“Oje got the lantern lit.”

\[b. \text{òjè } \text{nwú } \text{òlì } \text{imátò } \text{múzán}.\]  
\[\text{Oje NPST.take hold}^\text{PFV} \text{ART car halt}^\text{PFV} \]

“Oje made the car stop. / Oje hailed down the car.”

A second exponent of the MAKING class is \(ee\) ‘inveigle, entice, trick, urge.’ It occupies V1 slot as a minor component. In the V2 slot, major components include movement verbs such as \(o\) ‘enter,
move into’ and hua ‘carry a plurality.’ A-SVCs of this nature express indirect causation. In addition, they display a relation of switch function since the direct object of V1 ee is also the logical subject of V2.

(21) a. ọjè  éé ólí  éwè  ó vbi ìwè.
   Oje   NPST.enticelPFV ART goat enterlPFV LOC house
   “Oje enticed the goat into the house.”

b. ọjè  éé ólí  óvbèkhàn húá éràn.
   Oje   NPST.enticelPFV ART youth carrylPFV wood
   “Oje nudged the youth into carrying wood.”

An A-SVC consisting of minor verb ee and major verb o ‘enter’ together can occupy the V2 slot in a serial-within-serial structure that is itself an A-SVC. Slot nesting of this type, illustrated in (22), shows verb re ‘take’ as minor component in the V1 slot. It adds a non-core argument to the enticing event.

(22) ọ re ókà éé ólí  éwè  ó vbi ìwè.
   SG NPST.take\PFV maize enticelPFV ART goat enterlPFV LOC house
   “He used maize to entice the goat into the house.”

The form ee does not occur synchronically as a main verb in a simple clause with sense ‘entice, inveigle, trick.’ It has the meaning ‘ruffle, tire someone,’ which seems to relate semantically as a condition on state of mind for direct object of ee.

(23) ólí  óbìà éé ójè.
    ART work NPST.rufflelPFV Oje
    “The work tired out Oje. / The work ruffled Oje.”

Serial verb constructions in Emai articulate concepts of the SEC-C-2 HELPING class. Verb kpaye ‘help’ appears as minor component in the V1 slot of an A-SVC. It adds a non-core argument leading to construction meanings such as ‘accompany, replace.’ V2 consists of activity verbs such as hián órán ‘cut wood’ and ta étà ‘speak words.’ Under the ‘replace’ interpretation, it is V1 subject, not V1 direct object, that serves as subject of V2. For the ‘accompany’ meaning, V1 subject and direct object together serve as subject of V2.

(24) a. ọjé  kpaye’ ólólò hián ólí  órán.
    Oje  RPST.replace\PFV Ololo cutlPFV ART wood
    “Oje cut the wood in place of / instead of Ololo. / Oje helped Ololo cut the wood.”

b. ọjé  ó ó kpaye ójé tā étà.
    Oje  SC PROG accompany\IPFV Oje speak word
    “Oje is speaking with Oje.”

In simple transitive clauses kpaye has the sense ‘help someone, give a helping hand to.’ Its direct object is restricted to body-part nominal ôbò ‘hand’ as possesum preceded by an external possessor. It appears that verb kpaye is related to form kpaa/kpa, which has a meaning related to repositioning an object (ọjè kpá émà ọ vbi itásà [Oje reposition yam CL LOC bowl] ‘Oje
repositioned/apportioned yam into the bowl.’ Helping someone is thus expressed as repositioning someone’s hand.

(25) òjè kpáyé áléké óbò. Oje NPST.help\PFV Aleke hand
“Oje helped Aleke / gave Aleke a helping hand.”

An additional exponent of the SEC-C-2 HELPING class is de baa. As a minor component in the V1 slot of an A-SVC, de baa conveys social accompaniment. It adds a non-core argument that associates with logical subject of the action represented by the major component in slot V2. Verbs in the V2 slot include transitive sua imató ‘push car’ or intransitive sie ‘play.’

(26) a. òjè dé báá élí ivbèkhàn súá imató. Oje NPST.reach\PFV add.to\PFV ART youths push car
“Oje joined the youths and pushed the car / Oje pushed the car with the youths.”
b. ólí ómọ dé’ báá inyọ òi síé. ART child RPST.reach\PFV add.to\PFV mother his play\PFV
“The child played with his mother.”

The de baa complex consists of two verb elements that are contiguous. It seems to be a multi-word form in which de has an anti-causative or inchoative effect on baa meaning, thereby reducing argument profile, and changing the meaning of baa. A similar situation obtains with the relation between nwu gon (òjè nwú óràn gón vbì ùdékèn [Oje NPST.take\PFV pole lean\PFV LOC wall] ‘Oje leaned the pole against the wall’) and de gon (òlí óràn dé gón vbì ùdékèn [the pole NPST.reach\PFV lean LOC wall] ‘The pole leaned against the wall’) as well as nwu khuán (òjè nwú èkpà khúán vbí óràn [Oje NPST.take\PFV bag suspend\PFV LOC the tree] ‘Oje hung a bag on the tree’) and de khuán (òlí èkpà dé khúán’ vbí óràn [the bag NPST.reach\PFV suspend\PFV LOC tree] ‘The bag got hung / suspended in the tree’).

Both de and baa occur as verbs in a non-SVC clause. Form baa occurs in a postverbal particle construction with change of location particle g (33). It does not occur in a simple monotransitive clause. Verb de as a transitive has the sense ‘reach’ a location on the horizontal plane (de áfúzé ‘reach Añúze’), while intransitive de expresses the sense ‘fall’ (òjè gbó dé ‘Oje also fell’).

(27) òjè báá ishé ó vbì ótòì. Oje NPST.add.to\PFV nail CL LOC ground
“Oje inserted a nail into the ground.”

Verbs not participating in Emai SVCs also reflect Dixon’s SEC-C-1 MAKING class. They include form ze with meanings ‘cause’ and ‘allow.’ It takes either a clausal complement or a truncated clause as subjunctive complement, both leading to biclausal constructions.

(28) a. òjè lí ó zé-i khí óli ókpòsò gbé ólí ófé. Oje PF 3SG RPST.cause-PFV IND ART woman PRP.kill\PFV ART rat
“It was Oje who was the cause that the woman killed the rat.”
b. àlèkè zè ójè múzàn.
    Aleke NPST.allow\PFV Oje stand\IPFV
    “Aleke allowed Oje to stand.”

An additional Emai form associated with the MAKING class is ìsè. It is a noun meaning authority. It occurs in simple clauses as direct object of a transitive verb (moe ìsè ‘have authority’). It also occurs as direct object in postverbal particle predicates with applicative li/ñi. However, ìsè is not found as direct object in a SVC.

(29) óbá’ rè ìsè ní àín.
    Oba NPST.take\PFV authority APP him
    “The Oba has authorized him / given him authority / assigned authority to him.”

3.3 Secondary B classes

Several Emai verbs display meanings related to the SEC-B-2 POSTPONING class. They occur in A-SVCs. The verb khèè ‘wait’ appears as the minor component in the V2 slot. As the major component in the V1 slot, verb múzàn ‘halt’ occurs.

(30) òjè ò ó múzàn khèè ólí ómòhè.
    Oje SC PROG halt wait.for ART man
    “Oje is stopping and waiting for the man.”

Verb khèè also occurs as major component in the V2 slot of an A-SVC. Its minor component in the V1 slot consists of verbs that add non-core arguments such as rè ‘take’ and kpèn ‘be next to.’ In a simple clause, khèè occurs as transitive and displays meanings related to waiting (khèè íkòíkò ‘wait for gorilla’) and guarding (khèè iwè ‘guard house’).

(31) a. ò ré ëmàè khèè ójè.
    3SG NPST.take\PFV food wait.for\PFV Oje
    “He reserved food for Oje. / He waited for Oje with food.”

b. ólí ólògbò kpèn ótòi khèè ójì.
    the cat NPST.be.next\PFV ground wait.for\PFV him
    “The cat ambushed him. / The cat waited for him on the ground.”

There are other verbs associated with SEC-B-2 POSTPONING. They occur in A-SVCs, as a minor component in the V2 slot. As major component, verb si ‘shift’ occurs in the V1 slot (32). In the V2 slot either of two minor component verbs appear: ye ‘move toward’ or keè ‘happen near/close to.’ In these constructions the direct object of V1 and the logical subject of V2 exist in a switch function relation.

(32) a. yàn si ólí ékùèè yé ísàò.
    3PL NPST.shift\PFV ART meeting move.toward\PFV front
    “They deferred the meeting. / They shifted the meeting forward.”

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b. à sì ọlì èzòn kẹ́ è isàò.
ID NPST.shift\PFV ART case happen.near\PFV front
“The case was postponed. / The case was shifted toward the front (of the list).”

In a simple clause, the verb *kee* does not code a spatial relation. Instead, it refers to a temporal relation specific to event timeliness.

(33) óshàn ọ ọ kẹ́ ivitàá ọjé.
walking SC H happen.timely children Oje
“Walking happens quickly / in a timely manner for Oje's children.”

One Emai verb associated with the SEC-B-1 WANTING class is *hoo* ‘want.’ It takes a complement clause marked as subjunctive by *li* and the initial low tone of complement verb phrase. Verb *hoo* disallows a noun phrase as complement.

(34) òjè ọ ọ hòó li ọlì ókpósó dà ényò.
Oje SC PROG want SUBJ ART woman drink wine
“The man wants the woman to drink wine.”

Another Emai form related to the WANTING class is *ìkà*. A noun, it occurs in SVCs and non-SVCs. With meaning ‘pretense,’ *ìkà* occurs as direct object in a simple clause (e.g. *ìkà* [select pretense] ‘pretend’). It also appears as direct object of verb *rẹ* ‘take,’ which serves as minor component in the V1 slot of an A-SVC (35). In the V2 slot, the major component can be ditransitive (*fì* ‘hit someone with something’) or intransitive. When intransitive, the V2 slot itself may consist of an SVC. For instance, *u* ‘die’ as major component in an A-SVC accepts minor component *fèe ghòò* [attenuate look] ‘feign,’ as in (*ọjẹ̀ ló u fèe ghòò* [Oje RFUT die\PFV Attenuate.look] ‘Oje will feign death’). Since V2 here is itself an A-SVC, the V2 slot with V1 *rẹ* manifests a serial-within-serial construction.

(35) a. ọ ẹ̀rẹ̀ ìkà fì ọjé émì.
3SG NPST.take\PFV pretense hit\PFV Oje thing
“He pretended to hit Oje with something.”

b. ọjẹ̀ rẹ̀ ìkà ú fèe ghòò.
3SG NPST.take\PFV pretense die\PFV try\PFV
“Oje pretended to be dead. / Oje used pretense to feign death”

3.4 Secondary A class

Throughout various facets of Emai grammar secondary concepts assume forms that are lexical verbs, grammatical morphemes, or both. Many grammatical morphemes that are synchronic preverbs or postverbal particles reveal a verb lineage that remains transparent despite the effect of grammaticalization on word class, meaning, and tone. Auxiliaries, on the other hand, do not manifest a verb heritage. Rather, they align better with forms identified in Nurse (2003; 2008), Nurse and Philippsen (2006), and Nurse et al. (2016) for Proto-Bantu and perhaps the earliest forms of Benue-Congo. The same can be said for postverbal particle *lè* ‘already,’ which appears derived from Proto-Bantu perfective suffix *-ile*.
Assignment to auxiliary, preverb, or postverbal particle category is based primarily on distributional constraints, tonal contour, and semantics. Although both auxiliary and preverb forms manifest tonal melodies impacted by clause-level tense values, most notably past and future, polysyllabic exponents of each form category exhibit a tonal contour, whereas monosyllabic forms manifest a lexical low tone. Tonal contour configurations stand in contrast to non-contour, level tones (high or low) on polysyllabic verbs due to aspect inflection. Postverbal particles, on the other hand, show lexical tone patterns altered by the tone associated with perfective/imperfective aspect.

In the following sections we examine grammatical coding of concepts associated with Dixon’s SEC-A type. In many instances their affiliation with the category verb can still be discerned, especially in simple clauses. Concurrently, many of these verbs have grammaticalized partially or completely to achieve preverb or postverbal particle status. We take their lineage to suggest that preverbs and postverbal particles derive from a serial verb template that allowed (and sometimes still allows) a diachronic stage in which preverb and postverbal ancestors occurred in construction with a main verb. In this earlier stage, ancestor forms would have assumed a position that preceded or followed the main verb in an A-SVC configuration. Preverbs and postverbal particles that retain some reflex of their verbal heritage pertain to the classes SEC-A-2 SEMI-MODAL, SEC-A-3 PHASAL, SEC-A-4 TRYING, SEC-A-5 HURRYING, and SEC-A-6 DARING.

3.4.1 DARING class

Secondary concepts that appear broadly related to the SEC-A-6 DARING class have lexicalized as preverbs. All have their origin in a collocational structure defined by a verb and its direct object noun. Over time, this structure has lexicalized through a process of univerbation (two words becoming one) and subjectivization (conveying speaker attitude toward grammatical subject). Preverb meanings reflect a speaker judgment that ascribes a trait to the grammatical subject.

One class of preverbs that reflect the SEC-A-6 DARING class (and perhaps the SEC-A-2 SEMI-MODAL class) displays meanings pertaining to intentionality and dynamic modality, as discussed by Nuyts (2005; 2016). Members reveal a verbal heritage that has a collocational character. Synchronically, each preverb occurs as a prosodic word unit. A common feature of their different preverb meanings (deliberately, mistakenly, ability, defiantly) is its exclusive ascription to the grammatical subject.

(36) a. ójé dá'bò fì òlí èkpà fì à.
    Oje RPST.deliberately threw\PFV ART bag leave\PFV IT
    “Oje deliberately threw the bag away.”

b. ójé dó'bò é òlí émàè.
    Oje RPST.mistakenly eat\PFV ART food
    “Oje mistakenly/accidentally ate the food.”

c. ójé mì'tì gbé òlí èwè.
    Oje RPST.able kill\PFV ART goat
    “Oje was able to kill the goat.”

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d. òjé dú'dà é ólí émàè.
    Oje RPST.defiantly eat PFV ART food
    “Oje defiantly ate the food / dared to eat the food.”

Verb-noun collocational phrases from which the preverbs above derive historically include: dábo ‘deliberately’ from daa ábò ‘prop hands;’ dóbó ‘mistakenly’ from dee óbò ‘lower hand;’ mitì ‘able’ from mọ́g é́tìn ‘have breath / spirit;’ and dúdà from de údà ‘reach defiance.’ Most of these collocations exist synchronically as a non-literal, figurative expression.

A second class of preverbs associated with the SEC-A-6 DARING class evince meanings of attitude and dynamic modality (Nuyts 2005; 2016). As synchronic preverbs, they occur as prosodic word units that are lexicalized by English carefully, courageously, intensely, and perseveringly. Common to their meanings is a speaker judgment that ascribes a trait or characteristic to the grammatical subject. Exponents again show evidence of a verbal heritage that is collocational.

(37) a. òjé ò ó ó dègbé è ólí émàè.
    Oje SC PROG carefully eat ART food
    “Oje is carefully eating the food.”

b. òjé gbúdù è ólí émàè.
    Oje NPST.courageously eat PFV ART food
    “Oje has courageously eaten the food.”

c. ójé tòtò'bò nwú ólì èkpà móé.
    Oje RPST.intensely take PFV ART bag have
    “Oje held the bag with great intensity.”

d. ójé kàkè'gbè ón ólì àgbó.
    Oje RPST.by.persevering drink PFV ART potion
    “Oje drank the malaria potion with perseverance.”

Verb-noun collocational phrases that relate diachronically to these preverbs include the following: dègbé ‘carefully’ from dee égbè ‘lower body, duck down;’ gbúdù ‘courageously’ from gbe údù ‘spread heart;’ tòtòbò ‘intensely’ from toto óbò ‘strengthen hand;’ and kàkègbè ‘perseveringly’ from kaka égbè ‘stiffen body.’ As with intention bearing preverbs, attitudinal collocations still occur synchronically in figurative expressions.

3.4.2 HURRYING class

Secondary concepts of a different nature relate broadly to the temporal character of the SEC-A-5 HURRYING class. They, too, have been lexicalized as preverbs. Most but not all have their origin in a collocational structure of the verb-noun type. Over time, these structures have also lexicalized through a process of univerbation. Their meanings reflect a speaker-ascribed temporal character for the predicate event.

Synchronic preverbs that reflect the HURRYING class retain evidence of their heritage directly or indirectly, since they appear synchronically as verbs or in some cases as adverbs (which presumably derived from verbs). Individual members convey notions of a broader character than
simply temporal rate. Their meanings relate to equivalents for English hurriedly, promptly, earlier, hastily, and unexpectedly. Unlike the DARING class, the meanings of these preverbs are ascribed by the speaker exclusively to the temporal character of an event.

(38) a. ójé tiúá é ólí émàè.
Oje RPST.hurriedly eat\PFV ART food
“Oje ate the food hurriedly.”
b. ójé kpá’ò é vbí ólí émàè.
Oje RPST.earlier eat\PFV LOC ART food
“Oje ate from the food earlier on.”
c. ójé bó’bò é ólí émàè.
Oje RPST.promptly eat\PFV ART food
“Oje ate the food promptly.”
d. ójé guá’ shòò ré.
Oje RPST.hastily arise\PFV arrive
“Oje arose suddenly / hastily.”
e. ójè ó ó gué è ólí émàè.
Oje SC PROG unexpectedly eat ART food
“Oje was eating the food sooner than expected.”

Each temporal preverb occurs as a prosodic word unit. Some derive as a verb-noun collocation (kpáò ‘earlier’ from kpen àó ‘next to front;’ bóbò ‘promptly’ from bi óbò ‘move hand aside’), while others derive from a verb (tiúà ‘hurriedly’ from tua ‘hurry’), or relate to a synchronic adverb presumably derived from a verb (gué ‘unexpectedly’ from base morpheme guè in guèkè ‘suddenly;’ and guà‘suddenly’ from base morpheme guà in guàghó ‘jerky fashion’ and guàhí ‘lerching fashion’). In the adverb cases, verbal lineage is less transparent synchronically, although more extensive investigation of adverbial forms should prove illuminating.

3.4.3 TRYING class

Secondary concepts that appear related to the SEC-4 TRYING class exhibit concurrent grammatical standing as postverbal particle and verb-verb sequence. Over time, one can assume that the bi-verbal sequence of some particles will lexicalize further through a process of univerbation. Each verb-verb unit appears as a configuration of major and minor components in an A-SVC. As postverbal forms they occupy the same position as particles that mark either an event argument (recipient/benefactive li/ní, locative goal o) or event aspectual relation. The canonical example of the latter is temporal lé and its iambitive function (ójé é ólí émàè léé [Oje NPST.eat\PFV ART food TEM] ‘Oje has already eaten the food’ and ójè ó ó é ólí émàè léé [Oje 3PSC PROG eat the food TEM] ‘Oje is already eating the food’). Aspectual forms in postverbal position that attend to event onset, termination, or both, as lé does, bear a semantic relation to the SEC-A-3 PHASAL class but not a syntactic relation, since phasal forms are limited to pre-predicate position.

One particle that relates to Dixon’s TRYING class is fee ghoo. It serves as minor component in the V2 slot of an A-SVC. Construction meaning has its near equivalent in English ‘try,’ as it pertains
to attempts to activate an event. In the V1 slot combining with *fee ghoo* is a major component verb such as *khuae* ‘raise.’

(39)  
\[ \text{òjè } \text{khuæ} \quad \text{òlì } \text{ùkòdò } \text{féé } \text{ghòò}. \]
\[ \text{Oje } \text{NPST.raise } \text{ART } \text{pot } \text{try} \]
“Oje tried / attempted to raise the pot (but did not).”

In an A-SVC, *fee ghoo* and its arguments convey meanings related to an attenuated, minimally exercised, visual or gustatory event. The V1 slot is occupied by *fee* and the V2 slot by *ghoo*.

(40)  
a.  
\[ \text{òjè } \text{féé } \quad \text{òlì } \text{òvbèkhàn } \text{ghóó}. \]
\[ \text{Oje } \text{NPST.attenuate } \text{the youth } \text{look.at} \]
“Oje inspected / examined the youth.”

b.  
\[ \text{òjè } \text{féé } \quad \text{òmì } \text{ghóó}. \]
\[ \text{Oje } \text{NPST.attenuate } \text{soup } \text{look.at} \]
“Oje tasted the soup. / Oje tried the soup.”

Within the structure of *fee ghoo* is major component *ghoo*. Synchronically, *ghoo* serves as a transitive verb of perception and attention (*ghoo ọkpọsọ* ‘look at woman’). As for minor component *fee*, it displays meanings related to attenuation or weakening the condition of a nominal or the relation between nominals. It no longer functions as a synchronic verb. Rather, the form *fee* or its presumed historical antecedent (*fẹlẹ*) is synchronically restricted to qualifier functions in positions that are adjectival (*éráín féé* ‘fire (that) weak,’ *ùkpùn li féléfélé* ‘cloth which very fine;’ *u féléfélé* ‘be very fine’) or adverbial (*féléfélé* ‘very, very close’). The combined meaning of *fee* and *ghoo* manifest a resultative character in which the perceptual event of V2 is engaged to a minimal rather than maximal extent. Recall that in §2 we identified resultatives of maximal extent.

A second particle that relates to the TRYING class is the form *ba kun*. In A-SVCs it recognizes event activation but stipulates non-achievement of a desired end state. Completion of the event is thus unsuccessful. Near equivalents in English are ‘in vain’ or ‘unsuccessfully,’ as they pertain to event achievement. In an A-SVC *ba kun* occurs as minor component in the V2 slot and verbs such as *hoo* ‘wash’ or *hoo* ‘search for’ appear as major component in the V1 slot.

(41)  
a.  
\[ \text{òjè } \text{hóó } \quad \text{òlì } \text{ùkpùn } \text{bá } \text{kùn}. \]
\[ \text{Oje } \text{NPST.wash } \text{ART } \text{cloth } \text{in.vain} \]
“Oje washed the cloth without success.”

b.  
\[ \text{òjè } \text{hóó } \quad \text{òlì } \text{ọmòhè } \text{bá } \text{kùn}. \]
\[ \text{Oje } \text{NPST.search.for } \text{ART } \text{man } \text{in.vain} \]
“Oje searched for the man in vain.”

The complex form *ba kun* and its arguments appear in an A-SVC. It expresses meanings related to hunting or stalking an animate entity without success. The major component of this A-SVC is form *ba* ‘stalk, pursue,’ which otherwise appears as a verb that is monotransitive (*bá ínì* ‘stalk elephant’) or intransitive (*ba* ‘stalk’). Its corresponding minor component is form *kun*. In a simple clause, *kun* is no longer synchronically active as a main verb, although it may be related to forms in neighboring languages such as Bini *ku* ‘depreciate in value’ (Melzian 1937) or
Yoruba kùnà ‘fail/miss/come short of’ (Church Missionary Society 1950). Regardless of the exact meaning of kùn, SVCs with ba kùn seem less resultative-like than does fee ghoó. Rather, kùn appears to specify the extent, more precisely the lack thereof, of the motion event denoted by ba.

(42) ólì áwà bá ólì ófè kùn.
   ART  dog  NPST.stalk\PFV  the  rat  in.vain\PFV
   “The dog stalked the rat in vain.”

A third form related to the TRYING class is deló. In an A-SVC it refers to a secondary concept that denotes a redoing of a previous action. In an SVC, minor component deló ‘rearrange’ in the V1 slot precedes its major component in the V2 slot. Forms occurring as V2 such as ma ‘create, mold’ or hoo ‘wash’ refer to a change of state. The nominal undergoing change also precedes rather than follows V2. A-SVCs with deló show the syntax of a maximum extent resultative since the nominal that undergoes change always appears in simple clauses as direct object of V2 but not necessarily of V1. Each major verb takes as its direct object in a simple clause the direct object of the resultative SVC, as in ma àgbòn ‘create world’ and hoo úkpùn ‘wash cloth.’ Major verbs in resultatives tend not to express an irrecoverable change of state.

(43) a. òísèlèbùá déló’ àgbòn má.
   God  RPST.rearrange\PFV world  create\PFV
   “God recreated the world.”

b. òjè ló déló  ólì úkpùn hóó.
   Oje  FUT rearrange\PFV ART cloth  wash\PFV
   “Oje is about to rewash the clothes.”

In a simple clause, minor verb deló has senses related to rearranging clothes (déló úkpùn ‘turn over / rearrange clothes’) and stirring soup (deló òmì ‘turn over / stir / rearrange soup) but not rearranging the world.

A fourth element of the TRYING class is verb don. It serves as minor component in the V2 slot of an A-SVC. With respect to a desired end state, don conveys non-achievement. It expresses meanings related to straying or stretching from an unspecified target referent. Its near equivalent in English is ‘miss.’ In an A-SVC V2 don appears with major components like fi ‘project, throw, shoot.’ In SVCs the direct object of V1 and the logical subject of V2 exhibit a switch function relation. In (20), the nominal ùhài as grammatical object of V1 is also the logical subject of V2. SVCs with don seem less resultative-like and more cause-effect-like in their meaning.

(44) òjè fi ùhài dòn.
   Oje  NPST.project\PFV  arrow  stray\PFV
   “Oje missed with the arrow. / Oje shot the arrow and missed.”

In a simple clause don appears as an intransitive verb. It has sense ‘become stretched, engaged, set’ as in ikpàkúté’ dòn-i ‘A trap is set / engaged / in a stretched position.’
3.4.4 PHASAL class

Most secondary concepts related to the SEC-A-3 PHASAL class manifest concurrent grammatical standing as preverb and verb. They code aspecral features, seemingly of the Aspect-3 type briefly referenced by Declés and Guentchéva (2012) and earlier by Comrie (1976). Under synchronic analysis their verbal heritage is not uniformly transparent.

Several synchronic preverbs that associate with the PHASAL class also occur as a verb form. Form \( \text{ya} \) has two preverb functions: ingressive/proximative and past absolute. Respectively, these meanings align with event onset relative to the deictic present (‘almost began/started’) or event occurrence in the past as it relates to the present ‘used to but does not now.’ Although the segmental and tonal form of \( \text{ya} \) is constant, the respective meanings just mentioned co-vary with the tonal character of the grammatical subject: Near past low tone with ‘almost began’ and remote past high tone with ‘used to.’

\[
\begin{align*}
\text{(45) a. } & \text{òjè } \text{yà } \text{é } \text{qdì } \text{émdà.} \\
& \text{Oje NPST.IG eat\PFV ART food} \\
& \text{“Oje almost started eating the food (but didn’t get started).”}
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{òjè } \text{yà } \text{mò } \text{èghò } \text{ìghèghè.} \\
& \text{Oje RPST.PA have\PFV money generation.ago} \\
& \text{“Oje used to have money long ago (but doesn’t have it now).”}
\end{align*}
\]

Form \( \text{ya} \) also serves as a synchronic verb with sense ‘commence, start’ (46a). It does not have a meaning directly related to ‘used to.’ There is a form \( \text{ya} \) expressing predicate negation in the past that has the sense ‘never’ (46b).

\[
\begin{align*}
\text{(46) a. } & \text{òshàn } \text{yá-i.} \\
& \text{journey NPST.commence-PFV} \\
& \text{“The journey is set to commence. The journey is due to start.”}
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{òjè } \text{i } \text{yà } \text{shèn } \text{úkpùn.} \\
& \text{Oje SC PST.NEG sell cloth} \\
& \text{“Oje never sells cloth.”}
\end{align*}
\]

To put the functions of \( \text{ya} \) in a broader context we briefly consider aspecral preverb \( \text{mo} \). It has an egressive/avertive function relative to event termination (‘nearly completed’) as well as a past absolute function (‘at one time’) that does not bear on the present. Its grammaticalization history is far less transparent with respect to any prior stage as a verb.

\[
\begin{align*}
\text{(47) a. } & \text{qdì } \text{ùbèlè } \text{móò } \text{qdàn.} \\
& \text{ART gourd NPST.EG become.full\PFV} \\
& \text{“The gourd has nearly / almost become full.”}
\end{align*}
\]

\[
\begin{align*}
\text{b. } & \text{àmágó } \text{mó } \text{qdàn } \text{qdì } \text{ùbèlè.} \\
& \text{mango RPST.PA fill\PFV ART gourd} \\
& \text{“Mangoes filled the gourd at one time.”}
\end{align*}
\]
Another aspectual preverb displays a form and meaning related to a synchronic verb. As a preverb che ‘again’ denotes event repetition across situations that maintain event argument identity.

(48) ójé ché' hián ólí órán.
Oje  RPST.REP strike\PFV ART tree
“Oje again struck the tree.”

A related verb is chie/che (ójè chíé-ì [Oje turn.back-PFV] ‘Oje has turned back’). It denotes a turn around action and by implication a retracing of one’s initial path. The latter inference is explicitly coded by minor component re in an A-SVC.

(49) ójè chíé ré'.
Oje  NPST.turn.back\PFV arrive\PFV
“Oje returned (to the deictic center).”

A third preverb has concurrent status as a verb of motion. In SVCs with a main verb in slot V2, se in slot V1 exhibits a durative function ‘continue to do.’

(50) ójè sée é vbí ólí émàè.
Oje  NPST.DUR eat\PFV LOC ART food
“Oje has continued to eat from the food.”

Preverb se appears to have grammaticalized from verb se, which denotes a path/direction of motion with sense ‘move as far as, move up to, reach.’ Verb se takes an oblique object marked as locative.

(51) ójè sé vbí édà.
Oje  NPST.move.as.far\PFV LOC  river
“Oje has moved as far as the river.”

A final aspectual preverb does not have concurrent standing as a verb. Form gbo as a preverb has an additive ‘also, too’ function.

(52) ójé gbó' é ólí émàè.
Oje  RPST.ADD eat\PFV the food
“Oje also ate the food / ate the food too.”

Secondary concepts related to the SEC-A-3 PHASAL class can be coded exclusively by lexical verbs. Most do not partake of serial constructions, despite their verb status. In simple clauses, many allow an oblique locative phrase which consists of a gerundive or activity nominal. The meaning of these forms pertains to event initiation or termination.

(53) a. ójè bée vbí émàè úèmí.
Oje  NPST.start\PFV LOC food eating
“Oje started eating food.”

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b. òjè héná-i vbió ényó údámí.
   Oje NPST.cease-PFV LOC wine drinking
   “Oje ceased drinking wine.”

c. ókhòìn héná-i.
   war NPST.cease-PFV
   “The war ceased.”

One Emai verb associated with the PHASAL class exhibits a more complex syntax. Verb roo requires a direct object that contains body-part nominal óbò ‘hand,’ either alone or in an external possessor phrase where possessor precedes possessum óbò.

(54) a. òjè róó óbò vbió ényó údámí.
   Oje NPST.release\PFV hand LOC wine drinking
   “Oje has ceased drinking wine.”
   Lit. ‘Oje has released his hand from wine drinking.”

b. òjè róó òhí óbò.
   Oje NPST.release\PFV Ohi hand
   “Oje has left Ohi alone / released Ohi / released Ohi’s hand.”

Another verb is associated with secondary concepts of the PHASAL class. Verb foo ‘finish’ does not occur as a preverb. Instead, it appears in a simple clause as transitive or intransitive. It does not permit a direct object that has a gerundive form.

(55) a. ólì ivàn fóó ójé ìbòbòdí.
   ART grass.cutter NPST.finish\PFV Oje cassava
   “The grasscutter finished / destroyed Oje's cassava.”

b. ìbòbòdí ísì òjè fóó-ì.
   cassava ASS Oje NPST.finish-PFV
   “Oje's cassava got finished off / destroyed.”

3.4.5 SEMI-MODAL class

Secondary concepts that relate to the SEC-A-2 SEMI-MODAL class in Emai tend to express aspectual features of different semantic types. One type pertains to quantificational aspect and the other to a quantificational aspect of achievement/extent. Both concern event end state. Formally, exponents belong to a preverb or postverbal particle class. Members of each formal class have concurrent standing as verb or verb-noun collocation.

3.4.5.1 SEMI-MODAL preverb

Preverbs that encode quantificational aspect have concurrent standing as a verb or verb-noun collocation. As preverbs they make formally explicit a quantitative value inherent in an event or an event argument. They thus bear on the quantitative nature of construction subject or direct object.
Preverb gbà has a collective ‘together’ function. It codes a quantificational value ascribed to its grammatical subject, which must be plural. It co-occurs with transitive or intransitive verbs (56).

(56) a. élí imóhé gbá’ hián ólí óràn.
    ART men RPST.COL cut\PFV ART wood
    “The men together cut the wood.”
b. élí imóhé gbá’ rì vbì ìwè.
    ART men RPST.COL be\PFV LOC house
    “The men were together in the house.”

In simple clauses, the form gba occurs as a verb. It appears as either monotransitive with a single object (gba ólí ómòhè ‘tie the man’) or ditransitive with a double object (57). Regardless of transitivity value, gba has sense ‘tie, bind.’

(57) è gbá ólí ómòhè ìì.
    3PL NPST.tie\PFV ART man ropes
    “They bound the man with ropes.”

Preverb forms zemi and zeze express a different type of quantificational aspect. These forms externalize a scalar value of quantification inherent to construction verb and specify whether its culturally normative boundary has been achieved. Form zemi ‘a lot, very’ indicates that the boundary has been exceeded. In contrast zeze ‘not quite’ stipulates near-attainment of the boundary.

(58) a. ólí ókpòsò zémì dá.
    ART woman NPST.ABSI be.tall\PFV
    “The woman is very tall.”
b. ólí ókpòsò zézè dá.
    ART woman NPST.NABI be.tall\PFV
    “The woman is not quite tall.”

Both zemi and zeze manifest a syntactically irregular feature relative to other preverbs. Each serves as response to an information question of extent framed by ‘how’ (ébé’…i) and an A-SVC incorporating verb of extent se ‘reach, move as far as.’ No other preverbs behave this way.

(59) ébé’ ólí ómòhè i’ dá se?
    how the man RPST.MAN be.tall\PFV reach\PFV
    “How tall is the man?”
    å zémì dá. / å zézè dá.
    3SG NPST.ABSI be.tall\PFV. 3SG NPST.NABI be.tall\PFV
    “He is very tall.” “He is not quite tall.”

Each of zemi and zeze has a verbal heritage. They are related to verb ze ‘select, choose’ through verb-noun collocation or reduplication. Form zemi has lexicalized a verb-noun collocation consisting of ze émi ‘select things;’ it thus reflects historical univerbation. Form zeze is a derivational form resulting from a doubling of the same verb ze. In this instance the semantic
effect of reduplication declares that the upperbound of the quantificational value was not achieved.

(60) a. \(\text{ojè zé úkpín li óbín’}.\)
  Oje NPST.choose\PFV cloth R dark
  “Oje chose /selected the dark cloth.”

b. \(\text{ojè zé-ì}.\)
  Oje NPST.choose-PFV
  “Oje chose / selected.”

3.4.5.2 SEMI-MODAL particle

Secondary concepts related to the SEC-A-2 SEMI-MODAL class manifest concurrent grammatical standing as postverbal particle and verb. They express meanings related to quantificational aspect. They occur in the V2 slot of an A-SVC as minor verb. Semantically they encode notions of extent or frequency as it relates to V1. In the V2 slot these forms manifest significant grammaticalization vis-à-vis selectional restrictions and syntactic subcategorization, particularly when assessed relative to their behavior as sole verb of a clause.

(61) a. \(\text{ojè héén ólí órán só}.\)
  Oje NPST.climb\PFV the tree end\PFV
  “Oje climbed to the top of the tree.”

b. \(\text{ojè gbé ólólo gbé}.\)
  Oje NPST.beat\PFV Ololo excessive\PFV
  “Oje beat Ololo too much.”

c. \(\text{ojè dá ényò sé}.\)
  Oje NPST.drink\PFV wine sufficient\PFV
  “Oje drank enough / sufficient wine.”

d. \(\text{ojè é èmá khôón}.\)
  Oje NPST.eat\PFV yam satisfy\PFV
  “Oje ate yam to satisfaction.”

In non-SVCs each form in the V2 slot above occurs as sole verb of a clause. As transitive in a simple clause, verb so expresses meanings related to contact and joining. These meanings include getting to the end of a matter, setting bones, shaking hands, sewing cloth, and colliding with a wall. Each separate meaning arises from a specific collocation of verb and direct object.

(62) a. \(\text{ojè rè ólí èmòi só}.\)
  Oje NPST.take\PFV the matter to.end\PFV
  “Oje took the matter to its end / final stages.”

b. \(\text{ojè só’ údékèn}.\)
  Oje RPST.join\PFV wall
  “Oje collided with a wall / crashed into a wall.”

c. \(\text{ojè só áléléké óbò}.\)
  Oje NPST.join\PFV Aleke hands
  “Oje shook Aleke’s hand / shook hands with Aleke.”
d. ójé ó ò so úgùà.
   Oje SC H join bone.joint
   "Oje joins bones / sets bones."

e. ìlèkè ó ó so úkpùn.
   Aleke SC PROG join cloth
   "Aleke is sewing cloth."

As transitive or ditransitive in a simple clause, gbe has sense ‘become overwhelmed with’ (63a) or ‘accumulate to high degree’ (63b-c), depending on the semantic nature of its direct object.

(63)  a. èkhòì gbé ólí éékhò.
   maggots NPST.accumulate\PFV the garden.egg
   “Maggots infested the garden egg.”

b. ólí úkpùn gbé inwà.
   the cloth NPST.accumulate\PFV filth
   “The cloth became filthy. / The cloth accumulated filth.”

c. ójè gbé ólí úkpùn inwà.
   Oje NPST.accumulate\PFV ART cloth filth
   “Oje amassed filth on the cloth / made the cloth filthy.”

Verb se manifests quantitative semantics that are internal to an experiencer argument. As intransitive or transitive in a simple clause, se has the sense ‘sufficient, enough.’

(64)  a. ólí ényò sé-i.
   the wine NPST.be.sufficient-PFV
   “The wine is sufficient/ enough.”

b. ólí ókà sé ní émè.
   ART maize NPST.be.sufficient\PFV APP me
   “The maize is sufficient for me.”

Verb khoon also expresses a quantitative value internal to an experiencer argument. As intransitive or transitive in a simple clause, khoon conveys the meaning ‘satisfy.’

(65)  a. ójè khoón-i.
   Oje NPST.be.satisfied-PFV
   “Oje is satisfied.”

b. ólí émà khoón ójè.
   the yam NPST.satisfy\PFV Oje
   “The yam satisfied / pleased Oje.”

3.4.6 Negator

Although there is evidence that many preverbs have a lexical or phrasal heritage related to verb status, not all preverbs do. This is particularly true of Emai preverbs that fit the SEC-A-1 NEGATOR class (where wo in [66] signifies “without”). Relative to a given action, each conveys
speaker judgment about event activation: without reason, without failure to meet an end state, or without due consideration of a preferred course of action.

(66) a. òjè dùù gbé òlí ófè.
   Oje NPST.wo.reason kill\PFV ART rat
   “Oje has killed the rat for no reason.”

b. òjè kúkú é òlí émàè lé.
   Oje NPST.wo.fail eat\PFV ART food TEMP
   “Oje has finished eating the food without fail/after all.”

c. òjè ò ó wóó è òlí émàè.
   Oje SC C wo.preference eat ART food
   “Oje is eating the food without considering preferences.”
   “It would be preferable / better if Oje were eating the food.”

3.4.7 Auxiliaries

A final subset of pre-stem forms that exhibit no synchronic evidence of a verbal heritage consists exclusively of auxiliaries. They express modality, both epistemic (concessive re, hypothetical khà, deductive za, certaintive ma, dubitatives bia and vba) and deontic (hortative í), as well as relative tense (anterior ke, subsequent kpe, and simultaneous ghe). Unlike preverbs they do not occur in imperatives, but like preverbs they display contour tonal patterns distinct from the level tones on verbs.

4. Conclusions

In the preceding sections, we have attempted to outline key elements of serial verb constructions in the Edoid language Emai. Although Emai constructions reflect both A-SVCs and S-SVCs, we have directed attention to the coding of secondary concepts (Dixon 1991; 2006; 2010). Notable about linguistic coding of secondary concepts is their concurrent standing as lexical verbs and grammatical preverbs or particles. There are some preverb and particle forms that do not co-exist as synchronic verbs and some lexical verbs that have grammaticalized more or less than others. In many instances, though, we have been able to identify the historical antecedent of a synchronic preverb or particle as a verb or verb-noun collocation. There are even two secondary concepts that are realized as noun forms.

Table 2 and Table 3 present summary information about secondary concept classes A-D and their realization as Emai linguistic forms. Overall, we analyzed 46 forms that code secondary concepts. There are 34 in Table 2 and 12 in Table 3. Although most of Aikhenvald’s (2018) observations about secondary concept serialization in §3 concern classes A and B, we frame our conclusions about secondary concept serialization in Emai by considering class A as well as classes B, C, and D.

Emai forms that code secondary concepts overwhelmingly occur in the minor slot of A-SVCs, congruent with Aikhenvald’s (2018) observation. With three exceptions (ruan ‘happen,’ vbiee ‘show,’ khee ‘wait’), secondary concepts do not occur in SVCs as major components. As well, no secondary concept appears as a linguistic form in S-SVCs. We now consider Table 2, where
secondary concepts belonging to the SEC-A class are presented according to their behavior in SVCs and Non-SVCs (i.e. simple clauses).

In Table 2 there is one secondary concept class for SEC-A and six subclasses. Within subclasses, forms vary in number. Negator totals 3, Semi-modals 7, Phasal 5, Trying 4, Hurrying 5, and Daring 8. The behavior of forms aligned with these subclasses is largely consistent with the observations in §3 by Aikhenvald.

Under the SLOT column, most SEC-A exponents are V1, seven are V2. As can be seen, linear order of major and minor components in A-SVCs is not uniform. Preverbs as a minor component precede a major component verb. In contrast, postverbal particles as a minor component follow a major component verb.

Information in the WC column is suggestive of two Aikhenvald observations. SEC-A forms rarely add an argument to main event action. This is obviously true of SEC-A NEGATORS. They do not negate the assertion of a predication, as do Emai forms identified as past negative, present negative and future negative. Instead, they call into question or neutralize a discourse assumption or an assumption of an addressee. Another negator type, although not identified as such in Table 2, is form ba kun, a postverbal particle with sense ‘in vain, unsuccessful.’ As a negator, ba kun asserts that an event was not successful in reaching its goal. Also relative to the WC column, SEC-A concepts seldom appear as verbs in SVCs. Instead, they appear as preverbs and postverbal particles. And as we will see in Table 3, SEC-A concepts appear less often as verbs than secondary B-D concepts do.

The relationship between portions of Table 2 allotted to SVC and Non-SVC are suggestive of historical relationships affecting SEC-A forms. The great majority of forms in Table 2 manifest a verb heritage; four do not (Negators kûkû and wôô; Phasal mô and gbô). Of those with a verb heritage, the majority (11) are prosodic words that derive from verb+noun collocations. The remainder (18) are associated with a single synchronic verb. Three exhibit formal relations to adverbs (dudu, guàghó, guèké), which presumably derived from verbs at some point in the past. For two preverbs of the NEGATOR subclass, absolutely no verbal heritage could be discerned. They evinced no formal or functional relation to an adverb or any other part of speech. Further comparative Edoid studies will be needed to clarify their lineage.
Although SEC-A concepts lexicalized as preverbs do not uniformly occur as synchronic predicates, postverbal particle forms do. Preverbs in large measure have their diachronic origin in verb-noun collocations. Most have lexicalized from a verb-noun constituent via a historical process of univerbation (two words becoming one) and subjectivization (forms conveying speaker attitude), especially for those in the HURRYING and DARING subclasses. Preverbs that derive from a single verb have meanings that reflect aspecual qualification and quantification of
the type associated with Aspect-3 (Declés and Guentchéva 2012). Postverbal particles have apparently arisen through other avenues of grammaticalization. Their meanings, too, reflect aspectual qualification and quantification. Since postverbal particle forms appear as synchronic verbs, it cannot be claimed, contrary to Aikhenvald’s observation, that SEC-A concepts, in a uniform fashion, are semantically dependent and do not occur on their own as a predicate. We now turn to Table 3.

<table>
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<th>SEC CON</th>
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<td>re vbi</td>
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**Table 3:** Secondary concepts of classes B, C, and D encoded by verbs, preverbs, particles, and nouns relative to their occurrence in SVC and Non-SVC constructions (PRT=particle, PRE=preverb, WC=word class, V=verb, N=noun, ADV=adverb, VC= valency changing)

In Table 3 secondary concept classes consist of B, C, and D. Each has two subclasses. Forms that express secondary concepts relative to these classes occur in the minor slot of A-SVCs in nearly every instance. The only exceptions are verbs vbi from the SEEM class, khee from the POSTPONE class, and ruan from the HAPPEN class. In SVCs vbi and khee appear as a major component with verb reg as minor component, while major component ruan occurs with verb ye as minor component. Nonetheless, exponents of secondary B-D classes never occur in S-SVCs.

The SLOT column in Table 3 undergirds two observations about secondary serialization in Emai. SEC-B exponents appear exclusively as a verb component with a valency changing function in an SVC, more so than did those of SEC-A. SEC-A members were predominantly non-verbs synchronically. It should be noted, however, that members of both SEC-A and SEC-B occur in SVCs as minor component (if not verbs) in a comparable fashion. It is also true that secondary
C-D exponents appear almost exclusively as a minor component verb in SVCs. This contrasts with the non-verb status evident among forms that code secondary concepts of the SEC-A class.

A further observation from the SLOT column concerns linear order of major and minor components. SEC-B-D concepts manifest a split regarding linear order of major and minor components. Some show major-minor order, others minor-major. Those showing major-minor order are SEC-B and SEC-D, while SEC-C shows minor-major order. In addition, forms that code SEC-B-D consistently occur on their own as predicates without an additional verb. They are not semantically dependent, contrary to what Aikhenvald has observed. A point of note about classes B-D is that some of their secondary concepts are coded as nouns. They tend to occur as direct object for a verb in the minor slot of an A-SVC.

The WC column in Table 3 provides synchronic and diachronic information that is both definitive and yet problematic. Nearly all exponents of the various verb classes serve a valency changing (VC) function. From this one can conclude that Table 3 secondary concepts without exception add an argument to a main action, although only in one instance, that of vbieeg, does a SEC-D concept add a core argument. However, the VC function is not associated with a particular word class. One could assume that these VC forms are prepositions for example. But they do not behave like existing Emai prepositions, of which there are very few. For instance, under a process of left dislocation, the locative preposition vbi appears neither stranded after a preceding verb nor included in the dislocated position marked by the grammatical morpheme li/ni (iwè mè lí ójé lá’ sé ákhò [dwelling my PF Oje RPST.run\PFV move.as.far.as\PFV yesterday] ‘It was my dwelling that Oje ran to yesterday’). Compare this structure to the corresponding canonical non-dislocated construction where vbi follows the final verb in series (ójé lá’ sé vbi iwè mé ákhò [Oje RPST\run\PFV move.as.far.as\PFV dwelling my yesterday] ‘Oje ran as far as my dwelling yesterday’). In contrast, VC forms in Table 3 are always stranded in constructions showing left dislocation. As one alternative to the preposition hypothesis, might the VC forms identified in Table 3 represent a hybrid word class that is neither verb nor preposition? If so, what would it be? Some, for instance, have suggested “coverbs” (Mathews 2006) or “verbids” (Ansre 1966). Following such a strategy would appear to obscure further the relations between serial verb constructions and simple non-serial constructions. For now, it may be better to explore more fine-grained analyses of grammatical properties that might undergo a change during any grammaticalization process from verb to preposition.

Overall, our review indicates that secondary concepts only partially align with Emai verbs in SVCs. A significant number of synchronic preverbs realize secondary concepts of the SEC-A class and have a verb heritage. They have grammaticalized, as judged by their syntactic and tonal behavior, from diachronically earlier verb-in-series structures. They are no longer marked by the high or low tone spread of perfective and imperfective aspect. They show a tonal melody that is defined by contour tonal structure, in contrast to non-contour, level tone of the verb proper. It seems reasonable to hypothesize that pre-stem position vis-à-vis a canonical monotransitive verb has had a privileged role in the evolution of preverbs expressing secondary concepts from SVCs. It also appears that this privileged role has continued to affect the course of serialization for event and participant qualifiers. Postverbal particles, on the other hand, are synchronically less distinct from their verb sources since they exhibit a fixed rather than variable tone for instance. An even less distinct coding relation obtains between valency changing forms and their potential
identification as prepositions. If such a historical scenario were the case, one might hypothesize that the diachronic trajectory of SVCs would be constrained by word class: beginning with preverbs and continuing through postverbal particles and then prepositions. For now, however, this historical trajectory remains highly speculative.

Our assessment of secondary concepts does not pretend to be exhaustive or comprehensive. It has simply emerged from our attempt to characterize Emai verbs in serial verb constructions. Clearly, however, there is much more about serial verbs in Emai and West Africa to be gained by scrutinizing their possible associations with secondary concepts in a systematic fashion.

**Abbreviations**

Orthographic conventions reflect those in Schaefer and Egbokhare (1999; 2007; 2017), where o represents a half open back vowel, e a half open front vowel, and vb a voiced bilabial approximant. For tone, acute accent marks high, grave accent signals low, and acute accent followed by an apostrophe designates high downstep. Abbreviations for grammatical morphemes are: ABQ=absolute quantification, ANT=anterior, APP=applicative, ART=article, ASS=associative, CL=change of location, COL=collective, CS=change of state, DUR=durative, EG=eggresive, FUT=future, HAB=habitual, ID=indefinite, IG=ingressive, IMPF=imperfective aspect, IND=indicative, LOC=locative, NABQ=non-absolute quantification, NEG=negation, PA=past absolute, PAP=past perfective, PF=positive focus, PFV=perfective aspect, PL=plural, PST=past tense, R=relator, REP=repetitive, SC=subject concord, SG=singular, SUBJ=subjunctive, TEMP=temporal perspective.

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