

Accounting for the variation in West Benue resultative constructions

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Abstract

This paper investigates the variation of resultative serial verb constructions in Benue-Kwa languages. The main claim is that the variation can be explained assuming three versions of general lexical rules which turn main verbs into complex predicates selecting for a second verb and attracting its arguments. Each language has a language specific version of these lexical rules, enriched with language specific peculiarities to account for the specific behaviour of verbal inflection. The fact that not all of the lexical rules do operate in each languages is another source of variation.

1 Introduction

There is broad agreement that serial verb constructions (SVC) in Benue-Kwa languages fall into a variety of syntactic subclasses such as (instrumental) ‘take’-SVCs, (benefactive) ‘give’-SVCs, ‘say’-SVCs, comparative SVCs and some others (cf. Baker 1989, Lefebvre 1991, Lawal 1993, Déchaine 1993 and Shluinsky 2017). Among these are also the so-called resultative SVCs (RSVC), which in West Benue languages minimally consist of two verbs or verbal roots V_1 and V_2 , where typically V_1 is some agentive or inchoative predicate and where V_2 is an unaccusative inchoative or stative predicate (cf. Baker 1989: 529–532). In Ìgbo, resultatives are realised as compounds rather than SVCs. In the remainder of this article, the term resultatives or resultative verb construction (RVS) will be used as to refer to the super class consisting of both RSVC and resultative compounds (RCOM).

1.1 Variation accros languages

Since the work by Lord (1975: 24–28), Déchaine (1993: 807), Stewart (2001: 152–154) and Manfredi (2005), it has been shown that West Benue languages fall into two groups as regards to the expression of resultative concepts: Whereas in languages such as Yorùbá or Èdóid languages resultatives exhibit a word order typical for serial verb constructions, namely $NP_{\text{subj}} V_1 NP_{\text{obj}} V_2$ (1–2), Ìgbo resultatives surface as compounds (or root serialisations) with the corresponding linear order $NP_{\text{subj}} V_1 V_2 NP_{\text{obj}}$ (3):

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- (1) Èniọlá á jẹ [ọbẹ ewédú] tán.¹
Èniọlá HTS eat soup jute.leaf be.finished
‘Èniọlá finished the ewédú.’ YORÙBÁ
- a. Èniọlá á jẹ [ọbẹ ewédú].
Èniọlá HTS eat soup jute.leaf
‘Èniọlá ate ewédú.’
- b. [Ọbẹ] ewédú ú tán.
soup jute.leaf HTS be.finished
‘The ewédú soup is finished.’

- (2) Òjè họt [ọlì úkpùn] fúán.²
Òjè wash DET.S cloth be.clean
‘Òjè washed the cloth clean.’ EMAI
- a. Òjè họt [ọlì úkpùn].
Òjè wash DET.S cloth
‘Òjè washed the cloth.’
- b. [ọlì úkpùn] fúán-ì.
DET.S cloth be.clean-FACT
‘the cloth is clean.’

- (3) ọ tỳ-fù-rù [ákwúkwo].³
3S throw-be.lost-rV paper
‘He threw away the paper.’ ÌGBO
- a. ọ tỳ-rù [ákwúkwo].
3S throw-rV paper
‘He threw the paper.’
- b. [ákwúkwo] fù-rù.
paper be.lost-rV
‘The paper got lost’

All the languages under investigation involve some markers, which largely translate as some sort of past or perfect marker. The way these markers interact with RVC in each of the relevant languages is also subject to variation, see also Manfredi (2005) for similar observations (cf. his description 3c).

As shown by Bisang & Sonaiya (1999) the so-called *high tone syllable* (HTS) in Yorùbá precedes V₁ and is mostly limited to veridical contexts. Emai

¹Examples provided by Olúwadára Ọmọtòşó and Abídémi Jimoh.

²As quoted in Schaefer & Egbokhare (2017: 698–701).

³As quoted in Lord (1975: 24–25). In the original, Lord spells the V₂ as *fù*. As pointed out by Victor Manfredi, this seems to be a confusion of two phonetically similar verbs *fù* ‘get.lost’ and *fù* ‘exit’

and other Èdóid have a so-called *factative* suffix (*-ì* in Emai, *-rV* in Èdó), which attaches to past intransitive verbs and transitive verbs whose NP was fronted (2b). Whenever an intransitive verb is part of a RSVC, it fails to bear the factative suffix (cf. Schaefer & Egbokhare 2017: 27–29, Ogie 2009: 83–103).

In contrast, Ìgbo has the factative *-rV* suffix, which attaches to all eventive verbs with past interpretation and most stative verbs with present interpretation (cf. Nwachukwu 1984, Onukawa 1994, Mbah & Evelyn 2014). It consists of the sonorant [r] and a copy of the stem vowel of the verb to which it belongs (3a–3b). It does not occur with the copulas and small subclass of stative verbs in the present tense but, rather it would yield a past tense interpretation with these verbs. It also attaches to V_2 of resultative compounds and mirrors its stem vowel (cf. Nwachukwu 1984: 92–94, Emenanjo 2015: 457–459).

Despite all the variation discussed above, RVC in Benue-Kwa languages are characterised by the features typical of SVCs, such as (i) shared value of polarity, (ii) shared TAM values (cf. Stahlke 1970: 60, 78, 80).

The aim of the study presented here is to provide an analysis which accounts for both the general characteristic of RVC in Western Benue languages and the cross linguistic variation among them.

2 Some syntactic properties

2.1 The status of the shared THEME-NP

One of the first questions which arises is how the shared THEME-NPs *òbè ewédú* ‘Ewédú soup’/ *ólí úkpùn* ‘the cloth’/ *ákwúkwó* ‘paper’ in the examples (1–3) above are adequately analysed. The transitive V_1 and the unaccusative V_2 have altogether three argument slots, but the sentence only contains two phonetically realised NPs. The main question is whether the second NP is now the object of V_1 or the subject of V_2 or both at the same time. As shown below, the pronominalisation of this NP reveals its status.

Most Benue language have developed case in their pronominal paradigm which distinguishes subject case, object case and possessor case (cf. Stahlke 1973: 192–193, Pulleyblank & Orie 2009: 874; Ogie 2009: 19, Schaefer & Egbokhare 2017: 236–237; Atoyebi 2009: 170–184; Déchaine 1993: 812, Emenanjo 2015: 303–306, 358). As data from Yorùbá (4), Òkò (5), Ìgbo (6) demonstrate, the THEME argument in RVC surfaces with object case, indicating it has a stronger link to the transitive V_1 whose object it is, rather than to the V_2 whose subject it is.

- (4) Ebí pa á/*ó kú.⁴
 hunger kill 3s.O/3s.s die
 ‘Hunger killed him.’ YORÛBÁ
 ‘He was extremely hungry.’
- (5) Àde tǎ-mọ ẹba fale.⁵
 Àde push-1s.O hand fall
 ‘Àde pushed me down.’ ỌKỌ
- (6) ó rì-chà-rà yá/*ó.⁶
 3s.s eat-be.finished-rV 3s.O/3s.s
 ‘He ate it up.’ ÌGBO

Thus the pronominalisation test shows that the shared THEME-NP is case marked as the object of V₁, thus the subject of V₂ is not phonetically expressed. The underlying mechanism of how the referent is identified will be investigated in the next section.

2.2 Subject-oriented vs. object-oriented interpretations

So far the present article only discussed RVC in which the subject of V₂ is co-referential with the object of V₁. But apart from that there are RVC in which the subject of V₂ co-referential with the subject of V₁ (cf. Lord 1975: 24–28, Déchaine 1993: 807, Stewart 2001: 145–146 and Manfredi 2005). In the remainder of this paper the former type is referred to as ‘object-oriented’ and the later as ‘subject-oriented’. The second type has two subtypes which need to be distinguished: cases, where V₁ is intransitive and cases where V₁ is transitive and introduces a further NP as object.

Since Schachter’s (1974: 254–256) analysis of the Àkán RSVC *daadaa* X *kɔɔe* ‘trick X into leaving’/‘trick X and leave’, it is generally assumed that RSVC are systematically ambiguous between an object-oriented and a subject-oriented interpretation, consider the examples for Yorùbá (7) and Èdó (8) below. Note that in these languages the subject of V₁ can bind the phonetically unrealised subject of V₂ across the object NP, which is an intervening potential antecedent:

- (7) Olú_i lu màálù_j _{-i/j} kú.⁷
 Olú beat cow die
 a. ‘Olú beat the cow dead.’ YORÛBÁ
 b. ‘Olú beat the cow and died.’

⁴Example provided by Olúwadára Omọ̀tòṣọ̀ and Abídémi Jimoh.

⁵As quoted in Atoyebi 2009: 291–292.

⁶Example provided by Chinedu Úchèchúkwu.

⁷As quoted in Baker (1989: 547) (=ex. 69).

- (8) Òzò_i gbé èkhù_j _{-i/j} làá òwá.⁸
 Òzò hit door enter house
 a. ‘Òzò hit the door into the house.’ ÈDÓ
 b. ‘Òzò hit the door and entered the house’

However, Lord (1974: 199–200) argues that the RSVC in Yorùbá *ti X ṣubú* ‘push X fall’ only allows for an object-oriented interpretation, due to some lexical restrictions of the verbs involved. But she also suggests for Yorùbá that both subject-oriented and object-oriented readings “are possible for any serial construction”. At some later point, Lord’s judgement of the Yorùbá example above was rejected and this same RSVC is now considered to have a subject-oriented interpretation, too (cf. Stewart 1998: 176).⁹

Based on Láníràn’s assessments, Baker (1989: 547) assumes that native speakers prefer object-oriented over subject-oriented interpretation in the ambiguous examples. But the fact that there instances of RSVC with transitive V₁ which only allow for a subject-oriented reading shows that this binding across an intervening object is by no means a very uncommon phenomenon (9):

- (9) Ó_i mu omi_j _{-i/*j} yó.¹⁰
 3SG drink water be.full/be.satisfied
 ‘She drank water until full/satisfied.’ YORÙBÁ

The situation in Ìgbo is slightly different. On the one hand side, Ìgbo allows for both object-oriented (10) and subject-oriented compounds (11), and on the other hand side, it does only when V₁ does not have an object. Unlike RSVC with transitive V₁ in languages like Yorùbá or Èdóid languages, which are systematically ambiguous between a subject-oriented and an object-oriented interpretation, resultative compounds in Ìgbo do not have a subject-oriented interpretation if V₁ is transitive.

- (10) ọ̀ t̀-̀f̀-̀r̀-̀r̀ àkwúkwó.¹¹
 3S throw-be.lost-rV paper
 ‘He threw away the paper.’ ÌGBO
 #‘He threw the paper and he got lost.’
- (11) ọ̀ gbá-̀f̀-̀r̀-̀r̀.¹²
 3S.S go-be.lost-rV
 ‘He ran away.’ ÌGBO

⁸ As quoted in Stewart (2001: 145) (=ex. 1).

⁹ The early controversy on the systematic ambiguity of RSVC was pointed out to me by Victor Manfredi.

¹⁰ As quoted in Déchaine (1993: 807).

¹¹ As quoted in Lord (1975: 25) (ex.4), assessment for subject-oriented reading by Mary Chimaobi Amaechi.

¹² As quoted in Lord (1975: 26) (11).

Considering these data from resultative compounds in Ìgbo, there are good reasons to assume that subject-oriented interpretations of ‘RSVC’ with transitive V_1 are some pattern entirely different from RVC. Stewart (2001: 14, 145–148) claims that they are not SVCs but instances of covert coordination.

As suggested in Section 2.1, it is the subject argument of V_2 , which remains phonetically unexpressed. So far we explored here the different alternatives how that subject referent can be identified with clause internal antecedents. However, the question whether it could theoretically also refer to some antecedent which was not mentioned in the clause was not properly addressed yet. Based on data from Àkán, Hellan et al. (2003) concludes that the subject argument cannot be identified with a clause external referent (cf. the author’s examples 7b & 8).

2.3 Headedness

There is a long controversy whether the verbs involved in SVCs stand in any hierarchical relation to each other or whether they are conjuncts with same syntactic status. Some authors such as Hyman (1971) suggest that all SVCs uniformly are coordinated clauses, others argue that at least some classes of SVCs are head-adjunct structures (cf. Bamgboṣe 1974: 34–36), or even all of them (cf. Déchaine 1993), and even others consider some or all SVC classes as head-complement structures, such as Baker (1989).

As shown below, resultative verb constructions in Yorùbá display typical behaviour of headed structures in imperatives. The overall construction in (12) can form an imperative and it inherits this property from its V_1 (13), whereas V_2 (14) in contrast cannot be used as an imperative.

- (12) Jẹ ọ̀bẹ̀ ewédú tán!
 eat soup jute.leaf be.finished
 ‘Finish up the ewédú!’ YORÙBÁ
- (13) Jẹ ọ̀bẹ̀ ewédú!
 eat soup jute.leaf
 ‘Eat the ewédú!’ YORÙBÁ
- (14) # tán!
 be.finished
 Intended: ‘Be finished!’ YORÙBÁ

From this it follows that the syntactic properties of the overall construction is determined by V_1 , which thus acts as the head. Similar classifications were suggested by Déchaine (1993: 803–807, 811–812) and Ogie (2009: 476–479). However, only the latter considers RVCs as head complement structures, whereas the former assumes they are head adjunct structures. Here, we follow Ogie’s spirit because V_2 involve unrealised arguments which have to be bound by some argument of the head V_1 , which is reminiscent of control structures.

2.4 Structural case

Note that NPs with structural case are independently necessary for Benue-Kwa languages in order to explain the fact that there are at least 50 verbal lexemes listed in Abraham's (1958) dictionary for Yorùbá that involve a causative-inchoative alternation in which the THEME-argument can surface either as the direct object of the causative transitive variant or as the subject of the inchoative unaccusative variant. As Déchaine (1993: 807) following Awóbùlúyì (1971) pointed out, these verbs with alternation can even be the V_1 in resultatives, such as the light verb use of *pa* 'become.amalgated, get.in.contact' (cf. Abraham 1958: 538), as illustrated in the examples (15a–15b) below. There are similar alternations with verb in Ìgbo, which can be found as V_1 compounds, as shown by Manfredi (2005: 9) and Williams (2015: 209) (cf. 16a–16b):

- (15) a. Ó pa ìlẹ̀kùn yíí dé.¹³
 3SG strike door this close
 'S/he shut the door.' YORÙBÁ
- b. Ìlẹ̀kùn yíí pa dé.
 door this;HTS strike close
 'This door is shut.' YORÙBÁ
- (16) a. Ọ sọ-ji-ri osisi m¹⁴
 3S.S poke-snap-rV wood 1S.POSS
 'S/he made my stick snap from poking.' ÌGBO
- b. osisi m sọ-ji-ri asoji
 wood 1S.POSS poke-snap-rV NMLZ-poke-snap
 'My stick snapped from poking.' ÌGBO

The fact that the THEME-NP *ìlẹ̀kùn yíí* 'this door' is promoted to the subject position of *pa* once no AGENT is realised indicates that it must be assigned structural case by V_1 . Inchoative-causative alternations with zero affixation are documented for other Benue-Kwa languages as well (cf. Stahlke 1970: 66–68; Ogie 2009: 21–22).

Apart from that there are RVC with unaccusative V_1 , which do not necessarily exhibit the alternation discussed above. As Baker (1989: 532–533) argues, a V_1 can be unaccusative as long as V_2 is unaccusative.

- (17) Ó pón rà.¹⁵
 it ripen rot
 'It ripened to the point of rotting.'

¹³ As quoted in Déchaine (1993: 807).

¹⁴ As quoted in Williams (2015: 209).

¹⁵ As quoted in Baker (1989: 532–533).

- (18) Wón jáde lọ.¹⁶
 they enter go
 ‘They went out.’

The realisation of case is governed by the case principle as suggested suggested Meurers (1999), Przepiórkowski (1999) or Müller (2002: (15) then.

2.5 Aspectual and temporal restrictions

As has been observed at various occasions, SVCs in Benue-Kwa stand out against other clauses that contain multiple verbs in that all the verbal components share the same values of polarity and tense, aspect and mood (cf. Stahlke 1970: 60, 78, 80, Baker 1989: 513, Déchaine 1993: 799–800, Collins 1997: 486, Aikhenvald 2006: 1, Bisang 2009, Aboh 2009: 3 and Shluinsky 2017: 379). This property applies to RVC too.

Stewart (2001: 75–78) argues that there are additional aspectual restrictions, which hold at least for RSVC in Èdó : First of all, the first verb cannot be a stative predicate (19) and secondly object-oriented RSVC in Èdó fail to embed unergative predicates as V₂ (20), and finally, recursion of RSVCs as V₁ is not possible in Èdó . *sùá X dé* ‘push X fall’ cannot be the transitive base for another RVSC, which has *wú* as its unaccusative V₂ (21):

- (19) * Òzó hòémweęn Àdésúwà_j _{–j} wú.¹⁷
 Òzó love Àdésúwà die
 Intended: ‘Òzó loved Àdésúwà to death.’ ÈDÓ
- (20) Òzó_i sùá Úyì_j _{–i/*j} só.¹⁸
 Òzó push Úyì cry
 Intended: ‘Òzó pushed Úyì till he cried’ ÈDÓ
 OK as: ‘Òzó pushed Úyì and Òzó cried ’
- (21) * Òzó sùá òmó_j _{–i/*j} dé wú.¹⁹
 Òzó push child fall die
 Intended: ‘Òzó pushed the child down to its death’ ÈDÓ

Nevertheless, RSVCs can occur as components of other SVCs, as in ‘take’-SVCs (22):

- (22) Èniọlá á fi şíbí je [ọbẹ ewédú] tán.²⁰
 Èniọlá HTS use spoon eat soup jute.leaf be.finished
 ‘Èniọlá finished the ewédú.’ YORÛBÁ

¹⁶ As quoted in Baker (1989: 532–533).

¹⁸ As quoted in Stewart (2001: 12–13) (=ex. 9d).

¹⁹ As quoted in Stewart (2001: 77–78) (=ex. 104b).

²⁰ Examples provided by Abídémi Jimoh.

3 Ìgbo compounds and suffixation

Apart from their diverging word order (cf. Section 1.1) and their lack of subject-oriented interpretations with transitive V_1 (cf. Section 2.2), resultative compounds in Ìgbo are distinguished from RSVCs by yet another property: Their V_2 tend to grammaticalise to a stronger degree than the one in RSVCs. Note that the position which immediately follows V_1 is the designated slot to express grammatical meaning; Emenanjo (2015: 240–255) lists more than 90 suffixes which contribute an aspectual, modal, temporal, manner or directional interpretation of the event encoded by the V_1 .

In this light, it is not surprising that the suffix *-chà*, which express the terminal state of some event in resultative compounds (23), has a lexical meaning when used a main verb, namely ‘be.ripe’ (24). This is in clear contrast to Yorùbá where the stative verb *tán* ‘finish/be.finished’ has constantly the same meaning as main verb and as V_2 in resultatives (1).

(23) ó rìchà-rà ùnèrè áhù.²¹
 3S.S eat-be.finished-rV banana DEM
 ‘He ate up that banana.’

(24) ùnèrè áhù chà-rà.²²
 banana DEM be.ripe-rV
 ‘That banana is ripe.’

The tight relation between V_1 and V_2 in Ìgbo resultative compounds is illustrated by their interaction with negation. As shown by Obiamalu (2014: 44), negation in ÌGBO is formed by a circumfix-like structure consisting of the harmonising prefix *e-/a-* and the suffix *ghí* embracing the verbal root, like the stative verb *mà* ‘be.beautiful’, (25). Turning to compounds, it can be seen that these circumfixes embrace the entire sequence of V_1 *rì* ‘eat’ and V_2 *chà* ‘be.finished’, demonstrating that the two verbal components are not separable (26).

(25) Àda a-mā-ghí mma⁻²³
 Ada PFX-be.beautiful-NEG beauty
 ‘Ada is not beautiful.’

(26) Àda é-ríchá-ghí ùnèrè áhù.²⁴
 Ada PFX-eat-be.finished-NEG banana DEM
 ‘Ada didn’t eat up the banana.’

²¹As quoted in Lord (1975: 32).

²²As quoted in Lord (1975: 32).

²³As quoted in Obiamalu (2014: 44), example (2b).

²⁴Chinedu Úchèchúkwu (pers. comm).

Yet the fact that most compounds do not involve vowel harmony between V_1 and V_2 indicates that these two verbs still constitute independent phonological words (Victor Manfredi pers. commun.).

4 Previous Analyses in derivationalist and functionalist frameworks

Most derivational approaches face serious challenges in providing an analysis for object-oriented RSVCs and resultative compounds. In particular, it is not entirely clear how the unrealised subjects of V_2 , eg. *tán* ‘be.finished’ and *chà* ‘be.ripe/finished’ are to be analysed. These patterns tempt various authors into making assumptions which contradict some of the core principles of their own frameworks: Baker (1989: 529–532) and Baker & Stewart (1999: 17–20) consider RSVCs involving doubly headed VPs, Déchaine (1993: 811–812) assume head movement from an VP_2 , which is adjoined to VP_1 , to V_1 . Collins (1997: 482, 484–485, 494) postulates object control structures with small pro as phonologically empty subject. However, this account makes the false prediction that the subject of V_2 , being a common subject pronoun, should be able to refer to clause external referents, just like arbitrary PRO does. As illustrated by Hellan et al. (2003), this option is not available, at least for Àkán (cf. Section 2.2 in the present paper). Finally, Aboh (2009) can only account for SVCs in which the V_1 is a semantically bleached light verb, yet under such circumstances it would be impossible for V_1 to have an NP object and assign object case to it.

Lord (1975: 26–27, 30–32, 33–35, 41–43) demonstrated that derivational analyses encounter further difficulties in predicting the properties of RVC, which largely concern idiomaticity and word order, but which cannot be exemplified here due to restrictions of space.

5 A lexicalist analysis

As already demonstrated by Lord (1975), derivational approaches towards resultative compounds in Ìgbo face a row of serious challenges which can be tackled more easily by a lexicalist analysis.

5.1 Previous analyses in HPSG

Within the framework of HPSG, a variety of different syntactic analyses for SVCs have been suggested. Some authors assume a uniform structure for all types of SVCs, others assume that there are distinct subclasses of SVCs, which involve different syntactic configurations. The first large group of accounts considers (some classes of) SVCs as *head-adjunct* structures such as Hellan et al. (2003). They consider ‘take’-SVCs, RSVCs and other types to

be structures in which V_1 acts as head and V_2 as adjunct modifier of V_1 . Yet this analysis does not cover the aspect of how TAM inflection is organised in different languages and whether adjuncts can be the morphemes which carry the main inflection.

The second group of analyses treats (some classes of) SVCs as *head-complement* structures or structures in which a verbal head selects the other verb and forms a complex predicate with it. Song (2007: 442), Kim et al. (2010: 442–444) argue for Korean ‘SVCs’ that V_2 is the head, which selects V_1 constituting a complex predicate, which also allows for constructional, non-compositional semantics. Their main argument for the assumption of such a configuration is the fact that V_2 is always the verb which bears tense and aspect suffixes. As Korean is an SOV language, unlike Benue-Kwa which is SVO, many of the details of their analysis are not relevant here. Moreover, Korean SVCs are restricted to non-stative predicates (Kim et al. 2010: 442–443), and thus they cannot have the same type of resultative verb constructions as prevalent in Benue-Kwa. Note that all the examples given by the authors involve constructions in which the two verbs are not separated by intervening arguments, as it is the case with serialising SOV languages such as Ijaw (Williamson 1965: 53–56, Carstens 2002), but they rather form clause final compounds. Therefore, it may be objected whether the term serial verb construction is really appropriate here and whether these constructions are not complex predicates of the type found in other (S)OV languages such as German (Müller 2002). Moreover there is an *head-complement* analysis of Èdó RSVC developed by Ogie (2009: 476–480).

The last group treats (some classes of) SVCs as covert coordination such as Müller & Lipenkova’s (2009) analysis of Mandarin *ba* SVCs.

5.2 Word order and argument linking

Following the spirit of Müller’s (2002: 241, 2006: 873, 2013: 359) analysis, it is assumed here that RSVC are a result of applying a lexical rule to a certain class of lexical full verbs which alters their valency by adding a resultative predicate to their ARGUMENT-STRUCTURE-list, turning them into complex predicates which attract the subject argument of the unaccusative V_2 and assigns object case to them. Unlike some previous analyses, that lexical rule is assumed to operate on the ARG-ST rather than COMPS-list, as the former invariably is the most central representation of the argument structure of some lexical word (Sag & Wasow 1999: 152–154).

Precisely speaking, it is suggested here that three version of the lexical rule are necessary to accommodate the different scenarios: (A) transitive V_1 + unaccusative V_2 (object-oriented), (B) unaccusative V_1 + unaccusative V_2 (subject-oriented), and (C) a less specified subject-oriented case. Despite the fact that scenario A and B intuitively seem to be closely related in that they involve a shared NP which is the THEME of V_1 and of V_2 , it is not a

trivial task to conflate this into a single rule, as already noticed by Müller (2002: 240–247) for German. For the sake of simplicity and legibility we will resort to assuming two separate rules here. The fact that there are certain constructions which are not compatible with the scenario C, such as Ìgbo compounds, or constructions which have unergative V₂ (cf. ex. 20 in Section provided by Stewart 2001: 12–13), makes it necessary to assume distinct lexical rules for A and B on the one hand side and C on the other hand. Stewart (2001: 14, 145–148) even claims that subject-oriented interpretations of type C are not SVCs but some entirely different construction named ‘covert coordination’. Yet, it remains to be checked whether there are languages or constructions which are only subject to rule A but not to rule B or vice versa.²⁵

After all, it is plausible to conclude that there is a more general type for each of these three lexical rules which hold across all Benue-Kwa languages as illustrated in Figures 1–3, which in turn are possibly only inherited by three more universal rules. Each of the individual Benue-Kwa languages is considered to have more specified version, which contains language specific idiosyncrasies and which inherit the features they have in common from the general rule via an inheritance hierarchy. These language specific rules will be discussed in great detail in Section 5.3.

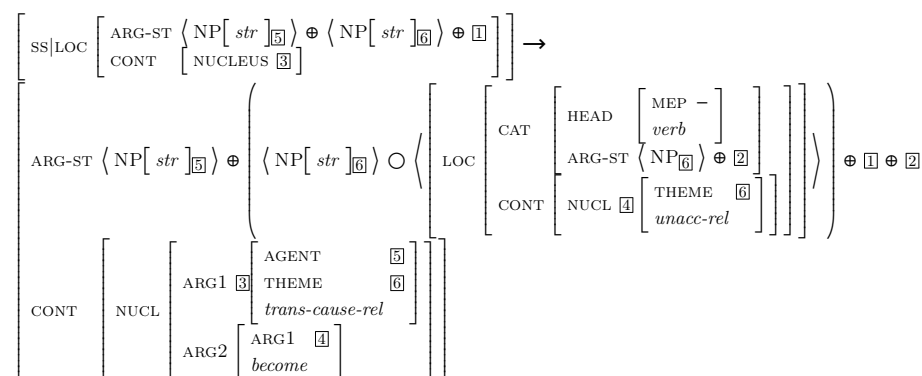


Figure 1: Unified lexical rule for object-oriented RVCs with transitive V₁ in Benue (cf. Müller 2002: 241–243, 2006: 873, 2013: 359)

Turning to the lexical rule for object-oriented RVCs, the basic idea is that it yields resultative which are *head-complements* or *head-cluster* structures, in which V₁ is the syntactic head and V₂ is its complement, as already demonstrated in Section 2.3. The general lexical rule for Benue-Kwa languages

²⁵The German resultatives based on unaccusative V₁ gathered by Müller (2002: 230–232) involve above all verbs which take PPs as their result state predicate such as *in Stuecke brechen* ‘to break into pieces’, *zu Wachs schmelzen* ‘to melt into wax’, *zu einer Pfütze schmelzen* ‘to melt into a puddle’, *zu einem Block frieren* ‘to freeze into a block’. In contrast, there are many resultative based on transitive V₁ which combine with adjectives. This contrast could justify the existence of two distinct rules.

determines the essential properties of RVC in these languages, as illustrated in Figure 1. Firstly, the ARG-ST-list of the overall RVC contains a shuffle operator, as proposed by Bender (2008), which connects the THEME-argument with the index $\boxed{6}$ and the embedded unaccusative predicate. This shuffle operator allows to account for the word order variation in among RVC in these languages either realised as NP_{subj} V₁ NP_{obj} V₂ (Yorùbá or Emai type) or as NP_{subj} V₁ V₂ NP_{obj} (Ìgbo type). Note that the parentheses here do not mark optionality but they indicate the arguments of the shuffle operator. Secondly, this rule enables RVCs to attract the complements introduced by V₂ (cf. argument marked by $\boxed{2}$) into its own ARG-ST-list. Thirdly, it accounts for the examples in Ìgbo discussed by Lord (1975: 33), in which the overall RVC can retain inherent verb complements of V₁ (cf. argument marked by $\boxed{1}$). In its use as a simple verb, *lù* ‘fight’ always requires the presence of an cognate object *ògù* ‘fight’, whose realisation remains mandatory even in RVCs (27).

- (27) Há lù-sò-rò ànyí ògù.
 3P.S fight-against-rV 1P.O fight
 ‘They fought against us.’ ÌGBO

Finally, this lexical rule is capable of accounting for the well known fundamental properties of RVCs in Benue-Kwa, according to which all the verbal components share the same values polarity and TAM (Stahlke 1970: 60,78,80, Baker 1989: 513, Aikhenvald 2006: 1, Bisang 2009 or Shluinsky 2017: 379). Bohnemeyer et al. (2007: 497, 502–508) and Bohnemeyer & Van Valin (2017: 144–148) argue that syntactic constructions differ with respect to whether or not they have the macro-event property (MEP). A construction *C* has the MEP if all its sub-events are always necessarily in the scope of time-positional adverbials such as *at 11:13 am*.

- (28) Macro-event property (MEP)
 A construction *C* that encodes a (Neo-) Davidsonian event description $\exists e.P(e)$ (‘There is an event *e* of type/property *P*’) has the MEP iff *C* has no constituent *C'* that describes a proper subevent *e'* of *e* such that *C'* is compatible with time-positional modifiers that locate the runtime of *e'*, but not that of the larger event *e*.

In their studies, Bohnemeyer et al. (2007: 506–507, 509–511) and Bohnemeyer & Van Valin (2017: 171–177) demonstrate that simple SVCs in Kwa languages have the MEP. Accordingly, RVC in Benue languages are considered here to exhibit the MEP, too.

In cases where the RVC is not embedded in another SVC the head of entire must be specified as MEP+. In contrast, verbs (or serial verbs) which can be component of an (other) SVCs have to be underspecified for the MEP: If they are selected as component of an SVC they bear the feature MEP–

(cf. ex. 22 in Section 5.2), as they fail to be modified by time-positional adverbs.²⁶ If they occur as a single main verb, they exhibit the specification MEP+, in order to be able to be modified by time-positional adverbs. As it seems here, it is the distinctive property of languages which allow SVCs that (some) verbs can be specified as MEP-. Taking this into account, the lexical rule can be modelled as follows: As the V₁ in RVCs functions as the head of the overall construction and as it cannot be independently modified without the modifier taking scope over V₂ too, V₁ is specified for MEP+. In opposition, the component V₂ itself does not constitute a macro-event, thus specified as MEP-, as shown in Figure 1.

Note that what is considered as a (macro)-event in a given language is not defined by a general objective ontology. Since each observable event can be decomposed into sub-events, it is impossible to define a repertoire of universally and cross-culturally accepted ‘atomic’ events. The event of eating for instance involves the movement of several muscles in the body and physiologically complex processes of digestion, which each can be split up into chemical reactions such as reorganising molecular structures et cetera. As proposed by Durie (1997: 322) and Aikhenvald (2006: 10–12), what may be perceived as linguistically relevant (macro-)event differs culturally. Any verb which can participate in SVCs in these languages have an underspecified MEP feature, verbs which do not participate in SVC formation because they always constitute macro-events by themselves are marked as MEP+. In order to account for both types of subject-oriented RVCs, the relevant lexical rule are almost identical: in the case of subject-oriented RVCs with unaccusative V₁, the output returns a V₁ whose THEME subject argument is co-referential with the THEME subject argument of V₂ (cf. Figure 2), in the case of subject-oriented RVCs with unergative V₁, the output yields a V₁ whose subject argument is co-referential with the subject argument of V₂, whereas the type of semantic role remains unspecified in both cases (cf. Figure 3).

Returning to the grammatical properties of SVCs, it was already mentioned that negation cannot scope over separate verbal SVC components, in a similar manner as time-positional modifiers. Thus negation is considered to be limited to modify verbal elements which are specified for MEP+,

Given the negation’s selectional restrictions, it becomes evident why V₂, bearing the feature MEP-, cannot be independently negated. A parallel analysis can be assumed for the remaining TAM markers. In order to ensure that simple verbs outside RVC can be negated, they are considered to have the macro-event property, hence MEP+.

The analysis presented here builds on Lord’s (1975: 43–46) assumption on Igbo resultative compounds, according to which both the complete compound

²⁶The fact that SVCs have to be underspecified with respect to MEP in order to be embeddable in other SVCs was pointed out to me by Antonio Machicao y Priemer.

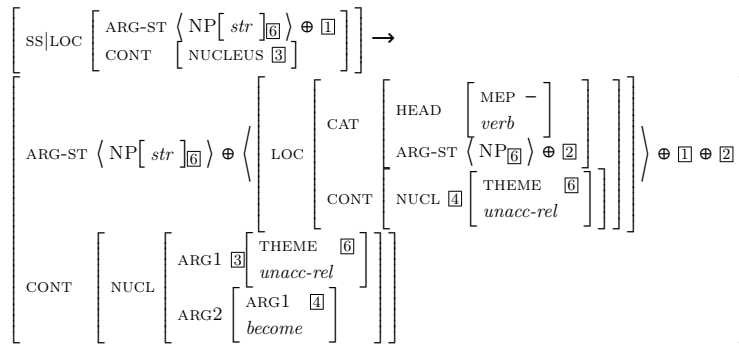


Figure 2: Unified lexical rule for subject-oriented RVCs with unaccusative V_1 in Benue (cf. Müller 2002: 241–244, 2006: 873, 2013: 359)

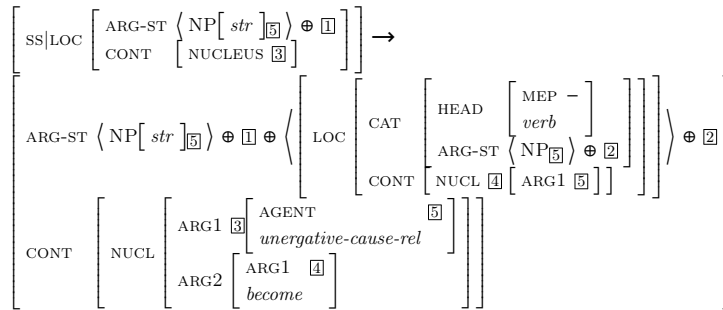


Figure 3: Lexical rule for subject-oriented constructions with unergative V_1 , in Benue (cf. Müller 2002: 241–243, 2006: 873, 2013: 359)

as well as its components V_1 and V_2 are listed in the lexicon. Furthermore, she concludes that compounds with compositional meaning are related to components by means of redundancy rules. The analysis consists of two major parts: firstly a lexical rule inspired by Müller (2002: 241, 2006: 873, 2013: 359), which turns a transitive verb into a complex predicate, as already specified above, and secondly, ID-schemes inspired by Godard & Samvelian (2021: 441–443). On closer inspection, it turns out that the contrast between Yorùbá and Èdóid RSVC on the one hand side and compounds in Ìgbo on the other is fairly reminiscent of the contrast between complex predicates of the Italian type and Spanish type, as described in Godard & Samvelian (2021: 436–440). Yorùbá and Èdóid RSVC are complex predicates with flat argument structure, in which V_1 and V_2 do not form a constituent, much similar to the Italian type but with diverging word order. In contrast Ìgbo compounds form a verb cluster. The typological difference between RSVC in Yorùbá and Èdóid and resultative compounds in ÌGBO is mainly caused by the application of different ID-schemata, as suggested by Müller (2002: 87) and Godard & Samvelian (2021: 441–446): Whereas RSVC are licensed by the *head-complements*-scheme, resultative compounds are licensed

by the *head-cluster*-scheme. The crucial difference relies on the specification of the feature `LEX` introduced by Hinrichs & Nakazawa (1989, 1994) and further developed by Müller (2013: 243–246) in order to account for predicate complex formation in German: Embedded predicates which bear the value `LEX+`, have `COMPS`-list that are not yet saturated when it is combined with the head daughter. In contrast, predicates specified as `LEX–` have an empty `COMPS`-list and all their complements already realised prior they are combined with a light verb or auxiliary.

It should be noted that Godard & Samvelian (2021: 423) explicitly doubt whether Èdó SVCs like *sàán rrá* ‘jump cross’ are to be analysed as complex predicates. However, as illustrated in great detail by Déchaine (1993) and Ogie (2009) what is dubbed as SVC in literature on Benue-Kwa languages encompasses a wide array of syntactically fairly diverse constructions. As shown above, RVCs in these languages display beyond any doubt properties of complex predication such as: argument attraction, shared polarity and TAM values.

5.3 Inflection

Finally, the variation in verbal inflection can be accommodated by language specific lexical rules for the formation of resultatives, which inherits from the general lexical rule 1. In both Èdóid and Ìgbo, it is assumed that the presence of the `FACTATIVE` or *rV*-suffix is modelled by a boolean `HEAD` feature. As shown by Schaefer & Egbokhare (2017: 27–29) for Emai, the factative *i*-suffix is only present with verbs which are not followed by a NP-complement. Such verbs would be marked with `FACT+`. In contrast, V_1 and V_2 in SVCs can never bear that suffix. This is achieved by the output of the lexical rule for Emai illustrated in Figure 4: both the head V_1 and the embedded V_2 bear the feature `FACT–`. Alternatively, the distribution of the factative suffix in Èdó can be derived from the `COMPS`-list value of the verb, as sketched by Ogie (2009: 92–95). In similar vein, Ìgbo has the boolean `HEAD` feature `RV`. As the *rV*-suffix always attaches to the last verbal element, the output of the lexical rule sketched in Figure 5 yields a head V_1 specified for `RV–` and a complement V_2 specified for `RV+`. The language specific lexical rules for Yorùbá only needs the boolean feature `HTS` in order to motivate the lack of the high tone syllable on V_2 , as illustrated in Figure 6.

6 Conclusion

Summing up, the variation in West Benue RSVC is the result of the interaction of contrasts at different levels of grammar: Firstly, there are at least three different lexical rules which yield resultative verb constructions or some thing related. Not all of the lexical rules can be applied in each languages to each construction. Secondly the shuffle operator in the general lexical rule

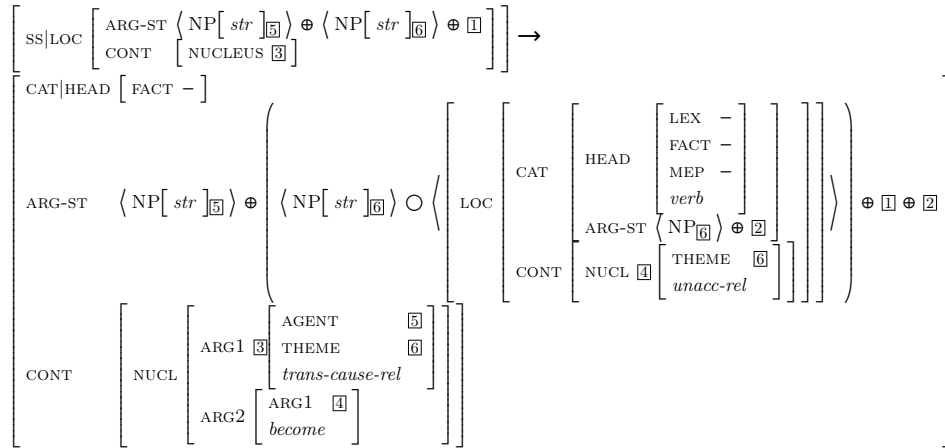


Figure 4: Language specific lexical rule for object-oriented RSVC with transitive V_1 in Emai

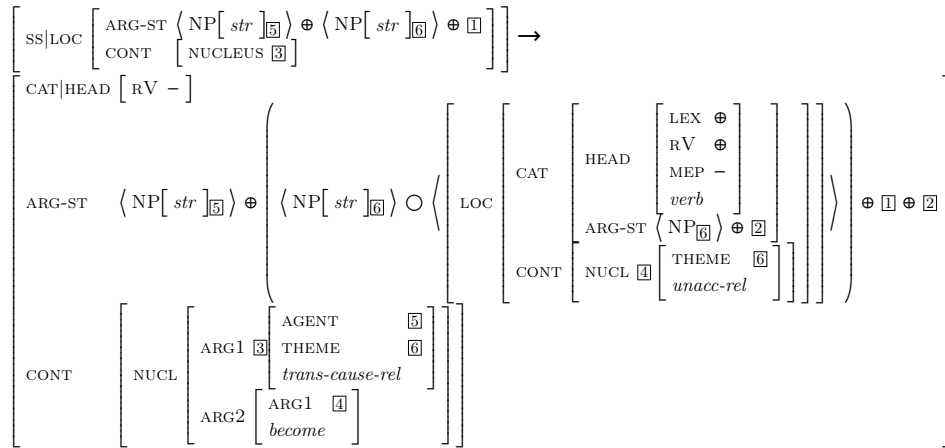


Figure 5: Language specific lexical rule for object-oriented compounds with transitive V_1 in Igbo

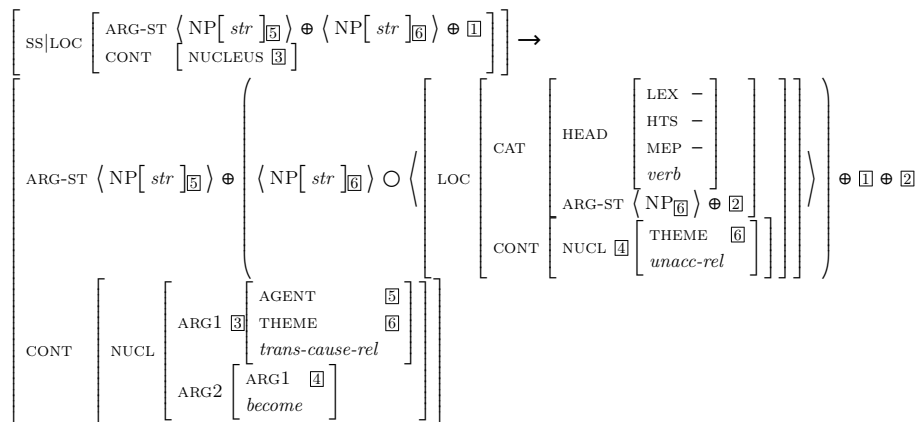


Figure 6: Language specific lexical rule for object oriented RSVC with transitive V₁ in Yorùbá

allows for a variation of word order sequences over the different languages. Thirdly, there are language specific versions of these rules which inherit from the general rules and enrich them with language specific peculiarities for inflection or argument realisation.

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