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A Cross-linguistic Typology of 'Take' Serial Verb Constructions

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To Cameron, for your love and support

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Abstract

Serial verb constructions (SVCs) are multiple verbs forming a single predicate in a single clause (Aikhenvald 2006a, 2018). Serial verbs do not exhibit syntactic dependency between the verbs. Each of these verbs must occur on its own. The verb 'take' is one of the common verbs that occur in SVCs, and it tends to grammaticalize following numerous different paths. Yet, there are no studies with a considerable sample of 'take' SVCs. Moreover, the polysemy of 'take' SVCs has not been explored in detail. Based on Aikhenvald (2018)'s functional framework, the present study aims to examine 'take' SVCs in 45 languages from 17 language families over four macro geographic areas. The findings reveal a variation of the composition, semantics, and morphosyntactic features of 'take' SVCs wider than previously documented, focusing on their rich polysemy. Furthermore, this variation is looked at from a diachronic perspective as well as a contact-induced approach.

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Abbreviations

1, 2, 3 first, second, third person
A transitive subject
ABS absolutive
ACC accusative
ADDIT addictive
CAUS causative
CL classifier
CL:x classifier for x
CONV converb
CONN connective
COMIT comitative
COMP complementizer
C_1 noun class 1
DAT dative
DECL declarative
DEF definitive
DEM demonstrative
DEP dependent
DESR desirative
DET determiner
DU dual
EMPH emphatic
EP epenthetic
FOC focus
FUT future
HAB habitual
HSY hearsay
INCL inclusive
INDEP independent
INFER inferred
INF infinitive
IMM immediate
IMP impersonal
IMPERF imperfective
IMPR imperative
IRR irrealis
LOC locative
M masculine
NEG negation
NOMIZR nominalizer
NONVIS nonvisual evidential
NOM nominative
NON.A/S non-subject
O, OBJ object
PART partitive
PERF perfective
PL plural
PRN pronoun
POSS possessive
POT potential
REC recent
REL relational prefix
S intransitive subject
SG singular
SS same subject
SUB subject
SVC serial verb construction
SVM serial verb construction reduced agreement marker
TA tense-aspect
TAM tense-aspect-mood
TOP topical
TR transitive morpheme
V_1 first verb in a serial verb
V_2 second verb in a serial verb

Chapter 1

Introduction

Serial verb constructions (SVCs), or serial verbs, are a sequence of multiple verbs forming a single predicate in a monoclause without any marking of syntactic dependency such as coordination or subordination (Aikhenvald 2006a: 1, 2018: 1). Each component of a serial verb must occur on its own. They also share grammatical categories including, but not limited to, tense, aspect, mood, and modality.[1] Examples representative of this definition are in (1.1-2), (1.1) sharing past tense and (1.2) sharing immediate mood:

(1.1) Yoruba (Defoid from Southwest Nigeria; Stahlke 1970: 61)
Mo **fi** àdá **gé** igi ná̀
I took machete cut tree the
'I cut the three with a machete.' (take cut)

(1.2) Paamese (Oceanic from Eastern Vanuatu; Crowley 1987: 48)
ma-kuri-ko **lo-va-haa**
1SG-IMM-take-2SG 1DU-INCL-IMM-go
'I will take you away with me.' (take go)

The notion of serial verbs first appeared in the study of Kwa languages: it was first identified by a German missionary Christaller (1875) in Akan and defined by Westermann (1907) in Ewe (Aikhenvald 2006a: Appendix). Serial verbs were then recognized in Jabêm, an Austronesian language, by Dempwolff (1939) (Aikhenvald & Dixon 2019). The term

[1] A single prosodic contour and a single event are also mentioned in Aikhenvald (2016: 1, 2018: 1). Having a single prosody is a tendency in serializing languages, and a single event is considered to be innate to serial verbs (See §2.1 for detail and references). Therefore, the two are not considered to be criterial in this paper that single out SVCs among a variety of multi-predicates.

serial verb construction was first coined by Balmer and Grant (1929) and discussed again in Twi, a dialect of Akan, by Steward (1963). Serial verbs of the Niger-Congo language family in West Africa were then widely studied: to name a few, Igbo (Green 1963); Yoruba (Bamgbose 1966); Nupe (Smith 1967); Gen (Bole-Richard 1978). Serial verbs are also found to be prominent in some European-lexified Creoles: for example, Seychelles (French-based; Corne 1977), Saramaccan (English-based; Byrne 1984), Kristang (Portuguese-based; Baxter 1988), and a non-European Creole Singapore Bazaar Malay (Malay-based; Aye 2005), as well as in Southeast Asian (e.g., Khmer (Huffman 1967) and Vietnamese (Thompson 1987)) and East Asian languages (e.g., Mandarin Chinese (Li and Thompson 1973) and Cantonese (Matthews and Yip 1994)). They have been described in Australian (e.g., Burarra (Green 1987)) , Austronesian, and Papuan languages (e.g., Paamese (Crowley 1987), Barai (Olson 1975)), as well as in some languages of the Americas (e.g., Tariana; Aikhenvald 1999). Recent publications add Khosian (Kilian-Hatz 2006), Chadic (Hellwig 2006), Omotic (Ahland 2012), Uralic (Tragel 2017), and an extinct Indo-European language such as Hittite (Luraghi 1993, 2017).

Besides language-specific descriptions, cross-linguistic typology on serial verbs have subsumed Southeast Asian (Bisang 1992), Oceanian (Crowely 2002), some heavily serializing languages (Aikhenvald & Dixon 2006), and world-wide languages (Aikhenvald 2018). In particular, the verb 'take' is one of the common verbs that occur in serial verbs, and it tends to grammaticalize the following paths – e.g., aspectual, valency-increasing, and pragmatic meaning. In previous studies, 'take' serial verbs in the Niger-Congo language family were looked at from a perspective of historical development (Lord 1993: Ch.5), intergenetically in the Kwa languages (Schluinsky 2017: §4), language-specifically (e.g., Fon

by Lefebvre 1991: 37-75, Polish by Andrason 2018). While 'take' serial verbs have been studied language-specifically, historically, and intergenetically in one language family, no studies have looked at a considerable cross-linguistic sample of 'take' serial verbs from a functional typological framework. Moreover, the semantics of 'take' serial verbs in previous typological studies generally focuses on the valency-increasing meaning, and as a result, the rich polysemy of 'take' serial verbs has not been explored in detail.

The current study investigates 'take' serial verbs within a continuum-type approach to SVCs (see details in §2.1), following Aikhenvald 2006a and 2018.[2] This continuum-type approach looks at different typological profiles placed on the continuum. Filtered out by the defining features for serial verbs, their composition and semantics vary, and they are also parametrized by different measures – marking, contiguity, and wordhood. Based on Aikhenvald's framework, the current study aims to show a synchronic variation of the composition, semantics, and morphosyntactic properties of 'take' SVCs wider than previously documented. In particular, it focuses on revealing the rich polysemy of 'take' SVCs around their primary meanings. The study investigates 45 languages from 17 language families over four macro geographic areas. The study also looks at the synchronic variation from a diachronic perspective as well as a contact-induced approach.

The structure of this study is as follows: literature on serial verb constructions is summarized in §2.1. A theoretical framework is outlined in the rest of Chapter 2. The methodology and data follow in Chapter 3. Chapter 4 analyses the data. Chapter 5 summarizes the result quantitively and discusses.

[2] Both Aikhenvald 2006a and 2018 are based on the same approach, but the 2018 refined criteria for serial verbs and incorporated new data. I refer to both of them, but I followed only the 2018 for defining serial verbs.

Chapter 2

Theoretical framework

2.1. Literature on serial verb constructions

Before outlining the framework, literature concerning attempts to define serial verbs is drawn. There have been problems in the literature coming to agree on what really constitutes serial verbs. To mention a few, Baker (1989: 522), under a generative framework, argues that serializing languages allow double-headed constructions, instead of monopredicate constructions – which is now generally accepted as one of the criteria. Filbeck (1975) asserts that only the first verb (V_1) of a serial verb is a propositional predicate and any following components are functional to V_1. In fact, functional components are either initially or subsequently located. For example, V_1 *fi* 'take' in (1.1) allows the instrumental *àdá* 'machete' to *gé* 'cut' in the second verb (V_2), while in (1.2), V_2 *haa* 'go' is directional to *kuri* 'take' in V_1. As to monoclausality criterion, the argument that serial verbs in Yoruba must be syntactically and semantically differentiated from biclausality appeared in Stahlke (1970: 77). However, Aikhenvald (2018: 9) states that it was only until Foley & Olson (1985) that there was an informing cross-linguistic monoclausal analysis of serial verbs, going above one-clause-one-verb analysis.

Moreover, defining eventhood of serial verbs has been notoriously problematic. Bradshaw (1983) first offers the semantic definition of serial verbs, "All verbs in the serial construction refer to subparts of a single overall event", which is often discussed (e.g., Lord 1973: 269, Crowley 1990: 60, Durie 1997, Bisang 2009: 796). Nevertheless, what constitutes single eventhood was not clear-cut. If a single event is semantically defined as

simultaneously occurring or closely-linked subevents (or a macro-event in Bohnemeyer et al (2007: 504)'s term), serial verbs may not be an only syntactic expression that packages a macro event because a sequence of clauses can substitute that role. The issue around this fuzzy boundary of a single event was dealt within Aikhenvald (2006a: 10), Bisang (2009: §3.1), and Haspelmath (2016: 306). Although Bisang (2009: 801) puts forward the macro-event property criterion defined in terms of a single overall temporal modifier, following Bohnemeyer et al. (2007), to pin down the fuzzy notion of a single event, criticism still arose. This criticism includes the argument that the nature of measuring a single event is subjective to begin with (Haspelmath 2016: 306) and that it is even a non-linguistic question (Clearly-Kemp 2015: 126, quoted from Haspelmath 2016: 306). This conclusion may be derived from the fact that relatedness of subevents can be culture-specific, conceptualized as a cohesive pair to one culture, but not to another, or "partially culturally constructed (Durie 1997: 329)". In White Hmong, for example, subevents of dancing and blowing bamboo pipes are construed to be a single action; therefore, they can be serialized. On the contrary, dancing and listening to a song are two unrelated discrete actions in that culture, so that they have to be in coordinate clauses instead of being serialized in a monoclause (Jarkey 2015: 117-18, from Aikhenvald 2018: 38; see more on culturally constrained serial verbs in Thai in Diller (2006)). Nevertheless, such a culturally conventionalized pair is comparatively unmeasurable. Furthermore, single eventhood may be rather accompanied when serial verbs are grammatically recognized. That is, single event criterion may not be strictly criterion that singles out serial verbs among multi-verb constructions and sequence of clauses, but when multi-predicates fit the grammatical definition outlined in §1, they tend to be construed simultaneously occurring or closely associated subevents. Despite a different definition of

SVCs that Haspelmath (2016: 296) and Aikhenvald (2018: 3-4) follow, it is agreed that single eventhood is intrinsic to serial verbs as a monoclause without any linkers. In Aikhenvald's own words (2018: 36), "Packaging information as a 'single event' within a serial verb is best considered a concomitant feature of serial verbs as one monoclausal unit and one predicate". Along the similar line, Haspelmath (2016: 306) claims, "[single event criterion] is not practical to apply, because there is no objective way of identifying a single event and distinguishing it from a set of several events". Therefore, considering its subjective and implicational nature of a single event to serial verbs, single eventhood is not criterial in this study.

In addition to the single eventhood, other often-mentioned criteria are related to a single morphological realization, monoclausality, independent occurrence of serialized verbs, as well as argument sharing and a single intonational property. Specifically, the definition of serial verb constructions offered by Durie (1997), Haspelmath (2016), and Aikhenvald (2018) are compared here, shown in Table 2.1.

Criteria	Durie (1997)	Haspelmath (2016)	Aikhenvald (2018)[3]
Single eventhood	Characteristic	Impractical	Non-criterial
Single morphological realization	Characteristic (Shared tense, aspect, modality, and polarity)	Sharing TAM unnecessary	Criterial (Shared TAM, modality, reality status, or/and evidentiality, etc..)
Monoclausality	-	Criterial (No independent negation, no elements linking the verbs)	Criterial (No marking of dependency between the verbs)
Independent verbs	-	Criterial	Criterial
Argument sharing	Characteristic (At least one core argument, one subject)	Unnecessary	Non-criterial
Intonation of a monoclause	Characteristic	Unnecessary	Non-criterial
Others	No predicate-argument relation	• No predicate-argument relation • A compositional combination of the verbs	

Table 2.1. Comparison between the definitions of serial verb constructions offered by Durie (1997), Haspelmath (2016), and Aikhenvald (2018)

[3] See §2.2 for details.

For single morphological realization criterion, sharing some core grammatical categories (TAM) is not criterial in Haspelmath's definition because pragmatically, a lack of those categories would not disqualify the verbs as a serial verb. However, sharing grammatical categories is characteristic or criterial respectively in the definitions by Durie and Aikhenvald, although Aikhenvald's includes a much broader range of grammatical categories than Durie's (see §2.2).

In monoclausal criterion, Durie's definition does not appear to be explicit about the monoclausality, yet Haspelmath and Aikhenvald's definitions require serial verbs to be a single clause. However, Haspelmath argues that constructions are language-specific and thus proposes single negatability as a test for monoclausality, following Bohnemeyer et al. (2007: 501, from Haspelmath 2016: 299). Comparatively, this negation test is not applicable in Aikhenvald's definition. Moreover, even though their definitions do not allow any morphemes indicating dependency between the verbs, Haspelmath's definition is narrower in a sense that it excludes "any element that occurs in a multi-verb construction, does not occur outside of a multi-verb construction, and does not have some clear other meaning as a linking element (2016: 304)". On the contrary, Aikhenvald includes morphemes not indicating syntactic dependency between the verbs (e.g., dummy markers) (see §2.2).

With respect to independent occurrence of the verbs, both Haspelmath and Aikhenvald's definitions require the verbs to occur on their own outside a serial verb. Yet, Haspelmath limits the verbs to those expressing a dynamic event in predication without special coding, thereby excluding instances such as *be.small*, but including those such as the verb *take*. In contrast, Aikhenvald's definition does not pose this restriction.

Furthermore, criteria of argument sharing and a monoclausal intonation are mentioned in Durie's definition, yet they are either unnecessary as criteria or just prototypical features respectively in Haspelmath's and Aikhenvald's. Lastly, the serialized verbs are not in predicate-argument relation so that one verb is not embedded in or a complement of the other verb in Durie and Haspelmath's definitions. However, this criterion is relaxed in Aikhenvald's.

Overall, it is clear that Aikhenvald's definition is generally broader than Durie and Haspelmath's definitions. Albeit broadly defined, this approach (Aikhenvald 2006a, 2018) is rather gradient based on a continuum of prototypicality. Based on the pivotal features that define serial verbs, serial verbs are placed on the continuum of prototypicality, depending on what and how many prototypical properties serial verbs have. Their prototypicality is further factored out by types of their composition and morphosyntactic features. Therefore, this functional typological framework secures what is narrowly defined as serial verbs in the literature, while including diversity of their typological profiles, within a big picture of multiverb constructions and sequences of clauses.

2.2. Defining serial verb constructions

Aikhenvald (2018: 3-4) lists three properties that distinguish serial verb constructions from verb-like components and other verb sequences of multiclausality, and other properties that serial verbs have, which help recognize prototypical serial verbs. The following A-C correspond to distinguishing features, and D-E optional yet prototypical features:

A. Each verb in a serial verb occurs on its own.

B. The verbs in a serial verb forms a single predicate.

C. There is no marking between the verbs in a serial verb as a monoclause, such as a coordinator[4], subordinator, or any other forms indicating syntactic dependency.[5]

D. Typically, all of the verbs in a serial verb share at least one core argument such as a syntactic subject or an object.

E. Each verb of a serial verb usually has its own transitivity value.

B refers to all the verbs in the serial verb functioning as a syntactic whole. One way to determine their syntactic status is to test whether they share values of verbal categories such as tense, aspect, mood, modality, reality status, evidentiality, illocutionary force, and manner adverbs. Another way to recognize monopredicative reading in a serial verb can be a negation test. When negating, all verbs in the serial verb are negated. That is, one of its verbs cannot be independently negated. Although this is true in overwhelmingly numerous serializing languages such as Tariana (Aikhenvald 2006b: 183), Dumo (Ingram 2006: 205), Cantonese (Matthews 2006: 84), Goemai (Hellwig 2006: 95), Eastern Kayah Li (Solnit 2006: 147), Anyi (Van Leynseele 1975: 191-2), and Barai (Foley & Olson 1985: 28), negation test is not universally applicable, but rather a typical feature of serial verbs. A case on point is Alamblak (Bruce 1988: 27-8, quoted from Aikhenvald 2018: 32). In Alamblak, a Sepik language from Papua New Guinea, a single-word serial verb occurs with a negative word

[4] Coordinated clauses with an omitted coordinator that is superficially similar to serial verbs are excluded, as well as clauses with an overt coordinator, if there is no meaning change when the coordinator is omitted (Aikhenvald 2018: 125).

[5] Therefore, serial verbs with any intervening linkers not indicative of syntactic dependency, e.g., markers of neutral forms and those of dependency, which have lost its function as a result of grammaticalization, are marginalized forms of the constructions, but not problematic to fit the definition.

preposed to it, with the scope of negation either over the whole construction, one of the verbs, or any combination of the contiguous verbs. Therefore, single negation criterion is not reliable, but helps recognize one facet of serial verb constructions.

As for criterion C, absence of syntactic dependency of any forms in a serial verb indicates monoclausality. This distinguishes a single clause from covertly and overtly coordinated clauses, complement clauses, converb constructions, or other forms of complex clauses. One of the differences between a monoclause and multiclauses is semantics. Therefore, there are differences in how events are associated, depending on whether those events are packaged in a single clause or biclauses. A good example discussed in Foley & Olson (1985: 18-19) is a case in Yoruba (Stahlke 1970: 78):

(2.1) a. mo **mú** ìwé **wá** ilé
I took book come home
'I brought a book home.' (take come)

b. mo mú ìwé mo sì wá ilé
I took book I and came home
'I took the book and I came home.'

c. ṣùgbọ́n mo gbàgbé láti mú u wá pèlú
but I forgot to take it come also
'But I forgot to bring it along.'

Although both (2.1a-b) constitute two events of taking a book and coming come, only (2.1b) in a conjoined form can be semantically followed by (2.1c). Foley & Olson points out that the events of taking and coming home are associated, but this association is not necessarily implied in the biclause structure (2.1b) conjoined by the coordinator *sì* 'and'. Comparisons between one clause and complex clauses are not only in reference to events, but also in

productivity in grammatical and pragmatic meaning: a verb from a restricted class of words, such as motion and posture verbs, in a serial verb expresses directional and aspectual meaning, functions to increase valency of a single overall argument structure of the serial verb and emphasizes topicality of certain arguments, while complex clauses are limited in such productivity (See Aikhenvald 2018: 243).

Converb constructions are also excluded because a converb is dependent on the other verb so that the converb does not occur on its own (Aikhenvald 2018: 131)[6]. In Wolaitta (Amha and Dimmendaal 2006: 319, 329-30), an Omotic language from Southwestern Ethiopia, verbal compounds with a converb V_1, and V_2 from a closed set of verbs functioning as a main verb share similar properties as serial verbs in terms of single eventhood and sharing aspect, tense, and modality. (2.2) refers to a single event and shares perfective aspect, as SVCs would do. However, *ʔekk* 'take' is suffixed by a marker indicating syntactic dependency, which disqualifies them as a serial verb.

(2.2) zalʔáncca-i´ miiʃʃáa **ʔekk-i´** **y-iisi**
Trader-M:NOM goods:ABS take-CONV come-3MSG:PERF
'The merchant brought the goods.' (take come)

D and E derive from facts about prototypical features of a serial verb but non-definitional ones. The characteristics that all verbs in a serial verb share syntactic subjects (transitive subject (A), intransitive subject (S)) is an often mentioned definition in literature (e.g., Jansen, Koopman & Muysken 1978: 125, McWhorter 1997: 22), but not obligatory in

[6] Besides multiclauses excluded from consideration, there are verb-verb sequences that cannot be assigned a status of a serial verb: limited juxtaposition of two verbs in colloquial American English, such as *go get* and *come see* and verbal compounds with limited productivity, e.g., *drink drive* and *sleep walk*. Such verb-verb combinations are restricted in tense. Therefore, *we went got, *I came saw, *he drunk drove, and * she slept walked are ungrammatical (Aikhenvald 2018: 124-6).

this framework, as there are types of serial verbs with non-identical subjects (Aikhenvald 2018: 40-51). In one type, the subject of V_2[7] is same as the object of V_1 (or switch-function SVCs), as in *o-**la=lua** vatani-a* (2SGS-take=remove ABLATIVE-3SGO) 'Take it off her!' from Lewo, an Austronesian language from Eastern Vanuatu (Early 1993: 70, 77). In cumulative-subject SVCs, the subject of V_2 can be the cumulative subject of V_1, as in (1.2) from Paamese – the subject of V_1 'take' is a partial subject of V_2 'go'. In the other type, rarely, no subjects are shared. This includes resultative SVCs and event-argument SVCs in which a manner verb in V_1 or V_2 modifies the whole argument structure of SVCs. Nonetheless, the overwhelming majority[8] of serializing languages do share subjects, such as in (1.1) from Yoruba, (2.2) from Wolaitta, (2.3) from Goemai, (2.4) from Anyi, and (2.6) from Barai. Object sharing also occurs in most serializing languages, shown in (2.7) from Cantonese, and (2.10a-b) from Akan. However, it is limited in 'take' instrumental SVCs. This appears to be because the objects of 'take' add an instrumental argument to the overall argument structure, instead of adding objectal one. Peripheral argument sharing, such as obliques, occurs, but is considered to be less so cross-linguistically, compared to core arguments that are shared.

(2.3) Goemai (West Chadic, Afroasiatic, from Central Nigeria; Hellwig 2006: 97)
ass **mang** ûes **haar**
Dog take(SG) bone chew
'The dog took the bone (and) chewed (it).' (take chew)

[7] The framework limits serial verbs with two verbs. However, the framework is applicable to serial verbs with more than two verbs.
[8] The following words used in this paper are roughly equivalent of the percentages in parenthesis: almost all (>90%), overwhelming majority (>70%), majority/common (>51%), less than majority (<49%), infrequent/uncommon (<30%), and rare (<10%).

The tendency that a serial verb has its own transitivity value is true when there is a single overall transitivity value. This tendency is reflected when a serial verb includes a verb with restricted grammatical or/and semantic composition. As such, the grammatically and semantically unrestricted verb serves the semantic head of the SVC. In such SVC, the overall transitivity value is identical with the transitivity value of the semantic head. The concept of this overall transitivity is differentiated from that of transitivity matching where transitivity values of the verbs in an SVC has to be the same to each others' to be grammatical (see §2.4). In the next section, we take a closer look at types of composition and meanings of serial verbs.

2.3. Composition and meaning

Composition of serial verb constructions is either asymmetrical or symmetrical, depending on the presence of a verb from a grammatically and semantically restricted and small closed class (or a minor verb) in one of the slots of a serial verb construction (Aikhenvald 2018: Ch.3). Asymmetrical serial verbs consist of a minor verb and a verb from a semantically and grammatically unrestricted and large open class (or a major verb). In contrast, all verbs in symmetrical serial verbs are from major verbs of equal status.

Minor verbs in asymmetrical SVCs specify the whole construction. While the meanings of asymmetrical serial verb constructions vary, the most relevant meanings of 'take' serial verbs are mentioned here. Minor verbs of motion can specify direction of taking, as in *haa* 'go' in (1.2) and *wá* 'come' in (2.1) serialized to the major verb 'take'. 'Take' also often grammaticalizes to express various aspectual meanings. In Swedish and Norwegian, the verb expresses an inchoative meaning. In Polish, it exhibits a perfective meaning as well as

an inchoative meaning (Andrason 2018: 607-9). In essence, ‘take’ in serialization implies causation because an agent performing an event of taking, at least in its concrete meaning, can cause a theme to undergo change of location or status (Lefebvre 1991: 55). This argument aligns with Croft’s (1991, 2012) theory of direction of causation, so that ‘take’ involves a volitional entity acting on a physical object, leading to change of status of the object (or volitional causation). In directional ‘take’, it includes change of a theme on a path with respect to a ground (or motion causation). In addition, a type of nontransitional internal change in body parts is involved (or internal causation) in a semantically bleached use of taking (Kipper-Schuler 2005). The verb also grammaticalizes to express pragmatic meanings. In all Finno-Baltic languages, it intensifies another verb (Pulkkinen 1966: 212–3). In Akan, a Kwa language from South and Southeast Ghana, it emphasizes a topical object in ditransitive constructions limited to ‘give’ or ‘bring’ (Osam1997: 265-6). In Baule, a Kwa language from Southwest Côte d'Ivoire, it marks surprise and unpleasantness (N'Guessan 2000: 86).

The verb ‘take’ is also used to increase valency of an argument structure of serial verb constructions. The verb ‘take’ can introduce instrumental meaning to the construction, yielding an instrumental serial verb construction of a single overall argument structure with the three arguments A, O, and instrument (Hellwig 2006: 96). A prototypical example is in (1.1) from Yoruba, as well as (2.4) from Anyi (Van Leynseele 1975: 197), both from the Niger-Congo language family. Like Yoruba, Anyi shares tense, and the ordering of the constituents reflects a logical order of subevents.

(2.4) Kòfí **fà** dàdị̀ɛ́ **kpɛ́** nyằmấ
Kori take-HABIT knife cut-HABIT string
‘Kofi cuts the string with a knife.’ (take cut)

An instrumental ‘take’ is a feature of numerous Creole languages, West Atlantic, Mande, Gur, and Kwa, as well as Papuan languages (Aikhenvald 2018: 64, 157). Instrumental ‘take’ may evolve into adpositions, gradually losing its verbal meaning and morphology in the construction, while synchronically maintaining its verbal properties outside of the construction to various extents.[9] It may be diachronically derived from an independent verbal origin of ‘take’. In numerous Kwa languages of the Niger-Congo language family**,** the verb ‘take’ is productive in serialization to introduce not only instrumental, but also synchronically, manner, material, and comitative meanings, as well as to introduce objects for different types of lexical constructions. The types of lexical verbs include ditransitives, monotransitives, verbs with locative valency, and transformative verbs such as ‘consider X as Y’ and ‘make X Y’ (Schluinsky 2017: 358-72). These asymmetrical ‘take’ SVCs are semantically and syntactically headed by a major verb in the lexical constructions. Therefore, the instrumental ‘take’ tends to, as we saw, grammaticalize and may undergo morphological or/and phonological reduction from a full-fledged verb.

In comparison, symmetrical serial verb constructions are not headed by any verbs in the constructions, but of equal status. In Goemai (Hellwig 2006: 97), ‘take’ occurs in a symmetrical sequential serial verb with no restrictions on transitivity so that the transitive verb ‘take’ occurs with an intransitive verb.

(2.5) mûep **mang** ni **buk** n-ni b’ak
3PL take(SG) 3SG return(PL) comit-3SG.INDEP.PN here
n-lu
LOC-settlement
‘They took him (and) returned with him here into town.’ (take return)

[9] In some cases, instrumental ‘take’ is distinguished from a separate category of prepositions with similar semantic properties as instrumental ‘take’.

Symmetrical serial verbs may undergo lexicalization instead of grammaticalization. Therefore, they may become a composite whole of subevents and in some cases, become non-compositional beyond the sum of the subevents. Lexicalization and grammaticalization may eventually deserialize them. This can be caused because minor verbs in asymmetrical serial verbs and major verbs in symmetrical serial verbs lose their independent occurrence as verbs, which would disqualify them as a serial verb. Deserialization also occurs through language contact with non-serializing languages. For example, this is happening in Tetun Dili (Hajek 2006), an Austronesian language from Dili, the capital of East Timor, as a result of a long-term influence of a non-serializing language Portuguese. Semantics of symmetrical SVCs include sequences of subevents, co-occurring subevents, subevents that are alternating, and parallel subevents. Symmetrical SVCs tend to be temporally iconic, while asymmetrical counterparts are less subject to tendency of iconicity. For the next section, we turn to how serial verbs are strategically varied.

2.4. Parameters of variation

Serial verb constructions are parameterized by different measures in terms of contiguity, grammatical wordhood, and shared marking for verbal categories, as well as transitivity matching (Aikhenvald 2018: Ch.4). Serializing languages may strictly use a single strategy, or use multiple strategies within each parameter, to express different meanings and functions.

Verbs in a serial verb may or may not have intervening components in between, with which to characterize contiguous SVCs or without which non-contiguous SVCs. The intervening components may be core arguments or affixes, the latter typically in contiguous

single word SVCs. An example of contiguous serial verbs is in (1.2) from Paamese and (2.6) from Barai (Foley & Olson 1985: 44), a Southeast Papuan language from Papua New Guinea, allowing an atypical type of multiple-object serialization (Crowley 2002: 44).

(2.6) fu burede ije sime **abe** **ufu**
He bread DEF knife take cut
'He cut the bread with the knife.' (take cut)

An example of non-contiguous asymmetrical serial verbs is in (1.1) and (2.1a) both from Yoruba, (2.3) from Goemai, and (2.7) from Cantonese (Matthews 2006: 76).

(2.7) lei^{5} **lo^{2}** di^{1} saam^{1} **bei^{2}** keoi^{5}
You take PL clothing give 3SG
'Bring her some clothes.' (take give)

Lo^{2} 'take' in V_1 is the head of the SVC, and *bei*^{2} 'give' is from a grammatically restricted class as is ungrammatical to mark aspect and to front the object, thereby often argued to be a preposition.

Contiguous or non-contiguous serial verbs are further distinguished by a parameter of wordhood. Serial verbs form either a grammatical single- or multi-word. Single-word serial verbs (also known as root serialization by Durie 1997) may take same single marking for verbal categories, derivation, and inflection, as well as a single stress. This may not be always true in multi-word serial verbs. Each verb in a serial verb can be marked the same verbal categories that the serial verb shares and may or may not be a phonological single word. For example, Tariana, a North Arawak language from the Vaupés River Basin (Aikhenvald 2006b: 181), a contiguous multi-word serial verb has multiple phonological and

grammatical words, whereas Dumo, a Sko language from New Guinea (Ingram 2006: 220), treats a contiguous multi-word serial verb as a single phonological word. Examples with multi-words are in all of the examples so far identified as serial verbs. An example for a single word is in (2.8).

Another parameter that characterizes typological profiles of serial verbs is grammatical markings – e.g., person, tense, aspect, polarity, mood, reality status, and valency changing. A serial verb construction may mark for verbal categories once per a construction (or single marking), as in (2.8) from Hup, or mark on each verb in a construction (or concordant marking), shown in (2.9) from Kadiweu, both examples from Amazonia. Languages may allow both strategies, called optional concordant marking, as in (2.10a-b) from Akan for past tense. In some cases, a shortened variant of the marking may be placed on at least one of the verbs in a serial verb, while a full form of marking is also indicated (or truncated marking). Some languages express different components indicating a shared grammatical category (or distributed marking). A single language may use multiple strategies of these for different verbal categories or may use only one strategy for all categories. The number of markings in SVCs still does not change the fact that all verbs in a serial verb share the value of the grammatical categories.

(2.8) Hup (Naduhup from the Vaupés River Basin; Epps 2006: 281, from Aikhenvald 2017b: 308)
ʔam **wæd-túk-uw-ăn** **d'oʔ-nǽn-ǽh**
2SG eat-want-FILLER-NON.A/S bring/take-come-DECL[10]
'(We) brought what you wanted to eat.' (take come)

[10] As a result of long-term language contact with Tuscanoan language in Northwest Amazonia, Hup exhibits an agglutinating morphology, as in (2.8), despite cultural reluctance towards language borrowing (Epps 2006: 281, quoted from Aikhenvald 2017b: 308).

(2.9) Kadiweu (Waikurúan from Southern Brazil; Sandalo 1995: 94, from Aikhenvald 2017a: 6)
Maria **y-el:wad** oqoqo:di **y-ati-t-e-wa**
Mary 3SGSUB-kill chicken 3SGSUB-take-REL+3SGCL-DATIVE
n-oda:a:jo
ALIENABLE.POSS-knife
'Mary killed the chicken with a knife.' (kill take)

(2.10) Akan (Osam 1997: 267)

a. Esi **de** ekutu no **to-o** famu
Esi take orange DEF put-PAST floor
'Esi put the orange on (the) floor.' (take put)

b. Kofi **yi-i** tam no **fi-i** pon no do
Kofi take-PAST cloth DEF leave-PAST table DEF on
'Kofi took the cloth off the table.' (take leave)

Transitivity matching is another parameter. Transitivity matching indicates that the transitivity value of all verbs in a serial verb has to be identical to each others' so that they are either all transitive or intransitive. Cross-linguistically, some serializing languages put restrictions on transitivity matching, depending on composition, semantics, wordhood, and contiguity of serial verb constructions. Examples are Tepehuan, a Totonacan language from Mexico, and many Australian languages such as Dyirbal, Yidiñ, and Wambaya. Dyirbal and Yidiñ respectively uses an applicative transitivizer and a comitative applicative transitivizer, to allow an intransitive verb to occur with a transitive verb in a serial verb (Aikhenvald 2018: 114-7).

Chapter 3

Methodology & Data

Sources for the language sample were found in different ways: studies on serial verb constructions in individual languages (e.g., Fa d'Ambô by Post 1992, White Hmong by Jarkey 2015, Estonian by Tragel 2017) or in language families (e.g., Oceanic by Crowley 2002), serial verb typological studies (Foley & Olson 1985, Givón 1991, Lord 1993, McWhorter1997, Aikhenvald 2006a, Aikhenvald 2017a, Schluinsky 2017, Aikhenvald 2018), the Atlas of Pidgin and Creole Language Structures, and reference grammars – on which the dataset is largely based. Reference grammars were found through the serial verb typological studies and WALS-APiCS for the most part. Other recently described reference grammars were also searched through to identify 'take' serial verbs. In the majority of cases, sources for each language of the sample had to be identified through a combination of above-mentioned references in an attempt to produce a comprehensive dataset. Sources for each language is in Appendix. However, the problem was at the insufficient descriptions of serial verbs involving 'take' in both some of the construction-specific studies and reference grammars. Yet, exceptions were many West African languages and some Creole languages. This is because comparatively speaking, 'take' serialization is generally productive in the region of West Africa and in Creoles whose substrates are from that region or in Creoles in historical contact with highly serializing Kwa languages. Therefore, if evidence and descriptions were too insufficient to contribute to the dataset, they were excluded.

The final sample was in consideration to reflect genetic and areal diversity, albeit not strictly controlled. Because the purpose of this paper is to investigate the diversity of

semantics and strategies of ‘take’ serial verbs, the sample was not intended to extract rigid statistical tendencies between languages as is important in a probability sample, which would problematize genetic bias (Dryer 1989, Perkins 1989). Nevertheless, some empirical-based generalizations across the languages will be reported as preliminary results. The most internally diverse language families in the sample are the Niger-Congo, the Creoles, and the Austronesian language family. They are sampled to be internally more diverse than other families because they tend to be generally richer in variations of semantics and strategies in ‘take’ constructions. The final sample came down to 45 languages from 17 languages families over Africa, Eurasia, Americas, and Oceania, listed in Table 3.1. The left column in the genetic affiliation refers to language families and the middle column the next prominent sub-languages. The right column accounts for intergenetic diversity between languages, with the number in parenthesis indicating the number of the corresponding languages. The genetic affiliation and the main geographic areas where each of the languages is spoken are in reference to both Ethnologue (Eberhard, Simons, and Fenning 2019) and reference grammars.

Macro area	Language	Genetic affiliation(s)			Main area(s)
Africa (16)	Akan	Niger-Congo (12)	Kwa (7)	Akan (1)	Southern, SE Ghana
	Baule			Northern (2)	SW Côte d'Ivoire
	Anyi				Western, SW Côte d'Ivoire
	Abé			Agneby (1)	SW Côte d'Ivoire
	Gen			Mina (1)	SW Benin, SW Togo
	Avatime			Avatime-Nyangbo (1)	SE Ghana
	Fon			Fon (1)	SW Benin, SE Togo
	Yoruba		Benue-Congo (4)	Defoid (1)	SW Benin, SW Nigeria
	Nupe			Nupoid (1)	Central Nigeria
	Igbo			Igboid (1)	SE Nigeria
	Kana			Cross-River (1)	SE Nigeria
	Dagbani		Gur (1)	Central (1)	NE Ghana
	Goemai	Afroasiatic (1)	Chadic (1)		Central Nigeria
	Mauritian	Creole (3)	French based (1)		Mauritius
	Kikongo-Kituba		Kikongo-Kimanyanga based (1)		South Congo, SW Congo, Northern Angola
	Fa d'Ambô		Portuguese based (1)		Equatorial Guinea
Eurasia (11)	Cantonese	Sino-Tibetan (3)	Sinitic (2)		Hong Kong
	Mandarin				China
	Eastern Kayah Li		Tibeto-Burman (1)		Mae Hong Son province of Thailand
	Pnar	Austroasiatic (1)			NE India, NE Bangladesh
	Thai	Tai-Kadai (1)			Thailand
	White Hmong	Hmong-Mien (1)			SW China, Northern Vietnam, Laos, Thailand, and Myanmar
	Hittite (extinct)	Indo-European (2)	Anatolian (1)		Anatolia
	Polish		Balto-Slavic (1)		Poland
	Estonian	Uralic (1)			Estonia
	Kristang	Creole (2)	Portuguese based (1)		Malaysia
	Sri Lanka Malay		Malay based (1)		Sri Lanka
Americas (9)	Tariana	Arawakan (2)	Northern (1)		NW Brazil
	Alto Perené		Kampa (1)		Peru
	Hup	Naduhup (1)			NW Brazil, SE Colombia
	Wanano	Tucanoan (1)			NW Brazil, SE Colombia
	Kadiweu	Waikurúan (1)			Southern Brazil
	Pirahã	Mura (1)			Central Brazil
	Berbice Dutch (extinct)	Creole (3)	Dutch based (1)		Guyana
	Papiamentu		Spanish based (1)		Curaçao
	Saramaccan		English based (1)		Suriname, French Guiana
Oceania (9)	Paamese	Austronesian (6)	Oceanic (5)	East Vanuatu (1)	Eastern Vanuatu
	Lewo			Epi (1)	Eastern Vanuatu
	Mavea			West Santo (1)	Northern Vanuatu
	Pileni			Central Pacific (1)	Solomon Islands
	Koro			Admiralty Islands (1)	Papua New Guinea
	Kambera		Suba-Hawu (1)		Eastern Indonesia
	Kalam	Trans-New Guinea (2)	Madang (1)		Papua New Guinea
	Barai		SE Papuan (1)		Papua New Guinea
	Ulwa	Ulmapo (1)			Papua New Guinea

Table 3.1. Distribution of macro geographic areas, languages, genetic affiliations, and main areas

In reference grammars, terms indicative of a notion of serial verb construction were in various disguises, as a wide use of the term serial verb construction is relatively recent, and thus, the notion has been alternatively named in some older grammars. For example, while more recent grammars have a section or chapter for serial verb constructions (e.g., Klamer 1998: §7.1, Næss 2011 et al: Ch.15, Clearly-Kemp 2015: Ch.6) or for verb serialization (e.g., McWhorter & Good 2012: Ch.8, Nordhoff 2009: §5.1.4) under different headings (e.g., multi-verb constructions, complex verbs), Thepkanjana (1986: Ch.4) and Everett (1986: §18.7) respectively classifies the notion under coverbs and incorporation. If the notion is not spelled out one way or another as such in tables of contents in reference grammars, I searched for 'serial verb' and 'serialization' if reference grammars are electronically searchable and read the relevant sections. In the majority of cases, reading a section for serial verb constructions was not enough to collect evidence that distinguishes 'take' serial verbs that fit the definition in §2.2 from other multi-verb constructions involving 'take' or to indicate parameters of the 'take' serial verbs. Therefore, the following sections and chapters were searched for further examples both manually and electronically: generally speaking, multi-verb constructions, verbal compounding, valency-increasing mechanism, verbal predicate structures, and sections or chapters expanding on 'take' constructions (e.g., Lewis 1993: Ch.5, Nordhoff 2009: §5.1.5.1). After exhausting all of the available sources that I have, data was compiled into the database.

Criterial and prototypical evidence were reported to attest status of 'take' constructions as serial verbs. Afterwards, a survey was conducted to identify their composition, semantics, and strategies. Criterial evidence composes of verbal categories that the verbs share - namely, tense, aspect, mood, modality, reality status, evidentiality,

illocutionary force, and manner adverbs – as well as absence of any syntactic dependency and independent occurrence of 'take' as a main verb in a clause. Evidence that prototypes a status of serial verbs includes sharing of a subject or/and an object, but if the languages do not share the same subject, it was reported what type of a non-identical subject the language uses. Other prototypical evidence, when attested in references, were also added to strengthen their position as a serial verb. After attesting the status, I looked at their composition (symmetrical, asymmetrical, or both), as well as their overall transitivity value (transitive, intransitive, or both); if asymmetrical, whether if 'take' is a major or minor verb in the examples; if 'take' is located in V_1 or other positions. Afterwards, their semantics was determined around their primary meanings, and it was further examined at the iconicity of the order of the constituents. 'Take' serial verbs were also examined with respect to parameters of variation that they intersect at contiguity, wordhood, and marking for verbal categories, as well as the location of the marking and transitivity matching. The resulting synchronic variation in some languages was further looked at from a diachronic perspective as well as a contact-induced approach.

Chapter 4

Analysis

4.1. Attestation

To begin with, the attestation that confirms 'take' constructions as serial verbs is tabulated in Table 4.1 below. All of the examples lack any forms of syntactic dependency in between the verbs in serialization. Although absence of those forms was criterial, this was not the case in Goemai because it does not use any conjunctions, and thus, absence of conjunctions does not reliably distinguish the serial verbs from the coordinated sentences (Hellwig 2006: 91). In this case, more evidence was collected to attest their status as serial verbs. For the majority of cases, only the verb 'take' in the serialized verbs was investigated to examine its ability to independently occur, not the other verbs in the serialization, for a practical reason. Almost all of them occur on their own as a main verb in a clause, although the degree to which they are independent as a verb varies, which may reflect the degree to which they are bleached. Highly bleached, so marginal case is *de* 'take' in Akan. As such, its status as a verb is no longer valid in the works done by Lord (1973, 1982, 1993), while it still is in those by Osam (1994, 1997). In this paper, I followed Osam. If their independent occurrence is not evidenced in either the examples or the descriptions, their semantic class was examined to determine the likelihood of their verbal independency.

Languages	Criterial evidence			Prototypical Evidence	Additional evidence in shared categories	Types of non-identical subjects in 'take' SVCs
	Absence of syntactic dependency	Independent occurrence of the verb 'take'	Shared grammatical categories	Core argument sharing		
Baule	Absent	Independent to various extents	Aspect, tense	Obligatory subject sharing & optional object sharing		Switch-function prohibited
Avatime			Aspect, mood, illocutionary force		Negation	
Kana			Tense, aspect		Negation	
Mauritian			Tense, aspect, mood		Negation, an intonation contour	
Polish			Tense, aspect, mood, and manner adverbs		Temporal and spatial adverbs, no independent nominalization, no intonational break, repetition of all serialized verbs to a yes-no question	
Tariana			Tense-evidentiality, aspect, mood, modality, manner adverbs		Temporal and spatial adverbs, no independent question, no intonational break, nominalized with a single suffix	
Akan (*de*)[1]			Tense	Subject sharing & object sharing		Switch-function
Anyi			Tense		Negation	
Abé			Tense		No independent question	
Gen			Tense and other verb-related categories except aspect			
Fon			Tense, aspect		Negation	
Yoruba			Tense		Negation, temporal adverbs, auxiliaries, interrogative agreement	
Nupe			Tense		Negation	
Dagbani (*zang*)			Tense, aspect			
Goemai			Tense, aspect, modality		Temporal adverbs, no intonational break, backchanneling after whole SVCs	
Kikongo-Kituba			Tense, aspect			
Cantonese (*lo*)			Tense, aspect			
Pnar			Tense, aspect			
Thai			Tense[1]			
White Hmong			Tense, aspect			
Estonian			Tense, mood		Temporal adverbs	
Kristang			Aspect			
Alto Perené			Aspect, reality status			
Hup			Aspect, mood		Negation	Switch-function
Wanano			Aspect, evidentiality			
Berbice Dutch			Aspect, reality status		Negation, passivization, no independent clefting	
Papiamentu			Tense, aspect, modality			
Saramaccan			Tense, aspect			
Pileni			Tense, aspect			

Table 4.1. Attestation of 'take' serial verbs and non-identical subject realization

Kambera			Tense	Subject sharing & object sharing (cont.)		
Kalam (*d*)			Aspect		Negation	
Barai (*abe*)			Tense, aspect			
Igbo			Tense, aspect	Subject sharing	Auxiliaries	
Fa d'Ambô			Tense			Switch-function
Mandarin Chinese (*na*)			Tense, aspect, manner adverbs		Passivization	
Eastern Kayah Li			Aspect, modality		Negation, a single syntactic valence	
Hittite			Tense		Clitic	
Sri Lanka Malay			Tense			
Kadiweu			Tense		Negation, complementizer	
Pirahã			Aspect			
Paamese			Mood		Negation, enclitic	Cumulative subject
Lewo			Tense, reality status			Switch-function
Mavea			Tense, reality status			Cumulative subject
Koro			Aspect, reality status			Obligatory switch-function in directional 'take'
Ulwa (*ti*)			Aspect, reality status			

Table 4.1. Attestation of 'take' serial verbs and non-identical subject realization (cont.)[11]

[11] In some of the languages, the target variant, among other variants of 'take' in the language, is indicated in parenthesis.

There are a variety of shared grammatical categories both criterial and non-criterial but helpful to identify their status as a serial verb. Here the criterial categories are tense, aspect, mood, modality, reality status, evidentiality, illocutionary force, and manner adverbs, as discussed in §2.2. Tense and aspect are predominantly reported as indicators, yet absence of those categories in some languages do not indicate that they must not be shared. It can be simply because the examples only exhibit a single shared category in the source, e.g., only mood attested in the Paamese examples (Crowley 1987). Negation that scopes over entire 'take' SVCs is reported in many languages, but it is vague in Goemai (Hellwig 2006: 95) and Mandarin Chinese (Fan 2016: 49) with respect to where negation scopes over.

For core argument sharing, all of the languages tend to share at least a subject in 'take' serial verbs, but not an object. It is also that the majority of them tend to share both a subject and an object, rather than only a subject. Moreover, if same-subject is definitional in the sources, at least switch-function 'take' SVCs is naturally prohibited, as shadowed in Table 4.1, although cumulative-subject 'take' SVCs may remain undetermined. Some languages use switch-function 'take' SVCs simultaneously using identical subjects in others: Akan (Stewart 1963: 148, Larson 2002: 8), Fa d'Ambô (Post 1995: 201), Hup (Epps 2008: 398-400), Lewo (Early 1993: 70, 77), and Koro (Clearly-Kemp 2015: 171, 190). Koro, in particular, does so obligatorily in directional 'take' with transitive 'take' in V_1. An odd case is Hup in that switch-function subjects in cause-effect 'take' SVCs consist of a combination of transitive and intransitive roots. This combination is cross-linguistically more common in verb-medial languages, rather than verb-final languages like Hup (Epps 2008: 389). In comparison to the languages with switch-function 'take' serial verbs, Paamese and Mavea, both Oceanic languages, use cumulative subject 'take' SVCs.

4.2. Composition

Variation is also considerably large in composition, as in Table 4.2[12]. The distribution is shown at the bottom of Table 4.2. The majority of the languages employ both asymmetrical and symmetrical 'take' serial verbs. Only asymmetrical 'take' serial verbs are less common, but still widely found. In contrast, only symmetrical counterparts are least favored. This fits the cross-linguistic tendency that asymmetrical serial verbs are more common than symmetrical counterparts in serializing languages (Aikhenvald 2018: 86). However, it is deviated from the generalization that serializing languages develop asymmetrical serial verbs before symmetrical when one looks at a specific-word serial verb like 'take'. A case is Goemai (Hellwig 2006: 88-100). Goemai is productive in both asymmetrical and symmetrical serialization, so that as a whole, serial verbs occur in about 30% of natural texts. However, 'take' serial verbs appear to be productive only in very loose integration construed to be predominantly sequential, as in (4.1).

(4.1) ass **mang** ûes **haar**
dog take(SG) bone chew
'The dog took the bone (and) chewed (it).' (take chew)

The common grammaticalized path towards a valency-changing morpheme from asymmetrical 'take' serial verbs is not found in Goemai because it lacks valency-changing morphology. This is opposed to its geographically neighboring languages with fairly productive serialization, such as Bueno-Congo in Central Nigeria. In addition to Goemai,

[12] Lines between languages indicate distinction between different macro geographic areas.

Alto Perené and Papiamentu, all genetically unrelated to each other, also only show symmetrical 'take' serialization.

Language	Composition			
	Symmetry (asymmetrical, symmetrical, or both)	Overall transitivity value (transitive, intransitive, or both)	Semantic class of 'take' (major, minor, or both if asymmetrical)	Location of the verb 'take'
Akan (*de*)	Asymmetrical	Transitive	Both	V_1
Baule	Both	Transitive	Both	V_1
Anyi	Both	Both	Both	V_1, V_2
Abé	Asymmetrical	Transitive	Both	V_1
Gen	Both	Both	Both	V_1
Avatime	Both	Both	Minor	V_1
Fon	Both	Both	Both	V_1, V_2
Yoruba (*mú* and *fi*)	Both	Transitive	Both[13]	V_1, V_2
Nupe	Both	Transitive	Both	V_1, V_2
Igbo	Both	Transitive	Both	V_1
Kana	Asymmetrical	Both	Minor	V_1
Dagbani (*zang*)	Asymmetrical	Transitive	Minor	V_1
Goemai	Symmetrical			V_1
Mauritian	Both	Transitive	Minor	V_1
Kikongo-Kituba	Both	Transitive	Minor	V_1
Fa d'Ambô	Asymmetrical	Transitive	Both	V_1, V_2
Cantonese (*lo*)	Both	Transitive	Major	V_1
Mandarin Chinese (*na*)	Both	Both	Both	V_1, V_2
Eastern Kayah Li	Both	Transitive	Major	V_1, V_2, V_3
Pnar	Asymmetrical	Transitive	Major	V_1
Thai	Asymmetrical	Both	Major	V_1, V_2
White Hmong	Both	Transitive	Both	V_1
Hittite	Both	Transitive	Major	V_2
Polish	Asymmetrical	Both	Minor	V_1, V_2
Estonian	Both	Both	Minor	V_1, V_2
Kristang	Asymmetrical	Transitive	Both	V_1
Sri Lanka Malay	Both	Both	Minor	V_2
Tariana	Both	Transitive	Major	V_1, V_2, V_3
Alto Perené	Symmetrical			V_1, V_2
Hup	Both	Both	Both	V_1, V_2
Wanano	Asymmetrical	Transitive	Major	V_1
Kadiweu	Asymmetrical	Transitive	Minor	V_2
Pirahã	Asymmetrical	Transitive	Major	V_1
Berbice Dutch	Both	Transitive	Both	V_1
Papiamentu	Symmetrical			V_1
Saramaccan	Both	Transitive	Minor	V_1, V_2
Paamese	Asymmetrical	Transitive	Major	V_1
Lewo	Both	Transitive	Major	V_1, V_4
Mavea	Asymmetrical	Both	Both	V_1, V_2
Pileni	Both	Transitive	Both	V_1, V_2
Koro	Asymmetrical	Transitive	Major	V_1, V_2
Kambera	Asymmetrical	Both	Major	V_1, V_2
Kalam (*d*)	Both	Transitive	Both	V_1
Barai (*abe*)	Both	Transitive	Major	V_1, V_3
Ulwa (*ti*)	Asymmetrical	Transitive	Both	V_1
Distribution	Both: 25 Asymmetrical: 17 Symmetrical: 3	Transitive: 29 Both: 13 Intransitive: 0	Both: 19 Major: 13 Minor: 10	V1: 42 Languages with non-initial positions: 20

Table 4.2. Composition of 'take' serial verbs

[13] *Mú* is a major verb in directional 'take', while *fi* is a minor verb (Stahlke 1970: 61).

Asymmetrical ‘take’ serial verbs are headed by the major verb, and thus, the semantic head determines the overall transitivity value as well as the overall argument structure in the serialization. It is clear from the table that all of the languages with asymmetrical ‘take’ serial verbs are headed by transitive verbs, or uncommonly by intransitive verbs only when they have the transitive head verbs in the languages. Strikingly, no single language allows only intransitive verbs in the languages to determine the overall transitivity of the asymmetrical ‘take’ serialization. Goemai, Alto Perené, and Papiamentu, the three languages that lack asymmetrical ‘take’ serial verbs, naturally are not assigned overall transitivity value because they are not headed by any verbs in the symmetrical ‘take’ SVCs. Goemai shows an interesting case. In Goemai (Hellwig 2006: 97), instrumental reading is available in a non-single overall argument structure, as in (4.2).

(4.2) ni **mang** shik **two** mûep n-ni
3SG take(SG) knife kill(PL) 3PL COMIT-3SG.INDEP.PRN
‘He took a knife (and) killed them with it.’ (take kill)

The instrument is coded twice in this example, as the object of *mang* ‘take’ and as in the prepositional phrase. This is very unusual because none of the other languages in the same Niger-Congo family have been shown to code instrumentals twice. In addition, the number marking for *mûep* ‘them’ does not match with the two verbs, *mang* ‘take’ and *two* ‘kill’. *Mang* marks for the singular *shik* ‘knife’ and *two* for the plural *mûep*. As Hellwig argues, if (4.2) has an overall argument structure, the number marking should have matched for the plural *mûep*, but it did not. Therefore, as indicated in the translation in (4.2), this instrumental reading reflects low conceptual integration having a sequence of two related events (taking and killing) instead of one event with instrumental specification (killing with a knife).

If asymmetrically composed, ‘take’ in the serialization tends to be both a major and minor verb in one language, rather than either major or minor. A pattern is that ‘take’ is predominantly a major verb in directional ‘take’ when occurring with motion or directional verbs. For example, this is the case in Fon (Lefebvre 1991: 40), Fa d’Ambô (Post 1992: 164), Eastern Kayah Li (Solnit 1986: 118), Kristang (Baxter 1988: 217), Wanano (Stenzel 2004: 287), Pirahã (Everett 1986: 301), Lewo (Early 1994: 368)**,** as well as Ulwa (Russell 2018: 288) in (4.3).

(4.3) **Ndït** wa **i** ndïweyawe
Ndï=tï wa i ndï=we-aw-e
3PL=take village go.PERF 3PL=cut-put.IMPERF-DEP
‘(They) used to bring them home, cut them, …’ (take go)

Exceptions to this pattern are two isolating Kwa languages, Abé (Gbery 1987: 141) and Gen (Lewis 1993: 160), and Avatime with an agglutinating profile in the same language family (Refina 2016: 658). For example, Abé in (4.4) adds comitative specification to the motion event instead of allowing a motion verb to add specification to the event of taking.

(4.4) Gbery **bə** ja **ji** Ogboba
Gbery took wife went Agboville
‘Gbery went to Agboville with his wife.’ (took went)

Similarly, Gen allows a prepositional interpretation to the motion event:

(4.5) Ayi **sɔ́** Lome **vá**
Ayi take Lome come
‘Ayi came to Lome.’ (take come)

What is common between the two cases is that the semantics of 'taking' is so bleached that actual taking does not occur, thereby allowing abstract objects, such as places construed as goal, and objects with higher animacy, such as humans, to occur with 'take'. As a result, the motion verbs from semantically open class serve semantic heads of the serial verbs, rather than the semantically bleached 'take'. Even if this is the case in Abé, Gen, and Avatime, directional 'take' still occurs in all of them (Gbery 1987: 142, Lewis 1993: 227, Funke 1909: 316 from Schluinsky 2017: 359). In contrast, the minor 'take' occurs in SVCs, conveying different meanings: aspectual, instrumental, objectal, and pragmatic meanings, as will be seen shortly. Given that the major 'take' shows traces of less grammaticalization than only minor, or both major and minor, it appears that 'take' in the languages spoken in the African region have generally grammaticalized more than the languages in the other macro geographic areas. This generalization will become more clear in Table 4.3 in §4.3. However, because the African sample is not strictly balanced with respect to genetic and areal affiliation, this tendency should be treated as preliminary and be further tested for a reliable generalization with a genetically and areally controlled sample.

Moreover, the verb 'take' is almost always located in V_1 than any other positions. This could be partly due to the fact that directional 'take' occurs in the majority of the languages, as will be seen, and that the verb in directional 'take' is predominantly located in V_1. For example, this is the case in Nupe (George 1975: 55), Anyi (Van Leynseele 1975: 198), Cantonese (Matthews 2006: 76), White Hmong (Jarkey 2015: 38), Tariana (Aikhenvald 2006a: 2), Berbice Dutch (Kouwenberg 1994: 395), and Paamese (Crowely 1987: 46, 48). However, this tendency goes against Pileni and Kambera, respectively Oceanic and non-Oceanic. In Pileni, 'take' as a major verb always occurs in V_2 preceded by a motion verb in

contiguous ‘take’ SVCs. In fact, Næss (2004: 232) argues that take-go serial verbs are non-existent in Pileni. Similarly, directional verbs precede the major ‘take’ in Kambera (Klamer1998: 279, 323). Therefore, these examples counter Foley & Olson’s generalization that major verbs precede minor verbs in serialization (1985: 40). Not only the major ‘take’, but also the minor ‘take’ occurs in V_1, as in (1.1). In comparison, ‘take’ in V_2 in the asymmetrical serial verbs can be a minor verb in some languages. This includes, but not limited to, Thai (Thepkanjana 1986: 160), Hup (Epps 2008: 421), and Mavea (Guérin 2011: 273). In Mavea, for example, ‘take’ with an inability meaning occurs only in V_2 with a negated major verb preceding it, as in (4.6).

(4.6) na na-on dav me ro **ka-sopo-ṽe** **laṽ=i=a**
but 1SG-look seem FUT then 1SG.IRR-NEG-make take=TR=3SG
‘But I looked and it seems that I won’t be able to make it.’ (make take)

4.3. Semantics

Before moving onto the semantics of ‘take’ serial verbs, some valency-increasing terms should be clarified. First, instrumental meaning is introduced with which an event is realized, as in (4.7) from Kikongo-Kituba (Mufwene 1996: 116). Instrumental ‘take’ tends to carry the most concrete meaning of physical taking among all of the four meanings, and thus, it tends to occur with concrete objects.

(4.7) María **káka** mbelé **búla** yakála na yándi
May take cutlass hit husband CONN her
‘Mary hit her husband with a machete.’ (take hit)

In comparison, the manner, material, and comitative meanings are extended from the instrumental 'take'. Specifically, the manner meaning refers to ways in which an event is realized. This semantically more bleached meaning almost always occurs with abstract nouns, as in (4.8) from Gen (Lewis 1993: 128).

(4.8) Ayi **sɔ́** jij>ɛ́ **ji** ha
Ayi take joy emit song
'Ayi sang with joy.' (take emit)

The material meaning expresses things that are exhausted over time that can contribute to the realization of an event. It is more abstract than the instrumental meaning because the objects tend to be mass nouns that one cannot get a grip of. The example below is from Fon (Lefebvre & Bousseau 2002: 419).

(4.9) Kɔ̀kú **sɔ̀** xwlɛ̀ **gbá** xwé ná.
Koku take wood build house with
'Koku built a house with wood.' (take build)

Finally, the comitative meaning denotes things with which an event is carried. Objects that occur with 'take' vary in terms of an animacy hierarchy, ranging from inanimates (Abé; Gbery 1987: 141), lower animates (Anyi; Van Leynseele 1975: 198) to higher animates (Akan; Lord 1993: 67), although it seems higher animates are attested to be the most frequent, as in (4.4) above from Abé (Gbery 1987: 141).

Overall, their semantics may show the most diverse synchronic variation in Table 4.3, organized around the primary meanings – valency-increasing, aspectual, directional, and other pragmatic/lexicalized meanings – to the secondary meanings of loose integration. It is

clear that the valency-increasing meanings are indeed the most frequent of 'take' serial verbs, yet there is a wide range of polysemy in addition to the valency-increasing meanings.

Specifically, this valency-increasing 'take' also exhibits the most distinct genetic and areal influence, compared to the other meanings in Table 4.3. Overall, 'take' can introduce syntactic objects with instrumental, manner, material, comitative meaning, as well as introducing an object of a major verb to an overall argument structure.

Even taking into account the fact that some languages including Kwa are overrepresented in the sample, the generalization can still be made that instrumental and objectal 'take' are the most frequent valency-increasing mechanism in Table 4.3[14]. Comparatively, manner, material, and comitative, all more semantically bleached than instrumental 'take', are less frequent. Productivity in 'take' functioning as valency-increasing is higher in almost all of the languages in the African sample, compared to the other languages. This includes Kwa, Bueno-Congo, Gur, and both the European based and non-European-based Creoles – except Goemai (West Chadic) and Fa d'Ambô (a Portuguese Creole) – as well as the majority of the other Creoles in the other geographic areas, and two very highly serializing languages Thai and Kalam. Within the Niger-Congo family, the degree of intergenetic variation is comparatively clear: Kwa shows the largest variation in 'take', Gur the smallest, and Bueno-Congo in between. Besides Goemai, which lacks valency-increasing morphology (Hellwig 2006: 96), the case of Fa d'Ambô is particularly

[14] Objectal 'take' in Ulwa occurs with 'give' constructions, but ditransitive 'give' in a sense of English does not occur in Ulwa such that it is a monotransitive that requires only a recipient, not a recipient and a theme, as in English. In order to express an event of giving, two monotransitives 'take' and 'give' commonly occur together in an order that 'take' precedes 'give' (Russell 2018: 285-6). Therefore, strictly speaking, 'take' does not increase valency of the 'give' constructions. In this regard, objectal 'take' in Ulwa is excluded from the count in the distribution.

Language	Semantics						Order of constituents (iconic, anti-iconic, or both)
	Valency-increasing (case marking)		Aspectual	Directional	Other meaning(s)		
	Instrumental and its extension	Objectal			Pragmatic/lexicalized	Sequential, purposive, or both	
Akan (*de*)	Instrumental, manner, material, comitative	Objectal		Come	Emphatic		Anti-iconic
Baule	Comitative	Objectal		Come	Emphatic, surprise, unpleasantness	Sequential	Both
Anyi	Instrumental, manner, comitative	Objectal		Go, enter	Emphatic, lexicalized meaning (take+keep 'look after someone')	Sequential	Both
Abé	Instrumental, manner, comitative	Objectal		Come			Anti-iconic
Gen	Instrumental, manner, material	Objectal		Go, pass	Emphatic, cumulative	Purposive	Both
Avatime	Instrumental, manner	Objectal		Yes (descriptive evidence)		Both	Both
Fon	Instrumental, manner, material	Objectal		Go, come		Both	Both
Yoruba (*mú* and *fi*)	Instrumental, manner	Objectal		Go, come		Sequential	Both
Nupe	Instrumental, manner	Objectal		Go, come	Emphatic	Purposive	Both
Igbo	Instrumental, manner			Come		Purposive	Both
Kana	Instrumental, manner	Objectal			Emphatic		Anti-iconic
Dagbani (*zang*)	Instrumental	Objectal	Perfective				Anti-iconic
Goemai						Sequential	Iconic
Mauritian	Instrumental, comitative	Objectal				Sequential	Both
Kikongo-Kituba	Instrumental	Objectal				Sequential	Both
Fa d'Ambô	Comitative	Objectal	Ingressive	Go, come			Anti-iconic
Cantonese (*lo*)		Objectal		Come		Purposive	Both
Mandarin Chinese (*na*)	Instrumental			Go		Both	Both
Eastern Kayah Li				Go down, fall		Sequential	Both
Pnar				Come			Anti-iconic
Thai	Instrumental, material	Objectal	Imperfective	Go, come, exit			Anti-iconic
White Hmong		Objectal		Come	Emphatic	Sequential	Both
Hittite						Sequential	Iconic
Polish		Objectal	Perfective, pluperfect, Completive, ingressive		Emphatic, introducing a new event, surprise, irritation, immediacy		Anti-iconic
Estonian					Intensity, intentional	Sequential	Both
Kristang	Instrumental			Carry			Anti-iconic
Sri Lanka Malay			Inchoative	Bring	Benefactive	Sequential	Both

Table 4.3. Semantics and iconicity of 'take' serial verbs

Tariana				Come, arrive, cross, be across+causative suffix	Lexicalized meaning (take+have 'believe, trust')	Sequential	Both
Alto Perené						Sequential	Iconic
Kadiweu	Instrumental						Anti-iconic
Pirahã				Go, come			Anti-iconic
Berbice Dutch	Material	Objectal		Go		Both	Both
Papiamentu						Both	Iconic
Saramaccan	Instrumental, material	Objectal				Sequential	Both
Paamese				Go			Anti-iconic
Lewo				Go, come		Both	Both
Mavea				Come	Inability		Anti-iconic
Pileni		Objectal	Volitional ingressive	Go	Internal causation	Sequential	Both
Koro				Go, come			Anti-iconic
Kambera	Comitative			Go, go in, go out, descend			Anti-iconic
Kalam (*d*)	Instrumental	Objectal	Completive	Go, come, ascend		Sequential	Both
Barai (*abe*)	Instrumental					Both	Both
Ulwa (*ti*)		Objectal?		Go			Anti-iconic
Distribution	Instrumental: 20 Manner: 10 Comitative: 7 Material: 6	Objectal: 22	Inchoative/ Ingressive: 4 Completive/ Perfective: 4 Imperfective: 1 Pluperfect: 1	Directional: 32	Emphatic: 8 Others: vary	Sequential: 17 Purposive: 4 Both: 7	Both: 24 Anti-iconic: 17 Iconic: 4

Table 4.3. Semantics and iconicity of 'take' serial verbs (cont.)

odd in that instrumental 'take' is non-existent even though one of its substrates is Yoruba where 'take' serial verbs express instrumental, manner, and objectal meaning (Post 1992: 164, Post 2013). The majority of the Creoles that are generally productive in valency-increasing 'take' in Table 4.3 is Mauritian, Kikongo-Kituba, Fa d'Ambô, Berbice Dutch, and Saramaccan[15], but this productivity is less in Kristang (Baxter 1988: 212), as attested to only have instrumental 'take'. On the contrary, instrumental 'take' is absent in other Creoles Sri Lanka Malay (Nordhoff 2012: 334) and Papiamentu (Kouwenberg 2013).

The reason of this absence may be accounted for by the tendency that those languages already have ways to express instrumental meaning; therefore, using 'take' serial verbs for that purpose is not necessary. For example, in Papiamentu, instrumental meaning is already expressed by a preposition *ku* 'with' (Jacobs 2015: 65). In Sri Lanka Malay, *pakai* 'with, making use of, use', which functions as a verb in other Indonesian varieties, is replaced by a construction with a postposition (Nordhoff 2012: 334). Along the similar line, Alto Perené also lacks the instrumental, and it already has an instrument applicative marker *-ant*, which encodes an instrument participant on the ambitransitive action verb (Mihas 2015: 275, 295). The fact that a language has alternative strategies to express the instrumental is also attested in the following languages: Berbice Dutch by a preposition *mɛtɛ* 'with' or a purposive prepositional complementizer *fu/fi* 'for' (Kouwenberg 1994: 396-7), Koro by a minor verb *le* 'go to' (Clearly-Kemp 2015: 157-9), and Kambera by a prepositional verb *vàngu* 'use' (Klamer 1998: 284). However, it should not be assumed that the alternative strategies

[15] Note that whether there is 'take' instrumental in Saramaccan is debatable. Veenstra (1996b: 85) interprets 'take' as a strategy expressing instrumental meaning, while McWhorter & Good (2012: 148-9) rather interpret it as a strategy to express narrative vividness. They further argue that Saramaccan already uses a preposition *ku* 'with' to deliver an instrumental interpretation, which underweights the need for an instrumental 'take' strategy in Saramaccan.

automatically exclude employing 'take' to convey instrumental meaning. For example, Kristang (Baxter 1988: 162, 212) uses both *tomá* 'take' in serialization and a relator *ku* in a monoclause to express the instrumental, although 'take' is not as frequent as the relator generally used.

Additionally, variation in objectal 'take' was looked at with respect to what types of major verbs that the objectal 'take' occur with in the languages, and a sketch is reported here. In the study on an intergentic Kwa typology, Schluinsky (2017: 365-72) finds that the following lexical constructions occur with the minor 'take' from the most to the least: ditransitives < locatives < monotransitives. The examples for each construction are in (4.10-12).

(4.10) Ditransitive (Polish; Andrason 2018: 602)

Tomkowi	**wziąłem**	już	to	**oddałem**
Tomek.DAT	take.PERF.1SG.M.PAST	already	it	give.back.PERF

'I gave it back to Tomek.' (take give.back)

(4.11) Locative (Mauritian; Syea 2013: 18)

Zan	**pran**	so	zanfan	**amenn**	lopital
John	take	3SG.POSS	child	take	hospital

'John takes his child to the hospital.' (take take)

(4.12) Monotransitive (Pileni; Næss 2004: 242)

Te	kuli	ko-i	**toa**	na	pihoulu	ko-i	**lulu-ia**.
ART	dog	TA-3SG	take	3SG.POSS	head	TA-3SG	shake-TR

'The dog shook his head.' (take shake)

He also finds that while all of the lexical constructions occur with objectal 'take' in Avatime, Anyi, Baule, Fon, and Gen, only the ditransitives are present in Abé, and the

ditransitives and locatives in Akan. Although the purpose of the current study is not at attempting to draw fine-grained variations within the types of the lexical constructions to test the implicational hierarchy more broadly, the attempt was made to preliminarily lay out the presence of the constructions in the non-Kwa languages when data was available and to see the preliminary resulting patterns. The findings are from nine language families and 15 languages. The result indicates that the objectal 'take' with ditransitive major verbs is the most widely found. Specifically, this is the most productive in Bueno-Congo, Gur (both in the Niger-Congo language family), and Creoles: Yoruba (Stahlke 1970: 63), Nupe (George 1975: 61), and Kana (Ikoro 1996: 254) (Bueno-Congo); Dagbani (Wilson 1970: 57) (Gur); Cantonese (Matthews 2006: 76) (Sinitic); Polish (Andrason 2018: 602) (Balto-Slavic); Kikongo-Kituba (Mufwene 2013), Fa d'Ambô (Post 2013), Berbice Dutch (Kouwenberg 1994: 392), Saramaccan (Veenstra 1996b: 85) (Creole). The objectal 'take' with monotransitive major verbs is as frequent as with the ditransitives, as opposed to the implicational hierarchy that predicts the monotransitive occurs the least frequent. However, it is important to note that the monotransitives are not as predominant as the ditransitives within the Bueno-Congo and Gur. Comparatively, the monotransitives are fairly productive in the Urasian sample. To list the languages for the monotransitives, there are Cantonese (Matthews & Yip 1994: 144) (Sinitic); Thai (Thepkanjana 1986: 176) (Tai-Kai); White Hmong (Jarkey 2015: 177) (Hmong-Mien); Polish (Andrason 2018: 584) (Balto-Slavic); Yoruba (Bamgbose 1966: 80), Nupe (George 1975: 16) (Bueno-Congo); Dagbani (Wilson 1970: 56) (Gur); Pileni (Næss 2004: 242) (Oceanic); Kalam (Givón 1991: 103-4) (Trans-New Guinea); Berbice Dutch (Kouwenberg 1994: 397), Saramaccan (Veenstra 1996b: 117) (Creole). The locatives occur the least widely in my dataset, yet the majority of them occur in

the Creoles: Mauritian (Syea 2013: 18), Kikongo-Kituba (Mufwene 2013), and Saramaccan (Veenstra 1996b: 139) (Creoles). Overall, the results are consistent with previous literature in that objectal 'take' is the most widely attested with ditransitive constructions even when the other macro areal factor comes in. However, it deviates in that the monotransitives are also widely found and the locatives the least present when one looks at data more broadly.

'Take' as a valency-increasing mechanism in some languages, not surprisingly, exhibit adposition-like behaviors. In Berbice Dutch (Kouwenberg 1994: 398), fronting an object from an objectal *deki* 'take' is ungrammatical. Similarly, prohibition towards topicalizing an object of *na* 'take' in the instrumental is observed in Mandarin Chinese (Fan 2016: 44). Although *na* still occurs on its own, variants comparative to *na* in this language, *ba* and *jiang*, both meaning 'take, hold', are no longer in verbal status today, having grammaticalized from full verbs to object markers (Hwang 2000: 26-9). The subtypes of valency-increasing 'take' are bleached to various degrees, depending on the individual languages. As seen earlier, 'take' serial verbs in Thai allows only concrete noun phrases that the agent can actually grasp in the instrumental and material meaning. On the contrary, many languages with isolating tendencies in the West African sample express not only the literal meaning of taking with concrete syntactic objects, but also the figurative meaning thereof allowing abstract or human entities to occur with. The question as to which subtype of valency-increasing 'take' is the most bleached may depend on a small set of the languages of the sample and the individual languages in the set. For example, the objectal 'take' SVCs across the Kwa languages are generally more bleached than the instrumental ones and their extensional meanings – that is, manner, material, and comitative meaning (Schluinsky 2017: 365). However, when one looks at a member of the Kwa individually, it may draw the

opposite: in Avatime, the verb 'take' used to increase the valency of an overall argument structure allows only the genetic *kɔ̀* 'take' to be used, while in the ditransitive objectal serialization, any verbs construing an act of taking can be used depending on types of following objects and how they are taken (Refina 2016: 665-6). That is, in Avatime, the 'take' used to add arguments are more semantically bleached than object marking verbs of taking in the ditransitive serialization, which is idiosyncratic to the tendency of the Kwa languages that we just looked at.

'Take' SVCs also contribute a variety of aspectual meanings in Table 4.3. This includes ingressive/inchoative, completive/perfective, imperfective, and pluperfect meaning, with the first two groups being the most common in the sample. Examples for each aspectual meaning are in (4.13-17) below.

(4.13) Ingressive (Fa d'Ambô; Post 1992: 164)

mina **ma** **dyumi** beza
child take sleep already
'The child fell asleep already.' (take sleep)

(4.14) Inchoative (Sri Lanka Malay; Nordhoff 2012: 322)

Kanabisan=ka=jo duva oorang=le **anà-thaau** **ambel**
last=LOC=EMPH two person=ADDIT PAST-know take
'Finally, the two women understood.' (know take)

(4.15) Completive (Kalam; Lord 1993: 135)

nungumiy hoe ak **d-iy** wong **g-amb**
husband hoe DEF take-SE/SS garden do-PAST
'The husband was working in the garden with the hoe.' (take do)

(4.16) Imperfective (Thai; Thepkanjana 1986: 179, 211)

sùrii **ʔaàn ʔaw ʔaàn ʔaw**
Suri read take read take
'Suri read and read.' (read take read take)

(4.17) Pluperfect (Polish; Andrason 2018: 610)

wziął go **zabił** zanim
take.PERF.3SG.M.PAST him kill.PERF.3SG.M.PAST before
przyszedł
come.PERF.3SG.M.PAST
'He had killed him before he came.' (take kill)

Considering that ingressive/inchoative[16] and completive are placed on each end of a continuum in terms of which phase of an event is foregrounded, ingressive/inchoative meaning is placed on the beginning of a state/action and completive on the completion of an action. Therefore, it becomes noticeable that the aspectual 'take' diachronically develops to foreground the different aspects of an event. Moreover, these aspectual 'take' meanings fall into two separate groups, associated with telic events (inchoative/ingressive, completive/perfective, pluperfect) and with an atelic event (imperfective). Whether genetic or areal affiliation comes into play is not observable in Table 4.3.

Moreover, directional 'take' SVCs occur in the majority of the languages where directional/motion verbs specify an event of taking. Instances of the minor motion/directional verbs that occur with the major verbs 'take' are listed in Table 4.3, yet the most commonly occurring minor verbs with 'take' are 'come' and 'go'. Although motion verbs are one of the most common verbs that occur in serialization (Aikhenvald 2018: 158-9), a combination of motion verbs and 'take' does not always occur together. For example, the combination with

[16] The difference between the two is that inchoative meaning foregrounds the beginning of a state while ingressive the beginning of an action.

'come' or 'go' is non-existent in Kikongo-Kituba because it does not have 'come' and 'go' directionals (Mufwene 2013). In Alto Perené, the minor 'go' can occur with 'take', but the motion verb does not contribute directional specification to it, but rather a purposive meaning (Mihas 2015: 163). In Barai, 'come' does not occur with the target variant *abe* 'take', but with a different variant *ke* 'take' (Olson 1975: 489). In Saramaccan, 'go' occurs with 'take' in purposive serial verbs (McWhorter & Good 2012: 217). Moreover, 'carry', a special type of a motion verb (William Croft, personal communication), also occurs in Kristang (Baxter 1988: 217), as in (4.18).

(4.18) bunyán ja **toma** **lebá** ku eli na matu
fairy PERF take carry ACC 3SG LOC jungle
'A fairy took him (away) to the jungle.' (take carry)

Moving onto other meanings that are attested, the minor verb 'take' almost always imply volitional causation in the languages of the sample. Comparatively, motional causation occurs in the majority of the languages, while internal causation rarely occurs. Nevertheless, volitional causation in the minor verb 'take' was absent in Goemai, Estonian, Sri Lanka Malay, and Papiamentu in my dataset[17]. This is because in Goemai and Papiamentu, only the sequential/purposive 'take' serial verbs are present in the two languages. On the other hand, Sri Lanka Malay and Estonian indeed use the minor 'take' serial verbs, yet the minor 'take' tends to contribute aspectual meaning to the major verbs, in which volitional causation no longer remains in this highly grammaticalized meaning. Motion causation is naturally correlated with volitional causation in directional 'take' in that a volitional entity has to act

[17] Hittite also showed a lack of volitional causation. However, this rather appeared to be due to insufficient data, and thus, it was excluded from the inclusion.

on a theme in order to cause a change of theme on a path. It is also that whether the languages have volitional causation in the meaning of 'take' largely depends on whether the languages have the directional 'take' as well as the objectal 'take' with locative major verbs. Therefore, all of the languages with those types imply motion causation in 'take' SVCs, making up the majority of the languages as will be seen shortly. However, Dagbani, Polish, Kadiweu, and Barai appear to lack motion causation in 'take' SVCs. In contrast to volitional and motion causation, which are very common, internal causation rarely occurs, only in Pileni, as in (4.12), where the dog's acting on his head to be shaken is nontransitional.

Other pragmatic/lexicalized meanings in Table 4.3 also exhibit those that are generally more bleached than the semantics discussed so far except the emphatic meaning. Among them, the emphatic meaning, as shown in (4.19a) from Nupe (Lord 1993: 127-8), is the most widely attested. In (19a), the definite, more topical *foam* 'net' occurs in the 'take' SVCs and precedes the indefinite *nyika* 'fish', while in (4.19b), the indefinite, less topical *foam* occurs in the prepositional phrase, not in an SVC, and is preceded by the topical patient *nyika*.

(4.19) a. Kúta **lá** foma **wā** nyika
Kuta took net caught fish
'Kuta used the net to catch a fish.' (took caught)

b. Kúta wá nyika bè foma nyi
Kuta caught fish with net with
'Kuta caught the fish with a net.'

The other meanings include inability, abruption, irritation, goal-oriented, purposive, cumulative, benefactive meaning, as well as nuances that convey so-called emotional

emphasis (Andrason 2017: 607) – i.e., insistency and intensity. Moreover, it also introduces a new event. In two languages, 'take' also exhibits the lexicalized meanings in the serialization. For example, in Tariana (Aikhenvald 2003: 256-7), *phepa pa-de* (IMP+take IMP-have) means 'believe, trust'. Serializing verbs of 'take' and 'have' results in the unpredictable meaning from the sum of the two verbs, both from an open class. A lexicalized 'take' SVC is also attested in Anyi (Van Leynseele 1975: 206). This idiomatic and unpredictable 'take' lexicalization may disqualify it as a serial verb.

While the serialized verbs that are discussed so far are highly integrated so that only the lexical verb serves the semantic head, some 'take' serial verbs in sequential and purposive meanings indicate loose integration between subevents, as in (4.20-1) respectively being sequential (Eastern Kayah Li; Solnit 1997: 83) and purposive (Lewo; Early 1996: 374-5). The purposive meaning implies an action-purpose relation between the verbal components.[18]

(4.20) ʔa **phjá** **kəthɛ** Phētɯəʔaphē hʌ təpɯ
3 take go.up P (name) pants one-CL:cloth
'He took a pair of P's pants and went up with them.' (take go.up)

(4.21) **a-sape** **a-vatove** **a-va a-le** **ika**
3PLSUB-say 3PLSUB-IRR.go.down 3PLSUB-IRR.go 3PLSUB-take fish
'They said they were going down to go to get some fish.'
(say go.down go take)

In general, the sequential meaning is more pronounced than the purposive. Seven languages in the sample exhibit both sequential and purposive 'take' serial verbs: Avatime,

[18] Whether the examples having the purposive meaning also implies the sequential meaning was examined based on the given translations. The examples with the purposive meaning were not attested to have the sequential meaning simultaneously.

Fon, Mandarin Chinese, Papiamentu, Berbice Dutch, Lewo, and Barai**.** While it is rare for the languages to have only loosely integrated 'take' serial verbs, some languages only show low integration of subevents in the serialization, as in (4.1) in Goemai as well as Alto Perené (Mihas 2015: 198, 229) and Papiamentu (Jacbos 2015: 65; Kouwenberg 2007: 322), all genetically and areally unrelated to each other. It may seem odd that Papiamentu, a Caribbean Creole, is attested to lack asymmetrical 'take' SVCs. However, it is not surprising considering that its contributing but non-lexifying languages are Indo-European (English and French), known to generally lack serial verbs.

While at least a concrete sense of 'take' in serialization implies volitional causation in high integration between subevents, integration is low in the sequential or purposive 'take' serial verbs, such that the subevents in the serialization may not assume direct causation between them. Therefore, an event of taking may not necessarily cause a patient to undergo change. For example, while an asymmetrical 'take' SVC construed to be a unified single event in 'I cut the bread with a knife' implies the idea that the agent causes the knife to cut the bread, this integration is not necessarily present in 'I took a knife and cut the bread' due to a loose juncture of the two subevents. That is, cutting the bread may not have been caused by a direct consequence of taking the knife, although we can infer to be that case. On the other hand, a purposive 'take' serial verb in 'I took a knife to cut the bread' simply does not imply any causative relation because the bread is not acted on by the knife yet.

For the temporal iconicity, overall, the majority of the languages are both iconically and non-iconically ordered in Table 4.3. However, the roughly equal number of languages are also attested only in non-iconic ordering, whereas only four languages are iconically

ordered. Examples (4.22-3) are respectively iconic (Estonian; Tragel 2017; 173) and non-iconic (Anyi; Van Leynseele 1875: 198).

(4.22) **tule** **võtta** võida leiba
come.IMPR.2SG take.IMPR.2SG butter.PART bread.PART
'come and take butter and bread.' (come take)

(4.23) Kòfí **fà** ŋ̀gl̀ɛ̌ **dì** **jùm̃ɑ̂̃**
Kofi take-HAB intelligence eat-HAB work
'Kofi works intelligently.' (take eat work)

The four languages only showing iconic ordering are Goemai (Hellwig 2006: 97), Hittite (Luraghi 2017: 4), Alto Perené (Mihas 2015: 229), and Papiamentu (Jacobs 2015: 65), genetically and areally irrelevant to each other. Specifically, in the non-iconic ordering of 'take' serial verbs, on the one hand, the minor verbs predominantly contribute information to the major verbs by either preceding or following the major verbs. Therefore, this includes directional, aspectual, valency-increasing[19], and other meanings in the 'take' SVCs attested so far. In some languages in this type, it was uncommonly found that the ordering of the serialized verbs is reversed. As such, the logical ordering of the subevents is reversely reflected in the order of the verbal constituents, as in a non-contiguous 'take' SVC in (4.24) from Kadiweu (Sandalo 1995: 94; the example from Aikhenvald 2017a).

(4.24) Maria **y-el:wad** oqoqo:di **y-ati-t-e-wa**
Mary 3SGSUB-kill chicken 3SGSUBJ-take-RELATIVE+3SGCL-DATIVE
n-oda:a:jo
ALIENABLE.POSSESSION-knife
'Mary killed the chicken with a knife.' (kill take)

[19] In directional and instrumental 'take' serialization, causation is necessarily implied. However, iconicity does not necessarily match with the order of causation (Durie 1997: 335).

This reverse ordering of constituents is also attested in Eastern Kayah Li (Solnit 2006: 146) and Kambera (Klamer 1998: 279). On the other hand, subevents are rarely construed to occur simultaneously, as in *palài ngàndi* (run take X) 'bring X running' from Kambera (Klamer 1998: 276), the only language with a simultaneous interpretation in the sample. In contrast to these languages that allow reverse ordering, this ordering is prohibited in Gen. In Gen, instrumental 'take' must precede V_2 denoting the cumulative act, thereby prohibiting the instrumental in V_2 (Lewis 1993: 135-6).

4.4. Grammaticalization

As for the grammaticalization status of the 'take' SVCs across the languages, tendencies are also observable in how semantic bleaching and loss of verbal properties intersect. The tendency of the intersection between the semantics and the formal properties is, not surprisingly, that it is only after literal meaning. A few cases of aspectual 'take' and 'take' with pragmatic meanings are very highly bleached that they are not only uninflected, but also lack transitivity. For example, in Thai (Thepkanjana 1986: 179, 211), an object of *ʔaw* 'take' in the instrumental or material serialization must be a concrete entity that the agent can hold of. In comparison, in aspectual meaning, *ʔaw* contributes imperfective information to the major verb that it follows in the serialization, in which case, an object of *ʔaw* is absent, as in (4.25).

(4.25) sùrii **ʔaàn ʔaw ʔaàn ʔaw**
Suri read take read take
'Suri read and read.' (read take read take)

Similarly, in Sri Lanka Malay (Nordhoff 2012: 322-3), *ambel* 'take' from a closed class no longer bears literal meaning of seizing, but it denotes inchoative aspect of the event. It does not allow any intervening components between the serialized verbs, in which it is positioned in V_2 following the major verb, taking no objects. This is similar to (4.25) in Thai.

The intransitive 'take' as a result of bleaching is attested not only in aspectual meaning, but also in pragmatic meaning in a few languages of the sample. For example, in Hup (Epps 2008: 421-2), *d'oʔ* 'take' is rather used to mean doing an action of a major verb in an abrupt or goal-oriented way. Similar to Sri Lanka Malay, the single-word 'take' serialization in Hup is contiguous, and the minor 'take' follows the major verb without any objects being required, as in (4.26).

(4.26) **g'et-d'oʔ-níh=hɔ̃** ʔấh-ấh
Stand-take-NEG-NONVIS 1SG-DECL
'I can't stand up.' (stand take)

In contrast to the languages that require the bleached intransitive 'take' to occur after the major verbs, in Estonian and Polish, 'take' denoting pragmatic meanings appear to precede major verbs. In Estonian (Tragel 2017: 177), *võtma* 'take' lacking transitivity in V_1 contributes intentional meaning to the major V_2 that follows *võtma*. In Polish (Andrason 2018: 599, 607-8), the verb 'take' carries nuances of intensity without indicating its object. However, whether the minor 'take' is transitive or intransitive in Polish depends on the transitivity value of the major verb that it occurs with in the serialization. This is because the overall argument structure of the serialization is not greater than the argument structure of the major verb, thereby reducing the valency of 'take' to that of the major verb. This type of transitivity adjustment is attested in Mavea as well (Guérin 2011: 273).

While it is clear that each language of the sample varies in terms of progress towards the grammaticalization of 'take' serial verbs, some cases are obvious with respect to on which end of the grammaticalization path they are placed. The majority of the languages have both symmetrical and asymmetrical 'take' serial verb, yet a few languages are rather binary in terms of the composition of 'take' SVCs, as seen in §4.2, showing plenty of grammaticalized behaviors or no evidence of the grammaticalizing behaviors at all. On one end on the path, the verb 'take' bears no verbal inflection and no literal meaning, and only occurs as a minor verb in the asymmetrical serialization. This was the case of *de* in Akan. On the other end of the path, the verb 'take' exhibits the literal meaning in the serialization and receives inflection, only occurring as a major verb in the symmetrical serialization. This was the case in Goemai, Alto Perené, and Papiamentu. Therefore, the 'take' verbs from these three languages are clearly away from the grammaticalization, while *de* in Akan is towards grammaticalization (or perhaps already seen as a grammaticalized morpheme), thereby likely to lose its status as a component of a serial verb in the foreseeable future.

4.5. Parameters of variation

The languages within and across them vary with respect to how contiguity, wordhood, and marking for grammatical categories in 'take' serial verbs intersect, as in Table 4.4 below. To begin with, almost the majority of the languages employ both contiguous and non-contiguous 'take' serial verbs. With the languages that attest both strategies, it tends to be that non-contiguous serialization is a predominant case. Only non-contiguous 'take' serial verbs are also attested in many of the languages, while only contiguous counterparts in a small number of them. It is also clear from the table that almost

all of the isolating West African languages in the Niger-Congo language family except Avatime only prefer a non-contiguous strategy to express 'take' serialization, rather than contiguous. Avatime with an agglutinating profile, in the Kwa language family with isolating tendencies, exhibits contiguous 'take' serialization, as well as non-contiguous, when highly bleached 'take' contributes a sort of pragmatic meaning to a major verb, as in (4.27) (Refina 2016: 658-9).

(4.27) **bía-kɔ** **manị̀** be-bi=wà
C_1PL.POT-take bring C_1P.POSS-child=DEF
'They will bring (it) to their children.' (take bring)

In contrast to the West African languages, almost all of the agglutinating/polysynthetic Amazonian languages, i.e., Tariana, Alto Perené, Hup, Wanano, and Pirahã, except Kadiweu, employ a contiguous serializing strategy in 'take' serial verbs, while Tariana and Hup even obligatorily impose a contiguous strategy. Examples (4.28-9) are from Hup (Epps 2008: 399) and Pirahã (Everett 1986: 298) respectively.

(4.28) denícon tɬ̆h- ăn **d'oʔ-ʔɔ́t-ɔ́h** !
Denilson 3SG-OBJ take-cry-DECL
'Denilson made him cry!' (take cry)

(4.29) xaoói sigíhi **xig-ab-op-i-sog-i-sai-híai**
foreigner meat take-turn-go-EP-DESR-EP-NOMIZR-HSY
'(According to what I've heard) the foreigner is brining meat.' (take turn go)

However, the obvious tendency may not be always true, that isolating languages prefer a non-contiguous serializing strategy for 'take' SVCs, while agglutinating/polysynthetic

languages a contiguous counterpart. For example, both Pnar (Ring 2015: 22) and Eastern Kayah Li (Solnit 2006: 144) are largely isolating just like the West African languages with isolating tendencies; however, they only show contiguous 'take' SVCs. Eastern Kayah Li in Sino-Tibetan is particularly interesting in that a single-word contiguous 'take' serializing strategy is not attested in Cantonese or Chinese, which are both in the same language family.

Naturally, the wordhood of 'take' serial verbs is correlated with the contiguity to some extent, although wordhood involves more complexity than contiguity. Before we begin, how wordhood was characterized to classify the distinction between a multi-word and a single-word needs to be clarified first.[20] The big distinction between them started from absence of intervening components between serialized verbs, such as objects that transitive 'take' has. If there were intervening components between the verbs, it was classified as a grammatical multi-word, whereas without them, tentatively as a single word. Therefore, for example, 'take' that contributes aspectual meaning to a major verb and thus lacks transitivity, it is categorized as a single word. However, in this case, if the aspectual 'take' is more inflected than the major verb or concordantly marked with it in the serialization as if they are two grammatical words, as in Polish, they were seen as a multi-word. Comparatively, single wordhood may exhibit the following properties: no intervening single morpheme is suffixed to the entire SVC as if the serial verb is a single-word, such as in Pirahã (Everette 1986: 298); morphemes are prohibited to intervene in between a single-word serial verb when it can normally intervene in a multi-word, such as in Lewo (Early 1994: 165).

Based on those criteria, the resulting variation shows the predictable tendency that

[20] How to cross-linguistically define wordhood was not clear in previous literature. Moreover, a concept of wordhood was dealt with in only a few of the languages of the sample. Therefore, it was needed to delineate how to define wordhood for this paper.

Language	Parameters		
	Contiguity (contiguous, non-contiguous, or both)	Wordhood (single-word, multi-word, or both)	Marking for grammatical categories
Akan (*de*)	Non-contiguous	Multi-word	Single marking (tense)
Baule	Non-contiguous	Multi-word	Optional concordant marking (tense, aspect)
Anyi	Non-contiguous	Multi-word	Concordant marking (tense, negation)
Abé	Non-contiguous	Multi-word	Concordant marking (some tense) Distributed marking (some tense)
Gen	Non-contiguous	Multi-word	Single marking (tense)
Avatime	Both	Multi-word	Single marking (tense, aspect, mood, negation) Truncated marking (subject agreement prefix)
Fon	Non-contiguous	Multi-word	Single marking (negation) Concordant marking (tense)
Yoruba (*mú* and *fi*)	Both	Multi-word	Single marking (tense, negation)
Nupe	Both	Multi-word	No obligatory marking
Igbo	Non-contiguous	Multi-word	Single marking (tense, aspect)
Kana	Non-contiguous	Multi-word	Single marking (tense, negation)
Dagbani (*zang*)	Non-contiguous	Multi-word	Single marking (aspect)
Goemai	Both	Multi-word	Single marking (tense, negation, obligatory modality in asymmetrical SVCs) Concordant marking (obligatory modality in symmetrical SVCs) Truncated marking (aspect) Distributed marking (aspect)
Mauritian	Non-contiguous	Multi-word	Single marking (non-pronominal subject) Concordant marking (negation, tense)
Kikongo-Kituba	Non-contiguous	Multi-word	Concordant marking (tense, aspect)
Fa d'Ambô	Both	Both	No obligatory marking
Cantonese (*lo*)	Both	Multi-word	Single marking (aspect)
Mandarin Chinese (*na*)	Both	Multi-word	Single marking (aspect)
Eastern Kayah Li	Contiguous	Single-word	Single marking (aspect, modality)
Pnar	Contiguous	Both	Single marking (aspect)
Thai	Non-contiguous	Both	No morphological indication for tense and aspect in Thai
White Hmong	Both[1]	Multi-word	Single marking (aspect)
Hittite	Non-contiguous	Multi-word	Concordant marking (tense)
Polish	Both	Multi-word	Single marking (negation) Concordant marking (tense, aspect, mood) Distributed marking (aspect)
Estonian	Obligatorily contiguous	Single-word	Concordant marking (tense, mood)
Kristang	Both	Multi-word	Single marking (aspect)
Sri Lanka Malay	Both	Both	Single marking (tense)
Tariana	Obligatorily contiguous	Multi-word	Single marking (tense-evidentiality, aspect, mood, modality, polarity)
Alto Perené	Contiguous	Multi-word	Concordant marking (tense, reality status)
Hup	Obligatorily contiguous	Single-word	Single marking (aspect)
Wanano	Contiguous	Single-word	Single marking (aspect)

Table 4.4. Contiguity, wordhood, and marking of 'take' serial verbs[21]

[21] Parentheses in the marking column refer to some instances of the non-subject grammatical categories that are marked for, except Avatime, Mauritian, Kambera, and Ulwa indicating subject marking.

Kadiweu	Non-contiguous	Multi-word	Concordant marking (negation)
Pirahã	Contiguous	Single-word	Single marking (past, mood)
Berbice Dutch	Both	Multi-word	Single marking (negation) Optional concordant marking (aspect)
Papiamentu	Both	Multi-word	Single marking (tense, aspect, modality)
Saramaccan	Non-contiguous	Multi-word	Single marking (tense, negation)
Paamese	Both	Multi-word	Obligatory concordant marking (some mood) Distributed marking (some mood)
Lewo	Both	Both	Single marking (some mood in a contiguous SVC) Concordant marking (mood in a non-contiguous multi-word)
Mavea	Both	Both	Single marking (tense, negation)
Pileni	Non-contiguous	Multi-word	Distributed marking (tense, aspect)
Koro	Both	Multi-word	Optional concordant marking (aspect)
Kambera	Contiguous	Single-word	Single marking (person, number)
Kalam (*d*)	Both	Both	Single marking (aspect)
Barai (*abe*)	Both	Multi-word	Single marking (past)
Ulwa (*ti*)	Non-contiguous	Multi-word	Single marking (aspect, reality status, polarity) Concordant marking (person, number)
Distribution	Both: 19 Non-contiguous: 17 Contiguous: 6	Multi-word: 32 Both: 7 Single-word: 6	Single marking: 31 Concordant marking: 14 Distributed marking: 5 Optional concordant marking: 3 Truncated marking: 2

Table 4.4. Contiguity, wordhood, and marking of ‘take’ serial verbs (cont.

multi-wordhood is more correlated with non-contiguous ‘take’ serial verbs, while single-wordhood with contiguous counterparts. Because ‘take’ serial verbs cross-linguistically favor a non-contiguous strategy in the sample, it is also not surprising to observe that multi-wordhood is a predominant pattern in Table 4.4. However, deviated from the tendency on the correlation between types of contiguity and wordhood are Alto Perené and Tariana. To recall from Table 4.3, Alto Perené, in particular, was the only language in the Amazonian sample with similar morphological profile that uses only symmetrical ‘take’ serial verbs, while the other languages in that sample employ either the asymmetrical or both the asymmetrical and the symmetrical. Therefore, the fact that Alto Perené displays only multi-word contiguous ‘take’ SVCs may be attributed to the argument that the ‘take’ has not grammaticalized enough that it occurs only in multi-word ‘take’ SVCs, as the ‘take’ is still fully inflected and is from semantically open class (Mihas 2015: 198, 229)

As to marking for grammatical categories in ‘take’ serial verbs, a single marking strategy is the most widely attested across the languages, yet this is not noticeably subject to genetic or areal affiliations. Concordant marking in the serial verb is also found in many of the languages but not as frequent as single marking is. It is also important to notice that a number of the languages use different marking strategies for ‘take’ SVCs simultaneously, depending on which grammatical categories that they mark for. For example, Fon uses single marking for negation (Lefebvre & Bousseau 2002: 417) while concordant marking for definite future tense (Lefebvre & Bousseau 2002: 414), as in (4.30).

(4.30) a. Kɔ́kú **sɔ̀** jìví élɔ́ gbò **làn** ɔ́ ă
Koku take knife DEM cut meat DEF. NEG
‘Koku did not cut the meat with this knife.’ (take cut)

b. Kɔ́ku ná **sɔ́** kɔ́fù ɔ́ ná **sɔ́-gbà**
Koku DEF.FUT take glass DEF DEF.FUT take-break
'Koku will break the glass.' (take take-break)

Therefore, although some languages use both single and concordant marking, this should not just boil down to general optional concordant marking. For this reason, an optional concordant marking was counted only when the same grammatical category was found to be optionally omitted, which was at least the case in Baule (Larson 2002: 11), Berbice Dutch (Kouwenberg 1994: 400), and Koro (Clearly-Kemp 2015: 42, 197).

Other less common marking strategies are also attested, that is, distributed marking and truncated marking for 'take' serial verbs. Distributed marking is attested in Abé (Gbery 1987: 178), Goemai (Hellwig 2006: 95), Polish (Andrason 2018: 592), Paamese (Crowely 1987: 45-6), and Pileni (Næss et al. 2011: 381). As an example for distributed marking, in Abé, if V_1 is marked for either the accomplished or habituative tense, V_2 is concordantly marked, as shown below. On the contrary, if V_1 marks for the progressive or future tense, V_2 must be only in the habituative tense (Gbery 1987: 178). For the case of truncated marking, it is in Avatime (Refina 2016: 654-60) and Goemai (Hellwig 2006: 95). In Avatime, V_1 is fully inflected for subject agreement, negation, aspect, and mood. If a grammatical category is shared, V_2 can be marked for a truncated agreement prefix, as in (4.31). However, this truncated marking strategy is atypical of Kwa language, which Avatime is a member of (Refina 2016: 657).

(4.31) yɛ́ sị̀ **bɛ-tá-kɔ́** ɛ-wà **kunu=yè**
C_1SG:FOC.SUB COMP C_1PL.PERF-INT-take SVM.C_1PF.PERF-use funeral=DEF
'He is the one they will use for the funeral.' (take use)

Marking for verbal categories in 'take' serial verbs is different not only in terms of types, but also in terms of the location of the marking. Among others, asymmetrical 'take' SVCs are focused here. In asymmetrical 'take' SVCs with single marking, the categories may be prefixed/suffixed or preposed/postposed only to major verbs, not to minor verbs, in the serialization. That is, the minor verbs have lost its verbal properties so that they are no longer inflected in the serialization. For example, this was the case in *de* in Akan, such that tense is suffixed only to the major verb that *de* occurs with (Osam 1997: 267, 272). Comparatively, its counterpart *fa* 'take' in Akan is still a full-fledged verb, thereby still having a full range of semantics and verbal inflection (Lord 1993: 71). Across the sample languages, *de* in Akan is the most bleached variant, even viewed as a case marker in the works done by Lord 1973, 1982, 1993. In comparison, 'take' in some languages is semantically bleached when used in serialization, so inflection does not occur with it; nonetheless, 'take' occurs as a main verb outside the serialized constructions. This is the case in the following languages with single marking 'take' SVCs: Baule (Larson 2002: 9), Mandarin Chinese (Fan 2016: 18), Sri Lanka Malay (Nordhoff 2012: 322), Kadiweu (Sandalo 1995: 104), Mavea (Guérin 2011: 273), Kalam (Givón 1991: 104), and Ulwa (Russell 2018: 287). On the contrary, some languages with single marking allow only minor 'take' to be inflected or to be preposed with verbal categories in the serial verbs. This includes Avatime (Refina 2016: 658), Pnar (Ring 2015: 452), Kristang (Baxter 1988: 212), Berbice Dutch (Kouwenberg 1994: 398), and Saramaccan (Veenstra 1996b: 86). In these languages, 'take' occurs in an initial position. However, in Kristang, the minor or major 'take' is preposed with a perfective aspect as long as 'take' is in V_1 (Baxter 1988: 212, 217), shown in (4.32) below.

(4.32) a. eli ja **tomá** faka **kotrá** kandri
3SG PERF take knife cut meat
'He cut the meat with a knife.' (take cut)

b. bunyán ja **toma lebá** ku eli na matu
fairy PERF take carry ACC 3SG LOC jungle
'A fairy took him (away) to the jungle.' (take carry)

Some single-word 'take' SVCs with single marking necessarily inflect the entire roots together by suffixing them. This is attested in languages with agglutinating morphology, such as Hup (Epps 2008: 421), Wanano (Stenzel 2004: 287), and Pirahã (Everett 1986: 265). For 'take' SVCs with concordant marking, the minor 'take' is prefixed with aspect in Avatime (Refina 2016: 657) and inflected for TAM in Polish (Andrason 2018: 590).

Finally, transitivity matching is attested only in Tariana across the languages. In Tariana, if V_1 is transitive, as in 'take', in asymmetrical directional SVCs, the directional verb must be transitivized by being causativized (Aikhenvald 2006a: 2). In (4.33), the intransitive directional 'cross' is causativized in order to match the transitivity of 'take'.

(4.33) phia-nihka **phita** **pi-thaketa** **pi-eme**
you-REC.PAST.INFER 2SG+take 2SG-cross+CAUS 2SG-stand+CAUS
ha-ne-na hyapa-na-nuku
DEM-DISTAL-CL:VERTICAL hill-CL:VERTICAL-TOP.NON.A/S
ha-ne-riku-ma-se
DEM-DISTAL-CL:LOC-CL:PAIR-LOC
'Was it you who brought that mountain across (the river) to the other side?'
(take cross stand)

However, the transitivity matching for 'take' serial verbs in Tariana may not be always necessary in the foreseeable future due to contact with Portuguese, the language with higher

prestige. The verb *-hipa* 'take, grab' is transitive, but younger Tariana speakers tend to use this verb as an ambitransitive, similar to Portuguese *pegar* used as transitive 'take' or intransitive 'start (of a car)' (Aikhenvald 2003: 235-6).

4.6. Language contact

In some languages of the sample, the appearance of 'take' serial verbs may come about due to the contact with other languages. Language contact is clear in the case of the three Amazonian verb-final languages with a polysynthetic agglutinating profile spoken in the Vaupés River Basin (spanning northwest Brazil and southeast Columbia): Wanano, Hup, and Tariana. The Vaupés River Basin is a multilingual region, in which East Tucanoan languages (Wanano), Arawak languages (Tariana), and Naduhup languages (Hup) are spoken (Aikhenvald 2017b: 308). An areal feature of the Vaupés River Basin is a combination of roots, and this root compounding is very productive in Wanano and other East Tucanoan languages in general (Epps 2006: 281, 2008: 389). Therefore, as seen earlier in Table 4.4, Wanano employs only contiguous single-word 'take' SVCs exclusively with single grammatical marking. This influence of East Tucanoan on Hup is clear in that Hup reflects almost the exact same strategies as Wanano's in Table 4.4. This is not surprising given the fact that Hup ended up developing agglutinative morphology as a result of long-term interaction with East Tucanoan (Aikhenvald 2017b: 308). Further evidence on the influence of East Tucanoan on Hup includes Hup's calqued compounds matching East Tucanoan counterparts (see more in Epps 2006: 281). In comparison, Tariana does not appear to exhibit root compounding as Wanano and Hup do, although it is a verb-final polysynthetic agglutinating language as the two languages are. Same as these two languages, 'take' SVCs

in Tariana are contiguous and mark for grammatical categories once per construction, yet when it comes to wordhood, they are very productive in multi-word 'take' SVCs instead of single-word ones unlike the two languages. While all of the languages allow single grammatical marking per construction, Tariana is the only language, among them, that requires concordant person marking on every verb in 'take' serial verbs (Aikhenvald 2006b: 200). In short, this indicates that while the diffusion of contiguity and grammatical marking for 'take' SVCs from East Tucanoan is reflected both in Hup and Tariana, that of wordhood matches only Hup, not Tariana. Their morphosyntactic features are summarized in Table 4.5.

Language	Contiguity	Wordhood	Marking for categories
Wanano (East Tucanoan)	Contiguous	Single-word	Single marking
Hup	Obligatorily contiguous	Single-word	Single marking
Tariana	Obligatorily contiguous	Multi-word	Single marking

Table 4.5. Morphosyntactic comparison between Wanano, Hup, and Tariana

On the other hand, contact-induced change that accounts for productive serialization in some languages of the sample may not be correlated with the productivity of 'take' serial verbs. This is the case in Papiamentu. Papiamentu may be believed to have descended from Cape Verdean Creole, whose African substrates are relatively poor in serialization compared to Kwa languages (Jacobs 2015: 72). Jacobs argues that the fact that Papiamentu is much more productive in serialization in general than Cape Verdean Creole may have been due to Curaçao's historical slave trade, during which a large number of slaves from Kwa speaking regions moved into Curaçao, where Papiamentu is mainly spoken. Although this contact-induced language change may account for the high productivity of the serialization in Papiamentu, this cannot explain why there is a lack of asymmetrical 'take' serialization in Papiamentu. As seen earlier in Table 4.3, this language only has symmetrical 'take' serial verbs, thereby lacking asymmetrical counterparts including valency-increasing 'take' at all.

However, it is this valency-increasing meaning that was predominant in all of the Kwa languages of the sample. This indicates that when one looks at verb-specific serialization in a language, contact-induced change may not be a far-reaching account, while it is evident in some other types of serialization in the language. This kind of case is reminiscent of the lack of valency-increasing 'take' in Goemai, discussed in §4.2. Goemai (Hellwig 2006: 88) is spoken in the Jos Plateau area of Central Nigeria, in which Chadic (Goemai) and Bueno-Congo show similar grammatical patterns, including serialization. Although serialization in Goemai is generally productive due to the contact with the Bueno-Congo languages, Goemai only showed symmetrical 'take' SVCs, thereby lacking valency-increasing 'take'. However, the Bueno-Congo from the sample was fairly productive in this valency-increasing mechanism using 'take', shown in Table 4.3. This reinforces the argument that contact-induced change in serialization may be verb-specific.

Chapter 5

Summary and discussion

To start with the composition of 'take' serial verbs, 55% of the languages use both asymmetrical and symmetrical compositions. Only asymmetrical composition is attested in 37% of the languages. In contrast, the symmetrical composition was favored the least, only being 6%. These tendencies align with previous literature: asymmetrical serial verbs are more common than symmetrical ones (Aikhenvald 2018: 86). However, deviated from the literature is that verb-specific serialization, here in 'take' SVCs, may not conform to this tendency because 6% of the sample only possesses symmetrical 'take' serial verbs, as in highly serializing languages Goemai, Alto Perené, and Papiamentu. When 'take' SVCs are asymmetrical, all of the languages are headed by transitive verbs, but infrequently by intransitive verbs at 30%. However, the latter is possible only if the former is possible. Therefore, no languages of the sample are attested to be headed only by intransitive verbs in 'take' SVCs. It is also that the verb 'take' in asymmetrical serialization tends to be a major verb in directional 'take' instead of being minor. Exceptions to this tendency are Abé, Gen, and Avatime, all from the Kwa language family, where the minor 'take' is serialized to the major directional verb. Nevertheless, directional 'take' SVCs still occur in these three languages. For the location of the verb 'take', 'take' is almost always located in V_1 than other verb positions at 93%. This may have been due to the fact that the directional 'take' in the majority of the languages occurs in V_1. However, Pileni and Kambera, both Austronesian, go against this tendency.

Moreover, the semantics of ‘take’ serial verbs show the most diverse variation. To begin with, valency-increasing ‘take’ is perhaps the most commonly discussed meaning in previous literature, and indeed, it is also the most frequent meaning. Nonetheless, the polysemy of ‘take’ SVCs in addition to valency-increasing ‘take’ is still widely attested.

Specifically, valency-increasing ‘take’ varies in terms of what meanings it introduces – instrumental, manner, material, and comitative, and it also introduces objects for various lexical constructions. Among them, cross-linguistically, instrumental and objectal ‘take’ SVCs are the most frequent in the valency-increasing meanings, respectively being 44% and 48%. Moreover, it is theses valency-increasing ‘take’ SVCs that reveal the distinct genetic and areal affiliations. Not surprisingly, variation and productivity in this function is higher in the following languages compared to the other languages of the sample: Kwa, Bueno-Congo, Gur (all of them in the Niger-Congo), the majority of Creoles, Thai, and Kalam. Within the first three Niger-Congo languages, variation is largest in the order of Kwa, Bueno-Congo, and Gur. On the contrary, the two Creoles Sri Lanka Malay and Papiamentu lack instrumental ‘take’. This absence was accounted for by the fact that those languages have other ways of expressing instrumental meaning, which might have made having instrumental ‘take’ SVCs unnecessary. However, it was also pointed out that some languages rather have both ways of expressing instrumental meaning, as seen in Kristang.

The verb ‘take’ is also bleached to contribute a variety of aspectual meanings in the languages at 15%, ranging from ingressive/ingressive (40%), completive/perfective (40%), imperfective (10%), to pluperfect (10%), thereby the first two groups of meaning the most common in the sample. They are also either associated with telic events

(inchoative/ingressive, completive/perfective, pluperfect) or with an atelic event (imperfective).

Comparatively, directional 'take' SVCs are the most common type at 71%. However, directional 'take' does not exist in Kikongo-Kituba, does not appear in Alto Perené, and is attested only in the purposive 'take' SVCs in Saramaccan.

As for other pragmatic/lexicalized meanings as frequent as 53%, they tend to be more bleached than the other meanings discussed so far. These meanings include the emphatic meaning being the most frequent and lexicalized meanings being the least frequent. Other loosely integrated meanings, so secondary to the primary meanings discussed by far are sequential (68%) and purposive (31%).

For the temporal iconicity, both iconic and non-iconic ordering or just non-iconic ordering are attested in many individual languages, respectively 53% and 37%. In contrast, only four languages are iconically ordered at 8%. In some languages such as Eastern Kayah Li, Kadiweu, and Kambera, the 'take' SVCs show reverse ordering of subevents. In comparison, Gen prohibits this reverse ordering. Unexpectedly, ordering that conveys truly simultaneous reading is rare in the sample, occurring only in Kambera.

Variation is also large with respect to contiguity, wordhood, and marking for verbal categories. To start with the contiguity of 'take' serial verbs, 42% of the languages use both contiguous and non-contiguous serializing strategies, yet the latter is more productive at 56%. The languages that use only non-contiguous 'take' serial verbs are attested in 37% of the languages, whereas only contiguous ones at 20%. This parameter of contiguity is correlated with genetic and areal affiliations, as seen in the isolating West African languages (except Avatime) and agglutinating/polysynthetic Amazonian languages (except Kadiweu).

As such, the West African languages prefer non-contiguous ‘take’ serial verbs, while the Amazonian languages contiguous ones. However, this tendency is not generalizable to ‘take’ serial verbs in Pnar and Eastern Kayah Li, both largely isolating languages showing only single-word contiguous ‘take’ SVCs. This contiguity tends to intersect with the wordhood. This intersection naturally results in the tendency that the multi-wordhood is more correlated with non-contiguous ‘take’ serial verbs, and the single-wordhood with contiguous. However, Alto Perené and Tariana are deviated from this pattern. Because overall, a non-contiguous serializing strategy is preferred by ‘take’ serial verbs in the sample, the multi-wordhood is naturally predominant in the sample.

As to marking for verbal categories in ‘take’ serial verbs, single marking is the most common at 56%. Comparatively, concordant marking is less common at 25%. Some languages of the sample employ different types of marking, depending on the grammatical categories that are marked for. Optional concordant marking is also attested in 6% of the languages: Baule, Berbice Dutch, and Koro. As uncommon as optional concordant marking is, distributed marking and truncated marking are used in a few languages, respectively being 9% and 3%. The former includes Abé, Goemai, Polish, Paamese, Pileni; the latter Avatime and Goemai.

When the verb ‘take’ is highly bleached, it even lacks transitivity in some languages, as in Thai, Sri Lank Malay, Hup, and Estonian. In a few other languages, not surprisingly, ‘take’ may even exhibit adposition-like behaviors. These are the cases in Berbice Dutch and Mandarin Chinese. For valency-increasing ‘take’, whether objectal ‘take’ SVCs are more bleached than instrumental ‘take’ ones or vice versa may be language-specific. While each language of the sample varies as to how much the minor ‘take’ is bleached, some languages

are clear in reflecting whether it is away from grammaticalization or perhaps already grammaticalizing. The former is the case in Goemai, Alto Perené, and Papiamentu; the latter in Akan. On the contrary, lexicalized symmetrical 'take' serial verbs are attested in Tariana and Anyi.

Finally, language contact may influence what strategies some languages employ. Wanano, Hup, and Tariana in Vaupés River Basin are the cases on point. Contiguous single-word 'take' serial verbs in Hup reflect long-term contact with East Tucanoan (Wanano). However, although Tariana still reflects East Tucanoan influence, it is deviated from this areal diffusion in wordhood (see how wordhood is defined in §4.5). It is rather productive in the multi-word 'take' serial verbs instead of the single-word, and it also requires concordant subject marking, which Hup and Wanano do not appear to use. This contact-induced change is also accounted for in papers about Papiamentu (Jacobs 2015) and Goemai (Hellwig 2006). However, when one looks at 'take' specific serialization, language contact explanation does not account for why these languages lack asymmetrical 'take' SVCs, in which their contact languages are very productive. This may be rather due to their genetic affiliation: the Chadic language family, which Goemai is a member of, is less productive in serialization compared to its contact language, the Bueno-Congo; the contributing languages of Papimentu are English and French, both non-serializing Indo-European languages (Kouwenberg 2013). This indicates that low or zero productivity in serialization in their genetically affiliated languages may have contributed to the lack of their asymmetrical 'take' SVCs.

The current study can be further related to the hierarchy of asymmetrical serial verbs (Aikhenvald 2018: 157-60) and the compactness of causative mechanism (Dixon 2012: 281-4). First, this verb-specific serialization may not conform to the proposed hierarchy of

asymmetrical SVCs to its full extent. Aikhenvald's cross-linguistic hierarchy is organized in terms of semantic type and is based on the frequency of the types of verb that occur in serial verb constructions. The semantic types of the hierarchy predict that directional or aspectual asymmetrical serial verbs are presupposed prior to the presence of valency-increasing ones. That is, because some types of verb (e.g., motion verbs, active intransitive verbs) are more common in serial verbs, and other types of verb that increase valency of an overall argument structure (e.g., verb of transfer or causation) are less common, the corresponding types of asymmetrical serial verbs are also subject to this frequency hierarchy. This hierarchy may reflect the cross-linguistic tendency and indeed, this tendency, specifically in the semantics 'take' serial verbs, holds true in the majority of the languages of the sample, shown above in Table 4.3. However, a few of the languages in this specific construction do not conform to the hierarchy by only showing valency-increasing 'take' without the presence of directional or aspectual counterparts. That is, although each of those languages may show the directional verbs, the valency-increasing 'take' does not presuppose the directional or aspectual asymmetrical serial verbs. This was clear in Kikongo-Kituba, where the instrumental and objectal 'take' SVCs exist, but the directional ones do not (Mufwene 2013). The similar case is also attested in Kana and Mauritian. In comparison, in Saramaccan, the motion verb does occur with 'take' yet in a purposive symmetrical construction (McWhorter & Good 2012: 217). On the contrary, in Barai, the asymmetrical directional 'take' SVC occurs, but it does with the non-target 'take' variant (*ke*) (Olson 1975: 489).

Another observation is related to the degree of the compactness of causative mechanism. The more compact serialized verbs are to each other, the higher the control of a subject as a causer is. That is, contiguous serial verbs reflect a higher control of the causer,

while the non-contiguous a lower control of the causer (Aikhenvald 2018: 172) – yet a single-word serial verb in Yimas expresses both direct and indirect causation (Dixon 2012: 282). In addition to contiguity in relation to the degree of a causer's control, this causer's control can be simply depending on types of verb. As seen in §2.3, the verb 'take', in its concrete sense, naturally implies volitional causation, in which a volitional causer is in a high and direct control, deliberately acting on a physical object, leading to a change of status of the object. In Leleni, for example, the subject must be supposed to control the event in objectal 'take' serial verbs (Allan 1973: 389, from Schluinsky 2017: 367). In fact, this volitional causation in 'take' SVCs occur almost always in the languages of the sample, commonly in non-contiguous serialization. That is, a high control of the causer in the subevent of taking depends on the type of the verb regardless of how close the serialized verbs are in 'take' SVCs. Therefore, in some languages of the sample, deliberate reading of taking in serialization only allow definite syntactic objects for 'take', such that indefinite ones are ungrammatical when occurring, as in Akan (Osam1997: 265-6). The same as Akan is Nupe (Lord 1993: 127), Anyi (Ven Leynseel 1975: 202), Baule (N'Guessan 2000: 87), and White Hmong (Jarkey 2015: 179, 280). Similar emphatic meaning is also attested in Gen (Lewis 1993: 171) and Kana (Ikoro 1996: 315-6), as evidenced in Table 4.3. All of these languages use a non-contiguous serializing strategy to express emphatic 'take' with a high control of the subject[22]. This emphasizes the argument that not only closeness of serialized verbs, but also verb type-specific serialization can determine the degree of a subject's control.

[22] However, in White Hmong, highly topicalized noun phrases as objects of 'take' may be omitted in 'take' serial verbs, making the serialized verbs look seemingly contiguous (Jarkey 2015: 179).

Overall, these empirical-based findings reveal a cross-linguistic synchronic variation in the composition, semantics, and morphosyntactic features of 'take' SVCs wider than previously documented. To highlight some points, the semantics of 'take' SVCs show a wide range of polysemy in addition to the valency-increasing meaning, which was generally focused on in previous literature. Specifically, the aspectual meanings of 'take' SVCs grammaticalize into two separate groups, associated with telicity or atelicity. Furthermore, while all of the languages allow the transitive verbs to determine the overall transitivity of the 'take' SVCs, no single language allows only intransitive verbs to do the same job, which may need cognitive explanations to account for the pattern. Lastly, in addition to a contiguous strategy of serialization, verb type-specific serialization – in this case the verb 'take' – can contribute to the extent of causer's control. In general, the study contributes to the semantic and syntactic variation of 'take' serial verbs. Further, it brings up the need for studies on verb-type specific serialization.

The result of the study still posits some questions for future research. Questions worth exploring include: Why is the cross-linguistic overall transitivity value of 'take' serial verbs predominantly transitive and why does not a single serializing language allow only overall intransitive value? Why do not some productively serializing languages exhibit asymmetrical 'take' serial verbs, but only symmetrical ones, if asymmetrical serialization is more cross-linguistically widespread than symmetrical one? Why the West African languages with isolating tendencies and many Creoles generally show wider variation and higher productivity in valency-increasing 'take' than other languages?

Appendix

Sources for the languages

Macro area	Language	Genetic affiliation(s)	Reference(s)
Africa	Akan	Niger-Congo	Ofori 2009: 58, 60, Osam 1994: 31, Osam 1997: 261, 265-7, 272-4, Larson 2002: 8, Lord 1993:67
	Baule		Creissels 2000: 240, Larson 2002: 6-11, 17, Larson 2003: 5, N'Guessan 2000: 83, 86-7, Schluinsky 2017: 364
	Anyi		Van Leynseele 1975: 191-2, 196-207
	Abé		Gbery 1987: 140-2, 149, 173-4, 177-8
	Gen		Lewis 1993: 5-6, 127-136, 143, 156-60, 171, 185
	Avatime		Funke 1909: 316, Refina 2016: 652-61, 665-6, 672-74, Schluinsky 2017: 359, van Putten 2014: 64, 76, 156
	Fon		Lefebvre 1991: 39-40, 55, Lefebvre & Bousseau 2002: 401, 409-20
	Yoruba		Bamgbose 1966: 80, Stahlke 1970: 61-3, 77-8, 81-5
	Nupe		George 1975: 16, 55-7, 61, 64, 73, 114-5, 122, Lord 1993: 127
	Igbo		Emenanjo 1987: 200-3, Emenanjo 2015: 324, McWhorter 1997: 27, Okonkwo 1980: 77
	Kana		Ikoro 1996: 148, 250, 253-7, 315-6
	Dagbani		Lord 1993: 128, Wilson 1970: 55-61, 74
	Goemai	Afroasiatic	Hellwig 2006: 88-98
	Mauritian	Creole	Baker & Kriegel 2013, Syea 2013: 15-20, 56, Syea 2014: 208
	Kikongo-Kituba		Mufwene 1996: 116, Mufwene 2013
	Fa d'Ambô		Post 1992: 153, 158, 164, Post 1995: 201-3, Post 2013
Eurasia	Cantonese	Sino-Tibetan	Bodomo 2003: 64, Matthews 2006: 72, 76-7, Matthews & Yip 1994: 66-7, 144-5, Matthews & Yip 2000: 66
	Mandarin		Fan 2016: 18, 38, 49, 52, 61, 66, 207-9, 261, Li & Thompson 1974: 268-9, Paul 2008: 388
	Eastern Kayah Li		Solnit 1986: 118, Solnit 1997: 80, 83, 131, Solnit 2006: 146-8, 158
	Pnar	Austroasiatic	Ring 2015: 439, 452, 510, 544
	Thai	Tai-Kadai	Diller 2006: 161, Muansuwan 2002: 44, 63, Thepkanjana 1986: 147, 160, 176, 179, 211-2, 217
	White Hmong	Hmong-Mien	Jarkey 2015: 38-9, 69, 131, 171-2, 177-9, 280
	Hittite (extinct)	Indo-European	Luraghi 1993: 272, Luraghi 2017: 4-6, 17
	Polish		Andrason 2018: 583-90, 592-4, 597-602, 605-9, 613
	Estonian	Uralic	Tragel 2017: 171-8
	Kristang	Creole	Baxter 1988: 108, 162, 212, 217
	Sri Lanka Malay		Nordhoff 2009: 172, 175-6, 467, Nordhoff 2012: 322-3, 334

Americas	Tariana	Arawakan	Aikhenvald 2003: 145, 236, 256-7, 263, 280, 429, Aikhenvald 2006a: 2, Aikhenvald 2006b: 181-4, 188-90, Aikhenvald 2017a: 8, 16
	Alto Perené		Mihas 2015: 163, 175, 198, 229
	Hup	Naduhup	Epps 2008: 281, 393-4, 398-403, 421-2
	Wanano	Tucanoan	Stenzel 2004: 172, 178, 210, 216, 221, 266, 287
	Kadiweu	Waikurúan	Sandalo 1995: 94-5, 98, 104
	Pirahã	Mura	Everett 1986: 265, 285-6, 293, 298, 301
	Berbice Dutch (extinct)	Creole	Kouwenberg 1993: 389, 392, 395-401, 404
	Papiamentu		Jacobs 2015: 65, 72, Kouwenberg et al. 1994: 47-8, Kouwenberg 2007: 322, Kouwenberg 2013
	Saramaccan		Bakker et al. 1994: 173, McWhorter & Good 2012: 148, 169, 217, Veenstra 1996a: 97, Veenstra 1996b: 85-6, 117, 139
Oceania	Paamese	Austronesian	Crowley 1982: 141, Crowley 1987: 43-8
	Lewo		Early 1993: 70, 77, Early 1994: 97, 163-5, 232, 269, 279, 368-9, 374-5
	Mavea		Guérin 2011: 143, 263, 268, 273, 352
	Pileni		Næss 2004: 225, 232, 242-6, Næss 2011: 55, 380-3, 437
	Koro		Clearly-Kemp 2015: 42, 157-60, 166, 171, 190, 196-7
	Kambera		Klamer 1998: 276-80, 281-2, 323
	Kalam	Trans-New Guinea	Givón 1991: 97-104, Lane 1991: 18, 24, Lord 1993: 135, Pawley 2008: 184
	Barai		Olson 1975: 489, Olson 1981: 132, 161, 187-8
	Ulwa	Ulmapo	Russell 2018: 137, 285-8

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