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1 Serial Verbs

1.1 Serial Verb Definition

The definition of serial verb is somewhat contested. In their typological survey, Aikhenvald & Dixon (2006) give several definitions, some of which conflict or overlap. Among their key proposed criteria is multiple verbs that (i) are monoclausal; (ii) from a "single predicate"; (iii) form a "single event"; (iv) form one unit phonologically; (v) are negated singly.

Most of these definitions are problematic, however. Aikhenvald & Dixon give no clear definition for a single predicate or a single event. Without a formal semantic representation, these are left vague, and for the most part a single predicate (when it is not synonymous with a single event) seems to come down to monoclausality. While serial verbs may be phonologically connected, they give several examples where the serial verbs are separated by intervening words (such as a direct object), and give instances of (what they term) serial verbs where one verb is negated while the other is not.

Butt (1995) gives an analysis of serialization in Urdu within the structure of Lexical-Functional Grammar (LFG). Since her work is grounded in a specific analysis of a specific language, Butt can be more specific in the definition of a serial verb. A key component of Butt's analysis is the notion of a "complex predicate," which is the creation of a new atomic unit of meaning from two separate words. The two components of a complex predicate can have a syntactically hierarchical relation. The semantic relation for the word 'write' might be write(x, y), but when combined with the permissive, the new semantic relation is Let-write(x, y, z), with a syntactic subordination. The predicate composition has created a new, higher-order relation with a different number of arguments, which is necessary in the event that there is evidence (as in Urdu) that the combined verbs have a larger number of arguments than either of the individual verbs.

There are reasons to disprefer this kind of analysis, if possible. One is that this form of complex predicate makes semantic composition much more difficult to model. In the typical lexicalist framework, each content morpheme is associated with an elementary predication, which is a shorthand for the 'meaning' of that morpheme, conventionally written as the morpheme in upper-case letters. This convention is for human readability: we could easily label word meanings as MEANING1647, MEANING1648, etc., with no loss of specificity. Butt's analysis creates a situation where there is a new mathematical operation in the semantic representation: 'let' LET + 'write' WRITE = LET-WRITE. Despite the similarity in labels, there is no formal relationship between these three meaning representations except by that

equation, just as if the equation had been MEANING308 + MEANING2119 = MEANING8780. The meaning of the "complex predicate" is non-compositional with respect to its member verbs.

On its own, this is not necessarily a bad thing. Some sort of arbitrariness like this could be used to model idioms, for example, where individual lexical meanings are non-compositional. However, when this kind of combination is productive (as in the case of serialization), it is preferable not to introduce such semantic non-compositionality, or one ends up with a list of semantic equations, as above, which nearly the size of the set of verbs in the lexicon (if not larger).

In LFG, the elementary predication of a word is linked to its argument exponence. That is, the meaning of 'write' isn't merely WRITE, but WRITE(x, y). In this framework, to add an argument to a predication, it is necessary to change the predication itself. In HPSG-MRS, the semantic meaning and its arguments are separated from each other. That is, the meaning of 'write' is schematized as below:

In this way, it is possible to separately alter the number of arguments of the predication write without having to create a new predication. (This is something the formalism shares with Neodavidsonian representations.) This difference between LFG and HPSG semantic representations will allow me to maintain strict semantic compositionality in my analysis of serial verbs in Nuuchahnulth. This method of changing the arguments of a predicate, or moving them to a higher predicate, is called *argument composition* [TODO: cite appropriate Sag paper].

Serial verbs are not clearly defined in the literature, and attempts to generate cross-linguistic definitions quickly run into problems. Even monoclausality, so central to Aikhenvald & Dixon (2006), is thrown out in Butt (1995), who gives good reasons for syntactic subordination in a structure that otherwise falls into the umbrella of a serialization construction. I will use a very narrow definition of a serial verb construction for Nuuchahnulth.

Any clause containing two verbs without an overt coordinator is a clause containing a "serial verb construction." The structure of Nuuchahnulth is such that determining the boundaries of a clause is relatively straightforward. Each matrix and dependent clause is marked with a second-position clitic, and so the boundaries of a clause are fairly easy to determine. Because of the restriction that serial verb constructions lack an overt coordinator, the linker (§??) does not count as a SVC.

1.2 Data

1.2.1 Semantic Types of Serial Verb Constructions

Descriptively, I categorize observed serial verb constructions into four broad semantic types.

I. Manner and Action

The broadest semantic type of SVC links actions and manner. By "manner" what I mean is words that express intention of a main action, or clarify or specify that main action in some way. In Nuuchahnulth, this is typically expressed verbally. I include in this category manner of motion (1), actions performed

¹The one exception to this is that the third-person neutral mood is null-marked. For this reason, I will use examples that are not in this person-mood combination.

under motion (2), emotional affect (3), some kinds of adverbial-like expressions using semantically light verbs like "do" and "go ahead" (4, 5), and "go back" in the sense meaning "return" 6.

(1) ?uucuýukwiťasaḥ yaacuk ċuumasas.

?uucuýuk-wiťas=(m)aḥ yaacuk ćuumasas go.to.dr-going.to=real.isg walk.dr Port.Alberni 'I'm going to walk to Port Alberni.' (B, Bob Mundy)

(2) hiniicana patquk ?ucacin Qualicum.

hina-iic=!a\u00e1=na' patquk ?u-ca-\u00e7i\u00e3 Qualicum EMPTY-carry=NOW=STRG.1PL belongings x-go.to-mo Qualicum 'We are taking our belongings going to Qualicum.' (C, tupaat Julia Lucas)

(3) wikiis xaxaał łaakwiił siýa.

wik=!i·s xaxaał łakw-L.(č)iił siýa NEG=CMMD.2SG>1SG feel.sorry pathetic-make 1SG 'Don't feel sorry for me, mistreating me.' (C, tupaat Julia Lucas)

(4) ?anisłintwa?š ťawiłšλ.

?ani-sł=int=wa?š ťawił-šiλ only-do=PST=HRSY.3 lie.down-MO 'He just laid down.' (Q, Sophie Billy)

(5) naýii?akaðin kuwiła wałaak.

naýii?ak=!a¾=(m)in kuẃiła wałaak immediately=NOW=REAL.1PL go.ahead go.DR 'We immediately went ahead and went.' (B, Marjorie Touchie)

(6) hu?acači?aaq\u00e7suuk tii\u00e9a\u00e7i\u00e7.

huʔa-ca-čiλ̃=!aaqλ̃=suuk tiič-°ačiλ́ back-go-mo=fut=neut.2pl live-in 'You will come back to life.' (C, *tupaat* Julia Lucas)

This kind of SVC can "stack" beyond coordinating just two verbs, to at least three.

(7) ?anasiła?i kuwiła ?ucači maku?ał.

?ana-siła=?i[°] kuwiła ?u-ca-čiҳ maku?ał only-do=сммр.2sg go.ahead x-go.to-мо store 'Only go to the store.' (C, *tupaat* Julia Lucas)

(8) hu?acači\u00e7wifasa\u00e9 \u00e3ii\u00e7uk wałaak yuulu?il?at\u00e9.

hu?a-ca-či\(\hat{A}\)-witas=(m)a\(\hat{A}\) šii\(\hat{A}\) wałaak yuulu?ił-?at\(\hat{A}\) back-go-MO-going.to=REAL.1SG move.house.DR go Ucluelet-live.at 'I'm going to move back to Ucluelet.' (\mathbb{Q}\), Sophie Billy)

It is possible for one of the verbs to interrupt the other (9), along with its object, if it has one (10).

(9) ?uuctiiḥs λiḥaa Queens Cove.

?uuctiiḥ=s মiḥ-a Queens Cove go.to.dr=strg.isg drive-ct Queens Cove 'I am driving to Queens Cove.' (N, Fidelia Haiyupis)

(10) hiniicintiis?inł?ucič\(\chi\) ciquwłi taatna?iskqs.

hina-iic=int=iis=?inł ?u-ci-či\(\tilde{\chi}\) ciq-uwłi L.<t>-ta\(\hat{a}=?is=uk=qa\)'s EMPTY-carry=PST=WEAK.1SG=HABIT X-go.to-MO pray-building PL-child=DIMIN=POSS=DEFN.1SG 'I would always take my children to church.' (Q, Sophie Billy)

The verbs in this type of SVC, for most speakers, must agree in perfectiveness. Nuuchahnulth has a great many verbal aspects which follow the root, but they can be broken into two categories: perfective aspect (momentaneous and inceptive) and imperfective aspect (continuative, durative, repetitive, iterative, and graduative). The requirements on SVC aspectual agreement only seem to extend to the level of perfective vs imperfective.

(11) ?uucuýukwiťass yuułu?ił?atḥ yaacuk.

?uucuýuk-wiťas=s yuułu?ił-?atḥ yaacuk go.dr-going.to=strg.isg Ucluelet-live.at walk.dr 'I'm going to walk to Ucluelet.' (*C, tupaat* Julia Lucas)

(12) *?uucuýukẃiťass yuułu?ił?atḥ yaacšiλ.

?uucuýuk-wiťas=s yuułu?ił-?atḥ yaacšið go.dr-going.to=strg.isg Ucluelet-live.at walk.mo Intended: 'I'm going to walk to Ucluelet.' (C, *tupaat* Julia Lucas)

(13) \(\text{\lambda} i\text{\text{haamitni\text{s}}} \) si\(\text{a} \) luucmuupukqs waal\(\text{\text{si}} \).

λiḥ-a'=(m)it=ni'š siỷa luučṁuup=uk=qs wał-šiλ-LS drive-CT=PST=STRG.1PL 1SG sister=POSS=DEFN.1SG go.home-MO-GR 'We were driving home in the car.' (C, tupaat Julia Lucas)

(14) *wałši\u00e3witasni\u00e3 \u00e4ihaa.

wał-šiħ-witas=ni·š ħiḥ-a· go.home-MO-going.to=STRG.1PL drive-CT Intended: 'We will drive home.' (C, tupaat Julia Lucas) However, for one of my consultants, Sophie Billy, who is the youngest speaker, the only Checkleseht speaker I worked with, and typically the most innovative in her speech patterns, two verbs in this kind of SVC may differ in aspect. I do not know if this is a Checkleseht feature, a Kyuquot-Checkleseht feature, a feature of her generation, or a feature of her idiolect. But this pattern is productive for her.

(15) ?ucičínsiš šii nk mituuni.

?u-ci-či\(\text{2}=\si'\)\(\text{5}\) šii\(\text{ku}\) mituuni x-go-mo=strg.1sg move.house.dr Victoria 'I moved to Victoria.' (\(\mathbf{Q}\), Sophie Billy)

(16) ?uuctiiḥsiš šiiλuk mituuni.

?uuctiiḥ=si·š šiiλuk mituuni go.dr=strg.isg move.house.dr Victoria 'I moved to Victoria.' (Q, Sophie Billy)

II. Location and Action

Perhaps the most common semantic type of serialization is location-action. Most descriptive locations in Nuuchahnulth are verbs, 'be at a place' and locations are simply juxtaposed with the action performed there. This strategy is used for transitive *hit* 'be at' as well as intransitive locations like *hitaas* or λaa ? aas 'be outside' and *hitinqis* 'be at the beach.'

(17) hił?ii wiinapuλ.

hił=!i wiinapu\(\text{be.at=CMMD.2SG stop.MO} \)
'Stop there.' (B, Bob Mundy)

(18) hitaasitaḥ ciiqciiqa.

hitaas=(m)it=(m)a'ḥ ciq-LR2L.a be.outside=PST=REAL.1SG speak-RP 'I was outside speaking.' (B, Bob Mundy)

(19) qii?a\(\text{intiis}\) mamuuk \(\text{\lambda}\)aa?aas.

(20) haptsaapaq\(\text{iis suutil hilaayilkw}. \)

hapt-sa'p=?aq\(\Text{\Line}\)=iis sut-L.(\(\text{\Empirical}\))ił hił-a'yił=uk. hide-mo.caus=fut=weak.1sg 2sg-do.to be.at-on.a.roof=poss 'I will hide you on the roof.' (Q, Sophie Billy)

Like in Type I, is possible in this construction for the transitive location verb *hit* 'be at' to be split from its object by the other verb (21). It is also possible for the location word can also be the interrupting element (22).

(21) hiłqiimit?iš?aał huuxs?atu nučii.

```
hił-qii=(m)it=?i'š=?aał huuxs?atu nučii
be.at-on.top=PST=STRG.3=HABIT rest.DR mountain
'He rests on top of mountains.' (N, Fidelia Haiyupis)
```

(22) huptsaapckwa\(\lambda\) hinałcił ?ii\(\lambda\) misuk?i \(\rappa\) atquk.

```
hupt-sa'p=ckwi'=!a\u03b4 hina-alcil ?ii\u03b4mis=uk=?i' patquk hide-mo.caus=remains.of=now empty-in.wall important=poss=art belongings 'They hid their belongings in the walls.' (B, Bob Mundy)
```

Unlike Type I SVCs, there is no requirement that the verbs match in their aspect. This is partly because most locatives do not inflect for aspect. For the basic verb hit 'be at' there is no perfective form of $hit \dot{s}i\lambda$ [[TODO: confirm]], and hit can serialize with both perfective (17) and imperfective verbs (21). There exist perfective forms for some of the other location words, for instance $hitinqsa\lambda$ 'go to the beach' from hitinqis 'be at the beach.' However, there is no requirement for aspectual agreement here, as these words serialize with both perfective (20, 22) and imperfective verbs (19).

Some speakers have very strong preferences on the ordering of locative SVCs. When presented with alternative ways of expressing a sentence, Bob Mundy (Barkley dialect) rejected an ordering of action-location, strongly preferring location-action (23, 24).

(23) hitaasitaḥ ciiqciiqa.

```
hitaas=(m)it=(m)a'ḥ ciq-LR2L.a
outside-PST=REAL.1SG speak-RP
'I was speaking outside.' (B, Bob Mundy)
```

(24) *ciiqciiqamitaḥ hitaas.

```
ciq-LR<sub>2</sub>L.a=(m)it=(m)aḥ hitaas
speak-rp=real.isg outside-pst
Intended: 'I was speaking outside.' (B, Bob Mundy)
```

However, he did spontaneously generate the "ungrammatical" ordering of action-location in running text in ex (22). My interpretation of this is that there is a strong preference for the locative verb to come first, although it may not be strictly ungrammatical. Elder Fidelia Haiyupis (Northern dialect) agreed with Bob's judgments, while other consultants accepted either ordering.

I believe this is part of a larger preference in Nuuchahnulth for modifying expressions to precede what they modify. The same pattern can be seen with adverbs, which preferentially precede the verb (and speakers will correct themselves and others by moving adverbs before to a verb) but can, in the right circumstances, occur post-verbally.

III. Adpositive-likes

A fuller discussion of adpositive-like words will have to wait for \S ??. It is enough here to mention that, according to the analysis in (Woo 2007), a series of words with meanings that in English are expressed with prepositions are, in Nuuchahnulth, expressed with verbs (25, 26). This includes verbs with basic commitive, benefactive, and instrumentive meanings. These constructions have the same property of the above SVCs, where an intransitive verb may "interrupt" a transitive verb (in this case, the adpositive-like verb) and its object (27).

- (25) hiinasinλaya?iš hawacsaćum?i ʔuuḥwał kwaacsaćum.
 hiinasinλ-aya=ʔi·š hawacsaćum=ʔi· ʔu-L.ḥwał kwaacsaćum
 climb-ct=strg.3sg table=art x-use chair
 'Using the chair he climbed onto the table.' (N, Fidelia Haiyupis)
- (26) ?uupaałwitasniš yukwiiqsu ?ucačiλ Campbell River.
 ?uupaał-witas=ni·š yukw-i·qsu ?u-ca-čiλ Campbell River
 with-going.to=strg.ipl younger.sibling-relation x-go.to-mo Campbell River
 'I'm going with my younger sister to Campbell River.' (C, tupaat Julia Lucas)
- (27) Pucḥins mamuuk Trudeau.

?u-cḥin=s mamuuk Trudeau x-do.for=STRG.1SG work.DR Trudeau 'I'm working for Trudeau.' (N, Fidelia Haiyupis)

None of the adpositive-like verbs inflect for aspect, and in this way are similar to the locative verb *hit*. Like *hit* and like Type II SVCs, adpositive-likes can serialize with both perfective (26, 28) and imperfective verbs (25, 27). Unlike Type I and II SVCs, the "interrupting verb" cannot be a transitive verb with its argument. [[TODO: Run this by Julia to make sure this isn't a Bobism, doublecheck with Bob & Marj. If this holds up this will have to be a different construction from I, II, and IV]]

- (28) ?ucači?aħukwitaḥ ťaṅe?is ċuumaʕas ?ukwink yaqsčaʕin?itq.
 ?u-ca-čiħ=!aħ=uk=(m)it=(m)aḥ ťaṅa=?is ċuumaʕas ?u-(č)ink yaq-sčaʕin=?i'tq
 x-go-mo=now=poss=pst=real.isg child=dimin Port.Alberni x-with who-friendly=defn.3
 'My child is going to Port Alberni with his friend.' (B, Bob Mundy)
- *?ukwinka\u00e3ukwitah ?uca\u00e3i\u00e3 tane?is yaqs\u00e3a\u00e3in?itq.

 ?u-(\u00e3)ink=!a\u00e3=uk=(m)it=(m)ah ?u-ca-\u00e3i\u00e3 tana=?is yaq-s\u00e3a\u00e3in=?i*tq

 X-with=NOW=POSS=PST=REAL.1SG X-go-MO child=DIMIN who-friendly=DEFN.3

 Intended: 'My child is going with his friend.' (B, Bob Mundy)

IV. Transitive-Intransitive Repetition

Nuuchahnulth has a series of words with similar or identical meanings that differ only or mostly in transitivity. These include transitive and intransitive eat (-liis and haʔuk, as in 30) and cry and cry for (Siḥak and ʔuʔuuýuk, as in 31). Speakers frequently will use both versions in a sentence.

(30) ?u?iiċa?¼ ha?uk.

```
?u-!iic=!a\lambda=!i\tauk ha?uk 
x-eat=NOW=CMMD.2SG eat 
'Eat it!' (Q, Sophie Billy)
```

(31) Siiḥakit?iš ?u?uuyuk ?um?iiqsak?i.

```
Siḥ-ak-LS=(m)it=?i·š ?uʔuuýuk ?um?iiqsu=?ak=?i·cry-DR-GRAD=PST=STRG.3 cry.for mother=POSS=ART 'She cried for her mother.' (C, tupaat Julia Lucas)
```

While *waa* 'say' can be used as a transitive quotative, it can be used intransitively as well, similar to English *speak*. It can enter into this kind of SVC in this capacity, doubling with another verb of speaking (32). This characteristic doubling can also occur with *?iiqḥuk* 'tell' (33).

(32) waa?ažiič ?uumać ?uušḥýimsukqs.

```
waa=!a\u00e4=ii=\u00e9 ?uuma\u00e9 ?uu\u00e3-\u00e9\u00e9ims=uk=qas
say=now=weak.3=hrsy talk.about some-be.related.or.friends=poss=defn.1sg
'I heard he was talking about my friends or family.' (Q, Sophie Billy)
```

(33) ?uḥʔaʾXiič nuwiiqskqs ?uumaċkw ?iiqḥuk ?um?iiqskqs.

```
?uḥ=?a¾=ii=č ńuẃiiqsu=?ak=qa·s ?uumacuk ?iiqḥuk ?um?iiqsu=?ak=qa·s be=now=weak.3=hrsy father=poss=defn.1sg talk.about tell mother=poss=defn.1sg 'It was my father who told my mother about it.' (Q, Sophie Billy)
```

Like the other SVCs, the transitive verb can be separated from its object.

(34) ?u?iis?aÅin ha?uk suuḥa.

```
?u-!iis=!a¾=!in ha?uk suuḥa
x-eat=NOW=CMMD.1PL eat spring.salmon
'Let's eat spring salmon!' (B, Bob Mundy and Marjorie Touchie)
```

TODO: Check for aspectual agreement (hypothesis: it is required for most speakers, although Sophie Billy already shows that she doesn't require it)

V. Sequential or Separable Action

In all the above types of serialization, the verbs are describing in some way "the same action" or something that is at least simultaneous. Type I and Type III both describe in some way the manner of an action (answering what-with, how, by what means, etc) or simultaneity (carrying and walking). Type II serial verbs describe location, and Type IV describes literally the same action twice. When Aikhenvald & Dixon (2006) talk about serial verbs describing the "same event" I believe this is attempting to capture the sort of unity seen in these (and other) types of serialization. When I model the semantics of these constructions ($\S1.3$) I will preserve compositionality and thus the different verbs will each have separate

semantic event variables, and so they are not the "same event" in this formal way. But in all these SVCs there is, at minimum, some kind of "meanwhile" interpretation applied to the two verbs.

The sequential/separable action subtype of SVC is different in this respect. In these constructions, there is no interpretation of simultaneity and there is sometimes a (perhaps pragmatic) interpretation of sequentiality. This is by far the least common type of SVC, but speakers do produce them spontaneously. For instance, (35) is from an exhortative text, and immediately follows the command "Don't throw your clothes on the floor."

(35) sukwi?i kašsaap suk-iħ=!i kaš-sa'p hold-MO=CMMD.2SG put.away-MO.CAUS 'Take it and put it away.' (*C, tupaat* Julia Lucas)

When presented with a possible reordering (36), my consultant said it was in the wrong order, and didn't make sense.

(36) # kašsaap?i sukwiñ kaš-sa·p=!i· suk-iñ put.away-MO.CAUS=CMMD.2SG hold-MO # 'Put it away, then take it.' (C, *tupaat* Julia Lucas)

This ordering effect is apparent in other such construcctions where one action leads to another. (37) was a sentence given by a consultant, and when I asked about (38) her response was that it sounded backwards.

(37) ?uciči?im pankuupa ýakši\(\chi\) siičił.

?u-ci-čiλ=!im pankuupa ýak-šiλ si-L.(č)ił x-go.to-MO=CMFU.2SG Vancouver appear-MO 1SG-do.to 'Come to Vancouver and see me.' (Q, Sophie Billy)

(38) ?? ýakši?im siičił ?ucičλ pankuupa.

```
ýak-šiλ=!im si-L.(č)ił ʔu-ci-čλ pankuupa
appear-MO=CMFU.2SG 1SG-do.to x-go.to-MO Vancouver
Intended: 'Come to Vancouver and see me.' (Q, Sophie Billy)
```

It is also possible to get speakers to produce or agree to sequential SVCs in the right context, for example in planning actions (39) or giving formal instructions to children (40).

(39) Äiptqši?in kanisýakukqin wałaak hitinqis?i.

```
λiptq-šiλ=!in kanis-ýak=uk=qin wałaak hitinqis=?i<sup>*</sup> pack-mo=cmmd.isg camp-for=poss=defn.isg go at.beach=art'Let's pack our camping stuff and go to the beach.' (B, Marjorie Touchie)
```

(40) na?aataḥ?atma?aała nunuuk?i ṅaacsa huyaał?i.
na?aataḥ=!at=ma'=?aała nunuuk=?i' ṅaacsa huyaał=?i'
listen=PASS=REAL.3=HABIT sing=ART watch dance.DR=ART
'One listens to the singing and watches the dancing.' (B, Marjorie Touchie)

(40) does not necessarily have a sequential interpretation: it is possible (indeed, likely) that the children will be watching dancers and listening to singing at the same time.

It is possible for both these verbs to share a single direct object.

(41) na?aataḥ?aaqhi?aał?iisak?uukwił?a?iicim.

```
na?aataḥ=?aaq¾=!i'=?aał ?iisak ?u-L.(č)ił ?a?iićim listen.dr=fut=cmmd.2sg=habit respect.dr x-do.to elder.pl 'Listen to and respect the elders.' (C, tupaat Julia Lucas)
```

As with other SVCs, it is possible to get more than two verbs in this construction.

(42) na?aatḥi? ńaacsuuḥ huuḥtikšiiḥ.

```
na?aatḥ=ʔi· naacsuuḥ huuḥtikšiiḥ listen.DR=CMMD.2SG watch.DR learn.MO
'Listen, watch, and learn.' (Q, Sophie Billy)
```

Aspect does not have to agree, which makes sense if this SVC has a sequential (or at least, not necessarily simultaneous) interpretation. The examples below show the verbs in this construction disagreeing (43) and then agreeing (44) in aspect. There is a slight difference in meaning.

(43) ?u?ukwaqḥ?i તiptqšið hiniic mućičtup.

```
?u?ukwaqḥ=!ir Åiptq-šið hina-iic mučič=(s)turp on.your.own=CMMD.2SG pack-MO EMPTY-carry.DR clothing-kind 'Pack and carry your own clothes.' (C, tupaat Julia Lucas)
```

(44) ?u?ukwaqḥ?i '\(\) iptqši\(\) hiniicši\(\) mu'či\(\) tup.

```
?u?ukwaqḥ=!i· Åiptq-šiλ hina-iic-šiλ mučič-(s)tup on.your.own=CMMD.2SG pack-MO EMPTY-carry-MO clothing-kind 'Pack and take along your own clothes.' (C, tupaat Julia Lucas)
```

While object sharing is permitted (42), Type V SVCs do not allow verbs and their object to be "interrupted," as is seen in Types I-IV. The context for (45-47) is having a picnic that you brought in a pail. A dog comes to eat your food, and you chase it off. (45) was suggested by my consultant, and I suggested (46) and (47).

(45) cassaaps Sinii\(\hat{c}\) axwaciis.

cas-sa·p=s Sinii\(\hat{\zeta}\) cas-sa·p=s Sinii\(\hat{\zeta}\) cas-sa·bucket-hold.dr

'I chased the dog, (I) carrying the bucket.' (C, tupaat Julia Lucas)

(46) čaxwaciicsiš cassaap Siniià.

caxwac-iic=si·š cas-sa·p Siniiλ
 bucket-hold.dr=strg.isg chase-mo.caus dog
 'Carrying the bucket, I chased the dog.' (C, tupaat Julia Lucas)

(47) *cassaaps čaxwaciis Siniià.

cas-sa·p=s čax^wac-iis Sinii\(\hat{\lambda}\) chase-MO.CAUS=STRG.1SG bucket-hold.DR dog
Intended: 'Carrying the bucket, I chased the dog.' (C, tupaat Julia Lucas)

My intention in (45-47) had been to elicit a Type I (manner-action) serialization structure, but note the aspectual mismatch of the verbs. Since Type I SVCs require matching aspects, I believe this means that these are actually Type V (separable action) SVCs. Despite my consultant's translation, I think that there is a possible interpretation of these sentences where the actions occur one after another. The ungrammaticality of (47), which was very strongly rejected by my consultant, demonstrates that Type V SVCs are connecting two VPs, which cannot be discontinuous.

Finally, there are a few properties which span all constructions. Cross-serial dependencies are never possible (48, 49).

(48) ?uuhwał?iš kwaacsaćum \(\text{\chi}\)aamaas-i\(\text{\chi}\) hawacsaćum?i.

?u-L.ḥwał=?i·š kwaacsacum λaamaas-iλ hawacsacum=?i·x-use=strg.3 chair climb-mo table=art 'Using a chair he climbed onto the table.' (*C, tupaat* Julia Lucas)

(49) *?uuḥwał?iš \(\) \(\) \(\) kwaacsacum hawacsacum?i.

?u-L.ḥwał=?i'š ҳ̃aamaas-iҳ̃ kwaacsacum hawacsacum=?i' x-use=STRG.3 climb-MO chair table=ART Intended: 'Using a chair he climbed onto the table.' (C, tupaat Julia Lucas)

Multiple types of serialization can cooccur in a clause. (50) is an example of Type V (separable action) serialization and Type III (adpositive-like) serialization in a single clause.

(50) λiptqši?i hiniic mučičtup ?u?atup ?uum?i.

λiptq-šiλ-!i^{*} hina-iic.dr mučič-(s)tup ?u?atup ?uum-?i pack-mo=cmmd.2sg empty-carry clothing-stuff do.for mother-your.relation 'Pack and carry clothes for your mother.' (C, *tupaat* Julia Lucas)

1.2.2 Interaction with Valency Changing Operations

All serialization strategies can have a mismatch in the causative. This has already been seen for Type II (location-action) SVCs in (20), but it is not a feature only of Sophie Billy's speech. Other speakers also allow for causative mismatches, as shown in (51) and (52) below (Types I and II).

(51) ?aḥ?aa?aλna λičiλ?ucaap ḥaa hupał?i.

```
?aḥ?aa?aম̃=na' Ži-čiম̃ ?u-ca=!ap ḥaa hupał=?i' and.then=NEUT.1PL shoot-MO X-go=CAUS DDYN sun.or.moon=ART 'Then he shot (his arrows) toward the moon.' (C, tupaat Julia Lucas)
```

(52) ?uċaa?apat tuḥċiti hił ?apwin?at?i.

```
?u-ca=!ap ˈtuḥċiti hił ?apẃin=!at=?i<sup>*</sup> x-go=caus head be.at back=pass<sup>3</sup>=art 'He put his head on his back.' (C, tupaat Julia Lucas)
```

The passive can scope over both verbs in an SVC, as seen previously in (40). In this construction, the passive can also optionally "copy" onto both verbs.

(53) \(\lambda\) awii\(\cerc^2\) ats łuu\(\cerc^4\) muupukqs hił cuuma\(\cerc^2\) aas.

```
λ̃aw-°i'čλ̃=!at=s łuučṁuup=uk=qas hił ċuumaʕaas
near-IN=PASS=STRG.1SG sister=POSS=DEFN.1SG be.at port.alberni
'My sister came to visit at Port Alberni.' (Q, Sophie Billy)
```

(54) \(\lambda\) awiič?ats łuučmuupukqs hił?at ćuuma\(\text{aas.}\)

```
λaw-°i'čλ=!at=s łuučṁuup=uk=qas hił=!at ċuumaʕaas
near-IN=PASS=STRG.1SG sister=POSS=DEFN.1SG be.at=PASS port.alberni
'My sister came to visit at Port Alberni.' (Q, Sophie Billy)
```

It is also possible for the passive morpheme to scope only over the verb it attaches to. This is significant when one of the verbs is intransitive, as with intransitive *kamitquk* 'run' in (55) below.⁴

(55) ?uḥ?ats Sinii\(\lambda\) \(\lambda\) wii\(\cent{ci}\)?at kamitquk.

```
?uḥ=!at=s Sinii\(\text{Saw-\circ}\)i\(\text{i\lambda}=!at\) kamitq-uk
be=PASS=STRG.1SG dog near-IN=PASS run-DR
'It was the dog that ran toward me.' (C, tupaat Julia Lucas)
```

[TODO: Attempt an example where both verbs are transitive and one is passive and the other is not]

³The passive is here being used as a marker of inalienable possession.

 $^{^4}$ In (55) the passive also appears on the clefting copula $\partial u \dot{p}$. Voice agreement is a required feature of clefts.

1.2.3 Summary

I have defined the serial verb constructions (SVCs) in Nuuchahnulth broadly: Any clause that contains two verbs without a coordinator, and where one verb is not clearly subordinating the other, is a serial verb construction. I have further broken this construction type into five semantic subtypes: (I) manner and action, (II) location and action, (III) adpositive-like verb and main verb, (IV) transitive-intransitive repetition, and (V) separable or sequential events.

For most speakers, Type I requires aspectual agreement of the verbs involved. Types II and III do not require aspectual agreement, but this may be due to an underspecification of aspect on adpositive and locative verbs. Types I-IV all allow one verb to be separated from its object, in a V_1V_2 (Obj2) Obj1 pattern. [TODO: may be a restriction on transitivity for Type III adpositive SVCs.] Type V stands out in allowing aspectual mismatching, and disallowing this kind of object separation. It appears that modificational elements (such as location and manner) are preferred to come first.

As I turn to analysis, I will model these facts with two grammatical serial verb constructions: One which covers Types I-IV, and one which covers Type V. I will model the semantics of Types I-IV as necessarily simultaneous, and account for the aspectual mismatching of Types II and III by underspecifying locatives and adpositives for aspect. Type V will be underspecified temporally, allowing the semantics of AND to give rise to sequential interpretations. [TODO: There has definitely been work on the temporal pragmatics of and, maybe cite that here.]

1.3 HPSG Analysis

References

Aikhenvald, A. Y. & Dixon, R. M. W. (2006). *Serial Verb Constructions: A Cross-linguistic Typology*. Oxford University Press.

Butt, M. (1995). The structure of complex predicates in Urdu. Center for the Study of Language (CSLI).

Woo, F. (2007). *Prepositional Predicates in Nuuchahnulth*. PhD thesis, University of California, Santa Cruz.