## The Development of Adpositions in Nuuchahnulth

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## 1 Introduction：Word Categories and Adpositions

Nuuchahnulth（iso 639－3 nuk）has a long history of research into its syntactic categories， due to its syntactic flexibility．I argue for an incipient category of adpositions，derived from historic verbs that are losing their status as predicates．


Historical word category analyses：
－Swadesh（1938）：No word classes in the lan－ guage at all
－Jacobsen（1979）：Verb and noun distinctions （adjectives implied）
－Rose（1981）：Verb，noun，adjective，and adverb （semantic categorization）
－Wojdak（2001）：More evidence for verb and noun distinction
－Nakayama（2001）：Attempts to address full class system，rejects adpositions（only verbs， nouns，adjectives）

The above map shows the Nuucahhnulth dialects across Vancouver Island．I give data from 5 speakers and all dialect regions except Kyuquot－Checleseht（Appendix A）．

My argument for a class of adpositions will show the innovation of a new lexical category and how grammaticalization functions in a language with great syntactic class flexibility．I look at two areas of the grammar where a category of adpositions is particularly likely：
－a class of verb－like words called＂prepositional predicates＂（§3．1）
－the word ’uyi＇at the time of＇（§3．2）
First I will give some background on syntactic predication，predicate coordination，and serial verbs（§2）in order to make sense of the data on adpositions．

## 2 Background

2．1 Syntactic predicates in Nuuchahnulth
Verbs（1），adjectives（2），and nouns（3）can all be predicates．＂Predicate＂here means the syntactic unit which takes a subject and／or complements in the syntax．
（1）naacsiičiXRiš hałmiiḥa quu？as．
ńaacs－i i čî̀̃＝？ìš hałmiiḥa quupas
see－IN＝STRG．3SG drowning person
＇He sees a drowning person．＇
（2）$q^{w a c ́ a ł ł i s ̌ ~ h a a a k w a a \lambda R i . ~}$

beautiful＝STRG． 3 young．girl＝ART
＇The young girl is beautiful．＇
（3）pisatuwiłma Raanaḥi．
pisatuwił＝ma• Raanahi
gym＝REAL． 3 only
＇It＇s only a gym．＇

## 2．2 Linker Constructions

Predicates of any type may be coordinated with the＂predicate linker＂－$(q)$ h．This includes verbs（4），nouns（5），and adjectives（6）．It does not include complementizers，which may never be a predicate $(7,8)$ ．
（4）ciqinkađna đihaaqḥ．
ciq－（č）ink＝！aえ＝nar $\quad$ 入iher－${ }^{-}-(q)$ h
speak－with $=$ NOW＝NEUT．1PL drive－DR－LINK
＇We talked while driving．＇
（5）łuucmaqhitqač̌a？aał taakšiđ piišmita．
łuucma－（q）h＝（m）it＝qača＝？aał taakši久 p piišmit－a•
woman－LINK＝PST＝INFR＝HABIT always gossip－DR
＇There was a woman who kept gossiping．＇
（6）tik ${ }^{\text {waamitwaPiš čims haaaakqh．}}$
tik $^{\mathrm{w}}-\mathrm{a}=\mathrm{mit}=\mathrm{wa}$－Riš čims ḥaaRak－（q）h
dig－DR＝PST＝HRSY． 3 bear strong－LINK
＇The bear was digging and strong．＇
（7）PuušcukPisit Pani Punaḥ̂isitqa．
Ruušcuk＝？is＝（m）it Rani ？unaḥ＝Ris＝（m）it＝qa＊
hard＝DIMIN＝PST COMP small＝DIMIN＝PST＝SUB
＇It＇s a little hard（to do）because it＇s small．＇
（8）＊？uušcukRisit Paniqḥ̣ Punậ̣isitqa．
Puušcuk＝？is＝（m）it Rani－（q）h hunah＝？is＝（m）it＝qa．
hard＝DIMIN＝PST COMP－LINK small＝DIMIN＝PST＝SUB
Intended：＇It＇s a little hard（to do）because it＇s small．＇
The linker must link one predicate to another，and may not link a predicate to a non－ predicate like an adverb（9）．
(9) * $\chi u p k a a q h ̣ s ~ q i i . ~$

えupk-a-(q) h=s qii
awake-DR-LINK=STRG.ISG long.time
Intended: ‘I lay awake for a long time.’

### 2.3 Serial Verb Constructions

Nuuchahnulth allows verbs to be coordinated through juxtaposition without any overt coordinator. I call all such constructions serial verb constructions (SVCs). Different types of constructions have different syntactic requirements, but a few properties span multiple types:
(i) two verbs can be coordinated in various orderings
(ii) one VP may intervene between the other verb and its complement (10)
(iii) cross-serial dependencies are not allowed ( 11,12 )
(10) Puuctiihs Xihaaa Queens Cove.

Puuctiih=s Xih-a Queens Cove go.to.DR=STRG.ISG drive-CT Queens Cove 'I am driving to Queens Cove.'
(ı) Ruuḥwałłiš kwaacsaćum đaamaasið haẃacsaćumPi.

x-use=strg. 3 chair climb-mo table=art
'Using a chair he climbed onto the table.'
(12) *Puuḥwałłiš Xaamaasið $\mathrm{k}^{\mathrm{w}}$ aacsaćum haẃacsac̉um?i.

Pu-L.ḥwał=?i'š đaamaas-iđ kwaacsaćum haẃacsaćum=?i
x-use=STRG. 3 climb-mo chair table=art
Intended: 'Using a chair he climbed onto the table.'

## 3 Evidence for Adpositives

### 3.1 Prepositional Predicates

Woo (2007) defines a class of "prepositional predicates," words with preposition-like meanings but non-obvious syntactic structure. They have a few shared properties:

- They introduce core arguments (Puh for subjects, Puukwit and Puhta for non-subjects) or peripheral arguments (?ukwink 'with', アuuh'wat 'using', etc) adjacent to a main verb.
- Except for Puḥ, all are polymorphemic: a suffix which attaches to the first word of their direct object.
- In the citation form, they attach to the semantically empty bound root $? u$-.
- In the proper context all may be used without the main verb.

Woo categorizes core argument prepositional predicates as $v$ within the Minimalist framework, and the others as full verbs which adjoin to another verb (SVCs by my definition). Evidence from the predicate linker supports the analysis of Puukwit and Puhta as belonging to a functional, non-predicative category (13-16).
(13) hałiiłint?iš Piihatis?atḥ Puukwił čišaaPatḥ čiicstałwitas.
hałiił=int=Rirš Piiḥatis?ath Ru-L.(č)ił ćišaaPath čiicstał-ẃitas ask=PST=STRG. 3 Ehattisaht Dо.то Tseshaht do.tug.of.war-going.to
'The Ehattesahts invited the Tseshahts to play tug of war.'
(14) *hatiiłintPiš Piiḥatis?atḥ Puukwiłḥ čišaaRatḥ čiicstałẃitas.
hałiił=int=Pirš Piihatis?ath Pu-L.(č)il-(q)ḥ ćišaa?ath čiicstał-witas ask=PST=STRG. 3 Ehattisaht Do.TO-LINK Tseshaht do.tug.of.war-going.to Intended: ‘The Ehattesahts invited the Tseshahts to play tug of war.'
(15) Puḥta Jane Pu?ukwił Alexandra ýuuk ${ }^{w}$ iiqsu.

Puḥta Jane Pußukwił Alexandra ýuukwiiqsu
only.Do.тo Jane call Alexandra younger.sibling
'Only Jane can call Alexandra youngest.'
(16) *Puḥtaqh Jane RuPukwił Alexandra ýuukwiiqsu.

Puḥta-(q)ḥ Jane Pu?ukwił Alexandra ýuukwiiqsu
only.Do.to-Link Jane call Alexandra younger.sibling
Intended: 'Only Jane can call Alexandra youngest.'
Woo's analysis of the peripheral prepositional predicates as all verbs is complicated by evidence from the predicate linker. For some of these words-?uuhc'wat 'using' (1718) and $\uparrow u$ uchin 'for, on the behalf of' ( 1920 )—all speakers I worked with accepted examples both with and without linkers attached.

wikcuk=!ap=?ic Xis-LR2L.a ?u-L.ḥwạ Xiisćuuýak
easy=CAUS=STRG.2SG write-RP x -using computer
'It's easy for you to write using a computer.'

wikcuk=!ap=?ic Xis-LR2L.a Ru-L.ḥwał̣-(q)h Xiisćuuỷak
easy=CAUS=STRG.2SG write-RP x-using-LINK computer
'It's easy for you to write using a computer.'
(19) Puucḥins mamuuk Puušḥýumsukqs.

Pu-L.cḥin=s mamuuk Ruuš-ḥýums=uk=qs
X-bENEF=STRG.ISG work some-related.or.friend=POSS=DEFN.1SG
'I'm working for my friend.'
(20) Puucḥinqḥ̂ađs mamuuk Ruušḥýumsukqs.

Pu-L.cḥin-(q)ḥ=!aえ̃=s mamuuk Puuš-hýums=uk=qs
BENEF-LINK=NOW=STRG.1SG work some-related.or.friend=POSS=DEFN.ISG
'I'm working for my friend.'

For Puupaat 'with', all speakers recognized it with the linker attached (21,22), and one of my consultants, Fidelia Haiyupis (northern dialect) only recognized the word with the linker attached.
(21) Puupaałw̉itasah yaqsčifinukqas kanisẃitas.

Pu-L.paał-w'itas=(m)arh yaqsčifin=uk=qa's ḱnis-w'itas
x-with-going.to=REAL.1SG friend=POSS=DEFN.1SG camp-going.to
'I'm going to go camping with my friends.'
(22) Xiiḥpanačẃwitasaḥ Puupaałḥ yaqsčafinqas.

Xiḥ-L.panač-ẃitas=(m)arh $\quad$ ?u-L.paał-(q)h yaqsčafin=qa's
drive-drift.around-going.to=REAL.1SG X-with-LINK friend=DEFN.1SG
'I'm going to go driving around with my friends.'
For the word $\mathcal{P}^{\prime} k^{w}$ ink, another word meaning 'with', my northern and central dialect speakers recognized the linker as a possible attachment (23), while my Barkley sound consultants Bob Mundy and Marjorie Touchie rejected it (24, 25).


x-with-LINK=PST=STRG.1SG Adam X-go-PERF Ucluelet-live.at
'I'm going with Adam to Ucluelet.'
(24) $u^{u}{ }^{w}$ inkẃitasaḥ yaqsčaCinPakqas mituuni wałaak.

Pu-(č)ink-ẃitas=(m)a'h yaq-sča̧in=Rak=qa's mituuni wałaak
x-with-going.to=REAL.1SG who-be.friend=POSS=DEFN.1SG Victoria go
'I'm going to go with my friend to Victoria.'
(25) *Pukwinkḥ́witasah yaqsčaCin?akqas mituuni wałaak

Pu-(č)ink-(q)ḥ-ẃitas=(m)arh yaq-sčaSin=?ak=qa's mituuni wałaak
x-with-LINK-going.to=REAL.1SG who-be.friend=POSS=DEFN.1SG Victoria go
Intended: 'I'm going to go with my friend to Victoria.'
PuuPatup, another word meaning 'for, on the behalf of', is also a borderline case. As with Pukwink, my Barkley Sound consultants did not accept it with the linker $(27,28)$ while others did (26).
(26) Pakuułis suẃa ḥiýahi č̉apac PuuPatupḥ haakwaađukアitk.

Pakuułi=s suẃa ḥiýaḥi č̉apac Pu-L.Ratup-(q)ḥ haakwaã=uk=?itk.
loan=STRG.1SG 2SG D3 canoe BENEF-LINK daughter=POSS=DEFN.2SG
'I'm loaning you that canoe for your daughter.'
(27) huyaałạ̣ Puußatup taatne?is.
huyaał $=(m) a r h \quad$ Pu-L.Ratup taatna $=$ Ris.
dance=REAL.ISG X-benef child.PL=DIM
'I dance for the children.'
(28) *huyaałaḥ Puußatuph taatne?is.
huyaat $=(\mathrm{m}) \mathrm{a}$ h $\quad$ Pu-L.Ratup-(q) h taatna=?is.
dance=REAL.ISG X-benef-LINK child.PL=DIM
Intended: 'I dance for the children.'

The properties of "prepositional predicates" are summarized in Table 1.

| Table 1: Predicate status of adpositive-like words |  |  |
| :--- | :--- | :--- |
| word | meaning | predicate status |
| ?uukwił | obj marker | no |
| Puḥta | obj marker | no |
| Puubưał | using | yes |
| Puupaał | with | yes, relexicalized in N? |
| Puuchin | benefactive | yes |
| Pukwink | with | not in Barkley Sound |
| Puu?atup | benefactive | not in Barkley Sound |

- There is considerable meaning redundancy among "prepositional predicates."
- Puukwit and Puhta are definitively functional and non-predicative.
- Other adposition-like words are on a cline from more to less predicate-like.
- The Barkley Sound dialect has reduced the predicativeness of words with meanings that still have a fully predicative alternate.
van Gelderen (2011) (p.187-191) cites evidence that serial verb constructions can be reanalyzed as coverbs, and speculates as to whether they can go on to become prepositions. ?ukwink and PuuPatup in the Barkley Sound dialect appear to have made this transition. The shift only requires a recategorization in the constituent structure, as schematized in (29), a tree for (26).



## 3．2 Puyi＇at the time of＇

Puyi looks polymorphemic，with the form of the empty root $\mathcal{P} \mathbf{u}$－at the beginning．However if it was polymorphemic at one time it has long since ceased to be analyzed this way．
－There is no contemporary ${ }^{*}-y i$ which attaches to other roots，as seen with the＂preposi－ tional predicates．＂
－（Stonham 2005：p．346－347）cites historical forms－yi＇time＇and－yiya＇at a time＇which I have never seen used，but serve as potential sources for ？uyi．

All my consultants rejected Puyi with a linker attached，except for the most conservative consultant，tupaat Julia Lucas，who gave the example（30），which was rejected by other elders． This marginality is reflected in the Nootka Texts（Sapir \＆Swadesh 1939，1955），where Puyiqh only appears once out of 16,655 lines and approximately 746 occurrences of puyi．

Puyi－（q）h－witas＝s
Pax－pit
tin－Cax
huPa－ca－čið
at．a．time－LINK－going．to＝STRG．ıSG two－times bell．ringing－sound．of back－go－PERF
＇I＇ll come back at two o＇clock．＇

In SVCs，one of the verbs can be separated from its object by the other verb（10）．Puyi be－ haves the same way（ 31,32 ）．However，it can also can appear twice：once at the beginning of the clause and then again at the end，next to its object $(33,34)$ ．This type of sentence is extremely common in fluent speech．
（31）PuyiPaaqđniš hišimyił suč̉aṕit tin〔aえ．
Puyi＝${ }^{\text {aaq }}$ X＝niš
hišimł－－${ }^{\text {if }}$
suč̉a－ṗit tin－fã
at．a．time＝FUT＝STRG．1PL gather．together－indoors five－times bell－sound．of ＇We＇ll gather together at five o＇clock．＇
（32）Puyiwitasaḥ Pucačī̀ mituuni saantii．
Puyi－w＇itas＝（m）arh Pu－ca－čið mituuni saantii
at．a．time－going．to＝real．1SG x－go－PERF Victoria Sunday
＇I＇m going to Victoria on Sunday．＇
（33）Puyisłaał yaacuk ku？ał Puyi．
Ruyi＝s＝？aał yaacuk kupał ？uyi
at．a．time＝STRG．1SG＝HABIT walk morning at．a．time
＇I walk in the morning．＇
（34）Puyimtin？aała wałaak May PuyiPe $\lambda$ ．
Puyi＝imt＝（m）in＝？aała wałaak May Puyi＝！a $\lambda$
at．a．time＝PST＝REAL．1PL＝HABIT go May at．a．time＝NOW
＇We would go in May．＇

The only other word that doubles like this is the quotative waa，especially when the quote is long（35）．I believe that something different is going on with waa（which regularly accepts the linker）．
 haakwaađukqs waa？a入

＇Her father said，＂If you are able to destroy that mountain，my daughter will become yours，＂he said．＇

Nuuchahnulth permits free object－dropping，so one of the two ？uyis in sentences like（33， 34）could be analyzed as having a dropped object while the other one takes its typical com－ plement．Such a tree would look like（36）．


This analysis is unsatisfying for several reasons:
(i) The second Puyi is not contributing anything semantically useful to the sentence and is not related to its conceptual object.
(ii) The position of the second Puyi next to ku?at is completely coincidental: the SVC could easily be ordered another way.
(iii) This account can't explain why this structure doesn't occur with other SVCs.
(iv) It doesn't address the fact that ?uyi is less predicative than other verbs, as seen from the predicate linker

Another analysis is to propose two structures for the sentence, the one in (36), and another where the first ?uyi has a dropped complement and the second one takes $k u$ ?at. Speakers have both structures in their mind at once. But this doesn't address problems (iii) or (iv).

The better analysis is that puyi has disjoint lexical categorizations: as verb and as adposition. Adpositive ’uyi takes a noun complement. Verbal ?uyi takes a noun or an $\mathfrak{\beta u y i}$-headed
adpositional phrase. This preserves the correct constituency and semantics, and allows both ?uyis to be related to their notional object (37).
(37)


## 4 Conclusion

- Some of the "prepositional predicates" and the word puyi show evidence of category shift from verb to adposition
- Both are driven by reanalyses of serial verb constructions.
- The reanalysis can be seen through depredicatization, in that these reanalyzed words no longer accept the predicate linker.
- One reanalysis simply depredicatizes a verb in a SVC.
- The other "doubles" the verb to force it to appear next to its argument, triggering a reanalysis of the doubled word.

These incipient adpositions may actually be unstable and part of larger grammaticalization processes in the language:

- The "prepositional predicates" are in constant flux. Woo lists some my consultants didn't know; I found others she doesn't mention. Nootka Texts contains more.
- Puyi may be on its way to second position inflection. The late Caroline Little, a literate speaker, alternated between writing it as a word and a suffix attached to the preceding element.


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## A Speaker-example correlations

Fidelia Haiyupis, Northern dialect: ( $1,10,13,14,17,18,19,20,23$ ).
Simon Lucas (traditional name yuutnaak), Northern dialect: (9)
Julia Lucas (traditional name tupaat), Central dialect: (2, 11, 12, 4, 5, 6, 15 16, 26, 30, 31, 33, 35)
Bob Mundy, Barkley Sound dialect: (7, 8, 22, 32, 34)
Marjorie Touchie, Barkley Sound dialect: $(3,21)$
Bob Mundy \& Marjorie Touchie (joint session/joint judgment), Barkley Sound dialect: (24, 25, 27, 28)

