Affixal predicates and clausal complementation
Rachel Wojdak
University of British Columbia
rasusann@interchange.ubc.ca

1. The problem
    • in Nuu-chah-nulth, predicates are of two different types: non-affixal or affixal
      (a.k.a. lexical suffixes). See Sapir and Swadesh 1939, Rose 1981,
    • with affixal predicates that take nominal complements, the affixal predicate
      incorporates the noun (see Stonham 1998, Wojdak 2003, in prep):

      (1) ta'Učui?i?is nani
          ta'Uč(up)-?i?I[-R]-i?is nani
          sea.urchin- gather-3.IND grandparent
          Your grandparent is gathering sea urchins.

      QUESTION: what is the behaviour of affixal predicates that take clausal
      complements?
    • with the clausal complements of affixal predicates, the matrix affixal
      predicate can suffix onto an embedded predicate, forming a COMPLEX
      PREDICATE.

      (2) a. ta?it?it-k?i-ki?it-si?si su?wa
          sick- hear-PERF-PST-1sg.IND you
          I heard that you were sick.

      (complex predicate)

          COM-die-hear-PERF-PST-1sg.IND COMP sick-2sg.ABS
          I found you were sick.

      (full complement)

    • this paper proposes that COMPLEX PREDICATES fall into two classes:
      (i) those with subject-control affixal predicates, eg. -ma?sa "want to"
      (ii) those with affixal predicates with no subject control, eg. -i?ik "find"

(3) a. wa?šik-ma?sa?si
    wa?šik-ma?sa-si?si
    go.home-want.to-1sg.IND
    I wanna go home.

b. wa?šik-ma?sa?si
    wa?šik-ma?sa-mi?si
    sleep-come.upon-PST-1sg.IND
    I found Ken sleeping.

THE PROBLEM: how do these two classes differ, and how are each derived?

THE PROPOSAL:
    • complex predicates are formed via incorporation of the embedded predicate
      into an affixal matrix predicate (see Rose 1981 for a similar analysis).
    • verb incorporation is a "restructuring" effect (reanalysis; clause union)
      associated with infinitival complementation (cf. Aissen and Perlmutter 1976,
      inter alia)

CLAIM: in complex predicates, the complement "clause" is uniformly
smaller than a TP.

    • the lack of TP entails that nominative-marked DPs (subjects) are not
      licensed within the infinitival complement.
    • infinitival configurations in Nuu-chah-nulth are of two distinct types:
      (i) subject control
      (ii) raising-to-object (ECM)

(4) Subject control: complement smaller than TP

a. Nuu-chah-nulth (=3a)

    vP
    DP, pro
    V
    -ma?sa
    want PRO
    wa?šik
    "I wanna go home."

b. English

    vP
    DP, i
    V
    tried
    wa?šik ma?sa?
    "I tried to go home"
(5) **Raising-to-object (ECM): complement smaller than TP**

a. Nuu-chah-nulth b. English

AgrOP  

\[\text{DP} \quad \text{vP} \quad \text{DP} \quad \text{vP} \]

\[\text{Ken} \quad \text{VP} \quad \text{pro} \quad \text{DP} \quad \text{VP} \]

Ken = waŋečičitsiš Ken  

\[= \text{“I believe Ken to be sleeping”}\]

- the key difference between Nuu-chah-nulth and English infinitival complements is the affixal status of the matrix predicate.
- in Nuu-chah-nulth, matrix predicates may be affixal.
- affixal predicates incorporate a morphological host (from their complement) at PF (see APPENDIX, Wojdak 2003)

(6) **Linearization**

\[\text{incorporation}\]

a. \[\text{VP mabsa} [\text{VP want.to go.to Victoria}] \]

\[\text{waŋaak mitsuni] want.to go.to Victoria} \]

b. \[\text{VP waŋečičitsi} \]

\[\text{find sleep come.upon-PST-1sg.IND Ken} \]

(2. **Subject control vs. no subject control**

(2.1 **Subject control predicates**

- subject control class (cf. Rose 1981 for -mabsa “to want to”)

(7) a. \[\text{huurrhuuramahsaʔiʃ Kay ṭaquu wikuuçtamałsašapat} \]

\[\text{huurr-}a[-R]-mabsaʔiʃ Kay ṭaquu wiku-’uqsta-mabsa’ap’at} \]

\[\text{dance-IT-} \text{want.to-3.IND Kay although NEG-amongst-want-CAUS-PAS} \]

\[\text{Kay wants to dance although they don’t want her participating.} \]

b. * \[\text{huurrhuuramahsasiʃ Kay} \]

\[\text{huurr-}a[-R]-mabsaʔiʃ Kay} \]

\[\text{dance-IT-} \text{want.to-3.IND Kay} \]

\[\text{I want Kay to dance.} \]

(8) a. \[\text{ḵuupk-simiʔiš} John \]

\[\text{awake-try.to+[L]-3.IND John} \]

\[\text{John is trying to stay awake.} \]

b. * \[\text{ḵuupk-simiʔiš} John Kay \]

\[\text{awake-try.to-3.IND John Kay} \]

\[\text{John is trying to keep Kay awake.} \]

(9) a. \[\text{ʔa-siθ-wiθas-it-siθ} \]

\[\text{ʔinii wiqiq-aqʔiʃ fish-PERF-gonna-PST-1sg.IND} \]

\[\text{I was gonna go fishing, but it is real stormy.} \]

b. * \[\text{ʔa-siθ-wiθas-siθ} Robin \]

\[\text{fish-PERF-gonna-1sg.IND Robin} \]

\[\text{I’m planning for Robin to go fishing.} \]

(10) a. \[\text{huurrhuur-a-θas-siθ} \]

\[\text{dance-IT-} \text{go.in.order.to-1sg.IND} \]

\[\text{I’m gonna go dance; I’m going in order to dance.} \]

b. * \[\text{huurrhuur-a-θas-siθ} Robin \]

\[\text{dance-} \text{go.in.order.to-1sg.IND Robin} \]

\[\text{I’m going in order for Robin to dance.} \]

(11) a. \[\text{naqaat-qath-it-siθ} \]

\[\text{naqaat’yak-ʔi book-DET} \]

\[\text{read-claim-PST-3.IND} \]

\[\text{I claimed/pretended I was reading the book.} \]

b. * \[\text{naqaat-qath-it-siθ} Robin naqaat’yak-ʔi \]

\[\text{read-claim-PST-3.IND Robin book-DET} \]

\[\text{I claimed/pretended Robin was reading the book.} \]
2.2 Predicates with no subject control

- this class shows no subject control in complex predicates
- either a complex predicate or a full clause complement (with suffixation to the expletive ʔa-) is possible

(12) a. ʔu-quuʔuqqu-qhitsiš  Robin kuʔa+
kuuqaʔa−kuuquq−[L]-mit−siš Robin kuʔa+
tiptoe−observe−PST−1sg.IND Robin morning
I was observing Robin tip-toeing this morning.

b. ʔu-quuʔuqqu-qhitsiš ʔen kuquuʔuqqu-quuk Robin kuʔa+
ʔu-quuʔuqqu−[L]-mit−siš ʔen kuquuʔuqqu−aa−ʔuqqu Robin kuʔa+
observe−PST−1sg.IND COMP tip.toe-3.ABS Robin morning
I was observing Robin tip-toeing this morning.

(13) a. kuukuʔviriqataʔqqitsiš Robin sapnii
kuuquir−atah[R]−ʔu−mit−siš Robin sapnii
steal-attempt.to−come.upon−PST−1sg.IND Robin bread
I came upon Robin attempting to steal a loaf of bread.

b. ʔu-ʔuqquq−mit−siš ʔen kukuquirviriqatah Robin sapnii
ʔu-ʔuqquq−[L]-mit−siš ʔen kukuquirviriqatah[R]−ʔa
observe−PST−1sg.IND COMP steal-attempt.to-3.A Robin bread
I came upon Robin attempting to steal a loaf of bread.

(14) a. qahʔiʔqiqitsiš suwa
qahʔi-čiq−mit−siš suwa
die−learn−PERF−PST−1sg.IND you
I heard that it was you who died.

b. ʔu-ʔuqquq−qiqqitsiš ʔen qusnuqqitsuuk
ʔu-ʔuqquq−qiqq−mit−siš ʔen qusnuqq−mit−suuk
learn−PERF−PST−1sg.IND COMP die−PST−2sg.ABS
I heard that it was you who died.

(15) a. kiiʔiiʔathkimitsiš Kay
kiiʔ-ʔatq−[R]−mit−siš Kay
cry−dream−PST−1sg.IND Kay
I dreamt that Kay was crying.

b. ʔu-ʔuqquq−qhitsiš ʔen kiiʔiiʔha Kay
ʔu-ʔatq−[R]−mit−siš ʔen kiiʔʔ-
ʔa+[R]−ʔa dream−PST−1sg.IND COMP die−PST−2sg.ABS
I dreamt that Kay was crying.

3. A monoclausal analysis of complex predicates

PROPOSAL: in complex predicates, the complement clause is an aspectually-inflected infinitival, smaller than a TP.

Predictions of an analysis in which the complement is less than TP:

§3.1 no independent person/mood inflection
§3.2 no independent tense markings
§3.3 no complementizer ʔa
§3.4 "long" wh-movement
§3.5 "long" possessor-raising
§3.6 no nominative case

3.1 Prediction #1: No independent person/mood inflection

- complex predicates are marked for only a single set of person/mood inflection:

(16) a. * taʔʔ-ʔi-suuk-ʔi-čiq−it−siš (suwa)
sick-2sg.ABS-ABS−hear−PERF−PST−1sg.IND (you)
I heard that you were sick.

b. taʔʔ-ʔi-čiq−it−siš suwa
sick−hear−PERF−PST−1sg.IND you
I heard that you were sick.

c. cf. ʔu-ʔu-čiq−it−siš ʔen taʔʔ-ʔi-suuk
hear−PERF−PST−1sg.IND COMP sick-2sg.ABS
I heard that you were sick.

(17) a. * waʔʔak-mahsa−sa−siš mituuni
go.to−want.to−1sg.ABS−1sg.IND Victoria
I want to go to Victoria.

b. waʔʔak-mahsa−siš mituuni
go.to−want.to−1sg.IND Victoria
I want to go to Victoria.

3.2 Prediction #2: The embedded 'clause' is unmarked for tense

- there is no independent tense marking associated with the embedded predicate
(18)  a. * tuux-tuuxʷ-a-mít-ʔaḵuʔ-it-síš  you  
    jump-IT-PST-observe-PST-1sg.IND 
    I observed you jumping.

   b.  tuuxtuxʷ-aʔaḵuʔitísíš  you  
       tuuxʷ-[a]-ʔaḵuʔ[θ]-mit-síš  suwa  
       jump-IT-observe-PST-1sg.IND 
       I observed you jumping.

c.  cf.  ḥuunakuũlísíš  ᵇeq  
    tuuxtuxʷ-amítsuuk  ḥu-ʔaḵuʔ[θ]-mit-síš ᵇeq  
    Ω-observe-PST-1sg.IND  COMP  jump-IT-PST-2sg.ABS 
    I observed you jumping.

(19)  a. * nnuuk-ʔaq̕-qath-ʔíš  Florence  
    sing-FUT-pretend-3.IND Florence  
    Florence is pretending she's going to sing.

   b.  nnuuk-ʔath-ʔíš  Florence  
       sing-pretend-3.IND Florence  
       Florence is pretending to sing.

3.3 Prediction #3: There is no complementizer

- the complementizer ᵇeq does not appear in complex predicates

(20)  a.  ḥu-ʔii-čič-it-síš ᵇeq  qaš-síš-suuk  
    Ω-hear-PERF-PST-1sg.IND COMP díe-PERF-2sg.ABS  
    I heard that you died.  
    (full complement clause)

   b.  qaš-ʔíš-čič-it-síš ᵇeq  
       díe-hear-PERF-PST-1sg.IND (* COMP) suwa  
       I heard that it was you who died.  
       (complex predicate)

3.4 Prediction #4: "Long" wh-movement

- Davis and Sawai (2001) note that wh-movement in Nuu-chah-nulth is strictly clause-bound:

(21)  a. ṭaʔaq̕-ʔnáʔ-ʔíš  John  ᵇeq  kuuʔ-ʔít̕-łu̕k Mary  čapac  
    ṭaʔaq̕-čič-ʔaʔ-ʔíš  John  ᵇeq  kuuʔ-ʔít̕-łu̕k Mary  čapac  
    believe-PERF-TEMP-3.IND  John  that  steal-PST-3.ABS Mary  canoe  
    John believes that Mary stole the canoe. (Davis and Sawai 2001: 133)

   b. * ṭaʔaq̕-ʔi̕-ʔíš  John  ᵇeq  kuuʔ-ʔít̕-łu̕k čapac  
       who-aux-3.Q believe-PERF-TEMP  John  that  steal-PST-3.ABS  canoe  
       Who does John believe stole the canoe? (Davis and Sawai 2001: 133)

- when an affixal matrix predicate is employed, however, "long" wh-movement is permitted out of the complement.

(22)  ḥaʔ-ʔap-h  John  kuuʔ-ʔít̕-łu̕k čapac  
    who-aux-claim-CAUS-3.Q  John  steal  canoe  
    Who does John believe/claim stole the canoe?

(23)  ḥaʔačinakuũhíth  Florence  tuuxtuxʷ-a  
    ṭačiʔ-ʔaḵuʔ[θ]-mit-ʔí  Florence  tuuxʷ-[a]-ʔaḵuʔ[θ]-mit-θ  
    who-observe-PST-3.Q  Florence  jump-IT  
    Who was Florence watching jumping?

- this is predicted if the complement does not contain a full clause (CP)

3.5 Prediction #5: "Long" possessor-raising

- in possessor-raising in Nuu-chah-nulth, the possessive morpheme –uk appears on the predicate rather than the possessum (Davidson 2001, Ravinski in prep).

(24)  a.  ṭaʔiʔ-ʔíš  kʷa̕u̕-ʔuk-ʔqs  
    sick-3.IND  grandchild-POSS-1sg.POSS  
    My grandchild is sick.  
    (no possessor-raising)

   b.  ṭaʔiʔ-ʔuk-ʔísíš  kʷa̕u̕-ʔuc  
       sick-POSS-1sg.IND  grandchild  
       My grandchild is sick.  
       (possessor-raising)

- possessor-raising is clause-bound: raising cannot occur across a CP

(25)  a.  ḥu-ʔii-čič-ʔaʔ-ʔísíš  Lucy ᵇeq  taʔiʔ  kʷa̕u̕-ʔuk-ʔísíš  
    Ω-hear-PERF-PST-3.QUOT Lucy COMP  taʔiʔ  kʷa̕u̕-ʔuc-uk-ʔísíš  
    Lucy heard that her grandchild is sick.  
    (no possessor-raising)

   b.  ḥu-ʔii-čič-ʔaʔ-ʔíš  Lucy ᵇeq  taʔiʔ-ʔuk-ʔísíš  kʷa̕u̕-ʔuc  
       Ω-hear-PERF-PST-3.QUOT Lucy COMP  taʔiʔ-ʔuk-ʔísíš  grandchild  
       Lucy heard that her grandchild is sick.  
       (possessor-raising)

   c. * ḥu-ʔii-čič-ʔaʔ-ʔíš  Lucy ᵇeq  taʔiʔ  kʷa̕u̕-ʔuc  
       Ω-hear-PERF-PST-POSS-1sg.IND Lucy COMP  taʔiʔ  kʷa̕u̕-ʔuc  
       Lucy heard that her grandchild is sick.  
       (long possessor-raising)

- in infinitival contexts, "long" possessor-raising occurs: a matrix predicate is marked with a possessive morpheme that is linked to the subject of the embedded predicate:
(26) čítapt-hitin-mahša-ak-qis Lucy ciyapuxs
čítapt-hitin-mahša-ak-7is Lucy ciyapuxs
sedge:grass-made.of-want-POSS-3.IND Lucy hat
Lucy wants her (own) hat made of sedge grass.

- “long” possessor-raising with infinitivals is predicted if the embedded clause is not a CP.

3.6 Prediction #6: No case-assigner for an embedded subject

- on the assumption that T assigns nominative case, the absence of TP predicts that an embedded subject cannot receive nominative case.
- consequently, we predict that an overt embedded subject is not licensed in complex predicates

  two manifestations: § 3.6.1 Subject control predicates
  § 3.6.2 Raising-to-object (ECM) predicates

3.6.1 Subject control complex predicates

- subject control:

(27) a. waṭaakmahša-ʔiš Kay mituuni
    waṭaak-mahša-ʔis Kay mituuni
goto-want-to-3.IND Kay Victoria
    Kay wants to go to Victoria.

b. * waṭaak-mahša-ʔiš Kay mituuni
goto-want-to-1sg.IND Kay Victoria
    I want Kay to go to Victoria.

- control structures are possible in the reduced (< TP) complement, because PRO escapes case licensing requirements.

(28) Subject control

(29) a. waṭaakmahša-ʔiš Kay mituuni
    waṭaak-mahša-ʔap-ʔiš Kay mituuni
goto-want-to-1sg.IND Kay Victoria
    I want Kay to go to Victoria.

b. * mičišiwmahša-ʔiš
   mičiš-ʔiš-mahša-ʔap-ʔiš
   rain-PERF-want-to-CAUS-1sg.IND
   I want it to rain.

(30) xupk-sinil[ʔap-ʔiš John Kay
xupk-sinil-[L]-ʔap-ʔiš John Kay
awake-try-to-CAUS-3.IND John Kay
John’s trying to keep Kay awake.

(31) a. načaṭ-qathʔamitiši Robin načaṭ-ʔaži
    načaṭ-qathʔ-ʔap-mit-ʔiš Robin načaṭ-ʔaži
    read-claim-CAUS-PST-3.IND Robin book-DET
    I claimed/pretended Robin was reading the book.

b. K’isaaqathʔapisí
   K’is-aaqathʔ-ʔap-ʔiš
   snow-CONT-claim-CAUS-1sg.IND
   I’m pretending it’s snowing.

(32) FP = waṭaakmahša-ʔiš Kay mituuni
     I want Kay to go to Victoria. (=29a)
• the morpheme -ap, standardly analysed as CAUSATIVE (Sapir and Swadesh 1939), licenses extra arguments in a variety of contexts.

(33)  yihsaamitsiš  Ken
yih-šik-ųp-mit-siš  Ken
cry-PERF-CAUS-1sg.IND  Ken
I made Ken cry.

(34)  yaaʔakapsiš  suvā
yaaʔak-ʔap-siš  suvā
ache-CAUS-1sg.IND  you
I love you.

3.6.2 Raising-to-object (ECM) predicates
• (deep) subjects in infinitival complements may also be licensed by ECM.

(35)  Raising-to-object (ECM)

\[ \begin{array}{c}
\text{AgroP} \\
\text{DP}  \\
\text{vP} \\
\text{tj} \\
\text{VP} \\
\text{waʔič “sleep”}
\end{array} \]

\[ = \text{waʔičšḵitsiš Ken} \]

“I found Ken sleeping.” (3b)

• evidence in support of this analysis comes from “long” possessor-raising.
• **possessor-raising is restricted to surface subjects** (Ravinski in prep)
• “long” possessor-raising is not possible with raising-to-object predicates:

(36)  * čitaʔl̓źiʔm̓ašakʔiš Lucy ciyapuxs
čitaʔ-l̓źiʔ-čiʔ-uk-ʔiš Lucy ciyapuxs
sedge.grass-made.of hear-POS3-3.IND Lucy hat
Lucy learned her (own) hat is made of sedge grass.

cf. čitaʔl̓źiʔm̓ašakʔiš Lucy ciyapuxs
čitaʔ-l̓źiʔ-m̓aša-ak-ʔiš Lucy ciyapuxs
sedge.grass-made.of want.to-POS3-3.IND Lucy hat
Lucy wants her (own) hat made of sedge grass.  *(control predicate)*

(37)  a.  tuuxtuxʷaʔḵuul̓ućs  kʷaaʔucux̣q  
    tuux-a-[R]-̣naʔuł̓u̓-mat-siš  kʷaaʔuc-uk-qš  
    jump-IT-observe-PST-1sg.IND  grandchild-POSS-1sg.POSS  
    I observed my grandchild jumping.  *(no possessor-raising)*

    b.  * tuuxtuxʷaʔ-kaʔuł̓u̓-uk-ʔiš  kʷaaʔuc  
        jump-IT-observe-POS3-1sg.IND  grandchild  
        I observed my grandchild jumping.  *(“long” possessor-raising)*

(38)  a.  taʔl̓iʔ-ʔiʔ-čiʔ-it-ʔiš Lucy kʷaaʔuc-uk-ʔiš  
        sick-learn-PST-3.IND  Lucy grandchild-POSS-3.POSS  
        Lucy heard that her grandchild is sick.  *(no possessor-raising)*

    b.  * taʔl̓iʔ-ʔiʔ-čiʔ-it-uk-ʔiʃ  Lucy kʷaaʔuc  
        sick-learn-PST-POS3-3.IND  Lucy grandchild  
        Lucy heard that her grandchild is sick.  *(“long” possessor-raising)*

• the absence of “long” possessor-raising is predicted if the (deep) subject of the infinitival in these complex predicates is raised to an object position rather than occupying a surface subject position.

3.7 Summary
• there is evidence for two distinct classes of complex predicates formed from affixal matrix predicates and their infinitival complements
  (a) subject control
  (b) no subject control (raising-to-object)

CLAIM: in complex predicates, the complement clause is an aspectually-inflected infinitival, smaller than a TP.

4. Conclusion
• verb incorporation in Nuu-chah-nulth is associated with infinitival complementation
• verb incorporation is an example of “restructuring” (a.k.a. clause union, reanalysis) --- a lack of clause-boundedness effects with infinitivals.
• “restructuring” is associated with a variety of phenomena in Romance and Germanic
• Germanic “restructuring” effects include long object movement, scrambling, pronoun fronting, raising (see Wurmbrand 2001)
• Romance “restructuring” effects include clitic-climbing, long NP-movement, auxiliary selection (see Rizzi 1982).
"restructuring" configurations in Nuu-chah-nulth are associated with:

(i) complex predicates which show "cross-clausal" incorporation
(ii) "long" wh-movement, though true long-range movement is banned
(iii) "long" possessor-raising, though PR cannot cross a CP
(iv) subject control
(v) lack of complementizer, independent tense & inflection in embedded clause

Selected References


APPENDIX: Post-syntactic incorporation

- noun incorporation (Wojdak 2003, in prep) and verb incorporation (Wojdak in prep) in Nuu-chah-nulth show "linearity effects" (see also Rose 1981) which support a post-syntactic analysis akin to morphological merger (cf. Marantz 1988, Bobaljik 1994).
- in noun incorporation, an adjective incorporates, stranding the noun (Rose 1981).
- similar "linearity" effects are seen with manner adverbials in verb incorporation.
- with subject control complex predicates, an affixal matrix predicate incorporates a manner adverbial and not the verb itself.

(39) a. witýax-maḥsa-siš  waarašök slow-want-to-1sg.IND  I want to go home slowly.
   b. * waarašök-maḥsa-siš  witýax go.home-want-to-1sg.IND  I want to go home slowly.
   c. waarašök-maḥsa-siš  go.home-want-to-1sg.IND  I want to be going home.

(40) a. ʻaq̱ačpq̱-q̱ath-ʔiš  nnuuk loudly-claim-3.IND  Florence is thinking she’s singing real loud.
   b. * nnuuk-qačpq̱-ʔiš  Florence ʻaq̱ačpq̱ sing-claim-3.IND  Florence is thinking she’s singing real loud.

- the same pattern is found with complex predicates with no subject control. Only the manner adverbial can incorporate, not the verb.

(41) a. ʼācuk-siš-ʔiš  waarič Ken deeply-come.upon-PST-3.IND  sleep Ken I came in to find Ken in a deep sleep.

- outside of incorporation contexts, manner adverbials rigidly occur in initial position:

(42) a. witýax-siš  waarašök slow-PST-1sg sleep-go.home-PERF  I went home slowly.
   b. * waarašök-siš  witýax go.home-PERF-PST-3.IND  slow I went home slowly.

(43) a. ʼācuk-ťiš-ʔiš  waarič Ken deeply-PST-3.IND  sleep Ken was sleeping deeply.
   b. * waarič-ťiš-ʔiš  Ken sleep-قلب-PST-3.IND  Ken was sleeping deeply.