

Affixal predicates and clausal complementation

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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, Nakayama 1997, Davidson 2001, Wojdak 2003, among others.

- with affixal predicates that take nominal complements, the affixal predicate incorporates the noun (see Stonham 1998, Wojdak 2003, *in prep*):

(1) $\acute{t}u\acute{f}u\acute{c}i\acute{h}\acute{?}i\acute{s}$ nani
 $\acute{t}u\acute{c}(up)\text{-}\acute{?}i\acute{h}[+R]\text{-}\acute{?}i\acute{s}$ nani
 sea.urchin-gather-3.IND grandparent
 Your grandparent is gathering sea urchins. (*noun incorporation*)

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. $ta\acute{?}i\acute{t}\text{-}\acute{?}i\text{-}\acute{c}i\acute{t}\text{-}it\text{-}si\acute{s}$ $su\acute{w}a$
 sick-**hear**-PERF-PST-1sg.IND you
 I heard that you were sick. (*complex predicate*)

b. $\acute{?}u\text{-}\acute{?}i\text{-}\acute{c}i\acute{t}\text{-}it\text{-}si\acute{s}$ $\acute{?}en$ $ta\acute{?}i\acute{t}\text{-}suuk$
 $\emptyset\text{-}\text{hear}\text{-PERF-PST-1sg.IND COMP}$ sick-2sg.ABS
 I heard that you were sick. (*full complement*)

- this paper proposes that COMPLEX PREDICATES fall into two classes:
 - those with subject-control affixal predicates, eg. *-mahsa* “want to”
 - those with affixal predicates with no subject control, eg. *-siit* “find”

* I would like to thank my Nuu-chah-nulth consultants for their patience and dedication in sharing their language with me: Mary Jane Dick, Katherine Fraser, Archie Thompson, Josephine Thompson, Barbara Touchie, Sarah Webster, Barney Williams Jr., Barney Williams Sr. Data presented here is from the Ahousaht dialect. I would like to thank Rose-Marie Déchaine for advice & for getting me started on this line of research. Thanks to Henry Davis, Martina Wiltschko, Florence Woo, Susi Wurmbrand and audience members at UBC & the CLA 2004 for helpful discussion & suggestions. Fieldwork on Nuu-chah-nulth was funded by a UBC Hampton Fund Research Grant in the Humanities and Social Sciences awarded to Henry Davis, and by Jacobs Research Fund (2001, 2002, 2004) and Phillips Fund (2004) grants awarded to the author. This work is supported by SSHRC and Killam doctoral fellowships. All errors are my own.

(3) a. $wa\acute{t}\acute{s}i\acute{t}\acute{m}a\acute{h}sa\acute{s}i\acute{s}$
 $wa\acute{t}\acute{s}i\acute{t}\text{-}ma\acute{h}sa\text{-}si\acute{s}$
 go.home-want.to-1sg.IND
 I wanna go home. (*subject control*)

b. $wa\acute{?}i\acute{c}\acute{?}i\acute{t}\acute{s}i\acute{s}$ Ken
 $wa\acute{?}i\acute{c}\text{-}si\acute{t}\text{-}mit\text{-}si\acute{s}$ Ken
 sleep-come.upon-PST-1sg.IND Ken
 I found Ken sleeping. (*no subject control*)

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

THE PROPOSAL:

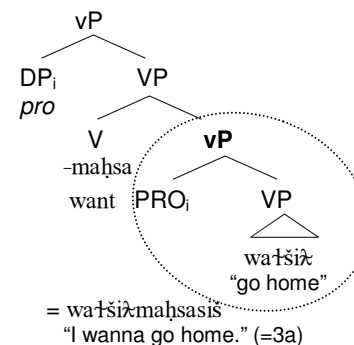
- complex predicates are formed via incorporation of the embedded predicate into an affixal matrix predicate (see Rose 1981 for a similar analysis).
- verb incorporation is a “restructuring” effect (reanalysis; clause union) associated with infinitival complementation (cf. Aissen and Perlmutter 1976, Rizzi 1982, Roberts 1997, Rooryck 2000, Wurmbrand 2001, Cinque 2002 *inter alia*)

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

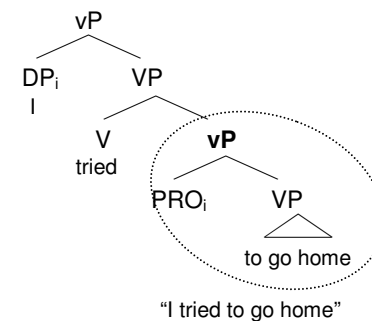
- the lack of TP entails that nominative-marked DPs (subjects) are not licensed within the infinitival complement.
- infinitival configurations in Nuu-chah-nulth are of two distinct types:
 - subject control
 - raising-to-object (ECM)

(4) *Subject control: complement smaller than TP*

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



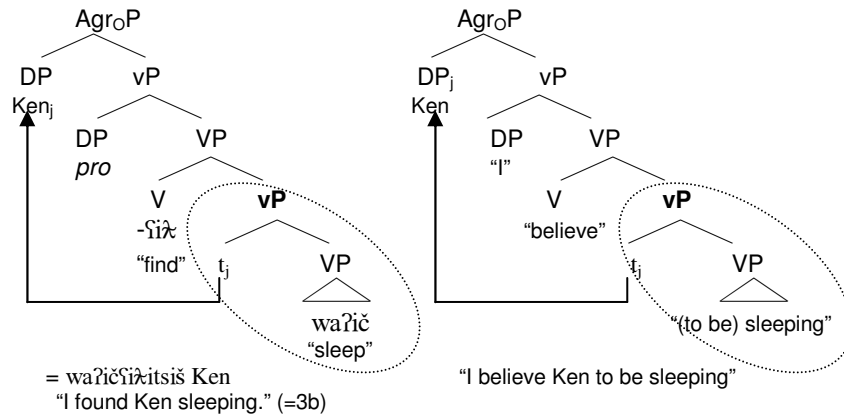
b. English



(5) Raising-to-object (ECM): complement smaller than TP

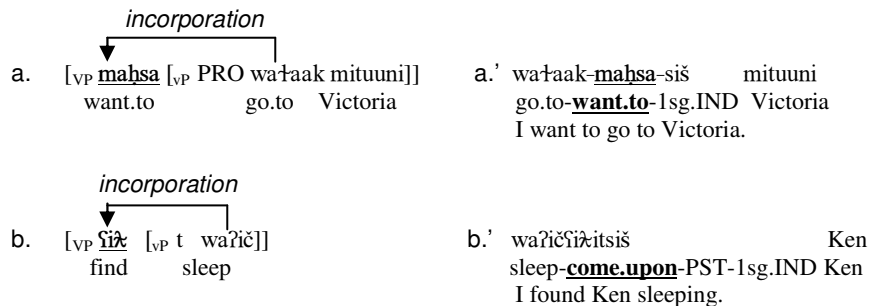
a. Nuuchah-nulth

b. English



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

(6) Linearization



2. Subject control vs. no subject control

2.1 Subject control predicates

- subject control class (cf. Rose 1981 for *-mahsa* "to want to")

(7) a. huuʔhuuʔamahsaʔiʃ Kay ʔatquu wikuuqstamaʔsapat
 huuʔ-a[+R]-mahsa-ʔiʃ Kay ʔatquu wik-ʔuuqsta-mahsa-ʔap-ʔat
 dance-IT-want.to-3.IND Kay although NEG-amongst-want-CAUS-PAS
 Kay wants to dance although they don't want her participating.

b. * huuʔhuuʔamahsasiʃ Kay
 huuʔ-a[+R]-mahsa-ʔiʃ Kay
 dance-IT-want.to-3.IND Kay
 I want Kay to dance.

(8) a. ʔuupk-sinhi-ʔiʃ John
 awake-try.to[+L]-3.IND John
 John is trying to stay awake.

b. * ʔuupk-sinhi-ʔiʃ John Kay
 awake-try.to-3.IND John Kay
 John is trying to keep Kay awake.

(9) a. ʔac-ʃiɬ-witas-it-siʃ ʔinʔii wiqsiq-aq-ʔiʃ
 fish-PERF-gonna-PST-1sg.IND although stormy-very-3.IND
 I was gonna go fishing, but it is *real* stormy.

b. * ʔac-ʃiɬ-witas-siʃ Robin
 fish-PERF-gonna-1sg.IND Robin
 I'm planning for Robin to go fishing.

(10) a. huuʔhuuʔa-ʃas-siʃ
 dance-IT-go.in.order.to-1sg.IND
 I'm gonna go dance; I'm going in order to dance.

b. * huuʔhuuʔa-ʃas-siʃ Robin
 dance-go.in.order.to-1sg.IND Robin
 I'm going in order for Robin to dance.

(11) a. naʔaaʔ-qath-it-siʃ naʔaaʔʔak-ʔi
 read-claim-PST-3.IND book-DET
 I claimed/pretended I was reading the book.

b. * naʔaaʔ-qath-it-siʃ Robin naʔaaʔʔak-ʔi
 read-claim-PST-3.IND Robin book-DET
 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 predicates or a full clause complement (with suffixation to the expletive *ʔu-*) is possible

- (12) a. $\dot{k}uuq^{aa}na\dot{k}uu\dot{h}itsi\dot{s}$ Robin $ku\dot{?}a\dot{?}$
 $\dot{k}uuqaa-\dot{n}a\dot{k}uu\dot{h}[+L]-mit-si\dot{s}$ Robin $ku\dot{?}a\dot{?}$
 tiptoe-**observe**-PST-1sg.IND Robin morning
 I was observing Robin tip-toeing this morning.
- b. $\dot{?}u\dot{n}a\dot{k}uu\dot{h}itsi\dot{s}$ $\dot{?}en$ $\dot{k}uuq^{aa}a\dot{h}uk$ Robin $ku\dot{?}a\dot{?}$
 $\dot{?}u-\dot{n}a\dot{k}uu\dot{h}[+L]-mit-si\dot{s}$ $\dot{?}en$ $\dot{k}uuq^{aa}-\dot{h}uk$ Robin $ku\dot{?}a\dot{?}$
 \emptyset -**observe**-PST-1sg.IND COMP tip.toe-3.ABS Robin morning
 I was observing Robin tip-toeing this morning.
- (13) a. $kuukuu\dot{w}i\dot{t}ata\dot{h}\dot{s}i\dot{s}i\dot{s}$ Robin $sapnii$
 $kuu\dot{w}i\dot{t}-ata\dot{h}[+R]-\dot{s}i\dot{s}$ Robin $sapnii$
 steal-attempt.to-**come.upon**-PST-1sg.IND Robin bread
 I came upon Robin attempting to steal a loaf of bread.
- b. $\dot{?}u\dot{s}i\dot{s}i\dot{s}$ $\dot{?}en$ $kuukuu\dot{w}i\dot{t}ata\dot{h}$ Robin $sapnii$
 $\dot{?}u-\dot{s}i\dot{s}$ -mit-si \dot{s} $\dot{?}en$ $kuu\dot{w}i\dot{t}-ata\dot{h}[+R]-\emptyset$ Robin $sapnii$
 \emptyset -**come.upon**-PST-1sg.IND COMP steal-attempt.to-3.A Robin bread
 I came upon Robin attempting to steal a loaf of bread.
- (14) a. $qah\dot{?}ii\dot{c}i\dot{s}i\dot{s}$ $su\dot{w}a$
 $qah-\dot{?}ii-\dot{c}i\dot{s}$ -mit-si \dot{s} $su\dot{w}a$
 die-**learn**-PERF-PST-1sg.IND you
 I heard that it was you who died.
- b. $\dot{?}u\dot{?}ii\dot{c}i\dot{s}i\dot{s}$ $\dot{?}en$ $\dot{?}usu\dot{u}\dot{l}i\dot{s}uuk$
 $\dot{?}u-\dot{?}ii-\dot{c}i\dot{s}$ -mit-si \dot{s} $\dot{?}en$ $\dot{?}u-suu\dot{l}-mit-suuk$
 \emptyset -**learn**-PERF-PST-1sg.IND COMP \emptyset -die-PST-2sg.ABS
 I heard that it was you who died.
- (15) a. $\dot{s}i\dot{h}\dot{s}i\dot{h}atu\dot{t}mitsi\dot{s}$ Kay
 $\dot{s}i\dot{h}-atu\dot{t}[+R]-mit-si\dot{s}$ Kay
 cry-**dream**-PST-1sg.IND Kay
 I dreamt that Kay was crying.
- b. $\dot{?}u\dot{?}uutu\dot{t}itsi\dot{s}$ $\dot{?}en$ $\dot{s}i\dot{h}\dot{s}i\dot{h}a$ Kay
 $\dot{?}u-atu\dot{t}[+R]-mit-si\dot{s}$ $\dot{?}en$ $\dot{s}i\dot{h}-ya[+R]-\emptyset$ Kay
 \emptyset -**dream**-PST-1sg.IND COMP cry-IT-3.A Kay
 I dreamt that Kay was crying away.

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 *ʔen*
- §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. * $ta\dot{?}i\dot{t}-suuk-\dot{?}ii-\dot{c}i\dot{s}-it-si\dot{s}$ ($su\dot{w}a$)
 sick-2sg.ABS-**hear**-PERF-PST-1sg.IND (you)
 I heard that you were sick.
- b. $ta\dot{?}i\dot{t}-\dot{?}ii-\dot{c}i\dot{s}-it-si\dot{s}$ $su\dot{w}a$
 sick-**hear**-PERF-PST-1sg.IND you
 I heard that you were sick.
- c. cf. $\dot{?}u-\dot{?}ii-\dot{c}i\dot{s}-it-si\dot{s}$ $\dot{?}en$ $ta\dot{?}i\dot{t}-suuk$
 \emptyset -**hear**-PERF-PST-1sg.IND COMP sick-2sg.ABS
 I heard that you were sick.
- (17) a. * $wa\dot{t}aak-\dot{m}a\dot{h}sa-sa-si\dot{s}$ $mituuni$
 go.to-**want.to**-1sg.ABS-1sg.IND Victoria
 I want to go to Victoria.
- b. $wa\dot{t}aak-\dot{m}a\dot{h}sa-si\dot{s}$ $mituuni$
 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-tuux^w-a-mit-ñakuuh-it-siś suwā
jump-IT-PST-observe-PST-1sg.IND you
I observed you jumping.
- b. tuuxtuux^wañakuuhitsiś suwā
tuux^w-a[+R]-ñakuuh[+L]-mit-siś suwā
jump-IT-observe-PST-1sg.IND you
I observed you jumping.
- c. cf. ?uñakuuhitsiś ?en tuuxtuux^wamitsuuk
?u-ñakuuh[+L]-mit-siś ?en tuux^w-a[+R]-mit-suuk
Ø-observe-PST-1sg.IND COMP jump-IT-PST-2sg.ABS
I observed you jumping.
- (19) a. * nunuuk-?aqλ-qath-?iś Florence
sing-FUT-pretend-3.IND Florence
Florence is pretending she's going to sing.
- b. nunuuk-qath-?iś Florence
sing-pretend-3.IND Florence
Florence is pretending to sing.

3.3 Prediction #3: There is no complementizer

- the complementizer *?en* does not appear in complex predicates

- (20) a. ?u-?ii-čič-it-siś ?en qah-šič-suuk
Ø-hear-PERF-PST-1sg.IND COMP die-PERF-2sg.ABS
I heard that you died. (*full complement clause*)
- b. qah-?ii-čič-it-siś (*?en) suwā
die-hear-PERF-PST-1sg.IND (*COMP) you
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. ?aquk^w?aλ?iś John ?en kuuwītithuk Mary č'apac
?aquk-čič-?aλ-?iś John ?en kuuwīt-mit-ħuk Mary č'apac
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. * ?ač-aq-ħ ?aquk-čič-?aλ John ?en kuuwīt-mit-ħuk č'apac
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) ?ač-aq-qath-?ap-ħ John kuuwīt č'apac
who-aux-claim-CAUS-3.Q John steal canoe
Who does John believe/claim stole the canoe?
- (23) ?aačičñakuuhith Florence tuuxtuux^wa
?ačič-ñakuuh[+L]-mit-ħ Florence tuux^w-a[+R]
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. ta?it-?iś k^waa?uuc-uk-qs
sick-3.IND grandchild-POSS-1sg.POSS
My grandchild is sick. (*no possessor-raising*)
- b. ta?it-uk-siś k^waa?uuc
sick-POSS-1sg.IND grandchild
My grandchild is sick. (*possessor-raising*)

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

- (25) a. ?u-?ii-čič-it-wa?iś Lucy ?en ta?it k^wa?uuc-uk-?i
Ø-hear-PERF-PST-3.QUOT Lucy COMP sick grandchild-POSS-1sg.POSS
Lucy heard that her grandchild is sick. (*no possessor-raising*)
- b. ?u-?ii-čič-it-wa?iś Lucy ?en ta?it-uk-ħuk k^waa?uuc
Ø-hear-PERF-PST-3.QUOT Lucy COMP sick-POSS-3.ABS grandchild
Lucy heard that her grandchild is sick. (*possessor-raising*)
- c. * ?u-?ii-čič-it-uk-?iś Lucy ?en ta?it k^wa?uuc
Ø-hear-PERF-PST-POSS-1sg.IND Lucy COMP sick grandchild
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) č̣itaphṭinmaḥsakʔiṣ Lucy ciyapuxs
 č̣itapt-ḥtin-**maḥsa**-ak-ʔiṣ Lucy ciyapuxs
 sedge.grass-made.of-**want.to**-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

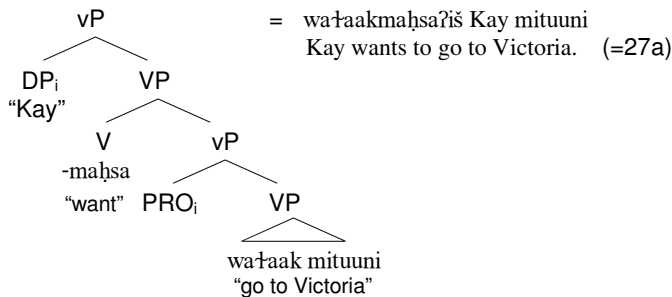
- subject control:

(27) a. waḥaakmaḥsaʔiṣ Kay mituuni
 waḥaak-**maḥsa**-ʔiṣ Kay mituuni
 go.to-**want.to**-3.IND Kay Victoria
 Kay wants to go to Victoria.

b. * waḥaak-**maḥsa**-siṣ Kay mituuni
 go.to-**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*



- subject control is the default case in infinitival complements
- in order for the complement to have an independent (embedded) subject, the morpheme -ʔap is required to license the case of the extra argument. (cf. Rose 1981 for -maḥsa “want to”)

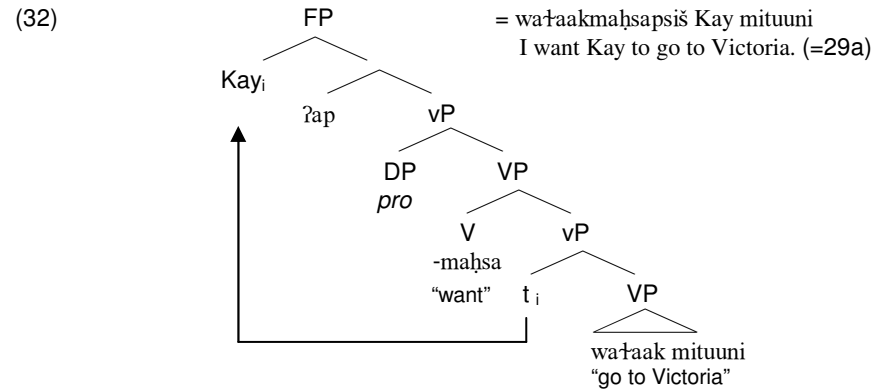
(29) a. waḥaakmaḥsapsiṣ Kay mituuni
 waḥaak-**maḥsa**-ʔap-siṣ Kay mituuni
 go.to-**want.to**-1sg.IND Kay Victoria
 I want Kay to go to Victoria.

b. ṃiḥsiḥmaḥsapsiṣ
 ṃiḥ-siḥ-**maḥsa**-ʔap-siṣ
 rain-PERF-**want.to**-CAUS-1sg.IND
 I want it to rain.

(30) λuupksinhʔapʔiṣ John Kay
 λupk-**sinhi**[+L]-ʔap-ʔiṣ John Kay
 awake-**try.to**-CAUS-3.IND John Kay
 John’s trying to keep Kay awake.

(31) a. načaaḥqathʔamitsiṣ Robin načaaḥʔakʔi
 načaaḥ-**qath**-ʔap-mit-siṣ Robin načaaḥʔak-ʔi
 read-**claim**-CAUS-PST-3.IND Robin book-DET
 I claimed/pretended Robin was reading the book.

b. ḳʷisaaqathʔapsiṣ
 ḳʷis-aa-**qath**-ʔap-siṣ
 snow-CONT-**claim**-CAUS-1sg.IND
 I’m pretending it’s snowing.



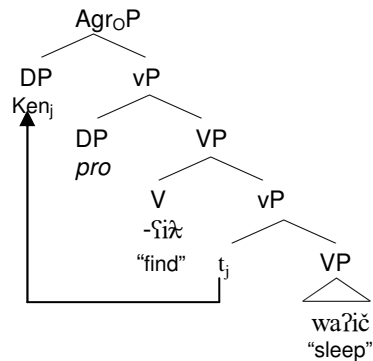
- the morpheme *-ʔap*, standardly analysed as CAUSATIVE (Sapir and Swadesh 1939), licenses extra arguments in a variety of contexts.

(33)	ʔiiḥsaamitsiṣ	Ken
	ʔiiḥ-ʔiḥ-ʔap-mit-siṣ	Ken
	cry-PERF-CAUS-PST-1sg.IND	Ken
	I made Ken cry.	
(34)	yaaʔakapsiṣ	suwa
	yaaʔak-ʔap-siṣ	suwa
	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)*



= waʔiçʔiḥitsiṣ 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)	* č̣iṭapṭḥtinmaḥsakʔiṣ	Lucy	ciyapuxs
	č̣iṭapt-ḥtin-ʔiḥ-č̣iḥ-uk-ʔiṣ	Lucy	ciyapuxs
	sedge.grass-made.of- hear -POSS-3.IND	Lucy	hat
	Lucy learned her (own) hat is made of sedge grass.		
cf.	č̣iṭapṭḥtinmaḥsakʔiṣ	Lucy	ciyapuxs
	č̣iṭapt-ḥtin- maḥsa -ak-ʔiṣ	Lucy	ciyapuxs
	sedge.grass-made.of- want.to -POSS-3.IND	Lucy	hat
	Lucy wants her (own) hat made of sedge grass. (<i>control predicate</i>)		

(37)	a.	tuuxtuux ^w aṇakuuḥitsiṣ	k ^w aaʔuucukqs
		tuux-a[+R]-ṇakuuḥ-mit-siṣ	k ^w aaʔuuc-uk-qs
		jump-IT- observe -PST-1sg.IND	grandchild-POSS-1sg.POSS
		I observed my grandchild jumping. (<i>no possessor-raising</i>)	
	b.	* tuuxtuux ^w a-ṇakuuḥ-uk-it-siṣ	k ^w aaʔuuc
		jump-IT- observe -POSS-PST-1sg.IND	grandchild
		I observed my grandchild jumping. (<i>"long" possessor-raising</i>)	
(38)	a.	taʔiṭ-ʔii-č̣iḥ-it-ʔiṣ	Lucy k ^w aaʔuuc-uk-ʔi
		sick- learn -PERF-PST-3.IND Lucy	grandchild-POSS-3.POSS
		Lucy heard that her grandchild is sick. (<i>no possessor-raising</i>)	
	b.	* taʔiṭ-ʔii-č̣iḥ-it-uk-ʔiṣ	Lucy k ^w aaʔuuc
		sick- learn -PERF-PST-POSS-3.IND	Lucy grandchild
		Lucy heard that her grandchild is sick. (<i>"long" possessor-raising</i>)	

- 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
 - subject control
 - 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

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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. wityax-mahsa-siš waałsił
 slow-want.to-1sg.IND go.home
 I want to go home slowly.

- b. * waałsił-mahsa-siš wityax
 go.home-want.to-1sg.IND slow
 I want to go home slowly.
- c. waałsił-mahsa-siš
 go.home-want.to-1sg.IND
 I want to be going home.
- (40) a. řaqçaqł-qath-řiš Florence nunuuk
 loudly-claim-3.IND Florence sing
 Florence is thinking she's singing real loud.
- b. * nunuuk-qath-řiš Florence řaqçaqł
 sing-claim-3.IND Florence loudly
 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. řacuk-řil-it-siš wařič Ken
 deeply-come.upon-PST-1sg.IND sleep Ken
 I came in to find Ken in a deep sleep.
- b. wařič-řil-it-siš Ken
 sleep-come.upon-PST-1sg.IND Ken
 I came upon Ken sleeping.
- c. * wařič-řil-it-siš Ken řacuk
 sleep-come.upon-PST-1sg.IND Ken řacuk
 I came upon Ken sleeping deeply.

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

- (42) a. wityaxits waałsił
 slow-PST-1sg go.home-PERF
 I went home slowly.
- b. * waałsiłits wityax
 go.home-PERF-PST-1sg slow
 I went home slowly.
- (43) a. řacuk^w-it-řiš wařič Ken
 deeply-PST-3.IND sleep Ken
 Ken was sleeping deeply.
- b. * wařič-it-řiš řacuk Ken
 sleep-PST-3.IND deeply Ken
 Ken was sleeping deeply.