Coordination and subordination in Northern Paiute clause chaining

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1 Introduction

Northern Paiute (Uto-Aztecan, Numic: western United States) uses clause chaining — a sequence of clauses, only one of which is inflected like an independent clause — almost entirely for combining clauses:

(1) a. Yaisi o=woesimmi-na, yaisi o=ggwidi-z-na, o=ddzapuni-hu-dzaga-ti.
   PTC 3SG.ACC=watch-SEQ PTC 3SG.ACC=stir-SEQ 3SG.ACC=look.at-PUNC-MOT-TRANS
   ‘While you are watching it, while you are stirring it, you look at it every once and a while.’
   (dialogue, MS, BP09-1-t4, 7)

b. Yaisi mi=too=qii-tilwau nobiya-u=si, mi=too=qii-tilwau tsa-hubi-ki-u-ga=si.
   PTC PL=dog=also pack-PUNC-SEQ PL=dog=also IP.fingers-drink-PUNC-MOT-SEQ
   tammi mia=ga-kwi mii.
   1PL.INCL-NOM go-MOT-IRR QUOT
   ‘So then, having packed up the dogs, and having made sure those dogs get a drink, so we’d take off.’
   (narrative, Nepa Kennedy, ‘Root-Digging Time’, Thornes, p.c.)

(2) Clause chaining in Northern Paiute

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  V₁ [ na ] ... V₂ [ na ]
  MARKED CLAUSES  UNMARKED CLAUSE
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In the typological and functionalist literature, clause chaining is frequently said to be difficult to fit into the distinction between coordination and subordination that we are familiar with from better-studied languages:

- Coordination: ‘a relation holding between two or more elements of equal syntactic status’
- Subordinate clause: ‘function[s] as dependent within the structure of a larger clause’

(Huddleston and Pullum 2006)

The marked clauses look like they are subordinated to the unmarked clause in (1a–b), because they are dependent on it. They are not able to stand on their own as independent sentences.

But it is not clear whether the marked clauses are embedded within the unmarked clause. For this reason, clause chaining is sometimes taken to occupy an intermediate category — ‘cosubordination’ — between coordination and subordination (Olson 1981, Foley and Van Valin 1984:256–263, Van Valin and La Polla 1997:448–454, Van Valin 2005:183f.).

I will argue that clause chains in Northern Paiute are, in fact, either coordinated or subordinated.

This syntactic distinction is realized morphologically in Northern Paiute on the subject of the marked clause, which can bear either nominative or accusative case.

The subject of marked clause bears nominative case, the clause chain is coordinated. When it bears accusative case, the marked clause is subordinated to the unmarked clause.

In the rest of this talk, I will:

- in §2, describe the properties of clause chaining in Northern Paiute
- in §3, lay out my proposal for the syntax of clause chaining in Northern Paiute
- in §4, give three arguments that clause chains in Northern Paiute are either coordinated or subordinated, depending on what the case of the subject of the marked clause is:
  - c-command
  - cataphoric reference
  - across-the-board movement

This parallels recent findings in a few other languages. Clause chaining has been argued to be coordination in various Papuan languages (Foley 2010) and Kislédd (Nonato 2012) or to be ambiguous between coordination and subordination in Mbyá Guarani (Dooley 2010) and Korean (Kwon and Polinsky 2008).
2 Clause chaining in Northern Paiute

There are two properties of clause chaining that Northern Paiute shares with other languages (Longacre 2007:398–417):

1. The unmarked clause ‘has a verb of distinctive structure that occurs but once in the entire clause, while the other [marked] clauses have verbs of different and more restricted structures’ (Longacre 2007:399).

(5) Yaïsi o=weetsimmii-na yaïsi o=gwaḯdzi-na, o=ddazapuni-hu-dzagasi. PTC 3SG.ACC=watch-SIM PTC 3SG.ACC=sit-SIM 3SG.ACC=look-at-PUNC-MOT-TNS ‘While you are watching it, while you are sitting it, you look at it every once and a while.’ (dialogue, MS, BP99-1-14, 7)

b. Su=naatsi’i na=da-ka-ggii(*di)-si, yaïsi iwi-huka. DEF.NOM=boy PASS-eat-APPL-TNS-SEQ PTC sleep-INC. DUR ‘The boy is fed, and then he falls asleep.’ (elicitation, EM, BP40-5, 29:47)

2. Temporal relations between chained clauses are marked formally. Usually this involves morphology that signals a distinction between: i) temporal simultaneity (e.g. ‘when’ or ‘as’), and ii) temporal sequence (e.g. ‘and then’).

(7) Kate (Trans-New Guinea: Papua New Guinea)

a. Fisi-huk na-wek. arrived-HE.SIM ate-he ‘As he arrived, he was eating.’
b. Fisi-qə na-wek. arrived-HE.SEQ ate-he ‘He arrive, then he ate.’ (Longacre 2007:402)

Most languages with clause chaining strictly locate the unmarked clause at the end if they have OV basic word order (Longacre 2007:417). While Northern Paiute is verb final, it nonetheless allows the unmarked clause to occur either last (as above) or first (8a–8b).

(8) a. Ya=bëni’o mo=ko dakaksi-ggwi-da=di, su=naatsi’i wotni-na. there=PTC shoe sit.DL-DL. PL=boy wait-SIM ‘The shoes are sitting there, waiting for the boys.’ (prompted narrative, MS, BP24-1-13, 98)
b. Yaà hibbi tibbi-ma kati pita-ga, su=naatsi’i u=ma sî-e-hu-si. there PTC rock-LOC sit below-LOC NOM=boy 3SG-LOC scare-PUNC-SEQ ‘The boy went to sit on the rock down there, because he got scared of him.’ (prompted narrative, EM, BP25-2-11, 86)

This type of variability has been reported in at least one other language that I know of — Mbyá Guarani (Dooley 2010) — and it will become important later on.

Crucially, Thornes (2003:464) observes, the subject of the marked clause can bear either nominative or accusative case:

- pronouns

(9) a. Ni i haki’i-na, nabagi’a. 1SG.NOM hiccough-SIM bathe.DUR ‘While I was hiccupping, I swam.’ (elicitation, EM, BP31-5-s, 5)
b. Ni= o=bbuní-na, ni= o=yauppy-kwi. 1SG.ACC 3SG.ACC=see-SIM 1SG.NOM 3SG.ACC=talk.to-SIM ‘When he sees me, I will talk to him.’ (elicitation, MS, BP40-1-s, 14)

(10) a. Ni= woi-hu-si, yaii su=naatsi’i nadagwâyâ-he. 1SG.NOM=boy jump-PUNC ‘I yelled, and then the boy jumped.’ (elicitation, EM, BP40-1-s, 3)
b. I= woi-hu-si, yaii su=naatsi’i nadagwâyâ-he. 1SG.ACC=jump-PUNC-SEQ PTC DEF.NOM=boy jump-PUNC ‘I yelled, and then the boy jumped.’ (elicitation, EM, BP40-1-s, 5)

- determiners and adjectives

(11) a. Su=stisí’-yu naatsi’i yaga-na, yaïsi nii kai pisa i’wi-’yu. DEF.NOM=boy little-NOM cry-SIM PTC 1SG.NOM NEG good sleep.DUR-PRS ‘When the little boy is crying, I can’t sleep well.’ (elicitation, EM, BP40-1-s, 21)
b. Ka=stisí’-ggu naatsi’i yaga-na, yaïsi nii kai pisa i’wi. DEF.NOM=boy little-NOM cry-SIM 1SG.NOM NEG good sleep.DUR ‘When the little boy is crying, I can’t sleep.’ (elicitation, EM, BP40-1-s, 22)

(12) a. Su=stisí’-yu naatsi’i pida-hu-si, su=mogo n’i=bi=nu’o mia-hu. DEF.NOM=boy little-NOM make.fire-PUNC-SEQ DEF.NOM=woman=PTC go-PUNC ‘The little boy lit a fire, and then the woman left.’ (elicitation, EM, BP40-4-s, 17)
b. Titisí’-ggu naatsi’i yaga-si, kai pisa nii i’wi, little-ACC boy cry-SEQ NEG good 1SG.NOM sleep.DUR ‘The little boy cried, and then I couldn’t sleep well.’ (elicitation, EM, BP40-1-s, 22)

Even when the marked clause follows the unmarked clause, the subject can still bear neither nominative or accusative case.

(13) a. Su=mogo n’i=iwi-hu-si, su=stisí’-yu na=yauppy-na. DEF.NOM=woman sleep-INC. DUR DEF.NOM=short-NOM man 3SG.ACC=talk.to-SIM ‘The woman falls asleep when the short man talks to her.’ (elicitation, EM, BP40-2-s, 15)
b. Nii kai pisa i’wi, kastisí’-ggu naatsi’i nadagwâyâ-he. 1SG.NOM NEG good sleep.DUR DEF.NOM=little-ACC boy jump-SIM ‘I can’t sleep well when the little boy is jumping around.’ (elicitation, EM, BP40-3, 20:18)

(14) a. Su=shëddë poyoha-ka, su=tisí’-yu naatsi’i woí-hu-si. DEF.NOM=deer run-MOT DEF.NOM=little-NOM boy yell-PUNC-SEQ ‘The little boy yelled, and then the deer ran away.’ (elicitation, EM, BP40-4-s, 22)
b. Tisí’-ggu naatsi’i woí-hu-si, deer run-MOT DEF.NOM=little-ACC boy yell-PUNC-SEQ ‘The little boy yelled, and then the deer ran away.’ (elicitation, EM, BP40-4-s, 24)

I will propose next that this difference in the case of the marked clause’s subject correlates with a difference in the syntax of clause chaining — coordination vs. subordination.
3 The proposal

When the subject of the marked clause is nominative, the clause chain is asyndetically coordinated, without an overt coordinator.

(15) Nominative case = Coordination

Since the marked and unmarked clauses have an equal syntactic status, their subjects both receive the same case — nominative.

When the subject of the marked clause bears accusative case, the clause chain is asyndetically subordinated. Specifically, since the marked clause is not an argument of the verb, it is adjoined to the unmarked clause.

I posit a null complementizer in Northern Paiute, which has no phonological reflex itself but does license accusative case on the subject — much like the English complementizer for.

(16) I asked [\text{CP for } \{ \text{him } \text{*he} \text{ to leave} \}].

With this null complementizer, the marked clause can:

- left adjoin to TP, when it is in sentence-initial position
- right adjoin to VP, when it is in sentence-final position

(17) Accusative case = Subordination

4 Three arguments

There are at least three syntactic properties that distinguish coordination and subordination (see also Yuasa and Saddock 2002:94–97 and Haspelmath 2007).

1. c-command
2. cataphoric reference
3. across-the-board movement

4.1 C-command

Subconstituents of one coordinate do not c-command into other coordinates. As a consequence, a quantifier is not able to bind a pronoun across coordinates.

(18) a. *[No boy₁ joined the army], and [his mother was happy].
   b. *[His mother joined the army], and [no boy₁ was happy].

In contrast, a quantifier contained in the matrix clause can bind a pronoun in a subordinate clause, when it c-commands it.

(19) [No mother₁ is happy [if her son joins the army]].
(20) TP

Northern Paiute has a long-distance possessive reflexive anaphor ti\[-=, which must be bound by a c-commanding expression in its own clause or in another clause.

When the subject of the marked clause is nominative and precedes the unmarked clause, it is not able to bind into the unmarked clause or be bound by an element contained inside it.
Moving the marked clause into final position makes no difference. The nominative subject of the marked clause can neither bind into, nor be bound from, the unmarked clause.

When the subject of the marked clause bears nominative case, it does not c-command, and is not c-commanded by, material inside the unmarked clause — just as we would expect if the clause chain is coordinated.

In contrast, when the subject of the marked clause is accusative, it can be bound by the subject of the unmarked clause — compare (23) to (22b).

Perhaps somewhat surprisingly, the same binding pattern obtains even when the marked clause is in sentence-initial position — again, contrast (25) with (21b).

As Iatridou (1991) shows, English exhibits the same pattern with adjunct clauses in sentence-initial position.

Iatridou argues that an adjunct clause can optionally start out adjoined to VP and then raise to sentence-initial position. Consequently, it is able to reconstruct into its base position for the purposes of variable binding.

Adopting Iatridou’s proposal, we can say that the initial marked clause reconstructs to a VP-adjoined position, where the accusative subject of the marked clause is c-commanded by the subject of the unmarked clause.

When the subject of the marked clause bears accusative case, it is c-commanded — at some level of representation — by material inside the unmarked clause, just as we would expect if the marked clause is subordinated.

4.2 Cataphoric reference

In coordinate structures, a pronoun cannot precede its antecedent (the Backwards Anaphora Constraint; Langacker 1969:171). By contrast, in a subordination structure, such cataphoric reference is possible.

In Northern Paiute clause chaining, cataphoric reference is impossible when the subject of the marked clause bears nominative case. In contrast, it is possible when the subject bears accusative case.
In Northern Paiute clause chaining, across-the-board movement is possible when the subject of the marked clause is subordinated to the unmarked clause. When it bears nominative case, across-the-board movement is possible, because then the clause chain is coordinated. When it bears accusative case, the marked clause is subordinated and across-the-board movement is ruled out.

5 Conclusions

Clause chains in Northern Paiute can be either coordinated or subordinated — a syntactic distinction that is realized morphologically on the subject of the marked clause.

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<thead>
<tr>
<th>ENGLISH</th>
<th>NORTHERN PAIUTE</th>
</tr>
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<tbody>
<tr>
<td>c-command</td>
<td>coordination</td>
</tr>
<tr>
<td>no</td>
<td>yes</td>
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</tbody>
</table>

This parallels some recent findings about clause chaining in a range of other languages, though Northern Paiute is different from them in interesting ways.

- In Mbyá Guarani (Dooley 2010) and Korean (Kwon and Polinsky 2008), clause chaining is formally ambiguous between coordination and subordination structures.
- In contrast, in Northern Paiute, clause chains are not ambiguous in the same way, because the case of the marked clause’s subject indicates whether it is coordinated or subordinated. How else might languages mark this distinction formally?
- In various Papuan languages (Foley 2010) and KiséDJé (Nonato 2012), clause chaining always involves a coordination structure.
- In contrast, in Northern Paiute, clause chains can be either coordinated or subordinated. Why might languages vary in this way?

Clearly, more crosslinguistic investigation is needed. But I suspect that clause chaining is not nearly as mysterious as first thought.
Data and acknowledgments

Northern Paiute is comprised of several closely related dialects (Babel et al., to appear). Most data comes from my own fieldwork on the Mono Lake variety, spoken at Mono Lake in eastern California and immediately to the north in Bridgeport and Coleville, California and Sweetwater, Nevada. Additional data comes from the Burns, Oregon variety (Thornes 2003). For all dialects of Northern Paiute, there are probably no more than 300 fluent speakers today (Golla 2011:174), and for the Mono Lake dialect, there are around five speakers.

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Abbreviations

ACC = accusative, ADV = adverbial suffix, APPL = applicative, CAUS = causative, COMPL = completed, DEF = definite, DEM = demonstrative, DIM = diminutive, DL = dual, DS = different subject, DUR = durative, EMPH = emphatic particle, EXCL = exclusive, F = feminine, FUT = future, GEN = genitive, IMPF = imperfective, INCEP = inceptive, INCH = inchoative, INCL = inclusive, IND = free choice indefinite, INSTR = instrumental nominalizer, INT = intensive, IP = instrumental prefix, IRR = inrealis, LOC = locative postposition, M = masculine, MOD = modal particle, MOT = motion suffix, NEG = negation, NOM = nominative, SIM = nominalizer, NSP = nonspecific object, PASS = passive, PERF = perfect, PL = plural, PRO = resumptive pronoun, PLUR = pluralization, PRS = present tense, PTC = discourse particle, QUOT = quotative, REFL = possessive anaphor, SEQ = sequential marker, SG = singular, STAT = stative aspect, TNS = 'general tense' (Thornes 2003:398)

Appendix: Asyndetic coordination and subordination

Asyndetic coordination is found in most — if not all — languages of the world (Haspelmath 2007:7). So it is perhaps not surprising that clauses can be combined in this way outside of clause chains in Northern Paiute.

(36) Ni= woi-hu, su=naats’i nadawane-hu.
1SG.NOM yell-PUNC DEF.NOM=boy jump-PUNC
'I yelled; the boy jumped.' (elicitation, MS, BP40-1-s, 2)

On the other hand, asyndetic subordination is less familiar. But it, too, is found in Northern Paiute outside of clause chaining. When two clauses are juxtaposed without the simultaneous suffix -nu or the sequential suffix -si, the subject is able to bear either nominative case (36) or accusative case (37).

(37) I=woi-hu, su=naats’i nadaggwane.
1SG.NOM=boy PUNC DEF.NOM=boy jump
'I yelled; the boy jumped.' (elicitation, MS, BP40-1-s, 4)

This case distinction correlates with the three syntactic properties that distinguish coordination and subordination:

1. The clause with the accusative subject is c-commanded by material in the other clause, regardless of whether it precedes or follows.

(38) a. * [Su=naats’i, kai pisa i’wi], [tiitsu=yu tie=duu nadaggwane-dui].
    DEF.NOM=man NEG good sleep.DUR little-NOM REFL=son jump-INT
    Intended: ‘The man can’t sleep well; his little son is jumping up and down.’ (elicitation, EM, BP41-4, 17:55)

b. * [Tiitsu=yu ti-i=ddogga wohi=yu, su=naats’i kai i’wi],
    little-NOM REFL=dog bark-PRS DEF.NOM=boy NEG sleep.DUR
    Intended: ‘His little dog is barking; the boy can’t sleep.’ (elicitation, EM, BP41-4, 11:29)

(39) a. [Su=naats’i kai i’wi], [tiitsu-ggu tie=duu nadaggwane-i]].
    DEF.NOM=man NEG sleep.DUR little-ACC REFL=son jump
    ‘The man can’t sleep well; his little son is jumping up and down.’ (elicitation, MS, BP41-4-s, 2)

b. [[Ka=tiitsu-ggu tie=duu wohi=yu, su=naats’i kai i’wi],
    DEF.ACC=little-NOM REFL=dog bark DEF.NOM=boy NEG sleep.DUR
    ‘His little dog is barking; the boy can’t sleep.’ (elicitation, EM, BP41-4, 14:19)

2. Cataphoric reference is possible when the subject bears accusative case.

(40) a. * [Su=naadwagwene-hui], [sunaats’i paa’a a we habi-hu].
    DEF.ACC=nadwagwene PUNC DEF.NOM=boy water-LOC lie-PUNC
    ‘He kept on crying; the boy fell into the water.’ (elicitation, EM, BP40-2, 2:59)
    [EM: ‘Sound like there’s two person there. Usu, you know, you say, usu.’]

b. [[U=i yaka-dui], su=naats’i yaisi wu-huka].
    DEF.ACC=cy.lying-DUR-INT DEF.NOM=boy PTC sleep-LOC
    ‘He kept on crying; the boy fell asleep.’ (elicitation, EM, BP41-1, 1:14:30)

3. Across-the-board movement is not possible when the subject bears accusative case, but is with nominative case.

(41) a. Himma | [ni= ti ka-hu], [yaisi su=naats’i bino’o ti ka-hu]?
    what 1SG.ACC eat-PUNC PTC DEF.NOM=boy=PTC eat-PUNC
    ‘What did I eat, and the boy ate, too?’ (elicitation, EM, BP40-1-s, 10)

b. Himma | [ti= ti ka-hu],
    yaisi su=naats’i bino’o ti ka-hu? what 1SG.ACC=eat-PUNC PTC DEF.NOM=boy=PTC eat-PUNC
    Intended: ‘What did I eat, and the boy ate, too?’ (elicitation, EM, BP40-1, 31:27)

Even clausal juxtaposition in Northern Paiute has two distinct syntactic structures — asyndetic coordination and asyndetic subordination, cf. Otomi (Palancar 2012) and Shona (Güldemann 2005).
References


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