

1 Introduction

1.1 Structure of this talk

1. Background
2. Three participant events and the ditransitive construction in Hupa (§2)
3. Coding and behavioral properties of the ditransitive construction (§§3–4)
4. Analysis of the recipient argument and its marker (§5)

1.2 Language situation

- California branch of the Athabaskan family
- Traditionally spoken in the area around Hoopa Valley in northwestern California
- Extremely endangered; fewer than five fluent first-language speakers (Golla 2006)

1.3 Hupa morphosyntax: The basics

- Verb morphology template (Golla 1970: 56)

Adv	Thm	Pl	3 Subj	Obj	Thm	Adv	Distr	Mode	1/2 Subj	Class	(Stem)
11	10	9	8	7	6	5	4	3	2	1	

- Levels of verbal morphology (Golla 1970: 22-23; simplified here)
 - **stem** = root + (suffix)
 - **theme** = (thematic prefix(es)) + classifier + **stem**
 - verb = derivational/inflectional prefix(es) + **theme**
- Head-marking
- Accusative alignment

Intransitive:

- (1) na:-**wh**-ts'it
 down-**1sgS**-drop.perf
 ‘I fell (from a height)’

¹This work has benefitted from comments and suggestions by the participants in the Group in American Indian Languages (GAIL) at UC Berkeley. I am tremendously grateful to Ramón Escamilla, Lindsey Newbold, and Justin Spence for help and camaraderie; to Andrew Garrett for guidance and support; to Victor Golla for assistance with Hupa morphology; and to our teacher, Verdona Parker, for generously sharing her time, knowledge, home, and humor with us. Except where noted otherwise, all data is from my fieldwork with Verdona. The project was supported by grants from the Jacobs Fund and the Robert Oswald Fund for Endangered Languages.

Monotransitive:

- (2) mije'ertin xo-**wh**-tsis
 child 3sgO-1sgA-see
 'I see the child'

- Canonical word order is SOV

2 Ditransitives: basic data

There are two distinct ways to encode three-participant events in Hupa.

2.1 Free postpositional phrase

A postposition selects for a pronominal or fully referential complement. The postpositional phrase is an independent syntactic constituent.

- (3) a. ni-**ch'ing** \emptyset -n-e-'a:n
 2sgR-**to** 3sgInanT-PERF-1sgA-move.round.obj²
 'I brought/gave it to you'
- b. whi-**ch'ing** \emptyset -ni-ng-'a:n
 1sgR-**to** 3sgInanT-PERF-2sgA-move.round.obj
 'You brought/gave it to me'
- c. lindsey-**ch'ing** \emptyset -n-e-'a:n
 L.-**to** 3sgInanT-PERF-1sgA-move.round.obj
 'I brought/gave it to Lindsey'

2.2 Incorporated recipient

A postposition-like morpheme is bound to the verb word and selects for a pronominal complement.

- (4) a. ni-**wa:**- \emptyset -n-e-'a:n
 2sgR-**to**-3sgInanT-PERF-1sgA-CLS-move.round.obj
 'I gave it to you'
- b. whi-**wa:**- \emptyset -ni-ng-'a:n
 1sgR-**to**-3sgInanT-PERF-2sgA-move.round.obj³
 'You gave it to me'

²In the perfective forms of active bases formed on themes with zero or *ɬ*- classifier, 1sgS (ordinarily *wh*-) is marked by *e*- (Golla 1970: 69).

³Inanimate themes are always zero-marked in position 7 of the verb template. Throughout the rest of this handout, I omit the zero-marked inanimate theme and its gloss.

2.2.1 Generalizations

- Agent (A) and Theme (T) arguments are indexed on the verb (may be zero-marked).
- Recipient (R) argument appears at the left edge of the verbal complex as a pronominal.
- A postposition-like marker in slot 11 (*wa:* in (4)) introduces the recipient argument.
- Golla (Sapir & Golla 2001: 831) analyzes the R argument as an oblique pronominal object of an “incorporated” (prosodically integrated) slot 11 postposition. (Rice 1989: 775) has a similar treatment of R arguments in Slave.

2.2.2 Recipient Markers

- The set of postpositions that occur in free recipient ditransitives is disjoint with the set of recipient markers in incorporated recipient ditransitives. A few examples of each are shown here.

Incorporated	
<i>wa:</i>	‘to (into the possession of)’, ‘through’
<i>a:</i>	‘from’
<i>e:</i>	‘against’
<i>de</i>	‘(closely) past’
<i>da</i>	‘down to’, ‘to the door of’
Free	
<i>ch’ing</i>	‘to’, ‘toward’
<i>wung</i>	‘from’
<i>ɬ</i>	‘with’ (comitative/instrumental)

- Recipient markers do not appear to have other uses outside of the verb word.
- The class of incorporated recipient markers is distinct in several ways from the class of free recipient postpositions. We will return to this point in §5.

2.2.3 Ditransitive Verbs

- Verbs that occur in ditransitive constructions fall roughly into the following semantic categories:
 - Definite transfer of possession (borrow, buy, lend)
 - General motion with or without transfer of possession (bring, hit, move, poke, send, throw, etc.)
 - Communication (ask for, say, tell)
- Hupa, like other Athabaskan languages, has a series of classificatory motion verb stems which are suppletive with respect to the physical properties of the theme. Some examples are given in (5).

- (5) a. k'ijiwolch Lindsey xo-wa:n-e-'a:n
 ball L. 3sgR-to-PERF-1sgA-move.round.obj
 'I gave the ball to Lindsey'
- b. Lindsey king xo-wa:n-e-ta:n
 L. stick 3sgR-to-PERF-1sgA-move.sticklike.obj
 'I gave the stick to Lindsey'
- c. na:k'itmo:t' Lindsey xo-wa:n-e-l-ten
 mole L. 3sgR-to-PERF-1sgA-CLS-move.living.obj
 'I gave the (live) mole to Lindsey'
- d. kinch'itan Lindsey xo-wa:n-e-lay'
 sticks L. 3sgR-to-PERF-1sgA-move.several.objs
 'I gave the sticks (several) to Lindsey'
- e. Lindsey hichiwh xo-wa:n-e-chich
 L. sand 3sgR-to-PERF-1sgA-move.granular.mass
 'I gave the sand to Lindsey'
- f. Lindsey dediwhiq' xo-wa:ne-hiq'
 L. bread 3sgR-to-PERF-1sgA-move.doughy.mass
 'I gave the bread dough to Lindsey'
- g. Lindsey t'e' xo-wa:n-e-l-kyo:s
 L. blanket 3sgR-to-PERF-1sgA-CLS-move.fabric
 'I gave the blanket to Lindsey'
- h. Lindsey t'e' xo-wa:n-e-metl
 L. blanket 3sgR-to-PERF-1sgA-move.heap
 'I gave the (pile of) blankets to Lindsey'
- i. Lindsey ta'na:n xo-wa:n-e-xa:n
 L. water 3sgR-to-PERF-1sgA-move.full.container
 'I gave the (full) water container to Lindsey'

- These verbs, particularly the motion verbs, combine productively with various recipient markers to encode specific information about the event. Some examples are given below, with postpositions and recipient markers in boldface.

- (6) a. m-e:n-e-'a:n
 3sgInanR-**against**-PERF-1sgA-move.round.obj
 'I brought it up against something'
- b. mi-**de**-n-e-'a:n
 3sgInanR-**past**-PERF-1sgA-move.round.obj
 'I brought it_i up to him/her/it_j (child, elder, animal)'
- c. xo-**de**-n-e-'a:n
 3sgHumanR-**past**-PERF-1sgA-move.round.obj
 'I brought it up to him/her'

- d. mi-**da**-n-e-'a:n
3sgInanR-**to.door.of**-PERF-1sgA-move.round.obj
'I brought it to the doorway/entrance of something'
- e. xo-**da**-n-e-'a:n
3sgHumanR-**down.to**-PERF-1sgA-move.round.obj
'I brought it down (a hill, e.g.) to him/her'
- (7) a. 'a:k'iwilaw m-**e:**-me-n-e-ł-chwit'
book 3sgInanR-**against**-ADV-PERF-1sgA-CLS-push
'I pushed the book against it (some other object)'
- b. ni-**de**-me-n-e-ł-chwit'
2sgR-**past**-ADV-PERF-1sgA-CLS-push
'I pushed it (some object) closely past you'
- c. ni-**da**-me-n-e-ł-chwit'
2sgR-**up.to**-ADV-PERF-1sgA-CLS-push
'I pushed it (some object) up to you (you almost got it, but it fell back down)'
- d. mi-**da**-me-n-e-ł-chwit'
3sgInanR-**against**-ADV-PERF-1sgA-CLS-push
'I pushed it (some object) up to the doorway/entrance'
- e. 'a:k'iwilaw ni-**wung** me-n-e-ł-chwit'
book 2sgR-**from** ADV-PERF-1sgA-CLS-push
'I pushed the book away from you'
- f. ni-ł 'a:k'iwilaw me-ne-ł-chwit'
2sgO-COM book ADV-PERF-1sgA-CLS-push
'I pushed the book and you' (comitative)

- In the case of motion verbs, the recipient flag can determine whether or not the action is construed as involving transfer of possession. This means that the giving event is both morphosyntactically and semantically complex.

Consider examples (8) and (9). The free recipient ditransitive does not necessarily involve the transfer of possession, and could be closely paraphrased as “I finished moving a book toward Lindsey.” The corresponding incorporated recipient ditransitive could be paraphrased as “I finished moving a book to Lindsey and into her possession.” The latter entails that at the completion of the event, the theme is in the possession of the recipient.

- (8) 'a:k'iwilaw Lindsey xo-ch'ing n-e-'a:n
book L. 3sgR-to PERF-1sgA-move.round.obj
'I brought a book to Lindsey'
- (9) 'a:k'iwilaw Lindsey xo-wa:-n-e-'a:n
book L. 3sgR-to-PERF-1sgA-move.round.obj

‘I gave Lindsey a book’

- The R marker and its complement are bound to the verb word.

– They can’t be moved out of the verb word.

(10) a. 'a:k'iwilaw **xo-wa:**-n-e-'a:n
book 3sgR-to-PERF-1sgA-move.round.obj
‘I gave him a book’

b. ***xowa:** 'a:k'iwilaw ne-'a:n

(11) a. 'a:k'iwilaw **xo-ch'ing** n-e-'a:n
book 3sgR-to PERF-1sgA-move.round.obj
‘I brought a book to him’

b. **xo-ch'ing** 'a:k'iwilaw n-e-'a:n
3sgR-to book PERF-1sgA-move.round.obj
‘I brought a book to him’

– Other verbal morphology can appear before them.

(12) a. 'a:k'iwilaw **do:**-xo-wa:-n-e-'a:n
book NEG-3sgR-to-PERF-1sgA-move.round.obj
‘I didn’t give him a book’

b. xo-ch'ing 'a:k'iwilaw **do:**-n-e-'a:n
3sgR-to book NEG-PERF-1sgA-move.round.obj
‘I didn’t bring a book to him’

– They condition phonological processes in other verbal prefixes. 3sg animate agent marker *ch'i-* reduces when preceded by a CV- prefix and followed by a C-initial prefix (Golla 1970: 100).

(13) whi-wa-'-ning-'a:n
1sgR-to-**3sgAnimA**-PERF-move.round.obj
‘He gave it to me’

3 Argument Realization

- Ditransitive alignment in Hupa is indirective (P and T are marked by the same set of prefixes in the same morphological position).
- R prefixes are identical to T prefixes in morphological form, with the addition of an inanimate 3sg R marker *mi-* (the equivalent category in T position is zero-marked).
- Pronominal T is unflagged, R is flagged by the marker that introduces it into the verb word.

- T and R pronominal prefixes can occur with coreferential full NPs or independent pronouns.
- Neither T nor R expansion is flagged. For both arguments, expansion is optional.

(14) 'a:k'iwilaw Lindsey xo-wa:n-e-'a:n
 book L. 3sgR-to-PERF-1sgA-move.round.obj
 'I gave Lindsey a book'

3.1 Indefinite arguments

- If the A argument is indefinite or generic, the pronominal argument forms are the same. The agent pronominal corefers with an independent indefinite pronoun.

(15) **dangwho'owh** 'a:k'iwilaw xo-wa-'-ning-'a:n
someone book 3sgR-to-**3sgAnimA**-PERF-move.round.obj
 'Someone gave a book to him'

- There are several options for encoding an indefinite or generic R argument. (16) is marked for a human recipient, (17) is marked for any specific recipient, and (18) is (zero-)marked for a recipient that is still animate, but lower on the hierarchy.

(16) **xo-wa-'-ning-'a:n**
3sgHumanR-to-3sgAnimA-PERF-move.round.obj
 'He gave it to someone (unknown person)'

(17) **k'i-wa-'-ning-'a:n**
3sgSpecificR-to-3sgAnimA-PERF-move.round.obj
 'He gave it to someone (unknown specific person, child, elder, or animal)'

(18) \emptyset -wa-'-ning-'a:n
3sgLoAnimR-to-3sgAnimA-PERF-move.round.obj
 'He gave it to someone (unknown child, elder, or animal)'

3.2 Animacy effects and word order

- Neutral order: All arguments are expanded, both R and T are new information. Disambiguated through word order and animacy. In (19), for example, the least animate argument is interpreted as T. Of the two human arguments, the first is interpreted as A, the second as R.

(19) a. hay xo'esday tsumetɬo:n 'a:k'iwilaw
 DET man woman book
 xo-wa-'-ning-'a:n
 3sgR-to-3sgAnimA-PERF-move.round.obj
 'The man gave the woman a book'

- b. hay tsumetlo:n xo'esday 'a:k'iwilaw
 DET woman man book
 xo-wa-'-ning-'a:n
 3sgR-to-3sgA-PERF-move.round.obj
 'The woman gave the man a book'

- It is possible to construct ditransitives with animate themes. In this case, the expanded T tends to be ordered before the expanded R. Compare with (19), in which the inanimate T is the last of the three expanded arguments.

- (20) hay tsumestlo:n **mije'e:tin** hay xo'esday
 DET woman **child** DET man
 xo-wa:-xo-l-te:n
 3sgR-to-3sgHumanT-CLS-move.living.object
 'The woman gave the man her child'

- Information structural properties affect word order.

3.3 Reflexives

- A special reflexive object can take the place of the incorporated recipient in a ditransitive. The reflexive morpheme cannot appear in theme position.

- (21) a. ahdi-wa:-n-e-'a:n
 REFL-to-PERF-1sgA-move.round.obj
 'I gave it to myself'
 b. *whiwa:ne'an
- (22) a. ahdi-wa:-ni-ng-'a:n
 REFL-to-PERF-2sgA-move.round.obj
 'You gave it to yourself'
 b. *niwa:ning'an
- (23) a. ahdi-wa-'-ning-'a:n
 REFL-to-3sgAnimA-PERF-move.round.obj
 'He/she_i gave it to him/herself_i'
 b. xo-wa-'-ning-'a:n
 3sgR-to-3sgAnimA-PERF-move.round.obj
 'He/she_i gave it to him/her_j/*_i'

4 Behavioral Properties

4.1 Constituent question formation

- It is possible to question any of the arguments in a ditransitive construction.

- (24) a. da:ndi Lindsey xo-wa-'-ning-'a:n hay
who L. 3sgR-to-3sgAnimA-PERF-move.round.obj DET
k'ijiwolch
ball
'Who gave the ball to Lindsey?'
- b. da:ndi xo-wa:-n-e-'a:n hay k'ijiwolch
who 3sgR-to-PERF-1sgA-move.round.obj DET ball
'Who did I give the ball to?'
- c. dite-ne:sin Lindsey xo-wa:-n-e-'a:n
what-COP L. 3sgR-to-PERF-1sgA-move.round.obj
'What was it that I gave to Lindsey?'

4.2 Relative clause formation

- In general, relative clauses are formed with the determiner *hay* (or one of its variants) and a relative enclitic *-i*, which is often not overtly expressed but can condition heavy/light stem alternation. It is possible to relativize on both objects in a ditransitive construction.

- (25) a. yo: iwh-tsis hayorw k'ijiwolch [hay Lindsey
DEM 1sgA-see DET ball DET L.
xo-wa:-n-e-'a:n]
3sgR.to.PERF.1sgA.move.round.obj
'I see the ball [that I gave to Lindsey]'
- b. yo: xo-wh-tsis hay ∅ [k'ijiwolch
DEM 3sgO-1sgA-see DET (one) ball
xo-wa:-n-e-'a:n]
3sgR.to.PERF.1sgA.move.round.obj
'I see the person [that I gave the ball to]'

4.3 Passive

- Passives in Hupa are derived impersonal (not inflected for subject), neuter (not inflected for aspect-mode) themes. The passive theme is marked by thematic prefix *wi-* in slot 3, and sometimes by a changed classifier (Golla 1970: 206).
- The passive construction is available for both free postpositional phrase (26a) and ditransitive (26b) constructions.

- (26) a. mije'e:ɗin ni-ch'ing xo-wi-l-te:n
 child 2sgR-to 3sgT-PSV-CLS-handle.living.object
 'The child was handed to you'
- b. mije'e:ɗin ni-waɾ-xo-wi-l-te:n
 child 2sgR-to-3sgT-PSV-CLS-handle.living.object
 'The child was handed to you'

- Although the dominant reading is passivization on T, the use of an emphatic independent personal pronoun can yield a reading of passivization on R.

- (27) **ning** mije'e:ɗin ni-ch'ing xo-wi-l-te:n
2sg child 2sgR-to 3sgT-PSV-CLS-handle.living.object
 'You were handed the child'

5 Analysis

→ What is the status of R?

1. Evidence for core status: R markers are applicative
 - They only appear inside the verb word (recall §2). They do not head a syntactically separate phrase (unlike *xoch'ing*, e.g.).
 - They interact semantically with the stem ('bring to' vs. 'give to').
2. Evidence for oblique status: Diachronic source of R markers as postpositions
 - Recipient markers are "prefixes consisting of single elements (sometimes locatives in form, with object markers) and perhaps representing fossilized adverbial prefixes (Golla 1970: 136).
 - Mithun discusses postpositions as a historical source of applicatives, specifically with reference to Athabaskan (Mithun 1999: 247–248). She refers to Young & Morgan (1992: 922), who state that out of the 75 Navajo postpositions listed, 17 now occur exclusively as verbal prefixes. Comparison with Eyak indicates that they originated as independent adverbial elements.
 - Craig and Hale give evidence for the development of applicatives (which they call "relational preverbs") from postpositions in other languages of the Americas (Craig & Hale 1988). This occurs most frequently in SOV languages.
 - Applicatives that are postpositional in origin retain their argument structure (Garrett 1990). If this is the case here, then R is an argument of the R marker, not of the verb.

3. Core vs. oblique

- Summary of morphosyntactic phenomena

	Same	Privileged T	Privileged R
Relativization	X		
CQ Formation	X		
Passive		X	
Reflexive			X

- Affectedness. Recall the case of ‘give’ vs. ‘bring’, where the use of the incorporated recipient construction (example (9), repeated here as (28b)) entails a transfer of ownership to the recipient.

- (28) a. 'a:k'iwilaw Lindsey xo-ch'ing n-e-'a:n
 book L. 3sgR-to PERF-1sgA-move.round.obj
 ‘I brought a book to Lindsey’
- b. 'a:k'iwilaw Lindsey xo-wa:-n-e-'a:n
 book L. 3sgR-to-PERF-1sgA-move.round.obj
 ‘I gave Lindsey a book’

- Relative salience of R. Incorporated recipient constructions can be used when the R argument is particularly salient. This is reflected in the interpretation of the following pair of examples. *mi-* usually signifies an inanimate object. But in (29b), *mi-* is interpreted as being of reduced animacy, but still animate.

- (29) a. mi-ch'ing n-e-'a:n
 3sgInanO-to PERF-1sgA-move.round.obj
 ‘I brought it to it’
- b. mi-de-n-e-'a:n
 3sgInanR-past-PERF-1sgA-move.round.obj
 ‘I brought it up to him/her (child, elder, animal)’

- Although the morphosyntactic evidence is inconclusive, a tighter syntactic relationship between the verb stem and the bound R+marker complex (versus its free postpositional counterpart) would provide a natural explanation for the tightness of the semantic relationship between the verb and incorporated recipients, and for the tendency of incorporated recipients to be more prominent and more affected than their free postpositional phrase counterparts. Furthermore, position 11 elements are known to have a derivational relationship with the verb stem (Golla 1970: 120).

Absent any evidence to the contrary, I therefore assume that recipient markers in Hupa are applicatives that promote their complements to core argument status with respect to the VP.

References

- CRAIG, COLETTE, & KEN HALE. 1988. Relational Preverbs in Some Languages of the Americas: Typological and Historical Perspectives. *Language* 64.312–344.
- GARRETT, ANDREW. 1990. Applicatives and Preposition Incorporation. In *Grammatical Relations: A Cross-Theoretical Perspective*, ed. by Katarzyna Dziwirek, Patrick Farrell and Errapel Mejías-Bikandi, 183–198. CSLI.
- GOLLA, VICTOR, 1970. *Hupa Grammar*. University of California, Berkeley dissertation.
- (ed.) 1984. *Hupa Stories, Anecdotes, and Conversations*. Hoopa Valley Tribal Council.
- (ed.) 1996. *Hupa Language Dictionary*. Hoopa Valley Tribal Council, second edition.
- , 2006. California Indian Languages: A Research Guide. Manuscript.
- MALCHUKOV, ANDREJ, MARTIN HASPELMATH, & BERNARD COMRIE, 2007. Ditransitive constructions: a typological overview. Draft of position paper for the Conference on Ditransitive Constructions, MPI-Leipzig, November 23-25, 2007.
- MARGETTS, ANNA, & PETER K. AUSTIN. 2007. Three participant events in the languages of the world: towards a cross-linguistic typology. *Linguistics* 45.393–451.
- MITHUN, MARIANNE. 1999. *The Languages of Native North America*. Cambridge University Press.
- RICE, KEREN (ed.) 1989. *A Grammar of Slave*. Mouton Grammar Library. Mouton de Gruyter.
- , & LESLIE SAXON. 2005. Comparative Athapaskan Syntax: Arguments and Projections. In *The Oxford Handbook of Comparative Syntax*, ed. by Guglielmo Cinque & Richard S. Kayne, 698–774. Oxford University Press.
- SAPIR, EDWARD, & VICTOR GOLLA. 2001. Hupa texts, with notes and lexicon. In *The Collected Works of Edward Sapir*, ed. by Victor Golla & Sean O’Neill, volume XIV, 19–1011. Mouton de Gruyter.
- THOMPSON, CHAD L. 1989. Pronouns and Voice in Koyukon Athapaskan: A Text-Based Study. *International Journal of American Linguistics* 55.1–24.
- YOUNG, ROBERT, & WILLIAM MORGAN WITH SALLY MIDGETTE. 1989. *Analytical Lexicon of Navajo*. Mouton Grammar Library. Mouton de Gruyter.