

## Some lexical properties of Colville-Okanagan ditransitives

Nancy Mattina  
Simon Fraser University

0. INTRODUCTION. Ditransitive syntagms analogous to the English construction 'I gave Mary a book' appear to be a pan-Salishan phenomenon. In the Interior, ditransitivity is identified with verb stems containing proto-Salish \*-xi or \*-t, followed by \*-t 'transitive'.<sup>1</sup> All four southern languages have both \*-xi and \*-t, but \*-t has been lost in the northern languages (Thompson and Thompson 1980). Both types of ditransitive constructions reference three participants which are expressed as nominals in the surface structure. Two nominals are coreferent with subject and object agreement morphemes joined to the verb. The third nominal does not trigger verb agreement. All three nominals may be, and frequently are, pro-dropped. (1) illustrates the non-pro-dropped construction in Colville-Okanagan (Southern Interior (CVOK)) which has both ditransitive markers.<sup>2</sup> (/kəwáp/ 'horse' is the bound alternant of /snktč'a'sqáxa?/ 'horse' with possessive pronouns.)

- (1) Mary 'ac-xí-t-s i? t snktč'a'sqáxa? i? ttw'it.  
       tie-x(i)-t-3Erg art cp horse art boy  
       Mary tied the horse for the boy.
- Mary 'ac-t-t-s i? ttw'it i? kəwáp-s.  
       tie-t-t-3Erg art boy art horse-3Gen  
       Mary tied the boy's<sub>i</sub> horse for him<sub>i</sub>.

In all the Interior (IS) languages, the goal-type nominal in ditransitives controls object agreement on

<sup>1</sup>Other morphemes have been labeled 'ditransitivizer' in the descriptive literature, but \*-xi and \*-t are by far the best exemplified in all sources. Columbian, Coeur d'Alene and Colville-Okanagan have at least one other ditransitive marker /-tút(t)/ which, because of its rarity in the Colville-Okanagan corpus, I have not included here. This paper makes no claim that \*-xi and \*-t are the only morphemes associated with ditransitive marking in the Interior, just that they are the most common ones.

<sup>2</sup>Thompson and Thompson 1990:71 report apparent ditransitive verbs like //√n'a-t// 'give someone something to eat or drink' which lack the -xi morpheme. Syntactic testing of clauses with such verbs may show that they are not true ditransitives, but I do not take up this issue here (cf. footnote 17 and CVOK data in (30) and (31)).

<sup>3</sup>I am grateful to Jane Stelkia, Osoyoos Band, Oliver, B.C., for much of the data presented here. Other CVOK data is taken from Mattina, 1973, 1982, 1985, 1987 and his recent unpublished field notes, for which I am also indebted. The latter sources are referenced in the text as follows: *Colville Grammatical Structure* (CGS); *The Colville-Okanagan transitive system* (COTS); *The Golden Woman* (GW); *Colville-Okanagan Dictionary* (COD); unpublished field notes (AM). The interlinear glosses provided here are my own. Abbreviations are: **art**, article; **cp**, case proclitic; **Erg**, ergative (subject of transitive); **Acc**, accusative (object of transitive); **Abs**, absolutive (subject of intransitive); **Gen**, genitive; **irr**, irrealis; **imp**, imperative; **asp**, aspect; **pt**, particle; **dc**, deictic; **pp**, preposition; **dir**, directional; **rel**, relative pronoun.

the verb, an agreement pattern commonly referred to as applicative agreement.<sup>4</sup>

Despite these common features, ditransitives in the Interior differ from one another in two areas. First, the range of thematic roles associated with the three referents vary by language, as seen in papers directly addressing IS ditransitives (Carlson 1980, Mattina 1982, Thompson and Thompson 1980, Kinkade 1980). Non-subjects are referred to in the literature with thematic role labels such as benefactee, malefactee, recipient, primary/secondary goal, substitute, and patient. These roles are said to be related to notions of affectedness, focus, relatedness, emphasis, and/or interest.<sup>5</sup> The second way in which IS ditransitive constructions differ from one another obtains in the syntactic packaging of the ditransitive clause. Nominals are described as filling syntactic functions as subject, primary/secondary object, indirect object, oblique/direct complement and/or adjunct. These functions are indicated with respect to agreement, case-marking clitics, prepositions, or word order constraints.<sup>6</sup>

Even factoring in the notational preferences of individual analysts, the differences between ditransitive constructions in the Interior are real and intriguing, and invite comparative study. For comparative purposes, it will be necessary to flesh out, in independently defined terms, what ditransitivity implies semantically and syntactically in these languages. Since some languages have more than one ditransitive type, the differences between these types need to be carefully distinguished before proceeding to intra-family comparisons. I propose to formulate the contrast between \*-xi and \*-t type ditransitivizers in Colville-Okanagan as a small step toward a comparative syntax of IS ditransitivity. This formulation does not exhaust the possible tests and counterhypotheses that might be brought to bear on it, but is offered as a working hypothesis that organizes the data for comparative purposes. Specifically, I limit myself here to a description of the prototypical lexical entry of each CVOK ditransitive types. Because the description of the syntactic coding of semantic structure requires a review of the syntactic habits of a language as a whole, the second half of the story--how the lexical information maps to the surface syntax--is outside the scope of this paper. Where evidence from the morphosyntactic domain is employed here, I am forced to assert rather than fully demonstrate its value. I hope the reader will bear with me for the sake of discussion.

In the sections to follow, I state several theoretical assumptions I hold concerning the role of argument structure in the lexical entry, a representation I consider useful for the description of CVOK ditransitives. In 2. I describe the relevance of argument structure to a general statement on transitivity and agreement in CVOK. In 3. I compare and contrast \*-xi and \*-t in CVOK and demonstrate that the sets of thematic roles required to describe these predicate types are not contrastive. I argue in 4. that the ditransitive types are distinct in two ways, each a part of their lexical entries. I conclude in 5.

<sup>4</sup>Applicative agreement patterns have spawned a substantial literature which provides syntactic explanations of this phenomenon, often referred to as dative shift, 3-to-2 advancement, or double object constructions. Baker 1988, Dryer 1988 and Larson 1988 survey the recent literature on this construction type, each from a distinct theoretical perspective. None of the three seriously considers the role lexical semantics might play in applicative agreement, but see Jackendoff 1990 for a different view.

<sup>5</sup>Given the importance of person and gender hierarchies in other branches of the Salish family, it is likely that some hierarchical constraints interact with thematic restrictions as well.

<sup>6</sup>Hebert's 1982 dissertation on Nicola Valley Okanagan is the only generative account of ditransitivity in IS that I am aware of. The framework she adopts is Relational Grammar, which employs a terminology somewhat distinct from that in the descriptive literature on IS ditransitives. Those readers familiar with Relational Grammar can deduce some of what Hebert's analysis of -xt and -t might be, but I must refer others to Hebert 1982 for an analysis that differs from the one to follow.

(3) morphosyntactic presentation  
grammatical relations  
a-structure  
lcs

A-structure and lcs impose well-formedness conditions on semantic structure, while a subcategorization frame, the third element of a lexical entry, checks syntactic structures (Grimshaw 1979, Rothstein 1992).

1.1. A variety of notational conventions have been proposed in the theory of argument structure and these are surveyed in Grimshaw 1990. The elements or nodes of a structure I call **arguments**, which I will distinguish from their surface counterparts by calling the latter **licensed nominals**. Arguments represent obligatory elements of the lcs; non-obligatory elements such as complements of location or duration are not represented in a structure. Licensed nominals, as syntactic reflexes of a structure, are obligatory, but may be pro-dropped. The participants expressed in lcs are called **variables**. Predicates, also known as lcs **functions**, select the thematic roles that variables may express. Thematic role labels are not expressed at a structure and may be understood as notational shorthand for the recurrent substructures in which variables occur in lcs. The **theme** is understood to be that participant that undergoes movement (physical or abstract) or change of state. The theme's initial position is its **source**; its final position is **goal**, which includes **recipients** and **benefactees** (Jackendoff 1976). **Agents** cause, initiate or do the lcs function. Because the external argument is predictable from its thematic and aspectual prominence, I do not indicate it by brackets or other typographical means except that it is the first (i.e. highest) in the string of arguments in a structure. Obligatory participants in lcs **link** to a-structure nodes according to the thematic-aspectual hierarchies. A-structure nodes **map** to grammatical relations. A skeleton lexical entry for English *give* appears in (4).

(4) give  
subcat:  
a-structure: x NP NP  
lcs: theme change possession from agent to recipient.

The lexical entry in (4) ignores the fact that *give* has an alternate subcategorization frame in which the nominal bearing the recipient role appears after the preposition 'to' and the order of the nominals is theme-recipient. CVOK does not have this alternate subcategorization frame with ditransitives. Therefore, I will exclude reference to the subcategorization frame of ditransitives until section 4.3 where its relevance first presents itself.

2. Overt transitive morphology has long been a means of classifying verb paradigms in IS. Mattina 1982 identifies four core transitive morphemes in CVOK, -nt and -st (monotransitive), and -x(i)t and -t (ditransitives).<sup>9</sup> Transitive morphemes are added to simple or complex intransitive bases, the latter being those which include a root (plus lexical affix, if any) and one of several intervening morphemes

<sup>9</sup>Synchronically, it is not productive to segment transitive -t from the CVOK transitive morphemes since only one root,  $\sqrt{\text{am}}$  'feed', takes a bare -t in its transitive forms. I follow Mattina in the form of the transitive morphemes used here. Ditransitive -x(i)t has the alternant -xt with strong (i.e. stress retaining) stems, hence the parentheses.

whose functions are not relevant to this discussion. Verb stems lacking transitive morphology inflect with pronominals of the absolutive or genitive sets; verb stems with transitive morphology inflect with pronominals of the ergative and accusative sets. The pronominal sets are charted in Figure 1.

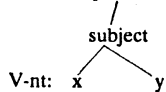
Figure 1. CVOK pronominal system (slightly generalized).<sup>10</sup>

	Transitive		Intransitive	
	Erg	Acc	Abs	Gen
1p	-(i)m/(i)t	k <sup>w</sup> u	k <sup>w</sup> u	-t(ə)t
1s	-(i)n	k <sup>w</sup> u	kn, k <sup>w</sup> u	in-
2p	-(i)p	-t(úl)əm, -(V)m, -s	p	-(ə)mp
2s	-(i)x <sup>w</sup>	-(ú)m, -s	k <sup>w</sup>	an-
3p	-(i)s-(ə)lx	-(ə)lx	-(ə)lx	-c-(ə)lx
3s	-(i)s	∅	∅	-s/-c

An overlap in the transitive-intransitive dichotomy occurs with nominalizations, which have transitive morphology but person-marking from the intransitive (i.e. genitive and/or absolutive) sets. Reflexives and reciprocals also show this overlap.<sup>11</sup> Of the latter Mattina notes that they are 'logically transitive' and 'intransitive only in a gross formal way'.

The apparent mismatch between the transitive semantics and intransitive morphology of these constructions is resolved when we introduce the level of a-structure to our description of the semantic and syntactic facts. I take 'logically transitive' to imply that a predicate has multiple a-structure nodes, as opposed to semantically intransitive predicates which have only one a-structure node. The transitive markers indicate how many a-structure nodes a predicate has: those with two nodes are monotransitive, those with three nodes are ditransitive. Reflexive (**refl**), reciprocal (**recip**) and nominal morphology following the transitive marker encodes how a-structure is mapped to the grammatical relations. If a-structure nodes map to only one grammatical relation, intransitive person-marking is spelled out. (5) illustrates this mapping pattern for a reciprocal sentence.

- (5) ca?-n-wix<sup>w</sup>-lx. 'They hit each other.' CGS  
hit-nt-recip-3Abs.



Crucially, the number of obligatory semantic participants need not equal the number of grammatical relations expressed, nor the number of licensed nominals. Nominalizations containing

<sup>10</sup>Not all of the allomorphy is represented in this chart, which is presented chiefly to facilitate the reading of ensuing examples. One alternation not depicted here but evidenced in following data is loss of the nasal segment of first and second person singular genitive before s, t and /k/- 'irrealis'.

<sup>11</sup>Another clause type, the so-called passive, is so constrained by person and number that the final transitivity of the clause is difficult to determine. It is possible to analyze these clauses as transitive with indefinite ergatives, marked by stem-final /-m/. Where it appears in the interlinear glosses, this /-m/ is abbreviated as **idf**.

ditransitive morphology refer to three participants, just like their verbal counterparts.

- (6) k<sup>w</sup>u a-ks-txt'-ət-t-im in-lakli.  
1sAbs 2sGen-asp-take\_care\_of-t-t-m<sup>12</sup> 1sGen-key  
You will take care of my key. GW

- (7) axá? k<sup>w</sup> i-ks-k'ətpa?x-xi-t-əm.  
dc 2sAbs 1sGen-asp-think-x-t-m  
I'm going to give you something to think about. GW

Reciprocal clauses can also contain more than one nominal.<sup>13</sup>

- (8) k<sup>w</sup>u x<sup>w</sup>ic'-t-wix<sup>w</sup> i? t lasmist-tət.  
1pAbs give-t-recip art cp shirt-1pGen  
We gave each other our shirts. AM

- (9) k<sup>w</sup>u x<sup>w</sup>ic'-xt-wix<sup>w</sup> t lasmist.  
1pAbs give-x(i)t-recip cp shirt  
We gave each other shirts. AM

Conversely, intransitive morphology does not prohibit reference to two participants.

- (10) kn x'lap i? t i-sc-captik<sup>w</sup>t.  
1sAbs stop art cp 1sGen-asp-story  
I stopped my story.

- (11) c-k<sup>w</sup>ni-m i? t sɣəx'c'i?  
dir-take-m art cp stick  
He grabbed a stick.

Morphosyntactic properties of agreement, case-marking and accessibility to wh-extraction identify one nominal per clause in (6)-(11) as a bearing a grammatical relation. The other nominals, even when licensed by the same case proclitic, test to be obligatory ((6), (8) and (9)) or non-obligatory ((10) and (11)), but do not have the morphosyntactic properties controlled by nominals bearing grammatical relations. In short, syntactic transitivity is stated on grammatical relations. Since person-number agreement on the verb is the most obvious indicator that a nominal bears a grammatical relation, we can say that a clause is transitive only if it bears person-markers from the ergative and accusative pronominal sets (i.e. marks two grammatical relations). It is intransitive in the absence of such person-markers. 'Logical transitivity', by contrast, is a reflection of multiple nodes in a predicate's a-structure, encoded overtly by -nt, -st, -x(i)t or -t. In view of this, the morphemes traditionally called 'transitive' or 'transitivizers' define large predicate classes rather than clauses. I will continue to use the

<sup>12</sup>The correct label for -(i)m is unclear, though it follows the ditransitive morpheme in all ditransitives with genitive person-marking. I take it as one of several indicators of nominalization, though it is not found in all forms typically considered to be nominalizations (cf. Mattina (this volume) for additional data and a different hypothesis).

<sup>13</sup>Reflexives do not occur with ditransitive morphology, but like other intransitive clause types, they may co-occur with a nominal licensed by a case proclitic or preposition.

traditional label, with the understanding that the presence of transitive morphemes does not always imply clause transitivity.

Once we maintain, as I do, that transitive morphemes reflect a-structure size, it is a short step to a lexical explanation for applicative agreement in CVOK ditransitives. The thematic hierarchy in (2) predicts that the goal-type or source participant will link to the highest internal argument node under normal circumstances, leaving the last a-structure node to link to the theme. I have found no counterexamples to this linking pattern among the ditransitives formed on simple bases (cf. footnote 7). Since the two highest argument nodes map to subject and object relations, which are represented morphosyntactically by agreement on the verb, applicative agreement is regular verbal agreement of the grammatical object. This may be schematized as follows:

k <sup>w</sup> u	x <sup>w</sup> ic'-xt-s	t	sqlaw'.
1sAcc	give-xt-3sErg	cp	money
He gave me some money.			
Morphosyntactic rep.	Erg	Acc	cp + nominal
GRs	subj	obj	
a-structure	x	y	z
lcs	agent	goal	theme

Therefore applicative agreement is not needed as a separate grammatical rule in CVOK, but follows from the principles of a-structure organization.

3. Neither a-structure size nor agreement phenomena distinguish \*-xi from \*-t predicate types in languages like CVOK which have both. The difference between the two morphemes is sometimes taken to be semantic (cf. Hebert 1982 for Nicola Valley Okanagan, and Carlson 1980 for Spokane; Mattina 1982 and Kinkade 1980 are more circumspect in their semantic descriptions). Impressionistically, \*-xi predicates are associated with benefactive semantics. The \*-t, less amenable to categorization, has gone by the label 'indirective' (following the Thompsons' suggestion of this label for Thompson ditransitives) or 'redirective' (Kinkade 1980). The CVOK data to follow illustrate the difficulties in establishing contrastive semantic labels. I begin to explore possible definitional contrasts by describing the general properties of each predicate type.

3.1. -x(i)t predicates. Many -x(i)t predicates have an lcs variable that expresses goal-type participants, benefactee or recipient. Unlike Spokane /-ši/ (Carlson 1980), CVOK -x(i)t does not regularly imply a substitutive relationship between the external argument and the highest internal argument.

- (12) k<sup>w</sup>u<sup>l</sup>-xt-θ-n      Mary t      p'ina?  
 make-x(i)t-3Acc-1Erg      cp      basket  
 I made Mary a basket (\*in her stead).
- k<sup>w</sup>u      q<sup>w</sup>əfiw-xt      i?      t      siya?<sup>14</sup>  
 1sAcc      pick-x(i)t      art      cp      sarviceberries  
 Pick berries for me (to eat)(\*in my stead).

<sup>14</sup>Transitive stems which lack ergative suffixes have imperative force (cf. Mattina 1980).

x<sup>w</sup>ic'-əxt-θ-s      i?      sq<sup>w</sup>si?-s      t      k-sqlaw'-s.  
 give-x(i)t-3Acc-3sErg      art      son-3sGen      cp      asp-money-3sGen  
 He gave his son, his, money. COTS

k<sup>w</sup>u      q<sup>w</sup>əq<sup>w</sup>il-xt-s.  
 1sAcc      speak-x(i)t-3sErg  
 He talked for me (in my stead).

k<sup>w</sup>u      q'əy'sqáxa?-xt-s.  
 1sAcc      brand-x(i)t-3sErg  
 He branded for me (in my stead).

k<sup>w</sup>u<sup>l</sup>-xt-θ-n      Mary t      kt-ənk'n'cintn-s.  
 make-x(i)t-3Acc-1sErg      cp      asp-poison-3Gen  
 I made a poison for Mary (i.e. 'something to poison Mary').

The possibility of a substitutive or delegative reading for some verb bases is likely to delimit a semantic parameter which defines a subclass of -x(i)t predicates.

Goal-type referents are typically human, and, to my knowledge always animate. Inanimate goals are treated as locatives and appear in a prepositional phrase with an intransitive or monotransitive predicate.

- (13) kn      k<sup>w</sup>u<sup>l</sup>cən-(n)-cút      i?      k'əl      k-s'itn-tət.  
 1sAbs      cook-nt-refl      art      pp      asp-feast-1pGen  
 I cooked for our feast.
- (14) ixí?      ya'yát ac-tumístm-st-θ-səlx      i?      k'əl      paekənháws.  
 dc      all      asp-sell-st-3Acc-3pErg      art      pp      packinghouse  
 They used to sell everything to the packinghouse. AM

The benefactive feel of -x(i)t predicates obtains even when a theme variable is semantically anomalous. Such constructions are judged ungrammatical, but they may be interpreted as 'do X as a favor to me'.

- (15)?? k<sup>w</sup>u sk<sup>w</sup>af-xt-x<sup>w</sup>.  
 ☹Sweat for me (\*in my stead).
- ha k<sup>w</sup>u      a-ks-?it(x)-xt-əm?  
 ??Did you sleep for me (\*in my stead)?

However, there are some verb bases that do not take -x(i)t even though a theme variable is fine with the English equivalent.

- (16) \*k<sup>w</sup>u cú-xt-x<sup>w</sup>.  
 Tell something for me.
- \*k<sup>w</sup>u ?it-xt-x<sup>w</sup>.  
 Eat something for me.

As these verb bases have monotransitive and *-t* counterparts which clearly express a theme, it appears that there is no lexical entry /cu + *-x(i)t*/ or /ʔiʔ(n) + *-x(i)t*/. This is expected if *-x(i)t* marks a class of predicates rather than a syntactic rule.<sup>15</sup>

As the preceding examples show, *-x(i)t* themes are typically inanimate, but this is not necessarily the case.

- (17) k<sup>w</sup>u c-xlit-xt-x<sup>w</sup> iʔ səx<sup>w</sup>lkám.  
1sAcc asp-call-*x(i)t*-2sErg art policeman  
Call a policeman for me. AM

In (18) I posit a prototypical lexical entry for *-x(i)t* predicates, where V stands for the function defined by the verb base and *-x(i)t* indicates that the function involves three obligatory participants. The mapping of lcs to a-structure proceeds according to the thematic hierarchy in (2).

- (18) V-*x(i)t*  
a-structure: x y z

lcs: agent benefactee theme  
recipient  
(substitutee)

3.2. *-t* predicates. This predicate type is much more common in the corpus than *-x(i)t* forms. The following data illustrate the type with goal-type roles.

- (19) t-x<sup>w</sup>ic'-ətt-s-ən an-laklí  
dir-give-*t*-2sAcc-1sErg 2sGen-key  
I gave you back your key. GW
- k<sup>w</sup>úf'-ətt-p axáʔ iʔ kəwʔáp-s.  
fix-*t*-2pErg dc art horse(pl)-3Gen  
You all fix their horses. COD
- cú-*t*-x<sup>w</sup>-əlx iʔ a-syaʔpcín.  
tell-*t*-2sErg-3pAcc art 2sGen-troubles  
You tell them your troubles. COD

The highest internal argument is source with other predicates, hence a malefactive or ethical dative reading with some predicates.

<sup>15</sup>Carlson notes that in Spokane *-ši* 'benefactive/substitutive' is not acceptable with a stem like /ʔenəwe/ 'feel/sense', but that *-t* with these stems is good. CVOK has similar constraints on what appear to be experiencer verbs. It is likely that the experiencer role is not compatible with benefactive/substitutive/dative semantics, and the absence of *-xt* predicates with some verb bases is just the kind of lexical gap one might expect. The syntactic rule of dative shift, given the acceptability of these verb bases with *-t*, is too rigid to capture this phenomenon.

- (20) lut k<sup>w</sup>u p'áʔx-*t*-ik<sup>w</sup> axaʔ in-lpút.  
neg 1sAcc break-*t*-imp dc 1sGen-cup  
Don't break my cup.
- (21) k<sup>w</sup>u naq<sup>w</sup>m-*t*-x<sup>w</sup> i-sqəltmíx<sup>w</sup>  
1sAcc steal-*t*-2sErg 1sGen-man  
You stole my man.
- (22) k<sup>w</sup>u ʔi(ʔ)-*t*-s.  
1sAcc eat-*t*-3Erg  
He ate it up on me.
- (23) k<sup>w</sup>u k<sup>w</sup>i-*t* in-kílX.  
1sAcc take-*t* 1sGen-hand  
Take my hand.

I have been unable to elicit an *-t* construction with inanimate recipient/source type participant.<sup>16</sup> As with *-x(i)t* predicates, the theme may be animate, as (21) shows. In (24) I posit a prototypical lexical entry for *-t* predicates (notation as above).

- (24) V *-t*  
a-structure: x y z  
lcs: agent benefactee theme  
recipient  
source

3.3. As the proto-entries for *-x(i)t* and *-t* in (18) and (24), respectively, suggest, the problem with contrastive semantic labels for *-x(i)t* and *-t* predicate types is that no single thematic role distinguishes them regularly, even when the verb bases are identical. According to the usual means of assigning semantic roles, benefactive is equally appropriate for some *-t* predicate as for *-x(i)t* predicates.

- (25) t'ex<sup>w</sup> captík<sup>w</sup>(l)-*t*-s-ən.  
pt storytell-*t*-2sAcc-1sErg  
I'll tell you a story. GW
- (26) xmk-s i-ks-captík<sup>w</sup>l-*t*-əm.  
desire-3Abs 1sGen-asp-storytell-*x(i)t*-m  
He wants me to tell him a story. GW

An lcs variable expressing 'recipient' is not the defining character of *-x(i)t* predicates either. *-t* predicates may reference a recipient variable, as in (27).

<sup>16</sup>However I have not ruled out the possibility of an inanimate recipient/source with *-t* predicates, since inanimates may be both agents and possessors. The relevance of this will be seen in section 4.

- (27) k'ətx'ic'-t-t-0-n Mary.  
send-t-3sAcc-1sErg  
I sent something to Mary.
- (28) k'u k'ətx'ic'-xt t sɬlaw'.  
1sAcc send-x(i)t cp money  
Send me some money.

-t predicates may also reference a substitute.

- (29) k'u ks-kətpaʔx-t-t-ɪp.  
1sAcc asp-think-t-2pErg  
You all figure it out for me. COD

Some monotransitive predicates have benefactee and recipients in their lcs as well.<sup>17</sup>

- (30) ɪxiʔ mi ʔam-t-0-ix' iʔ t sɬiq'.  
dc fut feed-t-3sAcc-2sErg art cp meat  
You will feed him meat.
- (31) k'u nɬ'iks-ənt-əm iʔ t sənʔsɪpnaʔ.  
1pAcc hand\_out-nt-idf art cp cigars  
Someone will hand us cigars. GW

Thus the labels 'benefactive' or 'indirective' only weakly define the -x(i)t type against other verb types. The closest we can come to a semantic distinction between -x(i)t and -t predicates is with the thematic role 'source'. I have not found, nor been able to elicit an -x(i)t predicate which encodes a source role for an internal argument.<sup>18</sup> As promising as this appears, it does not explain why some -t predicates take a source role, but others do not. Since a-structure does not explicitly state thematic roles, the answer must lie in the lexical definition itself. It is to this hypothesis that I now turn.

4. The themes of -t predicates typically surface as possessed nominals, and this morphosyntactic presentation may be taken as a clue to the lexical semantics of the predicate. Possession of the theme appears to be an overriding concern of -t predicates. According to Jackendoff 1976, possession is a mode of the function named by a given verb which specifies claims about whose the theme is (Jackendoff 1976:102). English possessional predicates indicate either change of possession (*give*) or state of possession (*own, keep*). CVOK -t predicates appear to group according to whether the first internal argument is goal-like or source. Verbs in the first group include those that are relatively benefactive or neutral with respect to actual movement of the theme. Any lcs participant may possess the theme.

<sup>17</sup>The theme nominal in these constructions is not an obligatory lcs participant, as shown by several syntactic and semantic tests, hence the monotransitive predicate type.

<sup>18</sup>Gerdts 1988:124 reports forms in Halkomelem Salish such as /ni ʔey?k'-mé?-t-əs k'ʔə sqwəméy?/ 'He was startled at the dog'. These forms do not take the morpheme cognate with IS -xi, but a distinct transitivizer (cf. footnote 7).

- (32) iʔ tkɬmilx' kiʔ liʔ'-t-əm iʔ syriwáxən-s.  
art woman rel put\_on-t-idf art snowshoes-3sGen  
The woman put his/her snowshoes on him.
- (33) ks-m'ayáʔ-t-s-t iʔ sckəʔpáʔx-tət.  
asp-tell-t-2sAcc-1pErg art thoughts-1pGen  
We will tell you our thoughts. GW
- (34) ənc'iw'-t-m-əlx ənʔiʔəntən-səlx.  
dishwash-t-idf-3Abs dishes-3pGen  
Someone washed their dishes. GW  
(i.e. s.o. owns the dishes but others used them)
- (35) k'ənkəh'k'ip-t-əm.  
open\_door-t-idf  
He<sub>1</sub> opened his<sub>1/2</sub> door for him<sub>2/3</sub>.

(36) illustrates how even an lcs participant that does not link to a-structure (i.e. a non-obligatory participant) can control possessive agreement with these verbs.

- (36) nʔiy-t-s-n Fred iʔ p'úyxən-s.  
buy-t-2sAcc-1sErg art car-3sGen  
I bought you Fred's car.

That the nominal represented by *Fred* in (36) is not linked to a-structure is evidenced by the fact that it can appear only when it is overtly referenced on the theme nominal.

- (37) \*nʔiy-t-s-n Fred an-p'úyxən.  
(buy-t-2sAcc-1sErg Fred 2sGen-car)  
I bought your car from Fred.
- (38) \*nʔiy-t-s-n Fred iʔ p'úyxən  
\*I bought you Fred car.

That is, *Fred* is licensed by the theme nominal as a possessive modifier, but it is not licensed by the a-structure of the predicate. Referents linked to a-structure may appear without possessive morphology on the theme.

- (39) k'u ʔáw'm-t-x' yaʔ ʔacsqáxaʔtn.  
1sAcc let\_loose-t-2sErg art reins  
Let loose my reins. COD
- (40) k-tuʔx'ú(s)-t-0-s iʔ sk'aʔcínəm.  
asp-sew-t-3Acc-3sErg art deer  
He had stitched up his deer. COD

Verb bases which select the source role, however, more tightly specify who may be the possessor. As in (21), repeated here as (41), the source must be the possessor of the theme.

- (41) k<sup>w</sup>u naq<sup>w</sup>m-4t-x<sup>w</sup> i-sqəltmíx<sup>w</sup>  
 1sAcc steal-4t-2sErg 1sGen-man  
 You stole my man.
- (42) \*k<sup>w</sup>u naq<sup>w</sup>m-4t-x<sup>w</sup> a-sqəltmíx<sup>w</sup>/sqəltmíx<sup>w</sup>-s.  
 You stole from me your man/her man.
- (43) \*k<sup>w</sup>u p'a?x-4t-x<sup>w</sup> Fred lpút-s.  
 You broke Fred's cup on me.

Although it is possible to break or steal something *for* someone, using -x(i)t morphology, the source role is selected by verb bases that express loss or surrender of possession by the goal-type participant. As -x(i)t and -4t pairs with these stems show, a claim about the loss of possession by the goal is not inherent to the verb base. Therefore it must be a property of some semantic marker on the lexical definition as a whole. These verbs are found most frequently with the -4t ditransitive marker because they provide the expected context for claims about losses: the possessional mode. Tentatively, we can state the contrast between -x(i)t and -4t predicates in terms of the restrictive modifier POSS (for possessional mode) obtaining in the lexical definition. -4t indicates that the lexical definition of the predicate containing it includes the semantic marker POSS. As I will demonstrate below in 4.1., -x(i)t predicate definitions have no such semantic modifier. It is possible that -x(i)t predicate definitions may be subgrouped into those which include a benefactive or delegative reading from those which do not. The morpheme -x(i)t however, indicates a class of predicates that are generically 'dative' or 'indirective' compared to the more specialized definition of -4t predicates.

4.1. To say that -x(i)t predicates are generic datives and that -4t predicates are 'possessional' is not to say that genitive morphology is excluded from -x(i)t constructions. Genitive person-marking appears on the -x(i)t and -4t theme whenever the theme has unrealized or irrealis (irr) aspect, marked by /k/- (k4- --> k/\_s and 4).

- (44) x<sup>w</sup>ic'-əxt-0-x<sup>w</sup> i? t k-sqlaw'-s.  
 give-x(i)t-3sAcc-2sErg art cp irr-money-3sGen  
 You give him what will be his money.
- (45) k<sup>w</sup>úf'-əxt-0-x<sup>w</sup> i? t k4-citx<sup>w</sup>-s.  
 make-x(i)t-3sAcc-2sErg art cp irr-house-3sGen  
 You make for him what will be his house.
- (46) k<sup>w</sup>u c-x<sup>w</sup>ic'-4t i-k4-lkalát.  
 1sAcc asp-give-4t 1sGen-irr-bread  
 Give me what will be my bread. AM

However, without the unrealized aspect marker, the -x(i)t theme nominal may not take genitive person-marking.

- (47) \*k<sup>w</sup>u ʔac-xít-x<sup>w</sup> in-kəwáp  
 You tied my horse for me.

- (48) k<sup>w</sup>u ʔac-xít-x<sup>w</sup> i? t snk4c'a?sqáxa?  
 1sAcc tie-x(i)t-2sErg art cp horse  
 You tied a horse for me.

The -4t theme is not so constrained.

- (49) k<sup>w</sup>u ʔac-4t-ix<sup>w</sup> in-kəwáp.  
 1sAcc tie-4t-2sErg 1sGen-horse  
 You tied my horse for me.
- (50) k<sup>w</sup>u ʔac-4t-ix<sup>w</sup> i? snk4c'a?sqáxa?  
 1sAcc tie-4t-2sErg art horse  
 You tied me the horse.

One view of these data is that -x(i)t predicates do in fact make claims of possession, contrary to my analysis. The better approach, I think, is to identify the presence of the aspectual marker as the pivotal datum. Under this view the presence of genitive morphology with -x(i)t predicates follows not from the presence of the semantic marker POSS in the lexical entry, but from the fact that themes may be of two syntactic types. Grimshaw 1990 develops a typology of nominals which distinguishes between nominals with event structure and those without it. Nominals with event structure license aspectual markers, while those without it, including so-called process nouns, do not. Further, nominals with event structure obligatorily take arguments. Compare the following English examples (from Grimshaw 1990:50).

- (51) The assignment is to be avoided.  
 \*The constant assignment is to be avoided.  
 The constant assignment of unsolvable problems is to be avoided.  
 \*We constantly assign.

The nominal *assignment* may be either an event or a result (= non-event) nominal. When it has event structure, as indicated by the aspectual modifier *constant*, it obligatorily takes an object argument, like its verbal counterpart. Possessors of event nominals also appear obligatorily, in contrast to possessors of result nominals.

- (52) His/The assignment is to be avoided.  
 His/\*The assigning unsolvable problems is annoying.

Grimshaw argues that event nominals and verbs share the property of having a-structure: the obligatory expression of arguments as a concomitant of overt aspectual markers is a core test for a-structure. This same test applied to CVOK nominals distinguishes the possessed -x(i)t theme nominal from its unpossessable, aspectless counterpart. Genitive morphology is obligatory with /k4-/, prohibited without /k4-/.

- (53) i-k4-p'úyxən/\*k4-p'úyxən  
 1sGen-irr-car/irr-car  
 my car-to-be/car-to-be
- (54) \*x<sup>w</sup>ic'-əxt-x<sup>w</sup> i? t k-sqlaw'.  
 You give him what will be the money.

Nominals that are not -x(i)t themes and are aspectless take genitive morphology optionally.

- (55) iʔ in-p'úyxən/ iʔ p'úyxən  
 art 1sGen-car/ art car
- (56) kʷu k'aʔ-t-ís axáʔ iʔ skəkʷákaʔ.  
 1sAcc look for -t-3sErg dc art bird  
 He looked for the (i.e. someone's) birds for me. GW

That is, genitive morphology is obligatory when the genitive pronouns serve argument functions rather than possessive modifier function. As in English, CVOK uses a single pronoun set to indicate possessor-modifiers and the arguments of nominals. Therefore, when -x(i)t predicates have themes with argument structure, they will look like just like the possessed themes of -t predicates. As the event/result typology predicts, a theme nominal of a ditransitive cannot take both a possessive modifier and aspectual marking, as (57-59) show.

- (57) \*nʔiy-t-s-n Fred iʔ k-t-p'úyxən-s.  
 I bought you what will be Fred's car.
- (58) \*xʷic'-t-s-n John iʔ k-st'íkəl-s.  
 (give-t-2sAcc-1sErg art irr-grub-3sGen)  
 I gave you what will be John's food.
- (59) \*xʷic'-xt-m-n John iʔ k-st'íkəl-s.  
 I gave you what will be John's food.

A nominal cannot be an event nominal and a result nominal simultaneously.

The morphological overlap in the person-marking of ditransitive theme nominals is an effect of the double function of genitive pronouns, evidenced by aspectual contrasts. I conclude that genitive person-marking in unrealized nominals does not reflect the presence of the restrictive modifier POSS in the -x(i)t predicate lexical definition, but is a consequence of the argument structure and morphosyntax of nominals in CVOK. In fact, data from aspectless -x(i)t theme nominals supports my contention that -x(i)t *cannot* specify claims about whose the theme is. Only -t predicates perform this function. The preponderance of -t predicates in the corpus is due to the great number of themes that are grammatically possessable.<sup>19</sup>

4.2. The division of nominals into (at least two) types has ramifications for the argument structure I have posited for -t predicates. Given the applicative agreement pattern and the semantic prominence of possession in the meaning of -t predicates, it might be argued that possessed nominals are small clauses from which the possessor is 'raised' to bear a grammatical relation in the matrix clause (Allen et al. 1990, Baker 1988). The possessor ascension analysis would decompose the three arguments I posit in a single a-structure, into two a-structures, one with two arguments and the second with just one

<sup>19</sup>Perhaps the verb bases that do not occur with -t define the inalienables of CVOK nominals. Verb bases like /kʷáʔ/ 'sweat' and /ʔitx/ 'sleep' do not have -t forms presumably because claims of possession are anomalous with sweat or sleep. Ms. Stelkia felt these types of constructions were completely bad, compared to the interpretability of parallel forms with -xt (see examples in (14)).

argument, as in (60).

- (60) subj obj poss  
 kʷin 'take': x y + p'úyxən 'car': x

Assuming this biclausal structure, the -t would register the raising of the possessor argument into the matrix clause. In addition to several analytic weaknesses discussed in Rosen 1990, the problem with the possessor ascension analysis for CVOK is that all nominals are created equal. It does not explain for example, why the argument of the nominal clause is optional when aspectless but obligatory in the unrealized aspect, or why arguments in the matrix clause are obligatory while in the nominal clause they are not. Nor does it explain why certain possessors--i.e. those not coreferent with either agent or goal--may not appear in the nominal clause with unrealized aspect (cf.57-59). The possessor ascension analysis for -t also means that another explanation would have to be developed to account for the limits on genitive morphology on -x(i)t theme nominals. Finally, it forces a syntactic solution which ignores the common lexical properties of ditransitives I have illustrated thus far. The possessor ascension analysis as I have sketched it complicates the description of CVOK ditransitives in the syntactic and semantic components. The event/result typology of nominals predicts the interrelation of nominal aspect and person-marking, independently of the lexical properties of ditransitive predicates, providing a simpler grammar of ditransitivity than the possessor ascension account.

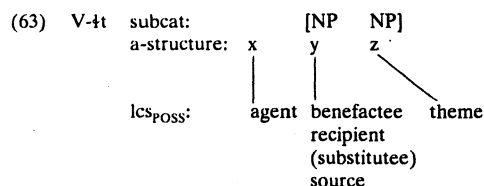
4.3. The semantic contrast between -x(i)t and -t predicate types as I have described it is manifest in the surface morphosyntax seen in (1), repeated here as (61). With -x(i)t predicates, the theme nominal follows the proclitic t. The theme nominal with the -t predicates is plain, meaning it does not take t.

- (61) Mary ʔac-xit-s iʔ t snkʷc'aʔsqáxaʔ iʔ ttw'it.  
 tie-x(i)t-3Erg art cp horse art boy  
 Mary tied the horse for the boy.
- Mary ʔac-t-s iʔ ttw'it iʔ kəwáp-s.  
 tie-t-3Erg art boy art horse-3Gen  
 Mary tied the boy his horse.

These two case patterns reflect the semantic differences between -x(i)t and -t predicate types as I have described them. As syntactic differences, however, the case pattern follows from the only element of the lexical entry which checks syntactic structures: the subcategorization frame. The proto-entries for -x(i)t and -t will differ from one another in this regard too. Revised, and for the time being final, proto-entries appear in (62-63).

- (62) V-x(i)t subcat: NP NP  
 a-structure: x y z  
 lcs: agent benefactee theme  
 recipient (substitute)





(63) expresses the idea that -4t predicates subcategorize for a complex internal argument, consisting of two distinct NPs that may share certain features (e.g. agreement, case). -x(i)t predicates, by contrast, subcategorize for two nominals that do not share such features. Though I cannot provide the full array of evidence here, the syntactic packaging of the nominals in clauses with ditransitive predicates is consistent with the morphosyntactic presentation of nominals in all other clause types. In particular, I note that a nominal possessor-head relationship is always expressed syntactically by two NPs bare of any case particle.

(64) iʔ p'úyχən-s John  
 art car-3sGen  
 John's car

(65) iʔ kɬ-p'úyχən-s John  
 art irr-car-3sGen  
 John's car-to-be

But nominals that do not agree with either a nominal or verb require (i.e. are licensed by) a case proclitic or preposition.

(67) səp'ənt-ʔ-is iʔ t qəxʷsqáχaʔtn.  
 club-nt-3sAcc-3sErg art cp horsewhip  
 He clubbed him with the whip. GW

(68) ɬc-t-qʷay-əlx iʔ t sntk'iwəlxtn.  
 dir-asp-down-3pAbs art cp stairs  
 They ran down the stairs. GW

Like other nominals that do not bear a grammatical relation in the surface syntax, the -x(i)t theme nominal requires a case particle. Under several morphosyntactic tests, the -4t theme nominal tests not to bear a grammatical relation either, but it does not require a case proclitic because it is licensed by its relationship to the grammatical object rather than to the clause as a whole. The syntactic configuration which bespeaks possession is part of the syntactic description of -4t predicates, but not a part of -x(i)t syntax. I take this as further evidence that -4t predicates do in fact have the semantic modifier POSS in their lexical definition, and that -x(i)t predicates do not.<sup>20</sup>

<sup>20</sup>As far as I can tell from the data available to me, all of the four languages which have a contrast between \*-xi and \*-4 also have distinct case marking patterns for the two ditransitive constructions.

5. CONCLUSION. The nature of the contrasts between the two proto-type lexical entries in (62-63) may offer a clue to why the northern Interior languages retained \*-xi but lost \*-4. First, it seems likely that were there profound semantic differences between the two predicate types, either in lcs or a-structure, the -4t might have better resisted absorption. Data presented here show that the two ditransitive types have important similarities, and that some tokens have paraphrase status. I have also argued that the CVOK -4t predicate type is the more specialized of the two ditransitive types, even though it is statistically more frequent in the corpus. I conjecture that because the realm of dative notions includes those in which there is a change of possession, possessional type verbs are semantically subsumable under dative (\*-xi) morphology. Malefactive or ethical datives, as a relatively small subgroup of possessional predicates, are subsumable with the POSS to indicate the preferred reading that emphasizes loss rather than gain. Data from the Thompson language (Thompson and Thompson 1980) show that the \*-xi is a generic dative, covering benefactive, ethical dative and neutral dative semantics, with or without possessive person-marking on the theme nominal.

(69) mlámxtye.  
 Bless it for us.

(70) ʔe piʔpxícmxʷ tə nqʷisqn.  
 You might lose my axe.

(71) máʔxtxʷ e smútec tə szeʔlts.  
 You smashed the woman's dish.

(72) wíχcn.  
 I see what you have.

The core characteristics of the ditransitive, the three place a-structure and applicative agreement, are preserved. That Thompson generalized the more marked possessional predicates to generic dative predicate type makes more sense than the converse, and I would expect this to be the case throughout the family, where only one of these two ditransitive morphemes persists.

The theory of argument structure, and particularly that articulated by Grimshaw 1990, is useful here because it entails that predicates with identical argument structures will (1) distinguish a broad verb class within a given language and (2) will vary across languages in just those ways in which IS ditransitives are known to vary: in the type of semantic relations expressed and the syntactic reflexes of the shared a-structure. This is especially appropriate to Salishan languages where overt transitive marking has long provided Salishanists with a means of classifying verb stems. What has been lacking is a theory that makes predictions on the basis of predicate adicity as one of a cluster of lexical properties, so that a systematic comparison of constructions can be carried out. In this study of the lexical properties of CVOK ditransitives I have identified two ditransitive types in CVOK as having identical a-structures and that link to similar participant roles. The distinctive properties of -4t predicates are that their lexical entry includes (1) the restrictive modifier POSS in their functional definitions, and (2) a subcategorization frame which encodes the possessional semantics by bracketing the object NPs together. -x(i)t predicates have neither POSS in lcs, nor brackets in their subcategorization frames. Using the concept of argument structure, I have also sketched a straightforward means of distinguishing lexical from syntactic transitivity. This analysis begins to suggest that no syntactic rule of applicative agreement is necessary in CVOK, though additional substantiation from the thematic and syntactic domains must follow. For comparative purposes, this study provides a checklist for the further analysis of other IS ditransitive constructions. The key questions, in my mind, are:

1. How many ditransitives are there per language as defined by a three-place a-structure?
2. What thematic roles are typically encoded in the lcs of each of these ditransitives?
4. Can the thematic roles be used to distinguish the ditransitive types from one another, or from monotransitives and intransitives?
3. Does the linking of lcs participants to a-structure obey the hierarchy in (2)?
5. What effect does aspect have, if any, on person-marking with nominals?
6. How are nominals licensed in the language? Are special rules needed to predict the surface morphology in ditransitive clauses, or does it follow from general rules of the language?

## REFERENCES

- Allen, Barbara and D. Frantz, D. Gardiner, and D. Perlmutter. 1990. Verb agreement, possessor ascension, and multistratal representation in Southern Tiwa. In *Studies in Relational Grammar 3*, Paul Postal and Brian Joseph, eds. Chicago: University of Chicago Press.
- Baker, Mark C. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Belletti, Adriana and Luigi Rizzi. 1988. Psych verbs and theta-theory. *NLLT* 6.291-352.
- Carrier-Duncan. 1985. Linking thematic roles in derivational word formation. *LI* 16.1-34.
- Carlson, Barry F. 1980. Two-goal transitive stems in Spokane Salish. *IJAL* 46.21-26.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Dryer, Matthew S. 1988. Primary objects, secondary objects, and antidative. *Language* 62.808-845.
- Gerdtz, Donna B. 1981. *Object and absolutive in Halkomelem Salish*. New York: Garland.
- \_\_\_\_\_. 1991. *Outline of a relational theory of case*. (Simon Fraser Working Papers in Linguistics 1) Burnaby: Simon Fraser University.
- \_\_\_\_\_. 1990. Relational Visibility. In *Grammatical Relations: A cross-theoretical perspective*. Katarzyna Dziwirek, Patrick Farrell and Errapel Mejias-Bikandi, eds. Stanford: CSLI.
- \_\_\_\_\_. to appear. *Morphologically-Mediated Relational Profiles*.
- \_\_\_\_\_. 1993. *Mapping Theory*. Class notes. Simon Fraser University.
- \_\_\_\_\_. to appear. *Morphologically-Mediated Relational Profiles*.
- \_\_\_\_\_. n.d. *Mapping Halkomelem grammatical relations*. ms.
- Grimshaw, Jane. 1979. Complement selection and the lexicon. *LI* 10.279-326.
- \_\_\_\_\_. 1990. *Argument structure*. Cambridge: MIT Press.
- Jackendoff, Ray. 1976. Toward an explanatory semantic representation. *LI* 7.89-150.
- \_\_\_\_\_. 1990. On Larson's treatment of the double object construction. In *Remarks and replies LI* 21.427-456.
- Hale, Kenneth, and S.J. Keyser. 1986. Some transitivity alternations in English. (Lexicon Project Working Papers 7). Cambridge MA: MIT.
- Hale, Kenneth, and M. Laughren. 1983. The structure of verbal entries: preface to *Dictionary Entries of Verbs*. (Walpiri Lexicon Project). Cambridge, MA: MIT.
- Hebert, Yvonne. 1982. *Transitivity in Nicola Lake Okanagan*. Vancouver: University of British Columbia dissertation.
- Kinkade, M. Dale. 1980. Columbian Salish -xi, -t, tút. *IJAL* 46.33-36.
- Larson, Richard K. 1988. On the double object construction. *LI* 19.335-391.
- Mattina, Anthony. 1973. *Colville Grammatical Structure*. (Working Papers in Linguistics 5) Honolulu: University of Hawaii.
- \_\_\_\_\_. 1980. Imperative formations in Colville-Okanagan and in the other Interior Salishan languages. *Glossa* 14.212-232.

- \_\_\_\_\_. 1982. The Colville-Okanagan transitive system. *IJAL* 48.421-435.
- \_\_\_\_\_. 1985. *The Golden Woman: the Colville narrative of Peter J. Seymour*. Tucson: University of Arizona Press.
- \_\_\_\_\_. 1987. *Colville-Okanagan Dictionary*. (UMOPL 5.) Missoula: University of Montana.
- Rappaport, Malka and Beth Levin. 1988. What to do with theta-roles. In *Syntax and Semantics Volume 21*. New York: Academic Press.
- Rosen, Carol G. 1991. Rethinking Southern Tiwa: the geometry of a triple agreement language. *Lg* 66.669-713.
- Rothstein, Susan D. 1992. Case and NP licensing. *NLLT* 10.119-139.
- Thompson, Laurence C. and M. Terry Thompson. 1980. Thompson Salish // -xi//. *IJAL* 46:27-32.
- \_\_\_\_\_. 1990. *The Thompson Language*. (UMOPL 8). Missoula: University of Montana.