## The Syntax of CAUSE and EFFECT in Bella Coola

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0.0 The syntax of CAUSE and EFFECT is interesting in Bella Coola because it involves several formal phenomena, there being no single device that is exclusive to this semantic domain.<sup>1</sup> There is, for example, no conjunctive element 'because' nor are there elements glossed only as 'why' or 'reason.' We will begin with a discussion of two sets of forms and then show how they function in the expression of CAUSE and EFFECT.

0.1 There exists in Bella Coola a set of pronominal forms that occurs as Comments to a single-term Topic:<sup>2</sup>

(1)	us '
	you'
	them'
	them'

These have pronominal reference, but like other Comments, they occur with the suffixes of agreement. Compare, for example, (2) with  $(3):^3$ 

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(2) (i) ±mit-anaw wa-Xap 'The ones who are going are us'

•		(ii)	lup-anaw	wa- <b>X</b> ap	'The ones are y		re going
		(iii)	wix-anaw	wa-Xap-c	'The ones are t		re going
	(3)	(i)	pu <b>X-a</b> w wa	a-wac'uks-c	'The dog	s are o	coming'
		(ii)	ya-naw w	a- <b>?</b> imlkuks-c	'The men	are go	bod'
The sir	ngula	r form	ns of (l)	take the -Ø	′suffix a	s do ot	ther
Comment	s wi	th sir	ngle-term	, third pers	on singul	ar Top:	ics.
Compare	e (4)	with	(5):				

(4) (i)	?nc ti <b>-X</b> ap	'The one who is going is me'
(ii	) <sup>9</sup> inu ti <b>-X</b> ap	'The one who is going is you'
(ii	i) tix ti <b>-X</b> ap-tx	'The one who is going is him'
(5) (i)	pu <b>X</b> ti-?imlk-tx	'The man is coming'
(ii	) ya ti- <b>?</b> imlk-tx	'The man is good'

When Comments such as those in (5) are embedded, as in the equivalent of 'They know that S,' a mandatory  $-\underline{s}$  suffix appears in the third person singular.<sup>4</sup>

- (6) (i) ?alnap-it s-puX-s ti-?imlk-tx '
   (know-they/it come-he man)
   'They know the man is coming'
  - (ii) ?alnap-it s-ya-s ti-?imlk-tx 'They know the man is good'

This same  $-\underline{s}$  occurs when the constructions of (4) are embedded.

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- (7) (i) ?alnap-it s-?nc-s ti-Xap
  'They know the one who is going is me'
  - (ii) ?alnap-it s-?inu-s ti-Xap
     'They know the one who is going is you'
  - (iii) ?alnap-it s-tix-s ti-Xap-tx
     'They know the one who is going is him'

The sentences of (6) and (7) are incorrect without the  $-\underline{s}$  suffix. Unlike other Comments, the third person pronominal forms of (1) require an overt Agent-Topic. That is, al-though  $\underline{Xap}$  is by itself a valid sentence glossed as 'He/she/it goes,' \*tix is incorrect. (Cf., however, (47) and the discussion there.) The correct utterance is either tix tx 'He is the one' or perhaps tix ti-?imlk-tx 'The man is the one.'<sup>5</sup>

The third person plural <u>wix</u> is the form of primary interest for CAUSE and EFFECT. The utterance <u>wix c</u> is four ways ambiguous. The first gloss is 'That's them' said about plural inanimate objects. The sentence <u>wix c</u>, rather than <u>wix-anaw c</u> glossed as 'They [animate] are the ones,' is used because plural inanimate objects are syntactically singular with respect to number agreement. The second and third glosses of <u>wix c</u> are 'It's the time' and 'It's the place.' Both time and space are plural in Bella Coola requiring plural deictic affixes and pronominal expression. Compare **?**ał tx, that is only glossed as 'with him,' with **?**ał tx<sup>W</sup>,

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that may be glossed as 'then' or 'at the time' and 'there' or 'at the place' as well as 'with them.' Like other inanimate forms, time and space are singular in terms of agreement; thus, <u>wix-anaw</u> <u>c</u> has no temporal or spatial interpretation. The final gloss of <u>wix</u> <u>c</u> is 'That's it' where the 'it' has a proposition as its referent. The singular agreement of the Comment here parallels the singular agreement in (6) with a proposition as Patient; the suffix <u>-it</u> 'they-him/her/it' is appropriate to singular Patients (-<u>tit</u> 'they-them' occurs with plural animate Patients.).<sup>6</sup> It is <u>wix</u> in this last gloss that functions within CAUSE and EFFECT.

0.2 The second element fundamental to the syntax of CAUSE and EFFECT is the preposition <u>Pal</u> and the phenomenon of preposition copying. There are four prepositions in Bella Coola:

	Static	Nonstatic
Distal	<b>?</b> a <del>1</del>	?u±
Proximal	x	wixłł

The prepositions  $\underline{?u+}$  and  $\underline{wix++}$  are most frequently glossed as 'to' and 'from,' respectively. The prepositions  $\underline{?a+}$  and  $\underline{x}$  can often be glossed as 'with' (instrumental or comitative). The distinction between Distal  $\underline{?a+}$  and Proximal  $\underline{x}$ is seen in the two sentences of (8):

sp'-is ti-?imlk-tx ti-wac'-tx ?al-ti-stn-tx (8) (i) (hit-he/it man Prep stick) doq

sp'-is ti-?imlk-tx ti-wac'-tx x-ti-stn-tx (ii) Both are glossed as 'The man hit the dog with the stick.' In (8i) the man had to acquire the stick in order to hit the dog; in (8ii) the stick was already in his possession.

The copying process occurs in those places where the object of a preposition has been deleted. Consider the constructions of (9):

- Xap ti-?imlk-tx ?a1-ci-xnas-cx (9) (i) (go man Prep woman) 'The man is going with the woman'
  - ci-xnas ci-si-Xap-s ti-?imlk-tx (ii) 'the woman the man is going with'

The restrictive modification of (ii) can be viewed as derived from an underlying structure in which a modified term xnas is semantically constrained by a proposition involving Where (9i) is that modifying sentence, the modified xnas. xnas occurs as object of **?**al. In such an underlying structure, the object of the preposition ?al is deleted; but unlike English where stranded prepositions are allowed (cf. the gloss of (9ii)), Bella Coola requires an obligatory copying of the preposition to the left of the Comment in the But is the winder modifying sentence and the subsequent deletion of the copied Commant? form. <sup>7</sup> Additional forms similar to (ii) are given in (10):<sup>8</sup>

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mounthe (monor)

(10)	(i)	ci-s:	i-Xap	o-s f	ti-?:	iml}	k−tx	
		'she	who	the	man	is	going	with'

- (ii) wa-suł wa-si-?amat-s ti-?imlk-tx
   ( house Prep-stay-he man)
   'the house the man is staying in'

Semantically, the preposition <u>Pat</u> most directly expresses CAUSE. Consider these sentences:

- (11) Xap ti-?imlk-tx ?al-a-tala-c
- (12) ka-kul-tala-lx-c-ma ?al-ti-?imlk-tx (Unrealized-endowed with-money-Inchoative-I-Conjectural Prep man)

Sentence (11) may be glossed as 'The man is going for the money' or '...because of the money,' while (12) is glossed 'Maybe I'll get rich because of the man' (as an employer speaking of a talented employee). This gloss appears also where the si copy occurs,

(13) waks ti-si- $\lambda$ ap-nu

that may be glossed as 'Who did you go with?' and as 'Who did you go for (to get)?' or 'Because of whom did you go?' The questioned term can be inanimate as in

(14) stamks ti-si-Xap-nu 'What did you go for?' In both (13) and (14) the expected CAUSE is an object as in (11) and (12). Where the expected CAUSE is a proposition, i.e. something that has happened,

the question of (15) is appropriate:

(15) stamks si-Xap-nu 'Why did you go?'

The questioner expects a sentence as answer, not the single lexical item he might accept in response to (13) and (14). In (15) the deictic prefix is absent, since only lexical items occasion their appearance. (The deixis of the proposition is expressed in its individual elements.) The form  $si-\lambda ap-nu$  indicates that the process of copying and the accompanying deletion have occurred. Thus, si-Xap-nu may be compared with ti-si-Xap-nu; that is, both have the structure of restrictive modification. The difference lies in that the modified term of the latter is a lexical item while in the former it is a proposition. In both, the head does not occur in the surface form. This is to be expected, for in both it is the head that the speaker is asking the listener to identify and that is unknown to the speaker. Because si-Xap-nu constrains a proposition and because propositions are inanimate, \*waks si-Xap-nu is incorrect. The phrase of restrictive modification consisting of the copy si and the following sentential material expresses EFFECT. 1.0 In Bella Coola the information answering a question is placed within the Comment; this is consistent with the Comment-Topic structure of Bella Coola wherein the Comment

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expresses new information. Thus (16) - (18) - -in which the questioning forms <u>waks/stamks</u> are replaced by lexical material identifying the causes---are possible answers to (13) - (15), respectively:<sup>10</sup>

(16)	ti- <b>?</b> imlk-tx ti-si-Χap-c 'It's the man I'm going for/because of'
(17)	ti-pakayala-tx ti-si-Xap-c 'It's the package I'm going for/because of'
(18)	<b>?</b> ałi-s ci-xnas-cx si <b>-X</b> ap-c

'That the woman is here is why I'm going'

If the answering information is indeed the Comment, we would expect an answering proposition to take the form of an embedded sentence. And, as noted above, the  $-\underline{s}$  third person singular suffix, obligatory in embedded sentences, appears in (18); \*?ati ci-xnas-cx si-Xap-c is incorrect (as a single sentence. Cf. 1.1 below.).

In answer to a question such as (13) or (19)

(19) waks ti-Xap 'Who is going?'

an answering sentence such as (20) is acceptable:

(20) tix ti-?imlk-tx 'The man is the one'

In answer to (15), the response comparable to (20) is formed with the pronominal wix:

(21) wix s-?ali-s ci-xnas-cx 'Because the woman is here'

In (21), the gloss is more literally 'That the woman is here

is it (i.e. the cause of my going).' Sentence (21) is syntactically parallel to such sentences as (22):

(22) ya s-?ali-s ci-xnas-cx
'It's good the woman is here'

In both these sentences  $\underline{s-?a\pm i-s} = \underline{ci-xnas-cx}$  is embedded as the Agent-Topic to a Comment, wix or ya. Expanded versions of the answers of (20) and (21) are possible:<sup>12</sup>

> (23) (i) tix-s ti-?imlk-tx si-Xap-c 'The man is the reason why I'm going'

(ii) wix-s s-?ali-s ci-xnas-cx si-Xap-c
'That the woman is here is the reason
why I'm going'

We return to the construction of (23i) below in 1.2 Yes-no questioning of a CAUSE also employs the pronominal form wix; for example,

(24) wix-s-a s-ka-?ali-s ci-xnas-cx si-ka-lap-aw
'Is it because the woman is here that they
 are going?'

The appropriate answer is similar to (23ii):

- (25)
- ?aw. wix-s c si-Xap-aw 'Yes. That's the reason why they're going'

but with the plural pronoun  $\underline{c}$  in place of the S of (24). The referent of  $\underline{c}$  (which, as noted above in 0.1, can be a proposition) is  $\underline{s-?a\pm i-s} \underline{ci-xnas-cx}$ . In the proper context, e.g. where a possible causing proposition is previously stated, one may ask

> (26) wix-s-a ci si-Xap-aw 13 'Is that why they're going?'

As in the sentence pair (24) - (25), the referent of <u>ci</u> lies in the utterance of the interlocutor. The answer to (26) may be (25) or simply wix c 'That's it/why.'

The syntax of Bella Coola permits sentences to be embedded under the Adjunct. Cf. fn. 2. Examples are found in (27):

- (27) (i) ks-tuc ti-q'<sup>W</sup>x<sup>W</sup>mtimut-tx ka-Xap-s ti-?imlk-tx (fix-I/it car' Unrealized-go-he man) 'I'll fix the car if/when the man goes'
  - (ii) Xap ti-?imlk-tx ka-?a±i-s ci-xnas-cx 'The man will go if/when the woman is here'

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The mandatory  $-\underline{s}$  suffix for third person singular agreement indicates that the <u>ka</u>-initial sentences are embedded; the alternative expressions without  $-\underline{s}$  are incorrect. The construction illustrated in (27) is used to state CAUSE as in (28):

> (28) (i) sp'ix<sup>W</sup>-is ci-xnas-cx wix-s s-(ka)-?ali-s (hit-he/her woman be it-it (Unrealized)-'He will hit the woman because the man is

> > ti-**?**imlk-tx be here-he man) (will be) here'

(ii) ks-l-tuc ti-q' $^{W}x^{W}$ mtimut-tx wix-s s-ka-xap-s 'I fixed the car so that the man can go'

## ti-?imlk-tx

Literally, the gloss of the <u>wix-s</u> <u>s</u>-Sentence is that S is it.' In the examples above, wix + Sentence has been interpreted such that S is the CAUSE. Consistent with this, <u>wix-s</u> <u>s</u>-Sentence in (28i) is interpreted as CAUSE, but the English of the analogous construction in (28ii) appears to be EFFECT. Now compare (28ii) with (29):

> (29) ks-l-tuc ti-q'<sup>W</sup>x<sup>W</sup>mtimut-tx wix-s 'I fixed the car because the man

> > s-Xap-s ti-?imlk-tx
> > is going/gone'

The difference between them lies solely in the occurrence of the aspectual marker <u>ka</u> Unrealized. In (28i) the occurrence of <u>ka</u> introduces no apparent shift from CAUSE to EFFECT, and it is unlikely that <u>ka</u> produces such a semantic shift in (28ii). It seems plausible to interpret (28ii) as an Unrealized CAUSE. The causal interpretation of <u>wix</u> + Sentence in (28) and (29) is now consistent with the utterances (21), (23ii), and (24)---and also with the <u>wix</u> + Pronoun constructions of (25) and (26).

1.1 Utterances (28) and (29) have the  $-\underline{s}$  suffix that indicates the sentences composed of a Comment wix and an Agent-Topic (that is itself a sentence) are embedded. Above, that suffix has been a reliable index of the embedded status of a sentence, and wherever  $-\underline{s}$  has occurred, the alternative formations without it have been incorrect. But now consider (30), repeated from (28i), and (31):

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Both may be glossed as 'He hit the woman because the man is here'; but despite the possible identity of the glosses, the two are not paraphrases. There is not one sentence with an optional -s; there are two. And the appearance of -s in (30) continues to be obligatory. The difference between them is revealed in the way each is intergrated into a conversation. Sentences like (31) are heavily contextualized seeming most appropriate as responses to questions. They are also appropriate to contexts in which two interlocutors are discussing an EFFECT and its possible CAUSES. A third person may interject a comment of this form to resolve, i.e. answer, the indecision. In both contexts, (31) provides information (1) that is lacking the interlocutor(s) and (2) which is the immediate subject of discourse (either by direct question or as demonstrated by conversation). This is exemplified in (32):

- (32) (i) stamks wa-c'kta Pal-a-awa 'What's happening next door?'
  - (ii) sp'Ix<sup>W</sup>-is ci-xnas-cx wix s-?ali-s
     'He's hitting the woman because the
     ti-?imlk-tx
     man is here'

Sentence (30) may also answer (32i), but it may additionally occur in a conversation or story dealing with the man and woman without a preceding question or evident uncertainty on the part of an interlocutor. An opinion that is occasionally offered about sentences like (30) is that 'You're just talking about it.' That is, such utterances are not only reactions to a mentioned EFFECT and its possible CAUSES; they can be used to introduce the EFFECT and its CAUSE into the conversation that may now be the subject of further discussion. Sentence (30) lacks the contextualization requirement of (31).

This pairing of utterances by presence or absence of -s occurs in questions as well:

(33)	wix-s-a s-ka-fali-s ta-mna-l-nu 'Is it because your son will be here
	si-ka- <b>?</b> at'-ix <sup>W</sup> wa-su <del>l</del> -nu-c that you're going to paint your house?'
(34)	wix-a s-ka-?ałi-s ta-man-ł-nu
	si-ka- <b>?</b> at'-ix <sup>W</sup> wa-suł-nu-c
(35)	wix-s-a ci si- <b>?</b> ay-naw 'Is that why they did it?'

(36) wix-a ci si-?ay-naw

Sentences (34) and (36), like (31), are contextualized response questions. For example, in (34) someone may have said 'I will paint my house because of X'; and the speaker replies with 'Is X why you'll paint your house?'

Question (15), stamks si - xap - nu 'Why are you going?,' had the answer (18)  $?a \pm i - s$  ci - xnas - cx si - xap - c 'That the woman is here is why I'm going.' It may also have been answered by (37):

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(37)  $P_{a\pm i}$  ci-xnas-cx si- $\lambda$ ap-c Sentences (18) and (37) differ formally in the same way as (30) and (31)---the occurrence of -<u>s</u>. This -<u>s</u> and -<u>s</u>-less pairing extends as well to the expanded statements of (38) and (39). In response to 'Why are you going?' we also find:

(38) (i) wix-s s- $a_{i-s}$  ci-xnas-cx si- $\lambda$ ap-c

(ii) wix s-?ali-s ci-xnas-cx si-Xap-c

(39) (i) wix-s s-7a=i-s ci-xnas-cx wix c si- $\lambda$ ap-c

(ii) wix s-?ali-s ci-xnas-cx wix c si-Xap-c

And again the  $-\underline{s}$ -less utterance occurs only in context as a response.

The distinction between these utterance types paired by  $-\underline{s}$  and its absence can be further seen in their differential relationship to the same question.

> (40) (i) wix-a s-?ali-s ci-xnas-cx si-Xap-nu 'Is it because the woman is here that you're going?'

> > (ii)  $P_{aw}$ .  $P_{a\pm i}$  ci-xnas-cx si- $\lambda_{ap-c}$

(iii) ?aw. ?ali-s ci-xnas-cx si-Xap-c

The question-answer pair (i)-(ii) is well-matched; (i) inquires whether a given proposition is the CAUSE, and (ii) answers by repeating that proposition and adding confirmation of it as CAUSE. The question-answer pair (i)-(iii), however, is mis-matched; (iii) is appropriate to a 'why?' question but not a confirmatory 'why?' question. Apparently, embedding the CAUSE sentence under Comment implies that it is new information and hence that is should/will be unknown as such to the interlocutor; but the questioner has shown by his question that it is not unknown. He merely requests confirmation; hence the mis-match between the two.

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In the conversational pairs of question (24) and answer (25) or of mentioned possible CAUSE and question (26), the referent of <u>c</u> (or <u>ci</u>) lay in the utterance of an interlocutor. The referent may also be pronounced by the same speaker who employs the pronominal <u>c</u> (or <u>ci</u>). Consider (41):

(41) ?alnap-is wix c si-Xap-aw
The gloss of (41) is something like 'He/she knows it; that's
why they're going.' Sentences similar to (41), but with
the -s suffix occur:

(42) (i) **?**alnap-is s-wix-s c si-**X**ap-aw 'He/she knows the reason why they're going'

# (ii) ?alnap-is s-wix-s c 'He/she knows the reason why'

Both the -s suffix and the s- prefix indicate that the construction s-wix-s c si- $\lambda$ ap-aw is embedded. The sentences of (42) are analogous to (43):

(43) ?alnap-is s-Xap-s 'He/she knows he is going'

Both are generally  $?a \pm nap-is + Sentence.^{14}$  Finally, sentence (44), analogous to (37) and (41), where -s does not occur suffixed to  $?a \pm i$  'be (here),' shows that the sentences expressing the CAUSE in (41) and (44), i.e.  $?a \pm nap is$  and  $?a \pm i$  cixnascx, are not embedded.

(44) ?ali ci-xnas-cx wix c si-Xap-aw
'The woman is here; that's the reason
why they're going'

The -<u>s</u>-less versions of the above sentences seem to be sequences of sentences (but not in the manner of conjoined sentences marked by conjunctive particles. Cf. Saunders and Davis 1975), although in many cases, e.g. (30) and (31), they differ phonologically from the -<u>s</u> suffixed ones only in the length of the /s/: /s/ versus /ss/.<sup>15</sup> This sequencing is first indicated by the absence of the -<u>s</u> where the Agent-Topic of the sentences in question requires third person singular agreement. That the -<u>s</u>-less utterances are sequences is further suggested by a native speaker's opinion that (37) sounds better with a pause before si-Xap-c.

If such utterances are in fact sequences, the second elements of each---wix s?alis ti?imlktx of (31),  $sika?at'ix^W$ wasulnuc of (34), si?aynaw of (36),  $si\lambda apc$  of (37) and (38ii),  $si\lambda apaw$  of (41), wix c  $si\lambda apc$  of (39ii), and wix c  $si\lambda apaw$  of (44)---should occur without their respective preceding portions. The following examples show this expectation to be correct. The portion wix s?alis ti?imlktx of (31) answers a question of CAUSE:

> (45) (i) wix-a s-?ali-s ti-?imlk-tx si-sp'Ix<sup>W</sup>-is 'Is it because the man is here that he

> > ci-xnas-cx hit the woman?'

(ii) ?aw. wix s-?a±i-s ti-?imlk-tx
'Yes. It's because the man is here'

Cf. also (21) as an answer to a 'why?' question, e.g. (15). The clause of restrictive modification  $\underline{si\lambda apc}$  (and the other  $\underline{si} + S$  clauses) answer questions:

- (46) (i) wix-a s-?ali-s ci-xnas-cx si-Xap-nu
  'Is it because the woman is here you're
  going?'
  - (ii) ?aw. si-Xap-c 'Yes. That's why I'm going'

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A last argument for the sentence sequencing interpretation is a negative one. In (41), for example, he/she does not know 'it' because of their going---it does not follow from something as in (30). Hence, wix <u>c</u> <u>siXapaw</u> cannot be embedded under Adjunct as <u>wixs</u> <u>s?alis</u> <u>ti?imlktx</u> is in (30). Nor does he/she know <u>that</u> they are going as in (42); hence, <u>wix c</u> <u>siXapaw</u> cannot be embedded under Patient as in (42). Nor does <u>?alnapis</u>--nor <u>?ali</u> <u>cixnascx</u> in (44)---appear to be embedded as a Comment. Given X and Y, if X is not matrix to Y, nor Y to X, then the conclusion can only be that embedding is not involved, and the two must be paratactically related.

1.2 EFFECT is necessarily expressed by a proposition, i.e. something happens; but CAUSE may be either a proposition or an object. We have so far concentrated on CAUSE as proposition. We now examine CAUSE as object in more detail. We have already noted in 0.2 that this can be expressed with the preposition  $\underline{Pal}$ . Cf., e.g., (11) and (12). In each of those sentences, the CAUSE, viz. the money and the man, is not a CAUSE by virtue of some action. The meaning of  $\underline{Pal}$  in (11) can be viewed as 'for' ('to fetch') and hence 'because of'; in (12) the meaning is close to the instrumental 'with' ('by means of') and hence 'because of.' Where a causal expression such as 'because

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of the man' is used in a context in which the object is a CAUSE by virtue of some action, but which act as CAUSE is not explicitly formulated as in (28) and (29), another construction is employed. Had we wanted to say 'They are going because of the man' without stating what it is the man has done, e.g. be here, to render him a CAUSE, a sentence such as (47) would be appropriate:<sup>16</sup>

(47) Xap-aw wix-s ?al-ti-?imlk-tx
Consider also the following two sentences:

(48) (i) kmalayx-c wix-s  $?_{a}$ -?inu

(ii) kmalayx-c ?a±-?inu

Although both are glossed as 'I'm sick because of you,' there is a distinction between them. The second can be used only when the illness is induced from worry. The first can be used in those circumstances, but also is appropriate to a circumstance in which the action of 'you', e.g. having badly prepared food, is the cause. (48ii) is not appropriate in the latter case.

It is not immediately clear what the structure of <u>wix-s</u> ?al-ti-?imlk-tx is. It does seem to be sentential. Cf. the -<u>s</u> suffix on <u>wix</u>. There is no overtly expressed Agent; ?al-ti-?imlk-tx is a prepositional phrase, and that seems an unlikely candidate. Nowhere else in the language have prepositional phrases functioned as Agents. It further

appears that no Agent can overtly occur; \*...<u>wix-s c</u> ?al-ti-?imlk-tx in place of the final clause of (47) produces a grammatically incorrect sentence. Replacing <u>c</u> with a sentence yields equally negative results. The absence of an overt Agent, e.g. in passive constructions, is sometimes used to express indefiniteness: someone/ something that is unknown to the speaker. It may be that 'absence' is employed here as well for a similar purpose. Notice that the 'something' itself would be a proposition; this, because of the choice of <u>wix</u> from the pronominal forms of (1) and not some other.

'Why?' questions elicit responses with the object CAUSE as the Comment of the answering sentence. For example, stamks siXapaw may be answered by (23ii) or by (49): $^{17}$ 

(49) wix-s ?al-ti-?imlk-tx si-Xap-awBoth (47) and (49) occur in the expected  $-\underline{s}$ -less variants in the contexts described above.

Answers to questions like those of (13) and (14) may be answered by (49) or simply by the identification of the object CAUSE; for example,

- (50) (i) cix ci-xnas-cx 'The woman is why'
  - (ii) ci-xnas-cx si-Xap-c 'The woman is why I'm going'

2.0 EFFECT is manifested by a clause of restrictive modification, e.g. (15), by a matrix sentence containing a CAUSE, e.g. (28)-(30), or by a sentence paratactically related to a following CAUSE, e.g. (31). A propositional CAUSE either (1) occurs as the Comment of a sentence answering a question, e.g. (18), or (2) occurs as the Agent-Topic of the pronominal root wix---all of which refers (the pronominal function of wix) to an EFFECT in a preceding question, e.g. (15) and (21); to a clausal EFFECT that is the Agent-Topic of a Comment embedded wix + S, e.g. (23); to a matrix sentence EFFECT in which wix + S is embedded, e.g. (28); or to a paratactically related EFFECT, e.g. (42). It is the referential function of the pronominal root that links the whole to the EFFECT thus establishing the former as CAUSE. An object CAUSE may be expressed by similar constructions with the pronominal forms tix and cix, e.g. (50) and fns. 16 and 17, or as the object of the preposition  $P_{a1}$ , e.g. (11), (12), and (48).

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What we have attempted to show here is first, that the expression of CAUSE and EFFECT employs constructions found elsewhere in the language and second, that the preposition 2a and the pronominal roots wix, tix, and cix are the principal lexical conveyors of CAUSE and EFFECT.

#### Notes

<sup>1</sup>Bella Coola is a Salishan language spoken on the north central coast of British Columbia, Canada. We wish especially to thank Margaret Siwallace and Charles Snow for aiding in our understanding of the language. We wish also to acknowledge the financial aid of the National Science Foundation (Grants SOC73-05713 AO1 and BNS73-05713 AO2) and the Canada Council (Grants S73-1973 and S75-0225) that has made this work possible.

<sup>2</sup>In past work (Davis and Saunders 1973), we have attributed to Bella Coola the following underlying structure:



The Patient and Adjunct constituents are optional. Adjunct may be further expanded as a prepositional phrase or as a sentence.

<sup>3</sup>The forms <u>wa...c</u> (and <u>ti...tx</u> and <u>ci...cx</u> that occur below) are deictic. We gloss them here as 'the' without discussion. Cf. Davis and Saunders 1975b and 1975c. The Comment has the following suffixes when it occurs with a single-term Agent-Topic:

-c 'I' -(i) ± 'we' -nu 'you' -(n) ap 'you' -Ø/-s 'he/she/it' -(n) aw 'they' 39

 $^{4}$ The <u>s</u>- prefix that occurs in (6) and (7) but not in (27)-(29) is discussed in Davis and Saunders 1974.

<sup>5</sup>The deictic suffixes, e.g.  $\underline{tx}$ , are homophonous with the set of pronouns. This homophony and a possible historical source for it is discussed in Davis and Saunders 1975a. The pronouns and their usage are discussed in Davis and Saunders 1975c and 1975d.

<sup>6</sup>There exists a set of declarative Comment suffixes appropriate to each combination of Agent and Patient according to the person and number of each.

<sup>7</sup>The preposition  $\underline{\text{wixll}}$  does not participate in this copying, and those constructions that we would expect to occasion copying with  $\underline{\text{wixll}}$  are necessarily expressed by alternative means. For example, one cannot say 'the man he is walking from' in Bella Coola; one must say 'the man he is leaving.' The remaining prepositions do participate in the copying process; <u>x</u> has the copy <u>s</u>- and <u>?al</u> and <u>?ul</u> are both copied as <u>si</u>-. This implies that (9ii) is ambiguous; it is and has the second gloss 'the woman the man is going to.' The distinction is maintained in the underlying structures where the 'to' phrase is expressed with **?ul** and

the 'with' phrase by  $2a_{\pm}$ . This is discussed in greater length in Davis and Saunders 1973.

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<sup>8</sup>The pronominal heads of (10i) and (10iii) have been deleted. This deletion of pronouns occurs elsewhere. Cf. Davis and Saunders 1975d.

<sup>9</sup>Sentence (15) can of course be used when a speaker is completely ignorant of possible CAUSES and has no expectation of the CAUSE as a proposition or object.

<sup>10</sup>Sentences (11) and (12), then, are not answers to a 'why?' question.

<sup>11</sup>This sentence has been accepted as correct by two informants, but one has later refused it. In much of this elicitation a sentence makes sense only in a specific context (cf., for example, 1.1 below). Where potentially contradictory data are found, we feel it is often justifiable to claim that the fault lies in the elicitation. Either we have failed to make the requisite context sufficiently salient to the informant; (s)he was not paying attention, etc. That more than one informant has accepted (18) is further evidence that it is a correct utterance.

12 The -s on wix-s (and tix-s) suggests that it is itself the Comment of an embedded sentence. Thus, (23ii) has at least two levels of embedding, e.g.



whereas (18) has one level of embedding. In each of these, the EFFECT clause of restrictive modification  $\underline{siXapc}$  functions as the Agent-Topic of S<sub>0</sub>.

<sup>13</sup>The form <u>ci</u> is an allo-form of <u>c</u> appropriate to questions.

<sup>14</sup>The sentences contain embedded S's in the following manner:







<sup>15</sup>The presence of two distinct /s/ can be additionally confirmed by using a verbal particle (cf. Saunders and Davis 1975) that may occur between them.

<sup>16</sup>This construction is rejected by one informant who replaces it with

(i) Xap-aw s-tix-s ti-?imlk-tx
 The speaker who provided (47)---consistently during several widely separated interviews---reacts to (i) by saying
 that it is acceptable if it is 'finished,' i.e.

(ii)  $\lambda_{ap-aw}$  s-tix-s ti-imlk-tx si- $\lambda_{ap-aw}$ Sentences (i) and (ii) appear to have the structure of nonrestrictive modification. That is, they are analogous to

(iii) Åap-aw s-ya-naw
 The underlying structure ascribed to such sentences (cf.
 Davis and Saunders 1973) is



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Although the identification of the basis of the disagreement is uncertain, we suspect it to be dialectal. The speakers here have acquired their knowledge of the language in different villages; but the small number of fluent speakers overall makes it difficult to confirm this as the source.

<sup>17</sup>The speaker who rejected (47) replaces (49) with

# tix-s ti-?imlk-tx si-Xap-aw

that is also accepted by the speaker who volunteered (47).

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