On the absence of tense on determiners: A reply to Wiltschko

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Wiltschko (2003) proposes that Halkomelem Salish possesses interpretable T features on D, and as a consequence lacks both nominative Case and a TP projection. In this reply to Wiltschko's paper, I argue that there is no link between properties of Salish tense systems and properties of either their determiners or their Case systems. I outline an alternative analysis of the Salish / English tense split, and discuss the consequences of the debate for a theory of cross-linguistic variation.

1 Introduction

Salish languages differ from English in the surface expression of temporal relations. Perhaps the most striking difference is the absence of obligatory tense morphology in Salish. As shown in (1) for St'át'imcets (a.k.a. Lillooet, Interior Salish), finite sentences need not contain any overt marking of tense. These superficially tenseless sentences may be interpreted as either past or present.[2]

(1) a. táyt-wit
hungry-3PL
'They were hungry / are hungry.'

b. ít'-em kw-s Helen
sing-MID DET-NOM Helen
'Helen sang / is singing.'

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[1] I am very grateful to St'át'imcets consultants Beverley Frank, Gertrude Ned, Laura Thevarge and Rose Agnes Whitley, and to Henry Davis and Martina Wiltschko for helpful discussion. Fieldwork is supported by SSHRC grants #410-98-1597 and 410-2002-1715. St'át'imcets data are presented in Jan van Eijk's practical orthography; see the Appendix for a key, and for a list of abbreviations.

[2] Temporal interpretation is affected in part by the Aktionsart (aspectual class) of the predicate; see Demirdache (1997a,b), Davis (in prep.). Future interpretations require overt marking, as illustrated in (i).

(i) ít'-em *kelh* kw-s Helen
sing-MID *MOD* DET-NOM Helen
'Helen will sing / might sing.'

Overt temporal morphemes do exist in Salish, but are always optional and display a variety of morphological forms and syntactic behaviour. (2) illustrates the St'át'imcets past tense enclitic *tu7*.

(2) a. táyt-wit *tu7*
hungry-3PL *PAST*
'They were hungry / * are hungry.'

b. ít'-em *tu7* kw-s Helen
sing-MID *PAST* DET-NOM Helen
'Helen sang / * is singing.'

These surface differences between tense marking in English and Salish could lead to two main types of analysis. One possibility is to treat the cross-linguistic differences as superficial, and to analyze 'tenseless' languages like St'át'imcets as being underlyingly similar to English. The second option is to treat the differences as symptomatic of greater underlying dissimilarities between the systems. The choice between these two approaches has important consequences for a theory of cross-linguistic variation. The correct analysis of Salish tense systems will therefore have theoretical relevance both beyond tense and beyond Salish.

A recent paper by Wiltschko (2003) provides a good example of the second type of analysis; Wiltschko argues that Halkomelem Salish differs in non-superficial ways from that of English. The current paper is a reply to that work. In the remainder of this introductory section I will briefly outline Wiltschko's analysis, and then give an overview of my proposals.

1.1 Wiltschko's analysis

Wiltschko (2003) offers a parametric account of a number of differences between English and (Upriver) Halkomelem. The core idea behind her analysis is that properties of the Halkomelem tense system are linked both to properties of determiners and to Case. Following Pesetsky and Torrego (2001), Wiltschko adopts the idea that nominative Case[3] results from an uninterpretable T(ense) feature on a D(eterminer). This uninterpretable feature makes no semantic contribution, but has a syntactic effect, since it must be deleted during the course of the derivation. It is deleted by coming into a close syntactic relationship with another instance of the same feature. In languages like English, the uninterpretable T feature on the D inside the subject (nominative) DP is marked for deletion when the subject DP is raised to Spec, TP. (See Chomsky 1995 for discussion of uninterpretable features and their properties.)

Wiltschko then makes the following theoretical innovation: she proposes that languages may differ in whether their T features on D are uninterpretable. In particular, she argues that Halkomelem possesses interpretable T features on D. This predicts that Halkomelem will lack

[3] Following common practice, I use capitalized 'Case' to represent abstract case, and small 'case' to represent surface manifestations thereof.

nominative Case and all associated effects of such Case. Wiltschko further proposes that the presence of interpretable T features on D makes the existence of a clausal Tense node unnecessary; Halkomelem therefore lacks a TP projection altogether.

According to this proposal, nothing needs to be stated independently about the Halkomelem / English difference with respect to tense. A single difference between the languages (relating to T features on D) accounts for both the absence vs. presence of T and for the absence vs. presence of nominative Case. The cluster of ways in which English and Halkomelem differ is summarized in (3).

(3)

Property	*English*	*Halkomelem*
T features on D	UNINTERPRETABLE	INTERPRETABLE
Nominative Case:	YES	NO
A movement in passive	YES	NO
A-movement to SVO	YES	NO
Infinitives	YES	NO
T as a syntactic head	YES	NO

Wiltschko's account is elegant, and if the clustering of properties in (3) turns out to hold when further languages are investigated, this would be an exciting result. We would gain an impressive degree of empirical coverage by means of a single theoretical assumption – that T features on D may be either interpretable or uninterpretable.

1.2 Overview of the current paper

The primary goal of the current paper is to argue that there is no link between properties of Salish tense systems and properties of either their determiners or their Case systems. I will then sketch an alternative analysis of the first type mentioned above, according to which Salish and English tense systems are underlyingly quite similar. (For a more detailed discussion of the alternative analysis, the reader is referred to Matthewson 2002, to appear.) I will argue that the minor differences between Salish and English tense systems which do exist must be stated independently of other areas of the grammar.

The second, more speculative, part of this paper examines some of the wider theoretical implications. I will suggest that there is no language where tense, determiners and Case are linked. I will reject in general the possibility of parameters which have consequences in disparate modules of the grammar. I will further claim that interpretable features of any category (e.g., T) are never located on another category (e.g., D), but must project their own structure.

The paper is organized as follows. In section 2 I argue that there is no systematic connection in Salish between tense in the verbal domain and tense effects inside DP. Section 3 argues that there is no systematic connection in Salish between tense and nominative Case. Section 4 points to some problems with the attempt to derive the absence of T from properties of the Case system. In Section 5 I outline my own analysis of the Salish / English tense differences.

In a nutshell, the only difference we need to postulate is in the lexical entries for the tense morphemes. In section 6 I address further theoretical implications.

2. There is no link between T and D in Salish

Recall the key intuition behind Wiltschko's proposal: that the special properties of tense in the verbal domain in Halkomelem are derivable from DP-internal tense features. In this section I will argue both against the specific implementation of the intuition (that Halkomelem possesses interpretable T features on D), and more generally against the underlying intuition itself, by denying that properties of the tense systems of Salish languages are linked to DP-internal tense information.

The distinction between interpretable and uninterpretable features distinguishes between features which are semantically relevant, and purely formal features which have no effect on semantics. Chomsky (1995:277) describes it thus: 'certain features ... enter into interpretation at LF while others are uninterpretable and must be eliminated for convergence.' Since uninterpretable features must be deleted during the computation, they often induce movement to ensure that the features are in the right position to be deleted (in a Spec-head relationship with another head containing that feature, for example). Wiltschko (2003:661) adheres to this view of the [±interpretable] dichotomy, assuming that there should be 'some correlation between the intuitive notion of interpretability and the formal notion of [±interpretable] categorical features.'

Given this background, we expect that a language which has interpretable T features on D should display some discernible temporal effects within DPs. Moreover, these temporal effects should differ from the ones evidenced by English noun phrases, since English by hypothesis has uninterpretable T on D. (For discussion of temporal effects within DPs in English, see Enç 1981, 1986, Musan 1995, Burton 1997, and section 2.2 below.) In the following two sub-sections, I will investigate the evidence for such temporal effects in Halkomelem and in St'át'imcets.

2.1 Determiners

The most obvious place to look for evidence for interpretable T features on D would be on the determiners themselves. Wiltschko herself does not discuss temporal effects on determiners; this is presumably because Halkomelem determiners do not display any such effects, and because the evidence from the rest of Salish is not strong. However, there is one Salish language in which there is prima facie evidence for temporal information on D - St'át'imcets. I will therefore take the time to spell out why St'át'imcets Ds do not provide evidence for interpretable T on D.

Some of the temporal effects shown by St'át'imcets determiners are illustrated in (4-5); see in particular Demirdache (1997a,b) for prior discussion of the generalizations. The distinction between the determiner *ta...a* and *na...a* is fundamentally a spatial one; *ta...a* marks 'present / visible' and *na...a* marks

'absent / not visible' (van Eijk 1997).[4] However, the choice of determiner can by itself influence the temporal interpretation of the main predicate. None of the sentences in (4) and (5) contain any overt tense morphology; only the determiners are altered:[5]

(4) a. zácal'qwem' *ta* kukwpi7-lhkálh-*a*
tall *DET* chief-1PL.POSS-*DET*
'Our chief is tall.'

[DETERMINER *TA...A:* PRESENT TIME PREFERRED]

b. zácal'qwem' *na* kukwpi7-lhkálh-*a*
tall *DET* chief-1PL.POSS-*DET*
'Our chief was tall.'

[DETERMINER *NA...A:* PAST TIME PREFERRED]

(5) a. qelhmémen' *ta* stá7-s-*a* ta
old.person *DET* aunt-3SG.POSS-*DET* DET
n-snúk'w7-a
1SG.POSS-friend-DET
'My friend's aunt is an old lady.'

[DETERMINER *TA...A:* PRESENT TIME PREFERRED]

b. qelhmémen' *na* stá7-s-*a* ta
old.person *DET* aunt-3SG.POSS-*DET* DET
n-snúk'w7-a
1SG.POSS-friend-DET
'My friend's aunt was an old lady.' (Davis in prep.)

[DETERMINER *NA...A:* PAST TIME PREFERRED]

The temporal effects of St'át'imcets determiners are discussed in some detail by Demirdache (1997a,b). Demirdache observes that the determiner *na...a* can be used simply when the referent of the DP is spatially absent, without necessarily forcing a past-time interpretation for the entire clause. In (6), for example, the determiner *na...a* can give rise to a simple spatial absence ('not visible') reading, in which case the main predicate can be interpreted in the present tense, as in (6a). Crucially, however, if *na...a* is interpreted as placing the interpretation time of the nominal predicate 'president' into the past, then the main predicate must also be interpreted in the past. Thus, (6c) is not a possible

[4] Each of these determiners has a dialectal variant, namely *ti...a* and *ni...a* respectively.

[5] Parallel data and argumentation can be given with demonstratives, which in St'át'imcets appear DP-initially, co-occur with determiners, and encode the same range of deictic distinctions as determiners do. See van Eijk (1997), Matthewson (1998) and Davis (in prep.) for discussion.

interpretation. Demirdache therefore argues that there is no 'temporal independence' between the tense of the DP and the tense of the main predicate.

(6) sécsec [*ni* kel7áqsten-s-*a* ti US-a]
silly *DET* chief-3SG.POSS-*DET* DET US-DET
'The president of the U.S. is a fool.'

a. The (present, not visible) president of the US is a fool.
b. The (past, not visible) president was a fool.
c. * The (past, not visible) president is a fool.
(Demirdache 1997b: ex. 10)

This apparent link between the tense of the determiner and the tense of the main predicate – and in particular Demirdache's claim that it is the determiner which influences the tense of the predicate rather than the other way around - looks like potential evidence for interpretable T features on D.

There is one main problem with this idea: the tense effects of the determiners are optional. As indicated above, the determiner *na...a* only sometimes induces a past-time effect on the nominal predicate inside the DP. The reading in (6a) and the sentence in (7) show that it is possible for a DP headed by *na...a* to have its nominal predicate interpreted as holding at the utterance time.

(7) wa7 láku7 ottawáh-a *na* kukwpi7-lhkálh-*a*
PROG DEIC Ottawa-DET *DET* chief-1PL.POSS-*DET*
'Our (present, not visible) chief is in Ottawa.'

The fact that the determiner *na...a* only sometimes gives rise to a past tense interpretation means that if the tense effect is induced by an interpretable T feature on D, then either that feature must be optional, or it must be only optionally interpretable. The latter alternative must presumably be ruled out somehow, since a T feature which is optionally interpretable would lead to optional nominative Case assignment, which in turn would undermine the entire foundations of Case Theory (which is designed to explain certain obligatory patterns displayed by DPs). If, on the other hand, we say that the determiner *na...a* sometimes (e.g. in (6c)) has an interpretable T feature and the rest of the time (e.g. in (6a)), has no T feature at all, we are denying that there is a straightforward relation between the surface form and the presence of the relevant kind of feature. But in that case, the proposal becomes unfalsifiable: an interpretable T feature is postulated exactly when the tense effect is observed, and not when it is not, independent of the choice of overt determiner. In short, what I believe would constitute serious potential evidence for an interpretable T feature on D would be if *na...a* unambiguously induced a past tense interpretation. This is not the case.

If the temporal effects illustrated in (4-6) do not instantiate interpretable T on D, then how should they be analyzed? While I do not have a full answer to that at this stage (and while it is not the focus of the current paper), I believe that the truth-conditional semantics of the St'át'imcets determiners relate only to spatial location, with the tense effects being

pragmatic. The sentences in (8) give a complete paradigm of temporal possibilities; results are summarized in the table in (9).[6]

(8) qwenúxw na kúkwpi7-s-a ta lil'wat7úl-a
sick DET chief-3SG.POSS-DET DET Mt. Currie-DET

a. * The (present, visible) chief of Mt. Currie is sick.
b. * The (present, visible) chief of Mt. Currie was sick.
c. The (present, not visible) chief of Mt. Currie is sick.
d. The (present, not visible) chief of Mt. Currie was sick.
e. * The (past, visible) chief of Mt. Currie is sick.
f. * The (past, visible) chief of Mt. Currie was sick.
g. * The (past, not visible) chief of Mt. Currie is sick.
h. The (past, not visible) chief of Mt. Currie was sick.

(9) Readings for *na...a*

	noun predicate	visible / not visible	main predicate	judgement
i.	present	visible	present	*
ii.	present	visible	past	*
iii.	present	not visible	present	√
iv.	present	not visible	past	√
v.	past	visible	present	*
vi.	past	visible	past	*
vii.	past	not visible	present	*
viii.	past	not visible	past	√

Several generalizations emerge from (9). *na...a* clearly does not always influence the tense of the main predicate, as shown by the availability of the 'present – not visible – past' reading (iv). *na...a* also clearly does not have a reading where it purely modifies the tense of the nominal (i.e., it does not mean something like *ex-),* as shown by the impossibility of readings where the nominal predicate is in the past and the main predicate is in the present (v, vii). The interesting contrast is between reading (vii), 'past – not visible – present', which is bad, and reading (viii), 'past – not visible – past', which is good (i.e., Demirdache's contrast from (6b,c) above).

More work needs to be done here, but I would like to tentatively suggest that all the facts can be accounted for by the assumption that *na...a* simply means 'not visible', and that it does not have the ability to give a past tense semantics to the nominal predicate. This analysis accounts for the impossibility of 'past – not visible – present' (vii), yet allows 'past – not visible – past', in the following way. The main predicate has the option of being in the

[6] There is some variability in judgements both within and between speakers, and discourse context affects the results. For example, since stative predicates like *qwenúxw* 'sick' are by default interpreted in the present tense, obtaining a past tense interpretation requires the setting up of a past topic time.

past. Once we are talking about a past time, it is natural for it to be possible that we are talking about a past chief. This is not, however, part of the semantics of the DP. The St'át'imcets sentence is then parallel to an English sentence like 'The chief was sick', which can be used to talk about someone who was a chief in the past, although this is not forced by a past tense determiner. Note also that in English it is bad to say 'The chief is sick', with matrix present tense, while referring to a past chief; this corresponds to (vii).

In summary, I believe that *na...a* has purely spatial semantics. The choice of determiner in St'át'imcets does not delimit the time at which the nominal predicate is interpreted. Rather, *na...a* simply means 'not visible'; a past reading of the nominal must be facilitated by a past tense main predicate.

Returning to the tense preferences in simple sentences illustrated in (4-5), the explanation for these seems to lie in interactions with the evidential system (see Davis and Saunders 1974, 1975 for claims to this effect about Bella Coola). In the absence of any evidential marking, speaker witness is strongly implicated in St'át'imcets. Now, if the referent of a DP is spatially absent (as indicated by the use of *na...a),* then it is not likely that the speaker can have personal knowledge of what they are presently doing. This predicts the preferred interactions between determiner choice and tense in (4-5).

To summarize the results of this sub-section, the St'át'imcets determiners do not instantiate interpretable T features, and more generally, they do not express tense in their semantics. The optional tense effects arise merely as implicatures from the base meaning of the determiners, which is spatial.

2.2 Tense morphemes inside DP

Since Salish determiners do not provide evidence for interpretable T features on D, we must look elsewhere inside the DP. The Halkomelem data in (10-11), from Wiltschko (2003), show that the overt tense morphemes which are used on main predicates may also occur inside noun phrases. These DP-internal tense morphemes are argued by Wiltschko to provide evidence for interpretable T features on D.

(10) a. í-*lh* tsel lám
AUX-*PAST* 1SG.S go
'I'm gone.'

b. th'í:qw'e-th-omé-tsel-*cha*
punch-TRANS-2SG.O-1SG.S-*FUT*
'I will punch you.'

(11) a. te-l má:l-*elh*
DET-1SG.POSS father-*PAST*
'my late father'

b. te-l swáqeth-*cha*
DET-1SG.POSS husband-*FUT*
'my future husband'

Tense morphemes also appear inside argument DPs in St'át'imcets. (12) shows the past tense clitic *tu7* attaching to a verbal main predicate; in (13) this same clitic attaches to a noun inside an argument DP.[7]

(12) sáy'sez' *tu7* kw-s Helen
play *PAST* DET-NOM Helen
'Helen played / *is playing.'

(13) a. nilh na naplít-a *tu7* tu wa7 xwey-s-án
FOCDET priest-DET *PAST* DET IMPF love-CAUS-1SG.CONJ
'It's an ex-priest who I love.'

b. wá7-lhkan t'u7 xwey-s na
IMPF-1SG.SUBJ just love-CAUS DET
n-sem7ám-a *tu7*
1SG.POSS-wife-DET PAST
'I still love my ex-wife.'

c. nás-kan npzan ti n-sem7ám-a *tu7* natcw
go-1SG.SUBJ meet(DIR) DET 1SG.POSS-wife-DET *PAST* day
'I'm going to meet my ex-wife tomorrow.'

Since the temporal morphology in (11) and (13) does not appear on the D itself, the claim that this morphology represents interpretable T features on D must rely on some as yet unformalised notion of feature percolation, such that a feature which on the surface appears inside the complement of D ends up being located on the D itself. Let us assume for the sake of argument that there is such a percolation operation.[8]

There is, however, another syntactic issue to be dealt with before we can draw any conclusions from the data in (10-13) about interpretable T on D. We need to establish that the temporal morphemes are not merely attaching to the main predicate of a (possibly headless) relative clause. If the data were analysable in this way, then the temporal morphology would not constitute evidence for an interpretable T feature on D, since English also allows tense on predicates contained within relative clauses:

(14) [That guy who was a priest] is handsome.

The Halkomelem data provided by Wiltschko, as well as the

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[7] For discussion of the semantics of *tu7*, see van Eijk (1997), Davis (in prep., chapter 19), Matthewson (2002, to appear) and Davis and Matthewson (this volume).

[8] This raises the question of whether there are any languages which really encode tense on their determiners. One possible case is Chamicuro (Parker 1999). Lecarme's (1996, 1998) work on tense attaching to Ds Somali is also relevant, although it is not obvious that what is being encoded there is really tense. For example, the Somali nominal tense markers can be used to encode spatial distance (e.g., the 'past' morpheme can occur in a present-tense context, as long as the referent is spatially absent).

St'át'imcets data in (13), are all compatible with a relative clause analysis.[9] Under this analysis, (11a) would be more accurately glossed as 'the one who was my father', and (13a) would correspond to 'it's one who was a priest who I love'. The reason this analysis is possible is that neither Halkomelem nor St'át'imcets possesses an overt predicational copula, they both allow null *pro,* and both have null third person singular intransitive agreement. This means that the presence of a relative clause structure with an intransitive main predicate is not expected to be signaled in any overt way, and 'the man' (or more generally, 'DET N') is indistinguishable on the surface from 'the one who is a man' ('DET one who is a N'). The latter analysis is very familiar for Salish; Jelinek (1993, 1995) has famously argued that all DPs with the surface from 'DET N' in Straits Salish are really disguised relative clauses (see also Kinkade 1983, Bach 1992[10]).

Fortunately, there is a way to find out whether the temporal morphemes can attach to a DP-internal noun which is not a relative clause predicate. Demirdache and Matthewson (1995), Matthewson and Davis (1995), and Davis (2002) have argued that nouns in certain syntactic positions in St'át'imcets are unambiguously uninflected nouns rather than relative clause predicates. One such position is the head of an overtly headed relative clause. Thus, while a DP of the surface form 'DET N' could be analyzed as 'DET one who is a N', a DP of the surface form 'DET RC N' or 'DET N RC' crucially contains a non-clausal N in head position. What we need to do, then, is try to attach the temporal morphemes to the head of an overtly headed relative clause.

For St'át'imcets, it turns out that such attachment is possible, as shown in (15). This suggests that unlike English, St'át'imcets does indeed allow tense morphemes to attach directly to bare nouns within DP. I will presume that the same holds for Halkomelem.

(15) a. wa7 lt7u [ta naplít-a *tu7* cuz' aylh melyíh]
be DEIC DET priest-DET *PAST* going.to then marry
'There's that ex-priest who's going to get married.'

b. ts7as láti7 [ta kúkwpi7-a *tu7* nas nk'a7]
come DEIC DET chief-DET *PAST* go get.stuck
'Here comes the ex-chief who's going to jail.'

Now we can ask what should we conclude from these data. As Wiltschko observes, it is crucial to show that the Salish DP-internal tense morphemes have a different status from DP-internal tense effects in English (which by assumption has uninterpretable T features on D). Thus, Wiltschko argues that temporal modifiers within DP in Halkomelem differ from English adjectives such as *late, former, future* and the prefix *ex-*. She claims that the

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[9] See Wiltschko (2003:683-4). Even the Halkomelem 'prepositions' (Wiltschko's examples 53a,b) are actually predicative. For example, *stetís* 'near' can function as a main predicate, and therefore actually means 'be near'; Martina Wiltschko, p.c.).

[10] Although see Davis (this volume), and many references cited therein, for arguments against Jelinek's claim.

English modifiers carry lexical information apart from tense, while the Halkomelem morphemes purely indicate 'past' or 'future' and receive their other meanings (which in the case of the past morpheme include death, destruction or loss) by pragmatic means (following Burton 1997). For example, in (11a) above, the Halkomelem phrase means something like 'my father-in-the-past', which gives rise to an implicature that he is dead. The English adjective *late,* on the other hand, conveys dead status as part of its lexical meaning, and is therefore not a pure 'past' marker.

While it is true that *late* has lexical meaning other than 'past', this is not so for *former* or *future.* Just like St'át'imcets *tu7* or Halkomelem *–elh,* English *former* has 'past' as its basic meaning, and gives rise to a range of pragmatically-influenced interpretations. Partee and Borschev (1998) observe, for example, that 'A *former mansion* ... is something that was once a mansion and no longer is – it has fallen into ruin, or been badly damaged by a bomb, or converted into an apartment house, or some other such change.' Examples of *former* and its different pragmatically-induced readings are given in (16), and examples with *future* are provided in (17).[11]

(16) a. My former car is now owned by Meredith.
[LOSS OF POSSESSION]

b. The former Linguistics building is now being used by English.
[CHANGE]

c. There goes my former car! (pointing at a heap of scrap metal)
[DESTRUCTION]

(17) a. Come and I'll show you my future house.
[GAIN OF POSSESSION]

b. This is where my future house will be built.
[CREATION]

c. For the sake of my future children, ...
[BIRTH]

The data in (16-17) show that English possesses adjectives with temporal semantics, which give rise to a range of implicatures, in exactly the way that Burton (1997) proposes for Halkomelem *–elh.* This strongly suggests that there is no semantic difference between English on the one hand, and Halkomelem and St'át'imcets on the other, when it comes to elements inside DP which affect the time at which the nominal predicate holds.

However, there is still a possible (morpho-)syntactic difference. In Halkomelem and St'át'imcets, as opposed to in English, the same morphemes are used both inside DPs and in the verbal domain. Wiltschko (2003:667) argues that 'The assumption that the tense endings on the noun in Halkomelem

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[11] A 'death' reading is odd for *former;* (i) strongly suggests that the teacher is still alive.

(i) My former teacher was a Nobel laureate.

This plausibly results from the existence of the lexical item *late;* if the speaker knows that the individual has died, using *late* would be a clearer way to convey this meaning, and would therefore be preferred by Gricean principles.

instantiate the category T is supported by the fact that these tense endings on nouns are the same as the tense morphemes found in the clausal domain'.[12]

Even here, however, it is not obvious that the languages differ qualitatively. The English temporal modifier *then* also shows cross-categorial behaviour, appearing either in the verbal or nominal domain (thanks to Henry Davis (p.c.) for pointing this out):

(18) a. The president resigned *then.*
b. The president *then* was unfortunately a moron.
c. The *then* president was unfortunately a moron.

(18a-c) are particularly interesting because according to Wiltschko's proposal, the Halkomelem temporal morphemes are not functional heads limited to T position; one plausible analysis of them would therefore be that they are adverbial (or ad-predicative, since they attach to both nouns and verbs). Such an analysis would make them look quite similar to English *then* (see Davis and Matthewson (this volume) for just such an analysis of St'át'imcets *tu7).*

So far in this section I have argued that all three of the languages under discussion display similar temporal effects within DPs. I will now address the issue of temporal independence.

In both Halkomelem and St'át'imcets, the tense inside the DP is independent of (can clash with) the tense of the main predicate of the sentence. For St'át'imcets, this was shown above; the examples in (13,15) have <u>past</u> tense inside the subject DP, but clausal <u>present</u> tense. In Halkomelem too there are mismatches between the tense marking inside the DP and the temporal interpretation of the main predicate; an example is given in (19).

(19) slelíkw ta' <u>x</u>eltel-*elh*
broken your pencil-*PAST*
'Your (destroyed) pencil is broken.' (Burton 1997)

It is not actually obvious what the 'interpretable T on D' analysis predicts about temporal independence between the verbal and the nominal predicates. The issue of whether interpretable T features inside DP would be expected to 'take over' the function of tense in the verbal domain (and therefore be unable to conflict with it) is not an obvious one, and is not explicitly discussed by Wiltschko. However, it seems that the data in (13,15,19) pose a problem for the fundamental intuition behind the proposal. The reasoning runs as follows.

There are two possibilities: either interpretable T features on D would not allow temporal independence between the verbal and the nominal domains, or they would. In the former case, the data in (13,15,19) are counter-examples. In the latter case, we can rule in (13,15,19), but the existence of two independent tense systems undermines the core intuition behind the proposal, namely that there is a causal connection between the <u>presence</u> of tense inside DP and its

[12] In this quote, the phrase 'the category T' does not refer to the syntactic position T (which Halkomelem is claimed to lack), but rather the semantic category tense.

absence in the verbal domain (see for example Wiltschko (2003:662), who claims that in Halkomelem, 'T on D is [+interpretable] and as a consequence T is no longer necessary as a syntactic head.'). Either way, the independence of the two temporal systems – and the necessary conclusion that there are two separate systems – casts doubt on the idea of a causal link.[13]

2.3 Conclusions

In this section, I have argued that neither Halkomelem nor St'át'imcets possesses interpretable T features on D. I showed that the apparent tense effects of St'át'imcets determiners are merely optional, and are derivative from the primarily spatial determiner semantics. With respect to DP-internal tense morphology in Salish, I showed that the semantics of these morphemes parallels that of certain English adjectives and adverbs. Finally, I pointed out that the DP-internal tense information is independent of the tense of the main predicate of the sentence. This casts doubt on any attempt to use the presence of DP-internal tense information to derive claims about the structure of the verbal domain.

The evidence discussed in this section leads to the following conclusion: since all three languages can achieve the same DP-internal tense effects, by means in each case of optional overt elements, we should postulate no systematic difference between the languages with respect to tense on determiners.

3. There is no link between tense and nominative Case

If there are no interpretable T features on D in St'át'imcets or Halkomelem, then the status of T on D cannot explain any other differences between these languages and English. However, recall the appeal of Wiltschko's proposal: it derives a wide range of apparently disparate properties of Halkomelem, by means of a single locus of difference with English. It is therefore worth examining in detail the cluster of properties accounted for by Wiltschko, to see whether an approach which links these properties might be the right way to go, after all.

The overall cluster of properties covered by Wiltschko's analysis was given in section 1.1 above; in this section I concentrate on the differences in (20), which are reflexes of the presence vs. absence of nominative Case.

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[13] There is one way for the 'T on D' hypothesis to escape the problem of temporal independence between the verbal and the nominal domains. This is to deny that the label 'interpretable' really means 'contributes to the semantics'. If we take this step, then all argumentation based on interpretation becomes irrelevant, and we are dealing with a purely formal proposal. However, there are good reasons why Wiltschko does not take this route; the proposal would then lose most of its empirical testability, empirical coverage, and explanatory power.

(20)

Property correlated with nominative Case	*English*	*Halkomelem*
Morphological case	YES	NO
A movement in passive	YES	NO
A-movement to SVO	YES	NO
Infinitival effect	YES	NO

The plan for this section is as follows. I will assume for the purposes of argumentation that Wiltschko is right that Halkomelem lacks nominative Case and all reflexes thereof. I will then investigate how St'át'imcets fits in with the proposed clustering of properties.[14] The conclusion of the section will be that if Halkomelem lacks nominative Case, then St'át'imcets and Halkomelem must differ in the values they have chosen for the parameter. I will then argue that this situation would be undesirable, since it would fail to capture the many similarities between the two languages when it comes to tense.

3.1 Morphological case

A language which lacks abstract nominative Case is predicted to lack morphological nominative case marking. Wiltschko claims that this prediction is upheld for Halkomelem, since neither overt DPs nor emphatic pronouns display any morphological difference between subjects and objects. Examples are given in (21) and (22).[15]

(21) a. iwólem [te stá:xwelh]$_{SUBJ}$
playing DET children.PL
'The children are playing.'
(Wiltschko 2003:671; from Galloway 1980:41)

b. kw'éts-l-exw-es [te swíyeqe]$_{SUBJ}$ [te spá:th]$_{OBJ}$
see-TRANS-3O-3S DET man DET bear
'The man sees a bear.'
(Wiltschko 2003:671; from Galloway 1980:41)

(22) a. lám [thú-tl'ò]$_{SUBJ}$
go DET.FEM-3INDEP
'She goes.' (Wiltschko 2003:671; from Galloway 1993:173)

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[14] I will not discuss case-driven movement in passives, since the issue is very complex in St'át'imcets (as in most Salish languages), and would fill an entire paper on its own. I will also not discuss the arguments given by Davis and Matthewson (2003) that St'át'imcets possesses abstract structural case (and therefore is likely to possess abstract nominative Case).

[15] Pronominal agreement endings in all Salish languages do show what look like case distinctions (see for example Wiltschko 2003:691, fn 25). But I will leave this issue here, since I am assuming for the purposes of argumentation that Halkomelem lacks nominative Case.

b. óxwes-t-chexw [thú-tl'ò]$_{OBJ}$
give-TRANS-3SG.S DET.FEM-3INDEP
'You give it to her.'
(Wiltschko 2003:671; from Galloway 1993:173)

The same is true for St'át'imcets, as shown in (23) and (24).[16]

(23) a. wa7 sáy'sez' [i sk'wemk'úk'wm'it-a]$_{SUBJ}$
IMPF play DET child(PL)-DET
'The children is playing.'

b. wa7 áts'x-en-as [ti míxalh-a]$_{OBJ}$ [ti sqáycw-a]$_{SUBJ}$
IMPF see-DIR-3ERG DET bear-DET DET man-DET
'The man saw / is seeing a bear.'

(24) a. nás-kan áku7 táwn-a, nas [snilh]$_{SUBJ}$ áku7
go-1SG.SUBJ DEIC town-DET go 3SG.INDEP DEIC
South Carolina-ha
South Carolina-DET
'I am going to town and s/he is going to South Carolina.'

b. um'-en-lhkán s-Maria ts7a ta púkw-a,
give-DIR-1SG.SUBJ NOM-Maria DEMON DET book-DET
múta7 um'-en-tsí-lhkan [snúwa]$_{OBJ}$
and give-DIR-2SG.OBJ-1SG.SUBJ 2SG.INDEP
ts7a ku leqwáz'
DEMON DET blanket
'I gave Maria this book and I gave you this blanket.'

The fact that both languages lack morphological case does not tell us very much, since (as Wiltschko acknowledges) the morphological case data only provide a consistency argument. That is, the absence of morphological nominative case marking is consistent with the absence of abstract Case, but does not prove that abstract Case is missing.

3.2 Generalized case-driven A movement (A movement giving SVO)

According to the VP-internal subject hypothesis (Kitagawa 1986, Fukui and Speas 1986, Koopman and Sportiche 1991), subjects are base-generated VP-internally. If they move to a position such as Spec, TP (as in English), there must be a motivation for this movement. A common assumption in current theory is that this movement is driven by the need to acquire nominative Case. The claim that Halkomelem lacks nominative Case therefore predicts the

[16] Emphatic pronouns in St'át'imcets (as in most other Salish languages) have a restricted distribution; they require very particular discourse contexts when they appear in argument position, and prefer to be subjects rather than objects (see van Eijk 1997, Davis in prep.).

absence of such subject movement.

Wiltschko shows that this is true in Halkomelem. The usual word order is VSO, but SVO is permitted. However, there is evidence that the SVO order is obtained by A'-movement rather than by A-movement. The evidence comes from subject agreement morphology, which is deleted in SVO orders, in line with what usually happens with A'-movement but not with A-movement.

In St'át'imcets, the situation is different. In one of the two main dialects (Lower St'át'imcets), SVO word order is possible. Unlike in Halkomelem, subject agreement remains identical in the SVO word order to in the usual VSO order. Crucially, the subject agreement in St'át'imcets SVO structures differs from the agreement seen in A'-movement structures. This is illustrated in (25-27). The relevant A'-movement morphology is the optional use of *–tali,* the non-topical subject marker, instead of the usual ergative ending *–as.* The A'-extraction morphology in (25) is ungrammatical on ordinary SVO orders as in (18). (See van Eijk 1997, Roberts 1994, Davis 1994, to appear, in prep. for discussion.)

(25) A'-movement morphology:

a. swat ku ats'x-en-as / *-táli* ti naplít-a
who DET see-DIR-3ERG / *-TOP* DET priest-DET
'Who saw the priest?'

b. nilh s-Mary ats'x-en-as / *-táli* ti naplít-a
FOC NOM-Mary see-DIR-3ERG / *-TOP* DET priest-DET
'It was Mary who saw the priest.'

(26) VSO order:

áts'x-en-as / **-tali* kw Mary ti naplít-a
see-DIR-3ERG / **-TOP* DET Mary DET priest-DET
'Mary saw the priest.'

(27) SVO order:

kw Mary áts'x-en-as / **-tali* ti naplít-a
DET Mary see-DIR-3ERG / **-TOP* DET priest-DET
'Mary saw the priest.'

It looks as if Halkomelem and St'át'imcets are beginning to diverge, with St'át'imcets showing evidence for abstract Case.[17]

However, the evidence is not yet conclusive. Wiltschko observes (2003:678, fn 17) that A-movement resulting in SVO order could be motivated by some triggering mechanism <u>other</u> than Case (e.g., by agreement). Therefore,

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[17] This may be more generally an Interior Salish / Coast Salish split (Henry Davis, p.c.): Shuswap, Thompson and Okanagan (all Interior languages) allow A-movement to SVO, while Halkomelem and Squamish (both Coast languages) do not.

the presence in St'át'imcets of A-movement giving SVO order does not prove that there is nominative Case.[18] In the following sub-section we will see more convincing evidence for nominative Case in St'át'imcets.

3.3 Infinitives

A language without nominative Case and without a TP projection is predicted to lack what Wiltschko calls the 'infinitival effect'. That is, it should lack a contrast between clauses which contain tense morphology and overt subjects (finite clauses), and clauses which lack tense morphology and therefore obligatorily lack overt subjects, since nominative Case cannot be assigned (infinitives). Wiltschko claims that this prediction is correct for Halkomelem.

St'át'imcets, on the other hand, possesses an infinitival effect, as defined by Wiltschko. Each of the subordinate clauses in (28) displays the morphological, syntactic and semantic properties of an infinitival clause (see Davis and Matthewson 1996 for some discussion).

(28) a. xat' [k-wa mets-cál]
hard DET-IMPF write-ACT
'It's difficult to write.'

b. qvl̓ [ku wa7 naq'w]
bad DET IMPF steal
'It is bad to steal.' (Davis in prep.)

c k'ínk'ent [ku wa7 t'ak áta7]
dangerous DET IMPF go.along DEIC
'It's dangerous to go that way.' (Davis in prep.)

d. lhík-s-kan [ku mets-cál]
clear-CAUS-1SG.SUBJ DET write-ACT
'I know how to write.'

e. núk'w7-an-ts-as [ku mets-cál]
help-DIR-1SG.OBJ-3ERG DET write-ACT
'He helped me to write.'

f. t'áy-n-as ti7 [k-wa léxlex]
pretend-DIR-3ERG DEMON DET-IMPF clever
"He's pretending to be clever."

g. wa7 ama-mín-itas [k-wa pix-em' tákem
IMPF good-RED-3PL.ERG DET-IMPF hunt-MID all

[18] Correspondingly, this weakens the force of the Halkomelem word-order evidence against abstract Case, since either the absence or the presence of A-movement is consistent with a Case-less analysis, depending on assumptions about the ability of agreement to trigger such movement.

i twé.w.w'et-a]
DET.PL boy-DET
'All boys love to hunt.'

It is ungrammatical to add subject agreement morphology to any of the infinitives in (28). (29) shows what happens in finite intransitive subordinate clauses: the main predicate is nominalized and subject agreement morphology takes the form of possessive clitics. (30) shows that infinitives (which are not nominalized) cannot contain possessive subject clitics.

(29) a. lil'q kw-*en-s* mets-cál
easy DET-*1SG.POSS-NOM* write-ACT
'It's easy for me to write.' (lit.: 'It's easy that I write.')

b. núk'w7-an-ts-as kw-*en-s* mets-cál
help-DIR-1SG.OBJ-3ERG DET-*1SG.POSS-NOM* write-ACT
'He helped me to write.' (lit.: 'He helped me that I write.')

(30) a. * núk'w7an-ts-as ku *n*-mets-cál
help-DIR-1SG.OBJ-3ERG DET *1SG.POSS*-write-ACT
'He helped me to write.'

Consultant's comment: "Bad. Where do you get the "n" from?"

b. * lhík-s-kan ku *n*-mets-cál
clear-CAUS-1SG.SUBJ DET *1SG.POSS*-write-ACT
'I know how to write.'

For completeness, (31) shows that ordinary matrix clause subject morphology is also ungrammatical on infinitives.

(31) a. * núk'w7an-ts-as ku mets-cál-*lhkan*
help-DIR-1SG.OBJ-3ERG DET write-ACT-*1SG.SUBJ*
'He helped me to write.'

Consultant's comment: "That *lhkan* throws it right out, because you've got two "me"s in there."

b. * lhík-s-kan ku mets-cál-*lhkan*
clear-CAUS-1SG.SUBJ DET write-ACT-*1SG.SUBJ*
'I know how to write.'

It is also ungrammatical to add an overt subject DP to an infinitive, as shown in (32). (32a) is ungrammatical because the DP *kws Bob* cannot function as the subject of the matrix predicate *xat'* (since this predicate does not take animate subjects), and therefore would be forced to be the subject of the infinitive. In (32b), on the other hand, *kws Bob* is the subject of the transitive matrix verb *xat's* ('to have a hard time with'), and the sentence is fine.

(32) a. * xat' [k-wa mets-cál kw-s Bob]
hard DET-IMPF write-ACT DET-NOM Bob
* 'It is difficult Bob to write.'

b. [xát'-s-as ku mets-cál] kw-s Bob
hard-CAUS-3ERG DET write-ACT DET-NOM Bob
'Bob has a hard time to write.'

(33) illustrates the same point using another matrix predicate, *lil'q* 'easy'. (33a) is the ungrammatical attempted infinitive with *kws Bob* as its subject; (33b) is a grammatical version with a finite subordinate clause, and (33c) has *kws Bob* being the subject of the matrix verb *lil'qs* 'to have an easy time with'.

(33) a. * lil'q [ku wa7 q'wez-ílc kw-s Bob]
easy DET IMPF dance-AUT DET-NOM Bob
* 'It is easy Bob to dance.'

b. lil'q [kw-s q'wez-ílc kw-s Bob]
easy DET-NOM dance-AUT DET-NOM Bob
'It is easy for Bob to dance.' (lit.: 'It is easy that Bob dances.')

c. [líl'q-s-as ku wa7 mets-cál] kw-s Bob
easy-CAUS-3ERG DET IMPF write-ACT DET-NOM Bob
'Bob has an easy time to write.'

These data demonstrate that St'át'imcets possesses a finite / non-finite distinction, where the infinitivals obligatorily lack overt subjects. This is evidence for nominative Case.[19]

3.4 Extra properties tied to the presence of infinitives

Wiltschko observes that two further properties of Halkomelem automatically fall out from the absence of infinitives: Halkomelem lacks both *seem*-type raising and Exceptional Case Marking. Interestingly, however, St'át'imcets infinitives also lack *seem*-type raising and ECM. With respect to *seem,* there are simply no such verbs in the language. With respect to ECM, most of the usual ECM verbs are intransitive in St'át'imcets, and therefore would not be able to assign accusative Case anyway. (34) shows an attempt at ECM using the transitive predicate *zwáten* 'know'. Assuming that ECM involves a structure smaller than CP, (34) has an embedded infinitive which lacks a complementizer.

(34) * zwát-en-lhkan kw-s Bob qwatsáts
know-DIR-1SG.SUBJ DET-NOM Bob leave
'I know Bob to have left.'

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[19] Kroeber (1999:220-223) provides evidence for infinitives in Thompson (Interior Salish) which also contain no nominalization and no subject person marking.

This suggests that ECM is absent from St'át'imcets for some reason which is independent of the existence of infinitives. Investigation of what that other reason might be goes beyond the scope of the current paper. The point is merely that the absence of *seem*-raising and ECM in Halkomelem do not constitute extra evidence for the absence of nominative Case. While it may be true that a language without infinitives would necessarily lack these phenomena, languages which possess infinitives can also lack them.[20] This is therefore another consistency argument.[21]

3.5 Discussion of results

The results of our investigations so far are summarized in (35).

(35)

Property of nominative Case	*English*	*Halkomelem*	*St'át'imcets*
Morphological case	YES	NO	NO
A-movement to SVO	YES	NO	YES
Infinitival effect	YES	NO	YES
Seem-raising	YES	NO	NO
Exceptional Case Marking	YES	NO	NO

St'át'imcets and Halkomelem pattern alike on some properties, and differently on others. It seems that there is a problem with the predictions of the parameter, since the properties it groups together fail to cluster when a third language is looked at.

However, the breakdown of the cluster is only apparent. Wiltschko's parametric approach does survive when faced with the data summarized in (35), although in a way which I will argue leads to unwelcome results. It turns out that St'át'imcets is straightforwardly analysable as having chosen the English setting of the parameter. St'át'imcets possesses infinitives and A-movement to SVO,

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[20] Incidentally, neither St'át'imcets nor Halkomelem lacks raising to object altogether. St'át'imcets examples are given in (i,ii); see Davis (in prep., Chapter 30) for more data and discussion. See also Gerdts (1988) for Halkomelem, and J. Davis (1980) for Sliammon.

(i) qan'ím-ens-tum *i* *svgth-a* kw-s ts7ás-wit
hear-DIR-1PL.SUBJ *DET.PL* *sister-DET*DET-NOM come-3PL
'We heard the sisters coming.'
(lit.: 'We heard the sisters that they came.') (Davis in prep.)

(ii) tákem wa7 zwat-en-*tsál*-itas kw-en-s-wá nk'yap
all IMPF know-DIR-*1SG.OBJ*-3PL.ERG DET-1SG.POSS-NOM-IMPF coyote
'Everyone knows that I'm a coyote.'
(lit.: 'Everyone knows me that I'm a coyote.') (van Eijk and Williams 1981)

[21] The same is true of the absence of a syntactic distinction between unaccusative and unergative predicates (Wiltschko 2001, 2003:676-677). A language which possesses Case-driven A-movement would still not necessarily display differences in extraction behaviour out of unaccusatives and unergatives.

and the properties for which St'át'imcets gets a 'no' result were consistency arguments only. That is, with respect to morphological case, *seem*-raising and ECM, while the Halkomelem setting of the parameter predicts these phenomena to be absent, the English setting does not necessarily require them to be present. One thing to note about this situation is that it reduces the empirical success of the 'interpretable T on D' parameter. Now, the absence of nominative Case provides a solid explanation for only one property of Halkomelem: the lack of infinitives.[22]

We have seen that the empirical evidence is consistent with the claim that St'át'imcets possesses nominative Case. Is it possible to reconcile the data with the claim that St'át'imcets lacks nominative case? Not if the presence of an infinitival effect is evidence for nominative Case. The fact that St'át'imcets possesses infinitives which obligatorily lack overt subjects seems to force us to conclude that the language has nominative Case.

3.6 It is not a welcome result that Halkomelem and St'át'imcets differ

The discussion so far has lead to the conclusion that St'át'imcets possesses nominative Case, and therefore that if Halkomelem lacks nominative Case, the two languages differ in this respect. The 'interpretable T on D' parametric cluster is salvageable, but only under the assumption that St'át'imcets has chosen the English setting.

There is a problem with this result: it fails to capture the underlying intuition that there is something different about how Salish languages in general express tense from how English does. Non-obligatory tense morphology is a pan-Salish phenomenon, an identifiable characteristic of the entire family. Both St'át'imcets and Halkomelem allow surface-tenseless sentences, and allow temporal morphemes to attach in a variety of positions, including within argument DPs. The core idea of Wiltschko's approach is that it ties features of the tense system to features of the Case system. Yet the similarities in the tense systems are not captured if Halkomelem and St'át'imcets differ in their parameter values and hence in the absence vs. presence of nominative Case.

4 Do Salish languages lack a T head?

So far we have examined the evidence for interpretable T on D, and the potential relationship between tense and nominative Case in Salish. The issue to be addressed in this section is the status of the TP projection.

As mentioned above, Wiltschko (2003) proposes that Halkomelem lacks a TP projection, and she derives its absence from the Halkomelem setting of the T on D parameter: a T head is required neither for Case reasons, nor for interpretation purposes (since tense is expressed elsewhere; see Wiltschko 2003:662). I will argue here that if Halkomelem lacks a T head, then this is a purely syntactic fact, since Halkomelem (like all natural languages) must have some position in every finite clause containing temporal information. I will then show that this leads to a conceptual problem for the T on D parameter.

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[22] As mentioned above, I am setting aside discussion of the passive since its analysis is controversial across the Salish family.

4.1 There is some position containing tense information

In Matthewson (2002, to appear), I argue that there must be an element in every finite clause in St'át'imcets which deals with temporal information. Here I will summarize one of the arguments.

Suppose there were no position in a sentence which contained tense information. Then, we would predict that temporal interpretation should be free. However, this is not the case. It is true that sentences like those in (36) are capable of being interpreted as either present or past:

(36) a. (wa7) alkst lts7a kw-s Rhonda
(IMPF) work here DET-NOM Rhonda
'Rhonda works here / Rhonda worked here.'

b. cw7it i qvl-a sman'c n-s-mán'c-em
many DET.PL bad-DET tobacco 1SG.POSS-NOM-smoke-MID
'I smoke a lot of pot / I smoked a lot of pot.'

However, in a particular discourse context, temporal interpretation is fixed, as shown in (37) and (38). In (37), the first sentence establishes a present tense, and this must carry over to the second sentence; in (38), the first sentence is in the past, and the second must also be in the past.

(37) nilh ts7a ta skúl-a
FOC here DET school-DET
'Here is the school.'

(wa7) alkst lts7a kw-s Rhonda
(IMPF) work here DET-NOM Rhonda
'Rhonda works here.' / * 'Rhonda worked here.'

(38) tsícw-kan *tu7* áku7 Amsterdam-a
go-1SG.SUBJ *PAST* DEIC Amsterdam-DET
'I went to Amsterdam.'

cw7it i qvl-a sman'c n-s-mán'c-em
many DET.PL bad-DET tobacco 1SG.POSS-NOM-smoke-INTR
* 'I smoke a lot of pot.' / 'I smoked a lot of pot.'

One might think that the influence of context shows that temporal interpretation is 'purely pragmatic' in St'át'imcets. However, this is not the case. Pragmatic effects are detectable precisely because they are only tendencies, cancelable in the right discourse contexts. However, the St'át'imcets tense effects are very strong. For example, it is not just that speakers prefer to insert the past tense clitic *tu7* into the second sentence of (37) to disambiguate, if they intend past time reference. Rather, (37) is rejected as false if the situation is that Rhonda worked at the school in the past and no longer does. If Rhonda is dead (pragmatically forcing the past-tense interpretation), (37) is still rejected. Since the context is affecting the truth conditions, then the effect of context must be

mediated through an element in the syntactic representation which is fed to the semantics. In other words, there must be some position in the tree in which temporal information (e.g., a variable for the reference time) is located.

The currently available literature on Halkomelem does not, to my knowledge, explicitly discuss context effects as in (37) and (38). However, the discussion in Matthewson (2002, to appear) of what a truly 'tenseless' language (a language which allows finite clauses to lack a position containing temporal information) would have to look like suggests that such languages do not exist. I will therefore assume that in Halkomelem there is also an element (possibly unpronounced) in every clause which conveys tense information.

4.2 Is the position T?

If we adopt as a null hypothesis the idea that languages will possess the same underlying structures, then the default expectation is that Salish languages will possess a functional head T (just like English), even if the surface evidence for such a position is sparse. On this basis, I assumed in earlier work that St'át'imcets possesses a T head – simply because there were no compelling reasons to believe otherwise.

Of course, the null hypothesis (being merely a methodological strategy, rather than an article of absolute faith) may well be incorrect, and language-particular evidence can always lead one to reject the assumption of 'sameness'. As mentioned above, Wiltschko proposes that Halkomelem lacks a functional head T. It is interesting to note, therefore, that Halkomelem and St'át'imcets differ in the placement possibilities of their tense morphemes. While in St'át'imcets, the past tense marker *tu7* is straightforwardly analysable as a second-position clitic, in Halkomelem, the word order possibilities of past-tense *–elh* are much more free. See Wiltschko (2003a,b) for details.[23]

In any case, as I did above with nominative Case, I will not take issue with Wiltschko's proposal that Halkomelem lacks a T head. Instead, I will accept the claim and investigate the consequences of it.

The main point to be made here is that since there must be some position in every clause containing tense information, Wiltschko's proposal that Halkomelem lacks a T head is purely a syntactic claim, about the location of that tense position. In the rest of this section I will argue that the reduction of the proposal to a purely syntactic claim guts the proposal of much of its predictive power, and takes away the grounds for postulating a link between tense and

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[23] As noted in section 2.2, some Salish temporal morphemes are analysable as adverbials. Davis and Matthewson (this volume) argue that this is the case for St'át'imcets *tu7; tu7* itself then does not occupy T, but co-occurs with a phonologically null, semantically under-specified tense morpheme. The Halkomelem tense morphemes, which Wiltschko has shown do not straightforwardly display the syntax of functional heads, might also be analysable in this way. However, then the debate about the presence or absence of a T node becomes a debate about an unpronounced element, and empirical arguments become correspondingly difficult to find. The details are not really relevant to our current concerns, since I am arguing that whether or not some Salish languages lack a T head, they still do not possess interpretable T features on D. See also footnote 25.

nominative Case.

4.2.1 Whether the position is T or not, there is no link between tense and nominative Case

Since semantic evidence suggests that there is an obligatory position in the verbal domain containing tense information, the proposal that Halkomelem lacks a T head must be understood as a syntactic claim about what that tense position is (or rather, what it isn't). That is, Wiltschko's analysis should not be understood to imply that Halkomelem differs fundamentally from English in its interpretive possibilities with respect to tense.

However, this leads us to a conceptual problem, namely that the motivation for the absence of T (namely that tense is expressed elsewhere, on D) disappears. The claim is that interpretable T features on D make the presence of a T node in the verbal domain unnecessary – but tense information is still expressed in the verbal domain (and, moreover, can conflict with the temporal information inside DP, as shown in section 2 above).

As for the technical details, if there is no link between nominative Case and tense (in the semantic sense), then this casts further doubt on the idea that Halkomelem possesses interpretable T features on D. If Halkomelem lacks a functional head which assigns nominative Case, and if Pesetsky and Torrego are right that nominative Case results from uninterpretable T features on D, then what we should say about Halkomelem is simply that it lacks uninterpretable T features on D.

5 What do we say about the Salish / English differences?

The purpose of this section is to sketch an alternative idea about what we should say about the differences between Salish and English with respect to tense.

My proposal is simple: we say nothing beyond listing different lexical entries for the tense morphemes. I have spelled out this analysis in detail in Matthewson (2002, to appear); I will briefly summarize it here. The proposal is that St'át'imcets possesses a phonologically null tense morpheme. This null tense morpheme differs from English tenses in that it is lexically underspecified; it does not specify whether the reference time precedes or overlaps with the utterance time. A simple sentence as in (39) is interpreted as saying that Helen sings at whatever is the contextually salient reference time.[24]

(39) ít'-em kw-s Helen
sing-MID DET-NOM Helen
'Helen sang / is singing.'

This analysis allows us to assume the same basic structure and temporal

[24] (39) is in the perfective aspect, so more precisely, Helen is asserted to sing at a time included within the contextually salient reference time.

system for both St'át'imcets and English.[25] Another feature of the analysis is that it predicts no necessary interactions between tense and either determiners or nominative Case assignment. Although the differing lexical entries for the tense morphemes derives a number of separate interpretive effects, some of them quite subtle, all the derived effects are confined to the domain of temporal interpretation (including the relation between tense and aspect). I will return to this point in section 6.2 below.

6 Beyond tense, beyond Salish

The preceding discussion leads to some general theoretical consequences. The first of these concerns the status of interpretable features and their relation to syntactic projections. The second concerns a theory of cross-linguistic variation.

6.1 The status of interpretable features

Wiltschko's proposal that Halkomelem possesses interpretable T features on D raises an interesting question about the nature of interpretable features generally. I have argued in this paper against the specifics of Wiltschko's analysis, but it is worth considering whether we should in general allow interpretable features of a certain category to be located on another category.

My claim is that we should not.[26] For example, I would like to suggest that it is in principle impossible to have an interpretable T feature on D – it would have to project as T. More generally: all and only interpretable features project distinct heads. If a feature is interpretable, it must project; if it is uninterpretable, it doesn't.

This idea is not new, but is tacitly assumed in much work within the Minimalist Program. Uninterpretable features are parasitic on interpretable heads; for example, agreement features sit on tense. (Chomsky 1995 rejects agreement heads precisely because they are uninterpretable.) The idea that features are interpretable if and only if they are on certain types of head is also present in Pesetsky and Torrego's discussion; they observe (p. 3) that

> Uninterpretable features of a lexical item are properties of the item that make no semantic contribution. Examples include person and number on T (or *wh* on C). Person and number features ... make a semantic contribution when they are found on DP or CP (McCloskey 1991), but make no semantic contribution on T.

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[25] The assumption that the St'át'imcets tense morpheme occupies a functional head T is based on a null hypothesis of universality, and on the absence of any good evidence to the contrary. Further research could show that the assumption is incorrect, but this would not alter the main conclusions about the nature of cross-linguistic variation in the semantics or the lack of a link between the various areas of the grammar.

[26] Thanks to Henry Davis (p.c.) for discussion of these issues.

6.2 Towards a theory of cross-linguistic variation

The two approaches to the Salish / English tense differences discussed in this paper correspond to two quite different conceptions of cross-linguistic variation. Wiltschko's proposal allows for cross-linguistic variation in functional structure. My analysis (outlined in section 5) is consistent both with an invariant functional structure, as well as with a strong constraint on cross-linguistic variation in the semantics, stated in (40). This is the Functional Parameterization Hypothesis (Fukui 1986, Fukui and Speas 1986), extended to semantics:

(40) Semantic variation is limited to the lexical entries of functional morphemes..

Another difference between the approaches concerns the extent of their empirical coverage and the type of parameters which are involved. Wiltschko's analysis covers a wide range of seemingly disparate data, coming from the domains of tense and of Case. The fact that its effects appear throughout different domains of the grammar makes it a parametric approach in the classical sense (cf. e.g., Jelinek's Pronominal Argument Parameter or Baker's Polysynthesis Parameter).[27] On the other hand, my analysis is 'micro-parametric': there is variation, but it is low-level and its effects are restricted to the domain of tense itself (see e.g., Davis 2001 for discussion of the macro-parametric / micro-parametric distinction).

Conceptually, the choice between these two approaches is partially a matter of taste. While the large empirical coverage of Wiltschko's approach has obvious appeal, there are also conceptual reasons for wanting to allow only micro-parametric variation; see Davis (2001), Matthewson (2003) for some discussion. In the end, however, the choice must be empirical. I have taken pains in this paper to show that the differences between the Salish languages under discussion and English are not as great as one might think, and in particular that the postulation of a causal connection between tense and determiners, or between tense and Case, is not empirically justified.

7 Conclusion

This paper was a response to Wiltschko's (2003) account of a number of differences between English and Halkomelem Salish. I have tried to show that Wiltschko's proposal, although elegant and far-reaching, suffers from empirical and conceptual problems. In particular, I have argued that there is no difference between English and Salish with respect to DP-internal tense and its

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[27] Martina Wiltschko (p.c.) does not want to equate the 'interpretable T on D' parameter with classical 'macro-parameters' such as the pro-drop parameter, the Pronominal Argument Parameter or the Polysynthesis Parameter. Unlike these others, Wiltschko's parameter is not separately stated as a stipulated binary opposition. Rather, it can be seen as simply one instance of the ability of languages to vary in terms of the functional projections they possess and the interpretability of various features. However, in its effects, Wiltschko's analysis is certainly macro-parametric in character.

link to matrix tense, that Salish languages do not pattern together in lacking nominative Case, and that whether or not Salish languages possess a TP projection, a link between tense and nominative Case is flawed as an explanation for the Salish / English differences. I have then suggested that a preferable analysis of the tense data locates the cross-linguistic differences purely within the lexical entries of the tense morphemes themselves.

Appendix

Key to St'át'imcets orthography (van Eijk and Williams 1981)

p	p	k'	k̓	gw	gʷ
p'	p̓	kw	kʷ	g'w	gʷ̓
m	m	k'w	k̓ʷ	h	h
m'	m̓	c	x	w	w
t	t	cw	xʷ	w'	w̓
ts	c	q	q	y	y
ts'	c̓	q'	q̓	y'	y̓
s	s	qw	qʷ	z	z
n	n	q'w	q̓ʷ	z'	z̓
n'	n̓	x	x	7	ʔ
t'	t̓	xw	xʷ	a	ə
lh	ɬ	r	ɣ	e	ə
l	l	r'	ɣ̓	i	i
l'	l̓	g	ʕ	u	u
k	k	g'	ʕ̓	v	ʌ

Abbreviations

ACT = active intransitivizer, AUT = autonomous intransitivizer, AUX = auxiliary, CAUS = causative transitivizer, CONJ = conjunctive subject, DEMON = demonstrative, DET = determiner, DIR = directive transitivizer, ERG = ergative, FEM = feminine, FOC = focus, FUT = future, IMPF = imperfective, INDEP = independent pronoun, MID = middle, MOD = modal, NOM = nominalizer, O(BJ) = object, PL = plural, POSS = possessive, RED = redirective applicative, SG = singular, S(UBJ) = indicative subject, TRANS = transitivizer, YNQ = yes-no question.

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