An Instantaneous Present Tense in Blackfoot

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1. Introduction

Blackfoot (Algonquian) appears to make no overt distinction between present and past tense, and has been argued to lack a Tense head (Ritter and Wiltschko 2004, 2005). The goal of this paper is to argue that Blackfoot is a tensed language. In particular, we propose that Blackfoot possesses a present tense morpheme which picks out the instantaneous utterance moment, much as suggested by Bennett and Partee (1978) for English. We compare Blackfoot to another superficially tenseless language, St’át’imcets (Salish), and argue that St’át’imcets differs from Blackfoot in lacking an instantaneous present tense.

The paper is organized as follows. In the remainder of the introduction we provide some background on the Blackfoot language and on viewpoint aspect. Section 2 introduces the puzzle which is at the core of our paper: an asymmetry between possible temporal interpretations for stative and eventive predicates. Section 3 presents our analysis, and section 4 discusses alternative proposals. In section 5, we compare Blackfoot with another superficially tenseless language, St’át’imcets, and find that an independent difference between the two languages correctly predicts some differences in temporal interpretation possibilities in the two languages. Section 6 concludes.

Blackfoot is an Algonquian language spoken in southern Alberta, Canada and northwestern Montana, USA. It is endangered, with approximately 5100 speakers remaining. All our data come from primary fieldwork unless otherwise specified.1

* We would like to thank Blackfoot consultant Beatrice Bullshields for sharing her language with us. We would also like to thank Solveiga Armoskaite, Shujun Chin, Henry Davis, Joel Dunham, Angelika Kratzer, Meagan Louie, Hotze Rullmann, Martina Wiltschko, and the audience at SULA 4 for helpful discussions and feedback. Research for this paper was supported by SSHRC grant #410-2006-2166 awarded to Martina Wiltschko, and SSHRC grant #410-2005-0875 awarded to Hotze Rullmann.

1 The consultant we work with is from the Blood (Kainaiwa) Reserve in Alberta. Some lexical items or affixes in this dialect differ slightly from those found the dictionary (Frantz and Russell 1989).
In order to facilitate understand of the data below, we provide some background on viewpoint aspect in Blackfoot. We assume standard definitions of perfective and imperfective, as in (1-2) (Kratzer 1998; see also Klein 1994):

(1) Perfective: Event time inside reference time (e.g., *I danced yesterday*).

\[
[[\text{perfective}]] = \lambda P \lambda t \exists e [P(e) \& \tau(e) \subseteq t]
\]

(2) Imperfective: Reference time inside event time (e.g., *I was dancing at 5 o’clock*).

\[
[[\text{imperfective}]] = \lambda P \lambda t \exists e [P(e) \& t \subseteq \tau(e)]
\]

Blackfoot overtly marks imperfective aspect on all predicate types, both eventives and statives. The imperfective gives rise to ongoing readings, as well as habitual readings; see Dunham (2007) for discussion. Dunham argues that imperfective marking is obligatory in Blackfoot. Thus, predicates which have no imperfective marking can be assumed to be perfective.\(^2\) Examples of perfective and imperfective eventive predicates are given in (3), and perfective and imperfective stative predicates are illustrated in (4).\(^3\)

(3) a. nitsspiyi
nit-ihpiyi
1SG-dance
‘I danced.’

b. nitáihpiyi
nit-a-ihpiyi
1SG-IMPF-dance
‘I am dancing.’
‘I dance.’ (habitual)

(4) a. nitsikoonsina
nit-ik-oksina
1SG-INT-mean
‘I am mean.’

\(^2\) There is an open question of whether perfective is itself overtly marked, in the form of stem-initial vowels and/or vowel length or accent distinctions. We set this issue aside here, since the relevant distinction for our purposes is simply between predicates which are marked for imperfective and those which are not. See Armoskaite (in prep.) for relevant discussion, and see section 4 below.

\(^3\) Blackfoot examples follow the orthography conventions in Frantz and Russell (1989) and Frantz (1991). The examples are presented first in a broad phonemic transcription, then in a morphemic analysis. Abbreviations are as follows: DEM = demonstrative, DET = determiner, IMPF = imperfective, INT = intensifier, INTR = intransitive, NEG = negation, POSS = possessive, SG = singular, SUBJ = subject, TR = transitive.
b. nitsikaoksin kam’so’ohkooyiiniki IMPERFECTIVE STATIVE
   nit-ik-a-oksin kamm-sa-ohk-ooy-yiniki
   1SG-INT-IMPF-mean if-NEG-all-eat-1SG.SUBJ
‘I am mean if I don’t get anything to eat.’ (Dunham 2007; re-checked)

2. Tensed or Tenseless? The Puzzle

If we look only at stative predicates, we could reach the conclusion that Blackfoot makes no overt contrast between present and past tense (cf. also Ritter and Wiltschko 2004). The preferred interpretation of statives is present, but past interpretations are possible in appropriate discourse contexts. Stative data are given in (5) and (6), with the preferred interpretation given first in each case.

(5) nitsiksttso’kini
   nit-ik-sttso’kini
   1SG-INT-hungry
   ‘I am really hungry / I was really hungry.’

(6) ikssksiniwie anni Martina
   ik-ssksini-wa ann-yi Martina
   INT-know-3SG 3DEM-4SG Martina
   ‘He knows Martina / He knew Martina.’

With eventive predicates, on the other hand (activities, achievements, and accomplishments), a contrast in temporal interpretation shows up: perfective forms may not be interpreted as present tense. This is illustrated in (7-8). In (7), there is no imperfective marking and the only available interpretation is past. In (8), which contains imperfective marking, a present interpretation is possible.4

(7) oma pita ipaawani
   3DEM eagle fly.up
   ≠ ‘That eagle is flying up.’ PRESENT
   = ‘That eagle flew up.’ PAST

(8) oma pita a-ipaawani
   3DEM eagle IMPF-fly.up
   ≠ ‘That eagle is flying up.’ PRESENT
   = ‘That eagle was flying up.’ PAST

Further minimal pairs illustrating the temporal interpretation puzzle are given in (9-10), involving an activity and an accomplishment respectively. The perfective (a)

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4 We do not include habitual readings when presenting these data for simplicity’s sake, but the generalization is that habitual readings are available for imperfective forms and not for perfective forms. However, for past habitual interpretations, a separate morpheme aisook(a) is preferred; see Dunham (2007) for discussion.
examples allow only past interpretations, while the imperfective (b) examples allow present interpretations.

(9)  a.  nítsśkiita
     nit-ihkiita
     1SG-cook
     ≠ ‘I am cooking.’  PRESENT
     = ‘I cooked.’      PAST

     b.  nitáihkiita
         nit-a-ihkiita
         1SG-IMPF-cook
         = ‘I am cooking.’  PRESENT
         = ‘I was cooking.’  PAST

(10) a.  nítsikooysskaa
         nit-ii-okooyi-hkaa
         1SG-?-house-acquire
         ≠ ‘I am building a house.’ PRESENT
         = ‘I built a house.’    PAST

     b.  nitáokooysskaa
         nit-a-okooyi-hkaa
         1SG-IMPF-house-acquire
         = ‘I am building a house.’ PRESENT
         = ‘I was building a house.’ PAST

One useful way to detect these temporal effects in a fieldwork situation is to use a discourse context which forces a present tense interpretation. One of these we have used extensively is the ‘telephone context’, illustrated in (11). We see in (11) that pragmatically felicitous continuations of the utterance ‘I can’t meet with you right now because …’ include only (i) stative predicates (as in (11a)) and (ii) imperfective eventive predicates (as in (11b)). A perfective eventive, as in (11c), is infelicitous because it places a necessarily past tense clause in a discourse context that requires a present tense interpretation.

(11)  Context: Your friend calls you on the phone and asks you to meet with her right now. You respond by saying ‘I can’t meet with you right now because …’

     a.  nítsıksttsokini
         nit-ik-sttsokini
         1SG-INT-hungry
         ‘I am really hungry.’
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b. nitáihkiita
   nit-a-ihkiita
   1SG-IMPF-cook
   ‘I am cooking.’

c. # nitsskiita
   nit-ihkiita
   1SG-cook
   ‘I cooked.’

The generalizations we have established so far are as follows: stative predicates can be used to describe a state which is ongoing at the utterance time, without needing to be in the imperfective. Eventive predicates, on the other hand, cannot be used to describe an event which is ongoing at the utterance time, unless they are in the imperfective. Thus, all perfective eventive predicates are interpreted as past (as suggested by Frantz 1991 and pace Ritter and Wiltschko 2004; see section 4 below). These tense/aspect interactions are summarized in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>STATIVE</th>
<th>EVENTIVE</th>
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<tbody>
<tr>
<td>PRESENT</td>
<td>PERFECTIVE: ✓</td>
<td>PERFECTIVE: *</td>
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<td></td>
<td>IMPERFECTIVE: ✓</td>
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<td>PAST</td>
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<tr>
<td></td>
<td>IMPERFECTIVE: ✓</td>
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Table 1: Tense/Aspect Interactions in Blackfoot

The next section presents our analysis of these facts.

3. Analysis

The starting point for our analysis is the observation that Blackfoot and English display a striking parallel. Recall that the ‘telephone context’ in Blackfoot distinguishes eventive predicates from statives. A further telephone context minimal pair is given in (12); recall that with statives, the imperfective marker is not required in the telephone context.

(12) Context: Your friend calls you on the phone and asks you to meet with her right now. You respond by saying ‘I can’t meet with you right now because …’

a. # nitsikksstoopa amo sinakiatsis
   nit-ii-okstoo’p-wa amo sinááki-a’tsis
   1SG-?-read-3SG 3DEM write-tool
   ‘I read this book (specific).’
The restriction on eventive predicates we find in the Blackfoot telephone context is exactly paralleled by a restriction in English. In English just as in Blackfoot, eventive predicates must be in the imperfective if the reference time coincides with the utterance time. This is illustrated in (13) (as well as by the English translations of the Blackfoot examples in (12)).

(13) Context: Your friend calls you on the phone and asks you to meet with her right now. You respond by saying ‘I can’t meet with you right now because …’

a. I’m hungry.
a’. # I’m being hungry.
b. # I cook.
b’. I’m cooking.
c. # I build a house.
c’. I’m building a house.

For English, the present-tense/imperfective effect can be obtained by claiming (following ideas in Bennett and Partee 1978) that the utterance time is an instantaneous moment, and that the present tense picks out this instantaneous moment. A present perfective requires the event to fit inside the speech time – but events cannot normally fit inside instantaneous moments, so present perfective eventives are ruled out. States, on the other hand, possess the sub-interval property. They can hold at moments, and therefore they can be in the present perfective. The subinterval property is defined in (14).

(14) A predicate p of times has the subinterval property iff for all times t, for all subintervals t’ of t, the truth of p(t) entails the truth of p(t’).

(Dowty 1979; cited in Copley 2002:18)

If we assume that the present tense denotes the moment of speech, t₀, and we adopt the standard analyses of the perfective and imperfective aspects given above in (1-2), then we predict that a perfective accomplishment predicate will be impossible in the present tense, since an event of, for example, reading a book cannot fit inside the instantaneous moment of speech. For example, the sentence I read this book makes the infelicitous assertion that there is an event of my reading this book whose run-time is included within the moment of utterance:

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5 This simplification is possible because we are setting aside discussion of embedded contexts for future research. We are also setting aside other uses of the English present tense, such as the reportive present and the futurate. See for example Cowper (1997), and references cited therein, for discussion.
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(15) \[
\text{[[present perfective I read this book]]}^0 \equiv \exists e \ [\text{read.that.book}(e) \land \text{Agent}(I,e) \land \\
\tau(e) \subseteq t_0]
\]

Exactly the same analysis can be applied to Blackfoot. Unlike in English, there are no overt morphological tense markers. However, we can nevertheless force a present-tense interpretation by use of the telephone context. Perfective eventive predicates are impossible in this context for the same reason they are in English with a present-tense form. This is illustrated in (16), which just like (15), infelicitously asserts that there is an event of my reading this book whose run-time is included within the moment of utterance.

(16) \[
\text{[[present perfective nitsikksstoopa omi sinakiatsis]]}^0 \equiv \exists e \ [\text{read.that.book}(e) \land \\
\text{Agent}(I,e) \land \tau(e) \subseteq t_0]
\]

We are thus claiming that Blackfoot has a tense system which semantically is parallel to that of English, with an instantaneous present tense (a present tense which denotes the moment of utterance). In Blackfoot however, unlike in English, the present and past tense morphemes are phonologically null.

3.1 The Puzzle of Activities

A remaining puzzle for this analysis, for both English and Blackfoot, is why activities behave for the purposes of the present tense as if they lack the subinterval property. In both languages, activities as well as accomplishments require the imperfective in the telephone context:

(17) a. nitáihkiita
    nit-a-ihkiita
    1SG-IMPF-cook
    ‘I am cooking.’

b. nítsskiita
    nit-ihkiita
    1SG-cook
    # ‘I cooked.’

Activities are atelic, and one would as a default expect that they satisfy the subinterval property: if I cook from 2 pm to 3 pm, then surely it is true at 2.30 pm that I cook. Our analysis so far can therefore not predict the facts for activities.

The obvious answer to this problem is to claim that activities actually lack the subinterval property. One way of thinking of this idea would be to suppose that sub-events of activities have minimal duration. Thus, if I dance from 3pm to 4pm, it is not true that at any instantaneous moment within that hour, I dance, since for something to count as dancing, it must last longer than a single moment. A similar proposal (without
explicitly mentioning the subinterval property) is made by Rothstein (2004). Rothstein suggests (2004:20) that

… activities are homogeneous down to minimal events, since within each minimal event there is a change of state or movement … Thus each minimal event is dynamic, and an activity consisting of a string of minimal events is a series of changes of state strung together.

Bar-el (2005) has also explicitly proposed that activities in Skwxwú7mesh (Squamish Salish) and English lack the subinterval property, although for different reasons than the one we have presented here. 6

In the next section we discuss previous research on Blackfoot tense, as well as a potential alternative aspect-driven analysis of the Blackfoot facts.

4. Previous Research on Tense in Blackfoot

4.1 Frantz (1991)

Frantz (1991), in his grammar of Blackfoot, does not discuss the present tense. He identifies two future morphemes: áak and áyaak; see Reis Silva (2006, 2007) for analysis of these two future markers. According to Frantz, past interpretations are obtained in a variety of ways, listed in (18).

(18) Ways of obtaining past interpretations in Blackfoot (Frantz 1991):

a. Simple absence of both the durative [= imperfective (ARS/LM)] aspect and the future prefixes, often with placement of accent on a syllable that otherwise would not be accented;

b. Replacement of a stem-initial vowel by ii, or, if the stem begins in a consonant, addition of an ii, usually long, before that consonant (Frantz 1997:35-6).

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6 There is obviously more work to be done here. Angelika Kratzer (p.c. at SULA 4) points out one significant challenge for our proposal, namely how to deal with the well-known contrast between activities and accomplishments with respect to durative vs. time-span adverbials (the for an hour/in an hour test).

According to Krifka (1992), atelic predicates are those which are strictly cumulative – basically those predicates P for which any two P events combine to make a larger P event. Krifka argues that durative adverbials like for an hour presuppose that the predicate they apply to is strictly cumulative, while time-span adverbials like in an hour presuppose that the predicate they apply to is atomic. The proposal that activities have minimal parts would predict that they are actually atomic, and therefore should be compatible with in an hour, contrary to fact.

We have no solution for this problem at this time. Note that the same problem is inherent to Bennett and Partee (1978), who do not explain why present tense activities require the progressive in English. What we need is a more subtle categorization, whereby an eventive predicate can fail to possess the subinterval property, yet still be atelic and co-occur with durative adverbials.
Of the ways Frantz lists of obtaining past interpretations, the first, namely the simple absence of imperfective or future marking, fits directly with the claim we have made that eventive predicates necessarily receive past interpretations in the absence of the imperfective. Note, however, that the way Frantz states the generalization is not quite correct, since he implies that the imperfective is necessarily absent in order to obtain a past interpretation. However, as pointed out in section 2 above, imperfective-marked forms can also have past interpretations. As for the additional factors Frantz mentions, accent placement and stem-initial /ii/, analysis of these is a controversial topic and goes well beyond the bounds of the current paper. See Armoskaite (in prep.) for discussion.7

4.2 Ritter and Wiltschko (2004, 2005)

Turning to the theoretical literature, Ritter and Wiltschko (2004, 2005) claim that Blackfoot is a tenseless language, in the sense that it lacks a Tense head. According to Ritter and Wiltschko, the head of Infl in Blackfoot marks not temporal (non-)coincidence (= tense), but participant (non-)coincidence. Thus, while a tensed language encodes whether the utterance time coincides with the event time,8 Blackfoot encodes instead whether the utterance participant coincides with the event participants.

Ritter and Wiltschko’s main semantic / morphological evidence for the claim that Blackfoot lacks tense is ‘the absence of a morphological tense distinction which expresses a simple past / non-past contrast’ (Ritter and Wiltschko 2004:354).9 Thus, they give data showing purported ambiguity between present and past interpretations, as in (19).

(19)  kit-ána aasáí’ni-wa
     2-daughter cry-3sg
     ‘Your daughter cried.’ (cf. Frantz 1991:36)

OR  ‘Your daughter is crying.’  (Ritter and Wiltschko 2004:354)

Ritter and Wiltschko claim that (19) can be used to express either past or present-tense interpretations.

4.2.1 A Problem

There is one problem with the claims made by Ritter and Wiltschko: as we showed in section 2, perfective eventives in Blackfoot (at least for our consultant) do not allow both present and past-tense readings. Only imperfective eventives allow both present and past-tense readings. Our consultant does not allow a tense ambiguity if the imperfective marker is absent, as shown in (20) and in the minimal pair in (21).

7 Armoskaite (in prep.) analyses at least some of the processes in (18) as allomorphs of a perfective morpheme.
8 Ritter and Wiltschko abstract away from the standard assumption that tense relates a reference time to the utterance time, rather than directly relating an event time to the utterance time.
9 See also Armoskaite (in prep.) for the claim that there is no overt past tense marker in Blackfoot.
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(20) k-itána aasáí’ni
    2POSS-daughter cry
‘Your daughter cried.’

# in telephone context!

(21) a. anna Tomas aasáí’ni
    ann-wa Tomas aasáí’ni
    3DEM-3SG Tomas cry
≠ ‘Tomas is crying.’
= ‘Tomas cried.’

b. anna Tomas awasáí’ni
    ann-wa Tomas a-wasáí’ni10
    3DEM-3SG Tomas IMPF-cry
= ‘Tomas is crying.’
= ‘Tomas was crying.’

It is therefore in the perfective that tense in Blackfoot becomes visible.

Our claim that perfective eventives are unambiguously interpreted as past tense predicts that they should be bad with present temporal adverbs. This is correct, as shown in (22-23); note that Ritter and Wiltschko’s analysis cannot predict these facts:

(22) * an’ohk anna kitána aasáí’ni11
    annohk ann-wa k-itána aasáí’ni
    now 3 DEM-3 2POSS-daughter cry
‘Right now your daughter cried.’

Consultant’s comment: “It is too past to use annohk.”

(23) a. * nitsi’taksinaaki an’ohk12
    nit-i-o’tak-sinaaki annohk
    1-?-round-draw now (Dunham 2007)

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10 The appearance of the glide in (21b) is phonologically conditioned. It does not occur in word-initial position (see Frantz 1997: 153).
11 The word order is irrelevant here. We get the same judgements whether annohk ‘now’ is sentence-initial or sentence-final.
12 To keep the transcription of the word annohk consistent, we have changed the original transcription of Dunham’s examples. The transcription in the first line here more accurately reflects the pronunciation of our consultant.
b. nitao’taksinaaki an’ohk
   nit-a-o’tak-sinaaki annohk
1-IMPF-round-draw now
‘I’m drawing a circle right now.’ (Dunham 2007)

The same results as in (22-23) have been replicated with a range of predicates, including ihkiita ‘cook’, ihpiyi ‘dance’, ikooisska ‘build a house’, and iiyokaa ‘sleep’. With all these predicates, perfective forms are incompatible with a present-time adverbial, indicating that the perfective forms are not ambiguous between present and past interpretations, but are crucially only past.13

Returning again to Ritter and Wiltschko’s evidence for tenselessness in Blackfoot, they also claim that perfectives can be ambiguous between past and future interpretations. They give the data in (24):

(24) Nít-sspiy-ihpinnaan
   1-dance-1PL
‘We danced.’ (cf. Frantz 1991:36(x))
OR ‘We are going to dance.’ (Ritter and Wiltschko 2004:354)

However, we have found that only a past reading is possible for the sentence in (24). According to our consultant, the future reading is not possible for (24), but is only possible with a future modal áak or áyaak (Reis Silva 2006). Quite generally, the future is obligatorily marked in Blackfoot. A full paradigm of available and unavailable interpretations for a sentence containing the predicate ihpiyi ‘dance’ is given in (25):

(25) nitsspiyi
    nit-ihpiyi
   1SG-dance
   = ‘I danced.’ PAST
   ≠ ‘I am dancing.’ PRESENT
   ≠ ‘I dance (habitual).’ PRESENT HABITUAL
   ≠ ‘I used to dance.’ PAST HABITUAL

13 We have found one perfective eventive predicate which can co-occur with annohk: a’kii ‘hit a ball’. This is illustrated in (i).

(i) an’ohk a’kii omi pokon
    annohk a’kii omi pokon
    now hit DEM ball
    ‘Right now he hit that ball.’

However, observe that the interpretation of (i) is that the event has already taken place (that is the ball was already hit, and it is on its way) not that it is ongoing at the utterance time. Thus, while we have no account of the unusual interpretation of annohk in (i), (i) does not invalidate our claim that perfective eventive predicates are always interpreted as past. Note also that the phenomenon of a present-time adverbial allowing past-time interpretations is not limited to Blackfoot. For example, the same effect arises in Brazilian Portuguese with some predicates and not others, as illustrated in (iia-b).

(ii) a. Eu comi agora ‘I ate now.’ (= ‘I just finished eating.’)
    b. ?? Eu dormi agora ‘I slept now.’
Our conclusion is, as before, that in the absence of the imperfective $a$-, eventive predicates only allow a past interpretation. It is not the case that perfective predicates allow temporal ambiguity in Blackfoot.

### 4.2.2 Implications for the syntax

We have shown that the main semantic argument for the absence of tense in Blackfoot – putative temporal ambiguity – does not hold. On the contrary, perfective eventive forms are temporally unambiguous. One natural conclusion, given this, would be that Blackfoot possesses tense morphemes, even if they are phonologically null. The default assumption, given a belief in Universal Grammar, would furthermore be that Blackfoot possesses a Tense node which houses those tense morphemes.

However, Ritter and Wiltshire (2004) provide additional arguments for the absence of T as a syntactic head in Blackfoot. For example, they claim that Blackfoot lacks nominative case, and that it lacks infinitives (see also Ritter and Rosen 2005 for a similar proposal for other Algonquian languages). Under the assumption that T is involved in nominative Case assignment, the other properties of Blackfoot fall out from the absence of a syntactic head T.

We can see two obvious options here, given the evidence we have provided against temporal ambiguity. The first is to say although Blackfoot possesses morphemes with the semantics of tense morphemes, they do not occupy the head of T. This would allow the putative absence of nominative case to be accounted for, while at the same time allowing a tense system which is semantically more similar to English than in Ritter and Wiltshire’s analysis. On the other hand, the fact that Blackfoot does distinguish present from past could instead suggest that the other claimed properties of Blackfoot (absence of nominative case, infinitives, etc.) should not be derived from an absence of T. That is, the theory-internal link between T and nominative Case may not be a language universal. Even if Blackfoot lacks nominative Case, it would then not necessarily have to lack T. It is this latter option which we favour, but there are obviously many avenues for future research on the syntax of the Blackfoot temporal system.

### 4.3 A potential aspect-driven analysis

One might expect that the Blackfoot facts could be captured by some kind of aspect-driven analysis, given that the main contrast in temporal interpretation is between stative and eventive predicates. However, we briefly outline in this section why we cannot see a way to bypass tense and still derive the correct empirical results.

One possible aspect-driven account of Blackfoot would assimilate it to Bohnemeyer and Swift’s (2004) analysis of Inuktitut. Bohnemeyer and Swift argue that
Inuktitut is telicity-dependent, meaning that the viewpoint aspect of a predicate is determined by the predicate’s lexical aspectual properties. Default viewpoint aspect could then have an impact on tense interpretation. However, Blackfoot does not pattern as a telicity-dependent language. Telicity-dependent languages should ideally mark perfective aspect overtly on atelic predicates, and mark imperfective aspect overtly on telic predicates. This is not at all what we find in Blackfoot; recall that in this language, imperfective is overtly marked on both eventive and stative predicates.

Furthermore, aspect-driven theories of temporal reference which rely simply on (a)telicity or (un)boundedness (e.g., Smith and Erbaugh 2005) also cannot deal with the Blackfoot facts, since they would incorrectly predict that activities pattern with states in their default temporal reference. As we saw in section 3, this is not the case: the split is not correlated with (a)telicity, but rather with eventivity.

We will see further evidence against an aspect-driven analysis when we compare Blackfoot to another superficially tenseless language in the following section.

5. Testing in another language

We have argued that the Blackfoot telephone context effects – the fact that eventive predicates require the imperfective in these unambiguously present tense contexts – derive from the presence of an instantaneous present tense morpheme. This proposal makes the following prediction: a language which can independently be shown to lack an instantaneous present tense should correspondingly lack telephone context effects. In this section, we show that St’át’imcets (Lillooet Salish) is such a language.

First, some background on the St’át’imcets tense system. Just like Blackfoot, St’át’imcets has overt marking for imperfective on all predicate types. Perfective is not overtly marked; see Davis (2006), Matthewson (2006) for discussion, and see Bar-el (2005) for a similar analysis of Skwxwú7mesh. St’át’imcets differs from Blackfoot, however, in not semantically distinguishing present from past. According to Matthewson (2006), St’át’imcets possesses a single phonologically null tense morpheme. The reference time interval may be located entirely in the past, or it may overlap with the utterance time. St’át’imcets thus has independently been argued to lack an instantaneous present tense.

Given this, we predict that St’át’imcets will lack telephone-context effects. This prediction is upheld, as shown in (26).14

(26) Context: Your friend calls you on the phone and wants you to meet with her right now. You respond by saying:

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14 St’át’imcets data are presented in the official orthography of the language, developed by Jan van Eijk. Abbreviations are as follows: CIRC = circumstantial modal, DEIC = deictic, DET = determiner, INTR = intransitive, NEG = negation, POSS = possessive, SUBJ = subject, TR = transitive.
We see that the telephone context data differ in St’át’imcets from in Blackfoot; perfective eventives are fine in a present-tense discourse context in the former language. In short, St’át’imcets lacks telephone context effects. Thus, a language which does not possess an instantaneous present tense does - as predicted - allow perfective eventives to hold at the speech time.

The comparison with St’át’imcets is relevant for another reason; it demonstrates that we could not account for the Blackfoot facts by a simple aspect-driven analysis, along the lines of the general implication (whether stipulated or derived) in (27):

\[(27) \text{If a predicate is perfective and eventive, then the temporal reference is past.}\]

One might think that a general statement such as in (27) would allow us to derive the Blackfoot facts, while bypassing the need for a tense morpheme. However, the comparison with St’át’imcets shows that (27) does not come for free, and cannot be a universal generalization: some languages do allow perfective eventives to be interpreted with present temporal reference. Given this, we cannot see how to derive the perfective eventive/past tense correlation in Blackfoot without postulating a past tense morpheme on these forms.

The idea, then, is that in Blackfoot, the perfective forms truth-conditionally exclude the possibility that the reference time coincides with the utterance time. That is what accounts for the telephone context effect, and we achieve the right truth conditions by postulating a phonologically null past tense morpheme. This contrasts with the situation in St’át’imcets, which does not distinguish present from past semantically – possessing only a single non-future tense – and which therefore lacks the telephone-context effect. We thus are led to conclude that Blackfoot distinguishes a present tense from a past tense.
An Instantaneous Present Tense in Blackfoot

6. Conclusions

The conclusions we were led to at the end of the previous section are summarized in Table 2. English and Blackfoot distinguish present from past; St’át’imcets does not. English marks the present/past distinction overtly; Blackfoot does not.15

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>BLACKFOOT</th>
<th>ST’AT’IMCETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESENT</td>
<td>overt/ø</td>
<td>ø</td>
</tr>
<tr>
<td>PAST</td>
<td>overt</td>
<td>ø</td>
</tr>
</tbody>
</table>

**Table 2: Some Possible Tense Systems**

Some readers may feel suspicious of the proposal that Blackfoot possesses null present and null past tense morphemes. However, we would like to suggest that there is no reason to distrust our analysis of Blackfoot on conceptual grounds. After all, it is uncontroversial that ambiguity exists. It is also uncontroversial that phonologically null morphemes exist, and most of us are comfortable with the idea that children are able to detect and acquire null morphemes. We do not see any theoretical reason why a phonologically null morpheme should not be ambiguous, just as an overt one can. Recall also – conceptual issues aside – that our analysis correctly predicts the difference between Blackfoot and St’át’imcets with respect to the telephone context, and we have yet to see how a tenseless analysis of these languages could derive this cross-linguistic difference.

In summary, we have argued in this paper that there is a present tense morpheme in Blackfoot. It is phonologically zero, yet detectable via its semantic effects, which are parallel to those of the English present tense. We have shown that the telephone context is crucial for detecting the effect of the present-tense null morpheme. By forcing the reference time to coincide with the utterance time, the telephone context forces a present tense interpretation. In such contexts, we see the same impossibility of perfective present eventives as we see in English. We conclude that Blackfoot is a tensed language.

References

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15 Recall from (18) above that Frantz (1991) claims there are a range of ways to mark past tense in Blackfoot (including stem-initial ii and accent placement, among others). The issue of ii and its potential allomorphs is currently unresolved. For now, we follow Armoskaite (in prep.) in assuming that ii and its potential allomorphs are not markers of past tense.


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