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Determiners, Finiteness, and the Entity/Event Distinction

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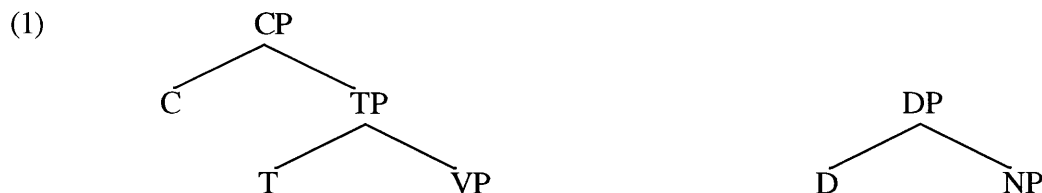
Determiners, Finiteness, and the Entity/Event Distinction*

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1. Introduction

Under a commonly held view (see Grimshaw 1991, Déchaine 1993, among others), nominal and verbal extended projections are universally differentiated both by lexical and functional heads. VP is dominated by projections of T(ense) and C(omplementizer), while D(eterminer) selects for an NP complement:



However, in St'át'imcets (Lillooet Salish), lexical and functional categories do not line up according to this standard picture. In this paper we discuss the (non)-universality of the phrase-structural architecture in (1), in the light of St'át'imcets evidence.

We begin by arguing that St'át'imcets possesses a functional head which freely selects either a nominal or a verbal (extended) projection. We then identify this functional head as D; our first conclusion is therefore that D is not restricted to selecting a nominal complement cross-linguistically.

Next, we show that verbal DPs, and only verbal DPs, contain an additional functional head, which we identify as encoding *Finiteness*. We claim that St'át'imcets lacks a unitary Tense head, and that the several functions of English T are divided between D and Fin in St'át'imcets. Moreover, we suggest that the selectional relationship between Tense and VP, often assumed to be an irreducible primitive (see for example Déchaine 1993, Chomsky 1997), is really a selectional relationship between Finiteness and VP. We conclude with a speculation about the reason for the link between Fin and eventive predicates (VPs), based on a neo-Carlsonian ontology of events and entities.

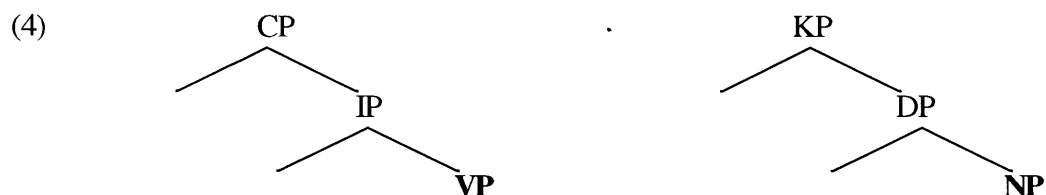
* We are very grateful to St'át'imcets consultants Beverley Frank, Gertrude Ned, Linda Redan, Laura Thevarge and Rose Whitley. Thanks also to Leora Bar-El, Denis Bouchard, Strang Burton, Elizabeth Currie, Rose-Marie Déchaine, Hamida Demirdache, Irene Heim, Peter Jacobs, M. Dale Kinkade, Michael Rochemont, Martina Wiltschko and audiences at the Canadian Linguistic Association and NELS 28. Errors are the authors' responsibility. Research was supported in part by SSHRC grant #410-95-1519.

2. Nominal arguments and clauses: parallelism or identity?

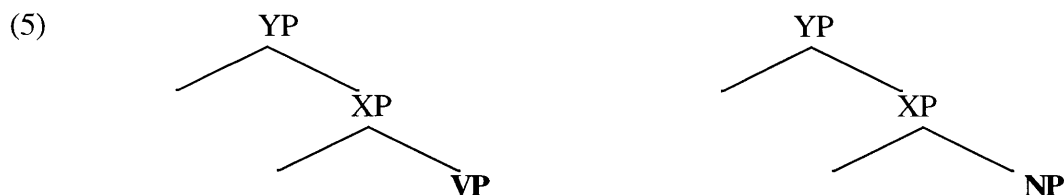
On the basis of much previous work, we assume that N(P) and V(P) are morphologically and syntactically distinct in St'át'imcets (see Demirdache and Matthewson 1995, Matthewson and Davis 1995, Davis 1996, van Eijk and Hess 1986, among others). However, when subordinate to the determiner-like elements $t\{i\}=...=a$ and $k^w\{u\}=$, extended projections of N and V display identical morphological and syntactic behaviour (Davis and Matthewson 1996; cf. also Jelinek 1995). This is illustrated in (2) and (3), where the bracketed strings may be interpreted either as (null-headed) relative clauses (a), or as non-relative subordinate clauses (b):¹

- (2) $\text{ʔáma } [t\{i\}=n=\text{š}=\text{čú}t=a]$
 good [t(i)=1sg.poss=s=say=exis]
 (a) 'What I said was good.' (finite relative clause)
 (b) '(The fact) that I said (something)was good...' (finite subordinate clause)
- (3) $x^w\text{ʔaz } k^w=n=\text{š} \quad \text{zwát-ən} \quad [k^w u=máys-a\check{c}]$
 neg ku=1sg.poss=nom know-tr [ku=make-house]
 (a) 'I don't know anyone that builds houses.' (non-finite relative clause)
 (b) 'I don't know how to build a house.' (non-finite subordinate clause)

The data in (2) and (3) could be accounted for in two ways. We could say that the elements which introduce nominal and verbal extended projections are homophonous, but nonetheless distinct, functional heads (i.e., D for a nominal and C for a verbal projection). In that case, nominal and verbal projections would remain distinct at the functional as well as the lexical level, and resemblances would result from parallelism rather than identity (see Abney 1987, Grimshaw 1991):

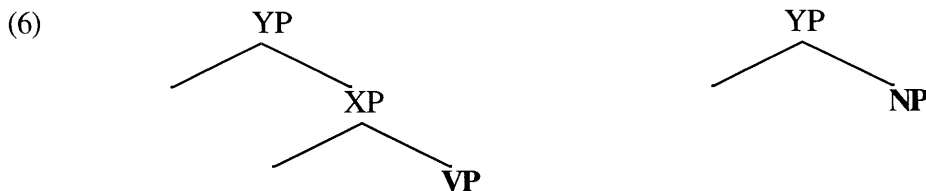


Alternatively, and more radically, we could say that nominal and verbal extended projections are *identical*, as in (5), where Y is the unselective projection of a neutralized D/C category:



We will argue for an intermediate position, schematized in (6), in which there is partial, but not total, identity between the extended projections of N and V in St'át'imcets.

¹ Abbreviations used: appl = applicative, caus = causative, det = determiner, erg = ergative, exis = existential, intr = intransitive, neg = negation, nom = nominalizer, obj = object, pass = passive, pl = plural, poss = possessive, prog = progressive, sg = singular, sub(j) = subject, tr = transitive. The symbol '=' indicates a clitic boundary and '-' an affix boundary. St'át'imcets has two dialects; the lexical variation observable in some examples is irrelevant to the generalizations made, all of which hold for both dialects.

Determiners, Tense, and the Entity/Event Parallel

Under this view, the Y elements selecting nominal and verbal projections are neutralized, but there is a structural asymmetry in an intermediate projection (XP) which distinguishes NP and VP. We will argue that this intermediate projection encodes finiteness.

3. A functional head which selects either nominal or verbal complements

In this section we investigate the two functional elements *ti=...=a* and *k^wu=* which were introduced in (2-3) above. We argue that these items display identical phonological, syntactic and semantic behaviour, whether they are introducing nominal or verbal projections.

3.1. Phonology

Nominal arguments and verbal arguments are introduced by phonologically identical elements in St'át'imcets. This is shown in (7) for *ti=...=a*. Its proclitic portion optionally reduces at the surface to *[t]*, in both nominal arguments and clauses:

- (7) nominal projection: *ʔá ma* [t(i)=čítx^w=šw=a]
 good[t(i)=house=2sg.poss=exis]
 'Your house is good.'
- verbal projection: *ʔá ma* [t(i)=š=łíq=šw=a]
 good[t(i)=s=arrive=2sg.poss=exis]
 'It's good that you came.' (Your coming is good)

The element *k^wu=* surfaces as *[k^wu]*, unless it is immediately followed by a clitic, in which case it optionally reduces to *[k^w]*. See Davis and Matthewson (1996) for details.

- (8) *no clitic following*
 nominal projection: *wáʔ=ł kan xáł - miñ* [k^wu=/*k^w=łáx]
 prog=1sg.subj hard-appl [ku=/*kw=sweet]
 'I want some honey/sweet stuff.'
- verbal projection: *šwat* [k^wu=/*k^w=łiq]
 who [ku=/*kw=arrive]
 'Who is it that arrived?'
- (9) *clitic following*
 nominal projection: *k^wu=* always surfaces as *[k^wu]*, since no proclitics
 occur inside nominal projections for independent reasons
- verbal projection: *štañ* [k^wu=/*k^w=š=q^waláw-əm=šu]
 what [ku=/kw=s=pick-intr=2sg.poss]
 'What is it that you picked?'

3.2. Syntax

Nominal and verbal extended projections have the same syntactic distributions.² Phrases introduced by *ti=...=a* may appear in simple indicative environments, as shown in (7) above; phrases introduced by *k^wu=* may not appear in simple indicative environments, as shown in (10).

(10) nominal projection: * ʔáma [k^wu=čítx^w=š^u]
good [ku=house=2sg.poss]
'Your house is good.'

verbal projection: * ʔáma [k^w=š=ʔíq=š^u]
good [ku=s=arrive=2sg.poss]
'It is good that you came.'

k^wu= can appear only under the scope of a non-factual operator (negation, intensional verb, modal, question, future), or as the oblique complement of a morphologically intransitive verb. Examples are given in (11-13); for detailed discussion and additional data, see Matthewson (in press), Davis and Matthewson (1997).

(11) *negation*
nominal projection: x^wʔaz k^w=š=tax^wp-š [k^wu=púk^w]
neg kw=s=buy-3sg.poss [ku=book]
'S/he didn't buy a book.'
verbal projection: x^wʔaz [k^w=n=š ʔíq]
neg [ku=1sg.poss=s arrive]
'I did not arrive.'
(van Eijk 1981:39)

(12) *intensional verb*
nominal projection: xáʔ - miñ - aš [k^wu=šmáñx]
hard-appl-3erg [ku=tobacco]
'S/he wants some tobacco.'
verbal projection: waʔ xáʔ - miñ - əm [k^w=š=núk^w? - ən - č - im]
prog hard-appl-1pl.sub [ku=s=help-tr-2sg.ob-1pl.sub]
'We want that we help you.'
(van Eijk 1981:45)

(13) *modal*
nominal projection: tax^wp - mí n = 4 kan = kə 4 [k^wu=púk^w] natx^w
buy-appl=1sg.subj=might [ku=book] tomorrow
'I might buy a book tomorrow.'
verbal projection: ʔáma = ka [k^w=a=š ʔaʔ k=Ann]
good=would [ku=prog=3sg.poss eat det=Ann]
'It would be good if Ann ate.'

Thus, the syntactic distribution of verbal and nominal arguments depends on the distinction between *ti=...=a* and *k^wu=*, and not on a distinction between nominal and verbal complements.

² For discussion of one principled exception (sentential subjects), see Davis and Matthewson (1997).

3.3 . Semantics

In this section we show that the elements which introduce verbal arguments and which introduce nominal arguments encode the same semantic distinction.

Matthewson (in press) argues that nominal arguments in St'át'imcets are divided into those which assert the existence of the discourse referent of the DP and those which do not. An informal definition of 'assertion of existence' is given in (14):

- (14) **Assertion of existence** (informal definition):
 'the speaker's intent to 'refer to' or 'mean' a nominal expression to have non-empty references - i.e. to 'exist' - within a particular universe of discourse (i.e. not necessarily within the real world)' (Givón 1978:293-4).

The element $ti=...=a$ asserts the existence of an entity, while $k^wu=$ does not. This is illustrated in (15-17). (15) shows that whether a modal is present or not, the discourse referent introduced by an argument containing $ti=...=a$ has existential import:

- (15a) $tax^w p - m\acute{i}n = \acute{t} kan [ti = p\acute{u}k^w = a] \acute{t} k\acute{u}n\acute{s}a$ $\acute{t} k\acute{u}n\acute{s}a$
 buy-appl=1sg.subj [ti=book=exis] today
 'I bought a/the book today.'
 $\exists x, book(x), I bought x today.$
- (b) $tax^w p - m\acute{i}n = \acute{t} kan = k\acute{a}\acute{t} [ti = p\acute{u}k^w = a] natx^w$ $natx^w$
 buy-appl=1sg.subj=might [ti=book=exis] tomorrow
 'I might buy a/the book tomorrow.'
 $\exists x, book(x), I might buy x tomorrow.$

(16) shows that in a sentence containing $k^wu=$ and a modal, no existential import results:

- (16) $tax^w p - m\acute{i}n = \acute{t} kan = k\acute{a}\acute{t} [k^w u = p\acute{u}k^w] natx^w$ $natx^w$
 buy-appl=1sg.subj=might [ku=book] tomorrow
 'I might buy a book tomorrow.'
There might be a book that I will buy tomorrow.
 $\neq \exists x, book(x), I might buy x tomorrow.$

And (17) shows that in an environment which lacks a non-factual operator (i.e. an environment where indefinite DPs would have to receive an existential interpretation), the use of $k^wu=$ results in ungrammaticality.

- (17) * $tax^w p - m\acute{i}n = \acute{t} kan [k^w u = p\acute{u}k^w] \acute{t} k\acute{u}n\acute{s}a$ $\acute{t} k\acute{u}n\acute{s}a$
 buy-appl=1sg.subj [ku=book] today
 'I bought a book today.'
 ! 'I bought a book today, but I do not assert that a book exists that I bought.'

Turning to verbal arguments, we expect to see the same distinction encoded, relativized to *events* rather than entities, since VPs are predicates over events. This is correct; verbal arguments are divided into those which assert the existence of an event and those which do not.

$ti=...=a$ verbal arguments are interpreted as factuais; the event described by the clause is asserted to have existed (taken place). (18a) can only be true if the addressee actually came. Even under the scope of negation, as in (18b), an event of coming must have taken place:

100

Henry Davis and Lisa Matthewson

- (18a) ʔáma [t=š=ǎíq=šw=a ʔač̣x-ən-túmuč̣]
 good [ti=s=arrive-2sg.poss=exis see-tr-1pl.obj]
 ‘It is good that you came to see us.’
- (b) ʔa $k^w=š=ʔáma$ [t=š=ǎíq=š=a [ti=k^wúk^wpiʔ=a]]
 neg det=s=good [ti=s=arrive=3sg.poss=exis [det=chief=exis]]
 ‘It is not good that the chief came.’
 Consultant’s comment: ‘He definitely came.’

$k^wu=$ verbal arguments, on the other hand, do not result in an existential interpretation of the event described (see also (11-13) above).

- (19) $waʔ$ $xáǎ-miñ-əm$ [k^w=š=nú^kwʔ-an-č̣-im]
 prog hard-appl-1pl.subj [ku=s=help-tr-2sg.obj-1pl.subj]
 ‘We want to help you.’ (We want that we help you)
 Consultant’s comment: ‘It doesn’t mean that you have helped them.’

The syntax and semantics of $ti=...=a$ and $k^wu=$ are summarized in (20):

(20)

		syntax	semantics
$ti=...=a$	nominal arguments	unrestricted	existential interpretation
	verbal arguments	unrestricted	existential interpretation
$k^wu=$	nominal arguments	restricted	no existential interpretation
	verbal arguments	restricted	no existential interpretation

Since there is phonological, syntactic and semantic identity between the elements which introduce nominal and verbal arguments in St’át’imcets, we conclude that nominal and verbal extended projections are not merely *parallel*, but at least partially *identical*.

4. The nature of the neutralized category

So far we have established that St’át’imcets possesses a functional head, instantiated by $ti=...=a$ and $k^wu=$, which does not distinguish between nominal and verbal projections. What is the nature of this functional category? Obvious candidates include T, C, and D.

A comparison of T, C and D is given in (21) (cf. Szabolczi 1994, Higginbotham 1985, Longobardi 1994, among others). T turns a predicate (VP) into a proposition, and C turns a proposition into something which can function as an argument. D turns a (nominal) predicate directly into something which can function as an argument:

(21)

	output:	proposition	argument
input:	predicate	T	D
	proposition	-	C

Which, if any, of these categories do $ti=...=a$ and $k^wu=$ correspond to? The output of $ti=...=a$ and $k^wu=$ when combined with their complements is a functional projection which obligatorily functions as an argument. This is illustrated in (22-23). (22) shows that both nouns and verbs may function as the main predicate of a sentence, and both nouns and verbs are turned into arguments by the addition of $ti=...=a$.

- (22a) $\lambda a k$ [ti=nk'ya'p=a] (b) nk'ya'p [ti=λák=a]
 go.along [det=coyote=exis] coyote [det=go.along=exis]
 'The coyote went along.' 'The one which went along was a coyote.'

(23) shows that elements containing $ti=...=a$ may not function as predicates. (23a) is not a predicate-argument construction, but a (head-initial) relative clause. (23b) is ungrammatical because in St'át'imcets, as in English, only a nominal category may function as the head of a relative clause (see Demirdache and Matthewson 1995).

- (23a) $ti=nk'ya'p=a$ [ti=λák=a]
 det=coyote=exis [det=go.along=exis]
 'The coyote that went along' / ≠ 'The one which went along was a coyote.'
- (b) * $ti=λák=a$ [ti=nk'ya'p=a]
 det=go.along=exis [det=coyote=exis]
 'The one that went along the coyote'

The data in (22) and (23) show that $ti=...=a$ creates arguments. The same facts hold for $k^wu=$, but are omitted for space reasons. This means that if the St'át'imcets elements correspond to any English functional head, it will be D or C, rather than T.

However, it is clear that St'át'imcets $ti=...=a$ and $k^wu=$ do not correspond directly either to English D or to English C. Unlike English C, $ti=...=a$ and $k^wu=$ attach freely to bare nouns, as in (22a) and other examples above. Unlike English D, they introduce subordinate clauses, as in (18) and elsewhere. There are two remaining possibilities. $ti=...=a$ and $k^wu=$ could instantiate *both* C and D (i.e., this could be a simple case of homophony). Alternatively, $ti=...=a$ and $k^wu=$ could be instantiating a functional category which differs in nature from either English C or English D.

The homophony hypothesis cannot adequately account for the fact that $ti=...=a$ and $k^wu=$ display not only phonological, but also syntactic and semantic identity across nominal and verbal projections. This behaviour would not be predicted by mere homophony; on the contrary, we would expect homophonous Ds and Cs to display different syntactic distributions and encode different semantic distinctions, just as is the case in English (compare the complementizer *that* with the determiner *that*).

We are obviously dealing with a functional category which differs from both English D and English C. We will, however, label this category D, for two reasons. First, St'át'imcets possesses a separate category of elements which introduce *only* subordinate clauses and which are clearly Cs. Therefore, we would definitely not want to call $ti=...=a$ and $k^wu=$ Cs. Second, $ti=...=a$ and $k^wu=$ form part of a larger paradigm of functional elements which attach to nominal arguments. The other members of this paradigm are clearly determiners, being essentially identical in distribution to English Ds. See Davis and Matthewson (1996), Matthewson (in press) for details.

Summarizing so far, we have seen that (a subset of) St'át'imcets Ds differ from English Ds in that they select complements which are either projections of N or of V. This entails that there is no necessary universal link between the functional projection DP and the lexical projection NP. Furthermore, it provides potential evidence for an ontological parallel between *entities* and *events*. According to this view, NPs are predicates over entities, while VPs are predicates over events. St'át'imcets D may select either type of predicate as its complement.

5. Is the identity complete?

The parallel between predicates over entities and events is not complete in St'át'imcets. There are two asymmetries between DPs which contain VPs and DPs which contain NPs, listed in (24):

- (24i) There is a morpheme $\check{s}=\text{}$ which appears in all finite subordinate verbal DPs. It does not appear inside nominal arguments.
- (ii) The Ds which select either nominal or verbal complements are a subset of the Ds which select a nominal complement. In particular, *absent* and *plural* Ds are impossible inside verbal DP arguments.

In the remainder of the paper we discuss the issues raised by (24), beginning in §6 with an investigation of the functional head $\check{s}=\text{}$.

6. A functional head which selects only eventive predicates

The generalizations with respect to the morpheme $\check{s}=\text{}$ are summarized in (24):

- (25i) Verbal DPs which contain $\check{s}=\text{}$ are finite, and must contain overt pronominal or DP subjects.
- (ii) Verbal DPs which do not contain $\check{s}=\text{}$ are non-finite, and may not contain overt pronominal or DP subjects.
- (iii) Nominal arguments may not contain $\check{s}=\text{}$.

The correlation between the presence of $\check{s}=\text{}$ and finiteness is illustrated in (26-27).

- (26) Finite clauses obligatorily require $\check{s}=\text{}$:

- (a) ʔáma [t=*(s)=arrive-2sg.poss=exis] ʔač x-ən-túmuʔ
 good [det=*(s)=arrive-2sg.poss=exis] see-tr-1pl.obj
 'It is good that you came to see us.'
- (b) waʔ ʔáma-š-aš [$\text{k}^w=\text{*(s)=waʔ}$] $\text{q}^w\text{ə1-xá1}$ [$\text{k}^w=\check{s}=\text{Maryj}$]
 prog good-caus-3erg [det=*(s)=prog] cook-intr [det=s=Maryj]
 'S/hej is happy that Maryj cooks.'

- (27) Infinitives obligatorily lack $\check{s}=\text{}$:

- (a) waʔ ʔáma-š-aš [$\text{k}^w\text{u}=(\text{*}\check{s}=\text{)q}^w\text{ə1-xá1}$] $\text{k}^w\text{u}=\check{s}-\text{ʔíʔən}$
 prog good-caus-3erg [ku=*(s)=cook-intr] det=nom-eat
 'S/he likes to cook food.'
- (b) $\text{x}^w\text{ʔaz}$ $\text{k}^w=\text{ən}=\check{s}=\text{wá}$ zwát-ən [$\text{k}^w\text{u}=\text{waʔ}(\text{*}=\check{s})$] məč-xá1
 neg ku=1sg.poss=s=prog know-tr [det=prog(*=s)] write-intr
 'I don't know how to write.'

The correlation between $\check{s}=\text{}$ and the presence of subject agreement morphology and/or an overt subject is illustrated in (28-29).

- (28) Clauses with $\check{s}=\text{}$ require subject morphology, and allow overt DP subjects:

- (a) ʔáma [ti= $\check{s}=\check{\lambda}\text{íq}=\text{*(s)=a}$]
 good [det=s=arrive=*(3sg.poss)=exis]
 'It's good that s/he came.'

- (b) **zwát-ən=ɬkan** [k^w=š pún-či-*(haš) [k^w=š=Mary]]
 know-tr-1sg.subj [det=s find(tr)-2sg.obj-*(3erg) [det=nom=Mary]]
 ‘I know that Mary saw you.’

(29) Clauses without **š=** may not contain subject morphology or overt DP subjects:

- (a) **ʔáma-š=kan** [k^wu=(*n) ǰ^wəl-xál]
 good-caus=1sg.subj [det=(*1sg.poss) cook-intr]
 ‘I like to cook.’
- (b) **waʔ ʔáma-š-aš** k^wu=ǰ^wəl-xál [k^w=š=Mary]
 prog good-caus-3erg det=cook-intr [det=s=Mary]
 ‘Mary likes [to cook].’
 * ‘S/he_j likes [Mary_j to cook].’

Finally, the obligatory absence of **š=** inside nominal DPs is shown in (30):³

- (30) **maluɬih-š-tán-əm-wit** [ti=(*s)=naplɬt=a]
 marry-caus-3pl.obj-pass-3pl [det=(*s)=priest=exis]
 ‘The priest married them.’
- (b) **lǰxɬəx** [ti=(*s)=k^wúk^wpiʔ=a]
 intelligent [det=(*s)=chief=exis]
 ‘The chief is sensible.’

Questions raised by the data in (28-30) include those listed in (31):

- (31i) Why is **š=** correlated with the presence of subject morphology?
 (ii) What is the category of **š=**?
 (iii) Why is **š=** present in verbal DPs, but absent in nominal DPs?

With respect to the correlation between **š=** and subject morphology, there are basically two options. Either **š=** introduces a subject position (in which case infinitives in St’át’imcets would be VPs without a PRO subject), or **š=** licenses an *overt* subject, and infinitives contain a null (PRO) subject.

We adopt the second option, for the following reasons. First, St’át’imcets infinitives allow the same range of interpretations as English infinitives, implying that PRO is present in St’át’imcets just as it is in English. This is illustrated in (32-34):

- (32) *Obligatory control:*
wáʔ=ɬkan ʔanam-ɬɬx [k=wa məč-xál]
 prog=1sg.sub try-intr [det=prog write-intr]
 ‘I tried writing.’
- (33) *Non-obligatory control:*
ʔáma-š=kan [k=wa tupatwáx^w]
 good-caus=1sg.subj [det=prog box]
 ‘I like boxing.’ (i.e., either doing or just watching boxing)

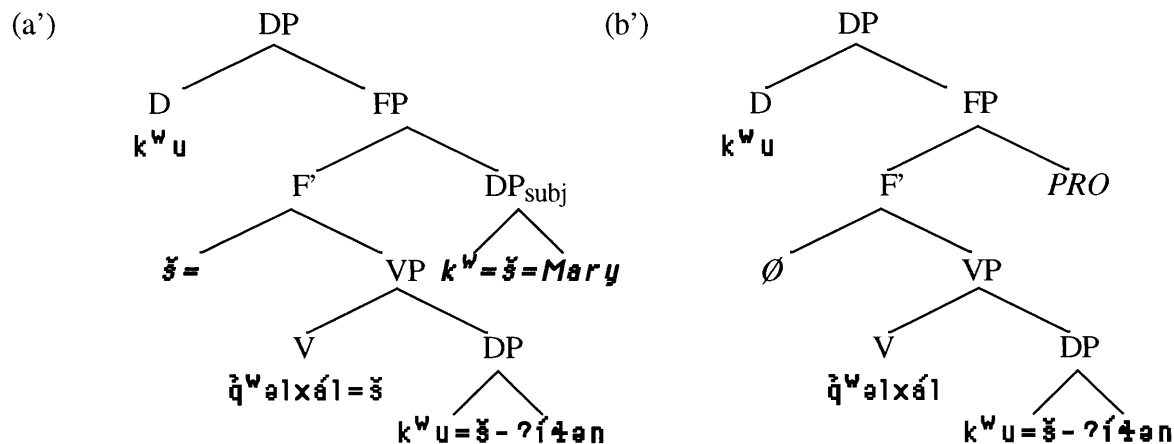
³ There is a so-called ‘lexical nominalizer’ **š-**, which appears on nouns (see Davis 1996, among others). The lexical nominalizer is easily distinguishable from the functional head **š=** discussed in the text. For example, inside verbal DPs, **š=** is a clitic and attaches to auxiliaries when they are present. Inside nominal DPs, **š-** is phonologically identifiable as a prefix. See Davis (1997) for discussion.

- (34) *Arbitrary PRO*:
 kínkánt [k=wa x^wəm-ʔúł l=ta káh=a]
 dangerous [det=prog fast-too in=det car=exis]
 'It is dangerous to drive too fast.'

Second, the claim that infinitives contain subjects enables us to say that the complement of D is categorially the same for infinitives and for finite verbal arguments. We simply need to postulate a null version of \check{s} = for infinitives which does not assign overt Case and therefore does not license an overt subject or agreement morphology.

We therefore adopt the hypothesis that St'át'imcets infinitives contain PRO subjects. For now, we call the projection headed by \check{s} =/∅ 'FP'. Finite and infinitive verbal DPs are compared in (35).

- (35a) $k^w u = \check{s} = \check{q}^w \text{ə} l x \acute{a} l = \check{s}$ $k^w u = \check{s} - \text{ʔí} \text{ɬ} \text{ə} n$ $k^w = \check{s} = \text{Mary}$
 det=s-cook-intr=3sg.poss det=nom-eat det=nom=Mary
 '... that Mary cooked food'
- (b) $k^w u = \check{q}^w \text{ə} l x \acute{a} l$ $k^w u = \check{s} - \text{ʔí} \text{ɬ} \text{ə} n$ PRO
 det=cook-intr det=nom-eat PRO
 '... PRO to cook food'



'FP' is an unrevealing name for the functional projection we are investigating, and should be replaced with something more meaningful. The key to understanding FP lies in the fact that it appears only on VPs, not on NPs. This is reminiscent of the frequent claim that VPs require a Tense projection (see e.g. Déchaine 1993). It appears that St'át'imcets F bears some similarity to English T. However, it turns out that St'át'imcets, like other Salish languages, lacks a precise equivalent of English T. In the next subsection, we turn to the various functions of T, with the aim of establishing which of these functions are performed by St'át'imcets F.

6.1. Decomposing Tense

In Salish languages, there is no functional head which locates events in relative time; morphological tense-marking in the sense of English or French is absent (M. Dale Kinkade, p.c., Matthewson in press, Demirdache 1996). The absence of a unitary category T in Salish gives evidence for the decomposition of T into its component functions. Some functions of T are summarized in (36).

- (36i) Tense locates an event in relative time (Enç 1981, Stowell 1993, etc.).
 (ii) Tense existentially quantifies over an Event variable (cf. Higginbotham 1985).
 (iii) Tense contains a feature [\pm finite] (Chomsky 1995).
 (iv) Tense has ϕ -features of an NP (which is the same as assigning Nominative Case, according to Chomsky 1997).
 (v) Tense contains a D-feature which selects for a subject (= the Extended Projection Principle; Chomsky 1995, 1997).
 (vi) Tense c-selects for VP (Déchaine 1993, Chomsky 1997).

All these functions are clearly *not* performed by the same head in St'át'imcets. The St'át'imcets situation is summarized in (37).

(37i)	(spatio)-temporal location	D
(ii)	quantification over Event variable	D
(iii)	[\pm finite]	F
(iv)	ϕ -features of NP / subject Case	F
(v)	EPP	F
(vi)	c-selecting for VP	F

The St'át'imcets decomposition of T enables us to ask: *which* of the functions of T actually requires a VP (and why)? We can answer this by observing that the only possible semantically-contentful function of F, the functional head which in St'át'imcets requires a VP, is *finiteness*. The other functions performed by F are purely formal matters. We therefore label FP 'FinP', and propose that it is Finiteness that requires a VP.

The question of why FP is present only in verbal DPs may now be rephrased as: What is the semantic correlate of Finiteness, and why does it require a predicate over events? In the following subsections we offer some remarks about these issues.

6.2. On the nature of Finiteness, and the difference between entities and events

It is often claimed that the difference between infinitives and finite clauses is that only finite clauses talk about *particular* events (Chierchia 1984, Krifka et al. 1995). Infinitives, on the other hand, talk about *classes* of events. We will begin by re-stating this intuition, using an extension of notions introduced by Carlson (1977).

Carlson proposes that within the entity domain, there are three elements in the ontology: stages, objects, and kinds. Objects and kinds are both types of individuals. Rough definitions are given in (38).

- (38) *stage* a spatio-temporal manifestation of something (Carlson 1977:115).
individual '(at least) that whatever-it-is that ties a series of stages together to make them stages of the *same thing*' (Carlson 1977:115).
object a particular individual (this dog, Bill Clinton, ...).
kind like a 'genus' (Krifka et al. 1995:2) (squirrels, potatoes,...).

Individuals can be *realized* by stages. If an object *z* is realized by a stage *y*, we say that *z* *has* a stage *y*. And if *z* 'has a stage', this entails that the individual *z* exists. This is captured in the meaning postulate in (39):

- (39) $\forall z^i [\exists y^s R(y,z) \rightarrow \mathbf{Exist}^i(z)]$ (Carlson 1977:312)

We propose (essentially following Demirdache 1996), that the addition of the determiner *ti=...=a* to a nominal predicate automatically locates a stage in space and

the case of plural Ds first, observe that only *objects* can be counted and/or pluralized. For example, the English phrase *three dogs* counts three objects which are dogs, not three stages of dogs or three kinds of dogs. If these premises are correct, we automatically predict that events cannot be counted or pluralized. The idea is shown in (42) and (43). When counting events, a classifier is needed; in counting entities, no classifier is needed.

- (42a) * three arrivings (b) three events of arriving
 (43a) three dogs (b) * three entities of dog

Of course, we do not claim that events cannot be pluralized at all in English, since there is an obvious set of counter-examples: event-referring nominals, both nominalizations as in (44a-b), and underived nouns as in (44c) (cf. Grimshaw 1990):

- (44a) There were three *dances* last week.
 (b) Mary hates to suffer through *meetings*.
 (c) How many tragic *events* took place?

This appears to be the locus of the parametric difference between English and St'át'imcets. In St'át'imcets, it has independently been argued that there is a systematic absence both of nouns like 'event', which are inherently predicates over event-objects, or of nominalization processes similar to those in (44a-b) (see Davis 1997). Even lexical nominalization, which creates nouns out of verbs, never creates nouns that are event-referring. This is shown in (45):

- (45) **məč-xál** 'to write' → **š-məč-xál** 'something written' / * 'a writing'

The absence in St'át'imcets of nominalizations which create objects out of events means that nothing we do to a VP can create something which can be pluralized.

Turning now to the inability of verbal DPs to take Ds which encode 'absence', note that if there are no event-objects, there is no sense in which an event *exists* independently of its realization as a *particular* event-stage.⁵ However, the St'át'imcets absent determiner crucially requires existence independent of realization by a particular stage (i.e. it requires objecthood). Thus, this determiner does not simply mean that something is absent from the discourse context, but rather that something was here at some earlier time, and somewhere else now. For example, it is used when talking about a person who was in the room before, but has since left. It therefore follows that if there are no event-objects, the absent D cannot attach to verbal DPs.

At this point we can briefly discuss a possible alternative view of the functional projection we have called Finiteness. The alternative view states that the **š=**/ \emptyset head is simply a nominalizer, which turns a VP into an NP so that it can function as the complement to D. This approach seeks to uphold the universality of the phrase-structural architecture in (1).

However, a simple 'nominalizer' theory has nothing to say about the restrictions on which Ds can take VPs as complements. If **š=**/ \emptyset acted to nominalize a VP, the entire **š=**/ \emptyset phrase would be expected to act like an NP, and there would be no reason why the DP which results from that could not be pluralized or specified as absent.⁶ Of course, a less simple-minded nominalization theory could possibly have something to say about the difference between NPs and nominalized VPs. However, it would be odd that a

⁵ Carlson (1997:312-3) claims that (entity)-objects can exist independently of whether they have stages.

⁶ In addition, Davis (1997) provides empirical evidence that VPs with **š=** fail language-internal tests for nounhood and for NP-hood.

syntactic nominalization operation could achieve what lexical nominalization cannot, i.e. create a nominal which refers to an event.

7.2. Why $ti=...=a$ verbal DPs require $\check{s}=\$

As outlined above, $ti=...=a$ verbal DPs may not be infinitives; they must contain the [+finite] $s=$ morpheme. Nominal $ti=...=a$ DPs, on the other hand, may not contain $s=$. Our analysis of $ti=...=a$ nominal DPs is that $ti=...=a$ gives a spatio-temporal location to a stage, which realizes an (entity)-individual. The difference between nominal and verbal DPs falls out if we assume, as outlined above, that events are not *realized* as stages but rather can only *be* stages, and furthermore that the creation of an event-stage is performed by $s=$.

In fact, $ti=...=a$ verbal DPs without $\check{s}=\$ are ruled out in our system for the same reason that the generic reading of the bare plural is impossible in (46):

(46) Dogs are in my front yard. (existential only)

As argued by Carlson (1977), the generic (= kind) reading of the bare plural is unavailable in sentences containing stage-level predicates such as *be in my front yard*. (46) means that there is a stage, which realizes the kind 'dogs', which is in my front yard; this is the existential reading. Now, since $ti=...=a$ contains deictic information about location in space-time, it acts like *be in my front yard*. If it were to add to a bare VP (or a VP with the \emptyset version of Fin), it would be locating a stage which realizes the kind talked about by the VP. But as soon as this happens, we are not dealing with an infinitive any more; we can only have the stage reading. But we said above that for an event to be a stage, $\check{s}=\$ is required. So $ti=...=a$ can only add to verbal DPs when $\check{s}=\$ is also present.

7.3. The puzzle of $k^w=\check{s}$

There are two puzzles raised by $k^w=\check{s}$ clauses (see examples in (3,11) and elsewhere). Note firstly that these clauses are finite, and according to us must talk about event-stages (particular events). However, $k^w=\check{s}$ clauses are not spatio-temporally located, since $k^wu=$ does not contain deictic information. Therefore, strictly speaking the events described by the $k^w=\check{s}$ clauses do not fit Carlson's definition of a stage as a 'spatio-temporal manifestation of something'.⁷ This needs to be investigated further.

An even more interesting puzzle about $k^w=\check{s}$ is that it appears on a subset of nominal DPs, namely proper names:

(47) $\check{\lambda}iq[k^w=\check{s}=Mary]$
arrive [det=Fin=Mary]
'Mary arrived.'

There seem to be two possible options for proper names. Perhaps they differ from other nouns in that they can come to denote a stage without first being spatio-temporally located. Alternatively, proper names are categorially *verbs* in St'át'imcets, and the bracketed constituent in (47) is a finite clause. Both of these options raise interesting questions for future research.

⁷ This problem only arises in St'át'imcets; in English, finite clauses always contain Tense marking and therefore are always temporally located.

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