SUBORDINATE CLAUSES AND FUNCTIONAL PROJECTIONS IN ST’AT’IMCETS

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0. Introduction

This paper investigates subordination in St’at’imcets (Lillooet Salish). In particular, we examine the number, categorial status and semantic type of the functional heads which introduce subordinate clauses. The specific questions we will address are summarized in (1).

1. a. Which of the functional heads Complementizer (C), Determiner (D) and Inflection (I) are distinguished in St’at’imcets?
b. What is the relation between these functional categories and the lexical projections (N, V) with which they are associated?
c. What is the function of the nominalizer * in subordinate clauses?

0.1. Functional heads which are distinguished

We argue that C and D form distinct categories in St’at’imcets, but D and I do not.2 We provide morphophonological, syntactic and semantic evidence for this conclusion. We propose that the nominalizer * constitutes a distinct functional head, F (for finiteness).

Morphophonological evidence for a separate category C is based on the existence of a phonologically distinct set of complementizers. On the other hand, we show that, in spite of some superficial phonological differences, the determiner-like (Df) elements which introduce clauses are non-distinct from those which introduce nominals.

Syntactically, we argue that C-elements are generated in the head position of a functional projection (CP) distinct from (and higher than) that of Df-elements (DP/IP), while the nominalizer (F) heads its own functional projection, FP, below Df and above NP/VP.

Turning to semantics, we demonstrate that the interpretable properties of functional heads mirror their syntax. Thus, the C-system, which encodes tense/mood, is distinct from the Df-system, which encodes assertion/non-assertion of existence (Matthewson 1996) and the F-system, which encodes finiteness. The absence of a distinct functional category of Tense correlates with the fact that temporal reference is encoded only indirectly in St’at’imcets, as a complex function of aspectual class, mood, speaker viewpoint, and spatio-temporal deixis (cf. Demirdache 1996a,b,c).

1 We are very grateful to St’at’imcets consultants Alice Adolph, Beverly Frank, Gertrude Ned, Laura Thevarge and Rose-Agoes Whitley. All data which is unrefereced in the text comes from original fieldwork with these consultants. Thanks also to Strange Burton, Rose-Marie Déchaine, Hamida Demirdache, M. Dale Kinkade, Suzanne Urbanczyk and Jan van Eijk for discussion.

2 The current work builds on a number of previous investigations of subordinate clauses in St’at’imcets, including Davis, Gardiner and Matthewson (1993), Davis (1993, to appear), and Davis and Matthewson (1996).

3 The category ‘I’ stands for all functional heads which could be argued to form the head of a clause, such as T(ense), M(ood), Aspect(ual) or Subject Agreement (AgR). Thus, we argue that none of these possible functional categories exist separately from D.

0.2. Relationship between functional categories and lexical categories

The absence of a distinction between D and I has interesting consequences for the relationship between functional and lexical projections. Previous work on St’at’imcets has shown a robust N-V distinction both in the morphology and the syntax (see in particular Demirdache and Matthewson 1995, Matthewson and Davis 1995). The fact that this lexical distinction is not mirrored at the functional level indicates that the source of ‘acategoriality’ in St’at’imcets and perhaps in Salish more generally is linked to functional rather than lexical projections (contrary to the proposals of Kinkade 1983, Jelinek and Demers 1994).

This claim has more general consequences for the theory of categorial feature projection (Fukui 1986, Speas 1990, Grimshaw 1991, Déchaine 1993, Chomsky 1995), since the lexical categorial features of N and V must be ‘visible’ for purposes of selection even though the functional projections dominating them are non-distinct.

0.3. Clause types in St’at’imcets

Before proceeding with our analysis of subordinate clauses, we will introduce the range of clause-types for which we aim to account. We will not deal here with relative clauses; see Demirdache and Matthewson (1995), Matthewson and Davis (1995) for information on these.

There are five main types of non-relative subordinate clause in St’at’imcets, summarized in (2). Examples of each type are given in (3).

<table>
<thead>
<tr>
<th>initial element</th>
<th>nominalizer</th>
<th>semantic type/environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>no</td>
<td>temporal adjunct</td>
</tr>
<tr>
<td>lb</td>
<td>no</td>
<td>subjunctive/temporal/pactive adjunct</td>
</tr>
<tr>
<td>kw/kw</td>
<td>sometimes</td>
<td>complement of negation, intentional verb, ...</td>
</tr>
<tr>
<td>t(t), a</td>
<td>yes</td>
<td>factive, ‘because’ clauses</td>
</tr>
<tr>
<td>Ø</td>
<td>yes</td>
<td>complement of ‘why’, ‘then’ clauses, ...</td>
</tr>
</tbody>
</table>

3. a. i=clause (temporal adjunct).4

| n±m=n-tí? | EQ*aq1-an-e-ágs | n±m±=skfaz±=a ... |
| nfh=malh±=tí7 | sqweqw'1-en-tí=ds | det=1sg.poss=mother=exis ... |
| foc=adhort=deict tell-tr=1sg.obj-erg | 'My mother told me that ...' |
| wa? | sk'UK'htu | ... [when=prog=1sg=conj] prog child |
| wa? | sk'sk'w'nu'li | ... when=prog=1sg=conj prog child |
| ... | ... | (van Eijk 1985:272)

4 All St’at’imcets examples are presented in both a phonemic orthography and the practical orthography of the language (see van Eijk 1981). Abbreviations are as follows: adhort=adhortative, appl=applicative, caus=causative, compl=complete speaker knowledge, conj=conjunctive, deict=deictic, det=determiner, erg=ergative, exs=assertion of existence, foc=focus, intr=intransitivizer, neg=negative, nan=nominalizer, obj=object, ooc=out-of-control, pl=plural, pos=possessive, prog=progressive, quot=quotative, refl=reflexive, sg=singular, subj=(indicative)subject, tr=transitivizer. A dash (-) indicates an affix boundary and an equals sign (=) a citeic boundary.
5. a. as in (4a), or without, as in (4b) and (5):

While clauses introduced by i=clauses may be selected as interrogative complements, either with an accompanying wh-word, 

If you hadn't slept, ...

... 'I didn't know when he arrived.'

... already would = compl prog big, pl det = eye = 2sg poss = exis

... your eyes would have been big already.

b. and aoz kw·en-s-wa zwat-en [i=t'iq=as]

kW·an-s-wa zwat-en-as

kW·an-§-wc{ zwc{t-an [?I-l<.fq-a§]

It-§·~fq-!w-al

clause (complement of know):

kWu;'an

borrow

... 'I don't borrow money, ...

[ti=§=l's=wa=§ a]

kW/s=t'iq=s

Ih=what=3sg conj det=prog skig'w

Ih=what=3sg conj det=prog skig'w

Ih=what=3sg conj det=prog skig'w

Ih=what=3sg conj det=prog skig'w

... because I can't return it.'

(2013:271)

In other words, the distinction between ku/kw= and ti...=a on the one hand and lh= and i= on the other does not appear to reduce straightforwardly to the adjunct-argument distinction.

Leaving aside for the moment bare nominalized complements (e), we will now turn to a closer examination of clauses introduced by an overt subordinating element. We will argue that out of the four elements which introduce subordinate clauses, lh= and i= are categorically complementizers, while ku/kw= and ti...=a are categorically determiners.

1. Complementizers versus determiners in St'at'imcets

The elements lh= 'if, when, where' and i= 'when (past)' form a unique subsystem of functional categories in the grammar of St'at'imcets. Phonologically, they are neither systematically related to determiners nor to prepositions. Moreover, there are a series of syntactic and semantic differences between lh= and i = on the one hand and ku/kw= and ti...=a on the other, which clearly indicate that they are members of different functional categories. These differences are outlined in sections 1.1 and 1.2.

1.1. Syntactic differences between C and D/I

Syntactically, the complementizer-like elements lh= and i= differ from the determiner-like elements ku/kw= and ti...=a in the following ways:

7. a. lh= and i= may only introduce clauses, never nominals. Ku/kw= and ti...=a introduce both nominal and clausal constituents.

b. Clauses introduced by lh= and i= are focused in a parallel fashion to PP's. Clauses introduced by ku/kw= and ti...=a are focused in the same way as DPs.

lh= and i= select conjunctive or indicative subject elocuto. Clauses headed by determiners select either possessive subject elocuto or conjunctive suffixes.

5. 'Because' clauses are very often introduced by the focus predicate nii/k, however, the pattern in (6), without introductory nii, is at least as common. Of course, we could always say that nii/k in these cases is freely deleteable, thereby preserving the generalization that all ni...a clauses are syntactically arguments of some predicate. However, this would simply be a stipulation, since nii/k cannot be deleted when it is used to focus a true (theta-marked) argument with ni...a; see (12) below.

6. There is partial homonymy between reals i= and the plural determiner i...=a, and likewise between reals lh and the preposition lh='from', but these seem more likely to be cases of accidental homophony than indications of a systematic relationship.
We will expand on each of these points below.

### 1.1.1. Clausal vs. nominal complements

In contrast to *kulk=*, *li=*, and *i=*, *Ih=*, and *i= never introduce nominals:

8. a. Ian wa7 t'iq ti=sqaycw=a
   Ian came already prog come ti=man=a
   'The man already came.'

   b. * Ian wa7 t'iq Ib=sqaycw
   * Ian came already prog I=man
   c. *

9. a. xW?!J.z kW -I_1I1q kWu-lqtiyx W cw7aoz kw=s=t'iq kwu=man
   neg det=nom=come kwu=man
   'No man came.'

   b. * xW?!J.z kW _I_1I1q ,.-sqayx W *
   * xW?!J.z =kw=s=t'iq kwu=man
   c. *

### 1.1.2. Focusing behaviour

Clauses introduced by *Ih=*, and *i=*, may serve as the focused element of an adjunct cleft. In this construction, a temporal or locative adjunct (the latter generally a PP) appears sentence-initially, followed by the clause from which it has been extracted. The residue of extraction is itself introduced by *Ih=*, or optionally *i=*, if the focused element is itself an *i=*, clause which in turn induces conjunctive morphology on the embedded predicate:

10. a. čaw=fn-an t'iq tsn=t'iq tsn=man
    ts'aw=fn=ihkan t=kh=an
    wash-tr=1sg.obj subj det=car=exis
    when=day=3sg.conj
    'I washed the car yesterday.'

    b. *

11. a. * čaw=fn-an t'iq tsn=t'iq tsn=man
    čaw=fn=ihkan ts'aw=fn=ihkan t=kh=an
    go=going/to=1sg$obj subj wash-tr det=1sg.poss-car=exis
    when=day=3sg.conj
    'Tomorrow I'm going to wash my car.'

b. * čaw=fn-an t'iq tsn=t'iq tsn=man
    čaw=fn=ihkan ts'aw=fn=ihkan t=kh=an
    go=going/to=1sg$obj subj wash-tr det=1sg.poss-car=exis
    when=day=3sg.conj
    'Tomorrow is when I'm going to wash my car.'

In contrast, adjunct clauses headed by *Ih=*, and *i=*, serve as the focused element of a determiner behave like DPs when focused. Both are obligatory arguments of the focus predicate *nilh*, as shown in (12).

12. a. *(nlh) ti=kh=an p1=an
    *nlh ti=kh=an
    talk-tr=1sg.obj
    'He talked.'

   b. *

### 1.1.3. Differing morphology in subordinate clause

Both *Ih=*, and *i=*, select conjunctive clitics in the clause they introduce. The examples from (3a, b) above can be used to illustrate this:

3. a. *nilh=ma+ti7? *nilh=ma+ti7?
    *nilh=ma+ti7?
    talk-tr=1sg.obj
    'My mother told me that ...'

   b. *

7 There is also a special use of *Ih=*, with indicative clitics to mean 'before', as illustrated in (i).

   i. * S(e)k=ti7? * S(e)k=ti7?
    * S(e)k=ti7?
    * S(e)k=ti7?
    tell-tr=1sg.obj
    'He pointed out the deer to me before I saw it.'

(van Eijk 1981: 74)
In contrast, in (16) determiners incorrectly select conjunctive clitic subjects:

16. a. \[w\?=\text{kukan} \quad \text{zawat-an} \quad [k=\text{arrive} \quad \text{3sg.conj}] \quad \text{at}\text{'en} \text{-Tr} \quad \text{3sg.poss} \\]
   \[\text{I know that you have come to see us.} \]
   \[\text{(van Eijk 1985:270)} \]

b. \[?\text{ama} \quad [t=\text{arrive} \quad \text{2sg.poss} \text{exis}] \quad \text{at}\text{'en} \text{Tr} \quad \text{2sg.conj} \\]
   \[\text{It is good that you came to see us.} \]

Thus, the subject morphology associated with determiners is quite distinct from that associated with \(lh=\) and \(i=\). The latter always select subject clitics, as in (3), the former never do.

1.2. Semantic differences between C and D

In this section we turn to interpretive differences between and \(lh=\) and \(i=\) on the other, beginning with a brief description of the range of semantic functions associated with subordinate clauses introduced by \(lh=\) and \(i=\).

In addition to its role in interrogative complements (see (4) above) \(lh=\) introduces a broad range of other clause types. These include conditionals (see (3b)) as well as both temporal and locative adjuncts. Temporal adjuncts with \(lh=\) usually have either a future/irrealis interpretation (17a) or a habitual interpretation (17b).

17. a. \[\text{When your father arrives, there'll be a lot of food for you.} \]
   \[\text{(van Eijk and Williams 1981: 53: BE)} \]
   \[\text{There was this here coyote...} \]
   \[\text{There he wanted to be able to see at night} \]
   \[\text{(van Eijk and Williams 1981:10: RJ)} \]

b. \[\text{He went along down low, ...} \]
   \[\text{(van Eijk and Williams 1981:10: RJ)} \]

(18) shows \(lh=\) introducing a locative adjunct:

18. \[\text{So he went along down low, ...} \]

These are in more or less free variation, though the latter is perceived, at least amongst Upper St'at'imc speakers, to be the 'correct' version.

8 These are in more or less free variation, though the latter is perceived, at least amongst Upper St'at'imc speakers, to be the 'correct' version.

9 This is one of many areas where St'at'imcets conflates expressions of time and space; see Davis (1996), Demirdache (1996a,b, c) for others.
The range of environments in which \(lh=\) occurs indicates that it is more of a general purpose subordinator than a marker of a particular mood or tense. In contrast, \(i=\) clauses are used exclusively to refer to past events, where 'past' is evaluated relative to utterance time rather than event time. Thus, just like past-tense \(lh=\) clauses, \(i=\) clauses may be interpreted as either simultaneous or anterior to the time of the event in the clause which they modify, depending on the aspecral class of the predicate, the presence of aspecral modifiers, and other semantic and pragmatic factors. Examples (3a, 11) above illustrate a simultaneous interpretation; (19) illustrates one in which the main event follows the event denoted by the \(i=\) clause.

Let us now turn to the interpretation of clauses introduced by \(ku/kw=\) and \(ti=\ldots=\). Examples of \(ku/kw=\) clauses are given in (21). These clauses function as the complements of negation, intention, and the verbs of thinking and saying. In these examples, \(ku/kw=\) co-occurs with nominalization of the following predicate:

21. a. \(x'= \varphi \gamma\) [\(kw=nw= \lambda \gamma\)]
   
cw7a0z [\(kw=nw= \lambda \gamma\)]
   neg [\(kw=lg, pos=nom=arrive\)]
   'I did not arrive.'
   (van Eijk 1981:39)

b. \(z'= \varphi \gamma\) [\(kw=nw= \lambda \gamma\)]
   sqw7a0z [\(kw=nw= \lambda \gamma\)]
   neg [\(kw=nom=going.to=2sg, pos\)]
   'I told him you would come.'
   (van Eijk 1981:44)

c. \(w= \varphi \gamma\)
   plan [\(kw=nw= \lambda \gamma\)]
   neg [\(kw=nom=going.to=2sg, pos\)]
   'We want to help you.'
   (van Eijk 1981:45)

\(Ti=\ldots=\) clauses are generally interpreted as factives. \(Ti=\ldots=\) always co-occurs with nominalization on the following predicate:

22. a. \(\gamma= \varphi \gamma\)
   [\(t=s, kw=s\)]
   [\(k=\lambda k\)]
   good [\(k=\lambda k\)]
   'It is good that you came.' (Your coming is good.)
   (van Eijk 1985:271)

b. plan \(x'= \varphi \gamma\)
   \(k'=\lambda k\)
   \(kw=\lambda k\)
   \(kw=\lambda k\)
   already neg [\(kw=\lambda\)]
   'Bill does not work any more...'
   (van Eijk 1985:218)

Temporal distinctions can be indirectly encoded by determiners (see §2.3 below and Demirdache 1996a,b), but they do so not via mood or tense but via 'assertion of existence' (see Matthewson 1996, §2.2 below). The 'assertion-of-existence' determiners (characterized by an encliticized \(\lambda\)) typically induce a past tense/reals mood interpretation when they take a clausal complement, since the event referred to by the embedded clause is naturally interpreted as having taken place if it is asserted to exist (as in (22a)). This is by no means necessary, however; an intension rather than an event may be asserted to exist, in which case a future/irreals interpretation obtains:

23. a. \(\gamma= \varphi \gamma\)
   [\(t=s, kw=s\)]
   good [\(kw=\lambda k\)]
   'It's good that you (are going to be) going away.'
conceivably in many

(26): notional structure - notably that of Emonds (1985) - make precisely Fukui (1986), the nominal system, reserving (25) is predicted if we 

lation now arises as to what these categories are, and how they are structurally 

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Setting aside for a moment the status of 

Conversely, though the non-assertion of existence determiner ku/kw= is often found in future or irrealis contexts (since the event it denotes is not asserted to have taken place), it is quite compatible with an event which must be interpreted as past or realis, as long as it is under the scope of a non-factual operator:

24. ‘I didn’t know yesterday’ ...

Thus, unlike lh= and i=, neither ku/kw= nor ti=...=a directly encodes mood or tense.

1.3. Clause structure and the C-D distinction

We have now presented a series of morphophonological, syntactic and semantic differences between lh= and i= on the one hand, and ku/kw= and ti=...=a on the other. These indicate that these two sets of subordinating elements must be treated as members of separate clause categories. The question now arises as to what these categories are, and how they are structurally related.

Setting aside for a moment the status of ku/kw= and ti=...=a, we will adopt the hypothesis that lh= and i= are complementizers. Evidence for this conclusion is provided by the following facts:

25. a. lh= and i= always introduce clauses, never nominals (8,9).

b. Adjunct clauses introduced by lh= and i= are focused like PPs (10,11).

c. lh= and i= always take clitic subjects (3a,b).

(25a) follows from the definition of a complementizer as an element which introduces subordinate clauses.

(25b) is predicted if we take C as the clausal equivalent of P, rather than of D. Some models of categorial structure - notably that of Emonds (1985) - make precisely this claim. Others (e.g. Fukui (1986), Speas (1990), Décéhaine (1993)) prefer to treat K (=Kase) as the equivalent of C in the nominal system, reserving P for lexical categorial status.

The St'át'imcets facts seem to favor functional rather than lexical status for P. To start with, as in many Salish languages, there are very few prepositions. The complete inventory is given in (26):

26. lh= is a functional category, the nominal equivalent of clausal C. The extended projections associated with N and V respectively will then be as in (27):11

27. a. PP (Spec) P (Spec) C (Spec) IP CP (Spec) T I NP VP

Next, consider (25c). If lh= and i= are complementizers, then we expect them to select for features of I, which we take (following Chomsky 1981, 1995 and a great deal of work in between) to be the locus of subject agreement. The fact that lh= and i= always select for clitic subjects can be accounted for if we make the further assumption that subject clitics are generated directly in I (Davis forthcoming). This will mean that they will be either identical or equivalent to D, depending on whether I and D are separate categories occupying parallel functions in different extended projections (as in (27)) or instantiations of the same category (as we will argue in §2).

10 An obvious question now arises: are C and P merely parallel, or are they non-distinct? The evidence seems to favor separate status. Aside from the fact that the two classes are phonologically distinct, there are also selectional differences between them: while i= and lh= select subject clitics as in (3a,b), prepositions obligatorily select determiners:

i. ?u?tu=...=k.a=kukw=ku? 
   u?tu=...=k.a=kukw=ku? 
   uh=lh==lh=al=sa  
   throw out-caus=1sg.subj=just pl.det=left over-food-det  
   from-det=day-det

   ‘I threw out the leftovers from yesterday.’

ii. * u?tu=...=k.a=kukw=ku? 
   * u?tu=...=k.a=kukw=ku? 
   * uh=lh==lh=al=sa  
   * throw out-caus=1sg.subj=just pl.det=left over-food-det  
   * from-det=day-det

   ‘I threw out the leftovers from yesterday.’

11 In (27), we assume that D and I are distinct, pending discussion of this issue in §2.
In conclusion, there is a set of unambiguous complementizers in St’àt’lmects, namely kw= and kw.
This correctly predicts that the phrasal projection CP differs in distribution, structure, and interpretation from the phrasal projection DP/IP.12 We now turn to the question of whether a similar distinction can be established between IP and DP.

2. Inflection versus Determiners in St’àt’lmects

The examples we have given so far of kw= and kw, as in (28), above, are the same elements as the determiners which introduce nominals, as shown in (28).

28. a. x=9g7=kuw=ku7? c7a8 [k=uv=ku7? t=nv=k=ku7?
  going.to=quot come [det=prog teach-intr,
  'A teacher is coming.'
  b. taxp=p=kf7, tcvw=p=kf7, buy=1sg.subj [det=book=exists],
  'I bought [a book].'

The question now arises as to whether the D-like elements which introduce clauses, as in (3c,d) above, are the same elements as the determiners which introduce nominals, as in (28). There has been debate in other Salish languages about whether such phonologically reduced elements are a separate set from the determiners, or are the same as determiners (see for example Kroober 1994a,b).

In this section, we will provide evidence that the elements kw=kw= and t(i)=...=a which introduce subordinate clauses in St’àt’lmects are the same elements which introduce nominals, namely determiners.

2.1. I vs. D: phonological evidence

As seen above, the element which introduces subordinate clauses after negation and intensional verbs generally surfaces as kw=, while there is a determiner which surfaces as kw. It is possible that the determiner kw and the clausal subordinator kw= are simply variants of one another; on the other hand, it could be the case that they are separate items, one of which corresponds to INFL, and one of which is a determiner.

At first glance, the kw= which introduces clauses appears to differ crucially from the corresponding determiner kw. Kw= cannot be substituted for kw inside nominals:

29. a. wu=7=ixk=, 667=mi=th [ku=ku=ku=ku=
  prog=1sg.subj hard-appl, kw=sweet,
  'I want some honey/sweet stuff.'
  b. wu=7=ilkan xa=7-’mi= [ku=ku=ku=ku=]

A possible first hypothesis might be that kw= introduces a nominal, while kw= introduces a clause. This analysis would be incorrect, however, since kw= can also introduce a clause, as shown in (30b).

The data in (29-30) are compatible with a second hypothesis, whereby nominals allow only kw=, but clauses allow either kw= or kw, in free variation. This second hypothesis is also incorrect, however, as shown by the meaning difference in (31), where the choice between kw= and kw has a semantic effect. This shows that kw= and kw are not in free variation.

30. a. swat kw=7=k7=7 [ku=ku=ku=ku=]
  who det=neg, kw=7=beta.
  'Who hasn’t eaten?’
  b. swat kw=7=k7=7 [ku=ku=ku=ku=]
  who det=neg, kw=7=beta.
  'Who hasn’t eaten?’

The difference between (31a) and (31b) is one of syntactic vs. lexical nominalization. In (31a), the syntactic nominalizer (an enclitic) co-occurs with kw=, and the event described by the verb is negated. In (31b), the lexical nominalizer (a prefix) has been added to the verb kw= ‘eat’, in the lexicon, giving rise to the noun stîfh en ‘food’. When the resulting predicate nominal is negated, the meaning in (31b) results.

From (31) we see that when the syntactic nominalizer is present, the clause-initial element surfaces as kw=; when the lexical nominalizer is present, the item surfaces as kw.

In fact, all the data in this section can be derived from the claim that there is only one underlying element, whose surface form is dependent on its phonological environment. There are two possible versions of this analysis, depending on whether we postulate the underlying form to be kw= or kw=.

If the item has the underlying form kw=, it must optionally reduce to kw= just in case it is immediately followed by a clitic such as the syntactic nominalizer sw. If no clitic is present, no reduction takes place.

Alternatively, if the element in question has the underlying form kw=, it must obligatorily vocalize to kw=, unless it is immediately followed by a clitic element with which it can combine (such as the syntactic nominalizer). Note, however, that kw= may vocalize to kw= before a clitic as well, as in (31b). Therefore, vocalization is optional before a clitic, and obligatory when no clitic is present.

Phonologically, it seems more natural to postulate the underlying form as kw=, with optional reduction to kw= just in case a clitic immediately follows. The situation is schematized in (32).

32. a. kw+ sw=[clitic] + [XP] \rightarrow kw= XP
  b. kw+ sw=[clitic] \rightarrow kw= XP
Since phonological issues are not the main focus of this paper, we will not provide a full account of the reduction process. Intuitively, the reason why \( \text{k} \) does not reduce unless it is followed by a clitic is connected with syllable structure. If \( \text{k} \) reduces to \( \text{kw} \), it cannot be syllabified by itself; it must combine with following material. In a case where what follows is a main predicate or a lexical noun, syllabification is blocked by lexical boundaries. On the other hand, \( \text{kw} \) can be syllabified together with a following clitic, to form a type of 'minor syllable' which is independently attested in St'át'imcets (Shaw 1993).

Further support for our analysis of \( \text{k} \) and \( \text{kw} \) is provided by wh-questions. Certain types of wh-extraction induce syntactic nominalization; in these cases, either \( \text{k} \) or \( \text{kw} \) is possible:

33. a. S
   
   Staa
   
   kwā
   
   stem
   
   'What did you pick?'

b. S
   
   S
   
   kwā
   
   'What did you pick?'

In a wh-question without syntactic nominalization, on the other hand, \( \text{k} \) is impossible and \( \text{kw} \) is required:

34. a. * True
   
   Staa
   
   kwā
   
   stem
   
   'Who arrived?'

b. S
   
   Kwā
   
   'Who arrived?'

This is predicted by our analysis, since it is only when a clitic appears adjacent to \( \text{k} \), that reduction is possible.\(^{13}\)

Note that it is not only the syntactic nominalizer which induces \( \text{kw} \); our analysis correctly predicts that other clitics, for example the first person singular possessive \( n \), also allow reduction of \( \text{k} \).

35. * True
   
   kwā
   
   stem
   
   'I don't know.'

The table in (36) summarizes the environments for \( \text{kw} \) and shows that it is not the nominal/clausal distinction which determines whether \( \text{kw} \) or \( \text{kw} \) appears. There is only one underlying element involved, with predictable surface manifestations.

<table>
<thead>
<tr>
<th>with syntactic nominalization</th>
<th>without</th>
</tr>
</thead>
<tbody>
<tr>
<td>kw</td>
<td>kw</td>
</tr>
<tr>
<td>kw</td>
<td>kw</td>
</tr>
<tr>
<td>kw</td>
<td>kw</td>
</tr>
</tbody>
</table>

Let us now turn to the remaining element which introduces subordinate clauses, namely \( ti \). This element usually surfaces as \( ti = ... = a \). There is only one underlying element involved, with predictable surface manifestations. Both surface realizations are possible, whether introducing clauses or nominals:

37. a. * True
   
   kwā
   
   stem
   
   'It's good that you came.'

b. * True
   
   kwā
   
   stem
   
   'Your ball is good.'

Again, there is no evidence of a clausal/nominal distinction playing any part in the choice between \( ti = ... = a \) and \( ti = ... = a \). There is simply optional phonetic reduction.

38. | with syntactic nominalization | without |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ti</td>
<td>ti | ti</td>
</tr>
</tbody>
</table>

In conclusion, the difference between \( ti \) and \( \text{kw} \) and between \( ti = ... = a \) and \( ti = ... = a \) is phonologically regulated. There is no phonological evidence for distinct categories.

39. a. * True
   
   kw → \( kw \) / ... clitic (optionally)

b. * True
   
   kw → \( kw \) / ... clitic (optionally)

We have argued in this section that there is no phonological distinction between \( I \) and \( D \). We are therefore left with two options. \( ku \) and \( ti = ... = a \) are either homophones between \( I \) and \( D \), or else the \( I / D \) distinction simply does not exist. If the former option is correct, then we should find syntactic and semantic differences between \( I \) and \( D \) that are irreducible to independent differences between the lexical projections (\( N \) and \( V \)) which they select. On the other hand, if there is no \( I / D \) distinction, we should find that the \( I / D \) element makes precisely the same syntactic and semantic contribution to verbal and nominal extended projections. In order to ascertain precisely what these predictions entail, we will now turn to a more detailed discussion of the properties of determiners in St'át'imcets, basing our discussion on the extensive investigations of Salish determiner systems in Matthewson (1996).

2.2. Determiner distinctions in St'át'imcets

The full set of St'át'imcets determiners is given in (40).
40. St'át'imcets determiners (Matthewson 1996):

<table>
<thead>
<tr>
<th>assertion of existence</th>
<th>non-assertion of existence</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₂, a</td>
<td>ku</td>
</tr>
</tbody>
</table>

The major division in the system is between the set of determiners which contain an enclitic . . . a), and the one which lacks the enclitic, namely ku=. The assertion of existence distinction will be defined immediately below.

In addition to the assertion of existence distinction, the system also encodes number and proximity to the speaker. See van Eijk (1985), Matthewson (1996) for detailed discussion of these distinctions and for extensive data. In this paper, we concentrate on the two highlighted determiners, X₂, a and ku=.

An informal definition of assertion of existence is given in (41).

41. 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).

When a St'át'imcets speaker uses an assertion of existence determiner, s/he commits himself or herself to the existence of the individual thus described. An example is given in (42).

42. 

\[
\begin{align*}
\text{tax}^{\text{p-mfn}}=\text{kan} & \quad [\text{ti}=\text{puku}=\text{a}] & \quad \text{ku}=\text{n}\text{a} \\
\text{techwp-mfn}=\text{lkhan} & \quad [\text{li}=\text{puku}=\text{a}] & \quad \text{lkhdinsa} \\
\text{buy-appl}=1\text{sg.subj} & \quad [\text{det}=\text{book}=\text{exis}] & \quad \text{today} \\
\end{align*}
\]

'I bought a/the book today.'

The existential interpretation of an assertion of existence DP holds even when the DP appears under the scope of an intensional operator, such as the modal =kelh 'might' in (43):

43. 

\[
\begin{align*}
\text{tax}^{\text{p-mfn}}=\text{kan} & \quad [\text{ti}=\text{puku}=\text{a}] & \quad \text{natxw} \\
\text{techwp-mfn}=\text{lkhan}=\text{kelh} & \quad [\text{li}=\text{puku}=\text{a}] & \quad \text{natcw} \\
\text{buy-appl}=1\text{sg.subj}=\text{might} & \quad [\text{det}=\text{book}=\text{exis}] & \quad \text{today} \\
\end{align*}
\]

'I might buy a/the book tomorrow.'

The next three subsections will deal with (47a-c) respectively.

The next three subsections will deal with (47a-c) respectively.

The denterminer ku= is ungrammatical in ordinary declarative sentences, as shown in (45). This accords with its non-assertion of existence status. In languages like English, where the existential interpretation or otherwise of indefinites is controlled by syntactic environment (Heim 1982, Kamp 1981), a declarative sentence as in (45) is the canonical environment where indefinites must receive existential force.

45. 

\[
\begin{align*}
\text{tax}^{\text{p-mfn}}=\text{kan} & \quad [\text{ku}=\text{puku}] & \quad \text{ku}=\text{n}\text{a} \\
\text{techwp-mfn}=\text{lkhan} & \quad [\text{ku}=\text{puku}] & \quad \text{lkhdinsa} \\
\text{buy-appl}=1\text{sg.subj} & \quad [\text{det}=\text{book}] & \quad \text{today} \\
\end{align*}
\]

'I bought a book today, but I do not assert that a book exists that I bought.'

Ku= inside argument DPs is thus restricted in its syntactic distribution. In particular, it must fall within the scope of a non-factual operator, such as negation, a yes-no question marker or a modal.

In this section we have considered syntactic and semantic effects of the major distinction encoded by St'át'imcets determiners: syntactically, assertion of existence determiners such as ku=..=a are restricted in their syntactic distribution. In particular, it must fall within the scope of a non-factual operator, such as negation, a yes-no question marker or a modal. The only other environment in which ku= is permitted is in the morphologically unlicensed 'object' of a middle (morphologically intransitive) verb, as illustrated in (46) (a minimal pair with the transitive (45)).

46. 

\[
\begin{align*}
\text{tax}^{\text{p-mfn}}=\text{kan} & \quad [\text{ku}=\text{puku}] & \quad \text{ku}=\text{n}\text{a} \\
\text{techwp-mfn}=\text{lkhan} & \quad [\text{ku}=\text{puku}] & \quad \text{lkhdinsa} \\
\text{buy-appl}=1\text{sg.subj} & \quad [\text{det}=\text{book}] & \quad \text{today} \\
\end{align*}
\]

'I bought a book today.'

Matthewson (1996) analyzes these cases of ku= as involving non-arguments, which incorporate inside the main predicate at Logical Form (along the lines of de Hoop's 1992 treatment of objects which receive weak Case). For current purposes, the relevant facts are that the distribution of ku= is restricted, while that of ku=..=a and the other assertion of existence determiners is not.

In this section we have considered syntactic and semantic effects of the major distinction encoded by St'át'imcets determiners: syntactically, assertion of existence determiners such as ku=..=a are unrestricted (appearing in any argument position of any predicate type), while the non-assertion of existence determiner ku= is syntactically restricted to appearing within the scope of a non-factual operator. Semantically, the former set of determiners commit the speaker to the existence of the relevant individuals, while ku= does not. In the following section, we will examine the extension of both these syntactic and semantic properties to determiners which head subordinate clauses.

2.3. Determiners which head subordinate clauses

Recall that we are trying to decide whether the morphophonological identity of D and I in St'át'imcets is due to homophony or to a more profound conflation of the two categories. The proposal that St'át'imcets lacks a distinction between D and I predicts:

47. a. The syntactic distribution of D/I which introduce clausal constituents will parallel the syntactic distribution of Ds when they introduce nominal constituents.

b. The function of D/I with respect to a clausal constituent will be like the function of D with respect to a nominal constituent. The D will modify the reference of a clausal constituent (i.e. its event variable).

c. If D/I marks tense distinctions in a clause, D will also mark them on a nominal.

The next three subsections will deal with (47a-c) respectively.
2.3.1. Syntactic parallels between nominal DPs and subordinate clauses

As outlined in §2.2, nominal DPs containing the non-assertion of existence determiner ku= appear only under the scope of a non-factual operator (such as negation or an intensional verb), or on the complement of a morphologically intransitive verb (see Matthewson 1996).

Paralleling this, clauses introduced by ku= also appear as complements of non-factual or intransitive verbs:

48. a. negation:
   \[
   \text{\textit{ama}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \\
   \text{\textit{neg} \quad \text{\textit{kw}=\text{\textit{1sg.poss}}=\text{\textit{nom}}=\text{\textit{arrive}}} \\
   \text{\textit{\textit{I did not arrive.}}} \quad \text{(van Eijk 1981:39)}
   \]

   b. intensional verb:
   \[
   \text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \\
   \text{\textit{x\text~=\textit{\textit{men}=\textit{\textit{arrive}}=\textit{2sg.poss}}} \\
   \text{\textit{\textit{hard-apply} \textit{1sg.subj}}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{get.hurt}}} \\
   \text{\textit{det=girl=exis}}} \\
   \text{\textit{\textit{I want the girl to fall.}}} \quad \text{(van Eijk 1981:44)}
   \]

   c. intransitive verb:
   \[
   \text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \\
   \text{\textit{x\text{\textit{\textit{men}}}}} \quad \text{\textit{\textit{men}}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{get.hurt}}} \\
   \text{\textit{\textit{hard-apply} \textit{1sgsubj}}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{get.hurt}}} \\
   \text{\textit{det=girl=exis}}} \\
   \text{\textit{\textit{I thought the woman kicked the cat.}}} \quad \text{(van Eijk 1981:45)}
   \]

On the other hand, nominals containing ti=...=a can appear in argument position where there is no non-factual operator present. So can clausal constituents introduced by ti=...=a:

49. a. \[\text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \]
   \[\text{\textit{\textit{ti}}} \quad \text{\textit{\textit{a}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{good}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{I good that you came.}}} \quad \text{(Your coming is good)} \quad \text{(van Eijk 1985:271)}
   \]

   b. \[\text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \]
   \[\text{\textit{\textit{ti}}} \quad \text{\textit{\textit{a}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{good}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{I good that you came.}}} \quad \text{(Your coming is good)} \quad \text{(van Eijk 1985:271)}
   \]

In other words, the distribution of clausal constituents introduced by ti=...=a and ku= parallels the distribution of their nominal counterparts.

2.3.2. Semantic parallels between nominal DPs and subordinate clauses

We have seen that Ds in St'at'imcets distinguish individuals which are asserted to exist from individuals which are not asserted to exist. Therefore, we predict that subordinate clauses will also distinguish these two categories, this time relative to events, rather than individuals. This should mean that the determiner ti=...=a will be used when an event is asserted to have taken place, while the determiner ku= will head clauses in which no event is asserted to have taken place.

This prediction is upheld, as shown in (21) above, repeated here. In none of these cases is an event asserted to have taken place.

21. a. \[\text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \]
   \[\text{\textit{\textit{ti}}} \quad \text{\textit{\textit{a}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{good}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{I did not arrive.}}} \quad \text{(van Eijk 1981:39)}
   \]

   b. \[\text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \]
   \[\text{\textit{\textit{ti}}} \quad \text{\textit{\textit{a}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{good}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{I told him you would come.}}} \quad \text{(van Eijk 1981:44)}
   \]

Conversely, clauses headed by the assertion of existence determiner ti=...=a should always introduce events which are asserted to have taken place. This also is upheld, as shown in (50).

50. a. \[\text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \]
   \[\text{\textit{\textit{ti}}} \quad \text{\textit{\textit{a}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{good}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{It is good that you came.}}} \quad \text{(Your coming is good)} \quad \text{(van Eijk 1985:271)}
   \]

   b. \[\text{\textit{\textit{ama}}} \quad \text{\textit{good}} \quad \text{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}} \]
   \[\text{\textit{\textit{ti}}} \quad \text{\textit{\textit{a}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{good}}} \quad \text{\textit{\textit{kw}=\text{\textit{nom}}=\text{\textit{arrive}}=\text{\textit{2sg.poss}}}}} \]
   \[\text{\textit{\textit{Bill does not work any more.}}} \quad \text{... because he is too old already.} \quad \text{(van Eijk 1985:218)}
   \]

Paralleling the analysis outlined above for nominal DPs, we can say that the clauses headed by ku= must take narrow scope with respect to a non-factual operator. To formalize this notion, we must adopt here from Parsons (1990) is for expository convenience only.

We take no position here as to the exact representation of event arguments only. The formalism adopted here from Parsons (1990) is for expository convenience only.

51. a. Brutus stabbed Caesar.
Evidence such as this leads Demirdache to propose that determiners take over part of the function which would otherwise be performed by Tense:

The locus of parametric variation [between English and St'at'imcets] is ultimately the presence vs. absence of tense as a grammatical category: whereas in English morphological tense partly locates the temporal reference of a clause, in [St'at'imcets] determiners partly locate the temporal reference of a clause (Demirdache 1996b, emphasis original).

Demirdache's arguments provide crucial support for the claim that D and I are non-distinct in St'at'imcets.

3. The relationship between functional and lexical heads

The analysis presented so far claims that in St'at'imcets, there is a separate category C, and a category which comprises a D/I combination. D/I may introduce either determiners or phrases which contain nominal lexical projections and DPs which contain adjoined lexical projections.

Previous work on St'at'imcets has shown that there is a robust N-V distinction both in the morphology and the syntax (see in particular Demirdache and Matthewson 1995, Matthewson and Davis 1995). On the other hand, the work of Demirdache (1996a,b,c) and our current proposal entail that there is some neutralization of functional categories in St'at'imcets. This suggests that the source of "acategoriality" in St'at'imcets and perhaps in Salish more generally is limited to functional rather than lexical projections. As also argued by Davis and Matthewson (1995, 1996), it is at the functional categorial level where St'at'imcets and English differ, not at the lexical categorial level.

This situation raises certain challenges for the theory of phrase structure. Notice in particular that DPs which contain nominal lexical projections and DPs which contain adjoined lexical projections must still be distinguished, even though at the functional level, they are equivalent categories:

59. DP

| Spec | D
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D'</td>
<td></td>
</tr>
</tbody>
</table>

St'at'imcets evidence that the two types of DP in (59) must be distinguished comes from e.g., headed relative clauses, which must differentiate DPs headed by nouns from DPs headed by

verbs (see Matthewson and Davis 1995).

In other words, the DP on the left in (59) is truly a nominal DP, while the DP on the right is a verbal DP; the features of N and V must be "visible" for purposes of selection through the intervening D projection.

There are two main ways to instantiate this idea syntactically. The first is to allow features of N/V to "percolate" directly to D, via some-feature passing-convention from complement to head. The second is to adjoin N/V to D (at Logical Form, since the effects are not surface-visible) and allow the interpretive component to 'see' both segments of the adjoined category. These possibilities are schematized in (60a,b) respectively (with X standing for NV):

60. a. D/XP
   b. D/XP

There are various ways in which to instantiate either (60a) or (b), depending on which syntactic framework one adopts. We will not attempt to choose between the options here.

4. Syntactic nominalization in St'at'imcets

So far, all the clauses we have seen headed by ti=...:a or ku= have also contained the 'nominalizer' ±. We have not yet, however, given any account of either the semantic function or the structural position of this element. It is to these issues which we now turn.

First of all, recall that we must distinguish between two homophonous nominalizers in St'at'imcets (see §2.1). The first is the syntactic nominalizer, which is non-category changing, has phrasal scope and encliticizes to a determiner. The second is the lexical nominalizer, which is category-changing, has scope over a lexical head and is a prefix rather than a clitic. We will be concerned exclusively with the syntactic nominalizer here.

15 Note crucially that nominalization is not required for DPs which contain VPs.

16 It is, however, worth noting that neither (60a) nor (60b) is compatible with the 'Merge and Move/Attract' theory of phrase structure advocated by Chomsky (1995, Chapter 4). Within this model, there are two ways to build phrase-structure trees. The first is by merger, which combines two categories or more specifically, bundles of features, including categorial features) into a single superordinate category. An unconstrained version of merger might yield the equivalent of (58a) above. However, Chomsky's version is constrained by the requirement that when two categories merge, only a single set of features (those of the selecting head) may project. But if so, there is no way of making the necessary distinction between (59a) and (59b): both simply have the (undifferentiated) features of the selecting head, D. The only alternative is to move, which will result in an adjoined structure like (60b). However, Chomsky's model only allows one set of features to project from the adjoined structure, those of the target of adjunction (D) and not the adjoining category N or V. This means that once again there is no way for lexical categorial information (N vs. V) to be available across an intervening functional head (D) without encoding the information directly into the head itself, thus effectively re-establishing the very same I/D contrast which we have claimed is neutralized in St'at'imcets. Thus, either our analysis of St'at'imcets or Chomsky's version of phrase-structure must be wrong.

17 Ideally, of course, the two should be collapsed into a single morpheme whose interpretation varies with its syntactic position. We will not attempt such a reduction here.
c. \((3e)\) \{stabbing (e) & Subj (e, Brutus) & Obj (e, Caesar) & culminate (e, before now)\}

(cf. Parsons 1990:3, 6)

When applying this idea to St'át'imcets sentences containing subordinate clauses, we will adopt the simple hypothesis that in a subordinate clause introduced by non-assertion of existence \(kw\), the event argument of the lower clause will have narrow scope with respect to some non-factual operator. This is shown in (52).

52. \[c_w7aqz\] \(k_w^w=n=s\lambda[q]\)
\[kw=1sg.poss=nom=arrive\]
\[\neg 'i did not arrive.'\] \(\rightarrow (3e)\) \{arrive (e) & Subj (e, il)\}

(van Eijk 1981:39)

Since the event argument has narrower scope than the negative operator, the event is not asserted to 'exist'.

In a clause introduced by assertion of existence \(ti=\ldots=\alpha\), on the other hand, we treat the verb \(3\)

\[55'.\]

\(\rightarrow (3e)\) \{arrive (e) & Subj (e, he)\}

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In a clause introduced by assertion of existence \(ti=\ldots=\alpha\), on the other hand, we treat the verb \(\lambda\)

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(van Eijk 1981:39)

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In a clause introduced by assertion of existence \(ti=\ldots=\alpha\), on the other hand, we treat the verb \(\lambda\)

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In a clause introduced by assertion of existence \(ti=\ldots=\alpha\), on the other hand, we treat the verb \(\lambda\)
4.1. The semantic function of the syntactic nominalizer

As a first observation, note that the syntactic nominalizer is not restricted to either kw= clauses or ti= clauses, but appears in either type. This means that whatever its function, it does not encode or correlate with (non-)assertion of existence.

61. a. wâ?i-kâ?n zwa7-en-an [u'=wa=7 maë-x=â]  
wâ7=lhkan zwa7-en  [ku=wa7 mets-cal]  
not det=1sg.pos=nom=prog know-dir  [det=prog write-act]  
'i don't know how to write.'

b. ?âma [t=â=kq=â]  
âma [t=â=kq=â]  
good [t=axom-arrive=2sg.pos=exist]  
'it is good that you came.'

(St˚at’imcets)

Likewise, the function of the nominalizer must be distinguished from the tense/mood distinctions encoded by the complementizers kw= and ti=. Clauses containing nominalization can be either past or present, realis or irrealis.

4.1.1. Nominalization, finiteness, and infinitivals

If the nominalizer neither encodes tense/mood nor (non-)assertion of existence, it must encode a third semantic distinction. Our claim is that this dimension is FINITENESS.

An obvious consequence of the existence of finiteness as a semantic distinction is the prediction that infinitival as well as finite complements should exist in St˚at’imcets, contrary to the common assumption that infinitives are impossible in Salish; see e.g. Kroeber (1991):18

No Salish languages possess inflectional categories comparable to the infinitives or gerunds of some European languages, which mark clauses from which subjects are oblitrarily absent.

Our prediction is upheld. An infinitive clause is shown in (62).

62. k'â?gâ kwâ?xâ zwa7-en [ku'=wa=7 mets-xâ]  
zwâ7=en  [ku=wa7 mets-cal]  
not det=1sg.pos=nom=prog know-dir  [det=prog write-act]  
'we don't know how to write.'

The basic idea behind the finite/infinitival distinction is that finite clauses refer to individual events, while infinitivals refer to sets of events.19 Thus, note that in the English infinitival examples in (63a,b), there is no particular event of fishing or of fire-lighting, whereas their finite counterparts in (64) refer to a particular event (whether actually realized or not):

63. a. She likes [to go fishing].

b. John told Mary [to light a fire].

64. a. She went fishing.

b. Mary didn’t light a fire.

We propose that the notion of finiteness interacts with the existential force of the event argument in the following way (*a.o.e.* stands for ‘assertion of existence’):

<table>
<thead>
<tr>
<th>finite</th>
<th>non-a.o.e. of event</th>
</tr>
</thead>
<tbody>
<tr>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

If a clause is finite, a particular event can easily be asserted to have taken place, as in (66a). A clause can also be finite even if no clause is asserted to have taken place, as in (66b).

66. a. finite, existential interpretation of event argument:

Mary left.

(3e) [leave (e) & Obj (e, Mary)]

b. finite, non-existential interpretation of event argument:

Mary didn’t leave.

(3e) [leave (e) & Obj (e, Mary)]

A non-finite clause where no event is asserted to have taken place is also possible, as in (67a).

67. a. non-finite, no existentially interpreted event argument:

Mary didn’t want to leave.

(3e) [want (e) & Subj (e, Mary) & Obj (e, e') & leave (e') & Obj (e', Mary)]

b. * non-finite, existentially interpreted event argument:

* Mary to leave.

(3e) [leave (e) & Obj (e, Mary)]

Infinitives have the property that no particular event is situated, and therefore that no event is asserted to exist. However, it is possible to deny the existence of a particular event, or question a particular event, in which case no event is asserted to exist, but the clause will still be finite.

Applying these notions to St˚at’imcets, we predict that finite subordinate clauses will be introduced by either ti=...-wa (assertion of existence) or by kw= (non-assertion of existence), but that non-finite clauses will be possible only if introduced by kw=; this prediction is upheld. As predicted, infinitives are only available with kw=; equivalent examples with assertion of existence determiners have only a relative-clause reading.

68. a. zwâ7-an-kâ?n [t=wa=7 maë-x=â]  
zwâ7=en-lhkan  [t=wa7 mets-cal]  
know-dir=1sg.subj  [det=prog write-act]  
'i know who wrote/is writing.'

b. * i know how to write.'

18 Kroeber (1994b, p.c.) tentatively proposes that infinitives do exist in Nêhiyâwesin.

19 Recall from section §2.3.2 that verbs by themselves do not denote particular events, but merely kinds of events.
V * 

Matthewson (1996) for arguments against the existence of zero-determiners in St'at'imcets. (43x123)

An alternative would be to claim that in these cases there is a zero-determiner, with its appearance in certain types of wh-extraction which are otherwise unlicensed (see Hukari 1994, 1995).

Another way of looking at this is that the syntactic nominalizer is really a clausal "argumentizer": it takes a set of events (a semantic predicate) and turns it into a particular event (a semantic argument). The claim that the nominalizer is an argumentizer in this sense correlates with its appearance in certain types of wh-extraction which are otherwise unlicensed (see Hukari 1994, 1995).

A further consequence of the the existence of FP is that it accounts for certain distributional differences between conjunctive and indicative subject clitics on the one hand, and possessive subject clitics on the other. In particular, whilst conjunctive and indicative clitics are in complementary distribution with determiners, possessive clitics are clearly not, as can be seen in numerous examples throughout this paper. This can be accounted for if conjunctive and indicative subjects are generated as features of D itself (see Davis (to appear) for justification), but possessives are associated with F, more specifically with the [+finite] '(nominalized)' value of F. This situation is schematized in (74) below:

\[
\begin{array}{c}
\text{factive} \\
\text{finite} \\
\text{infiniteal}
\end{array}
\]

\[
\begin{array}{c}
\text{DP} \\
\text{D'} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{conjunctive clitics} \\
\text{indicative clitics} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{DP} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{conjunctive clitics} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{F} \\
\text{DP}
\end{array}
\]

\[
\begin{array}{c}
\text{conjunctive clitics} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{F} \\
\text{DP}
\end{array}
\]

In conclusion, the nominalizer turns a set of events (denoted by an infinitive) into a particular event (denoted by a finite clause). The event thus denoted need not be asserted to exist: hence, nominalization is compatible with either assertion or non-assertion of existence determiners. On the other hand, if an event is asserted to exist, it must be finite: hence, assertion of existence determiners necessarily take nominalized complements.

4.2. Syntactic position of the nominalizer

Finally, we turn briefly to the syntactic position of \( x \). There are three possible hypotheses to consider.

71. a. \( x \) is generated in D.
   b. \( x \) is generated in a functional projection above D
   c. \( x \) is generated in a functional projection below D

The existence of nominalized clauses without accompanying determiners, as in (72), argues against (71a); it appears that while determiners and nominalizers often co-occur, they must be generated in different functional projections.\(^{21}\)

\[
\begin{array}{c}
\text{DP} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{conjunctive clitics} \\
\text{FP}
\end{array}
\]

\[
\begin{array}{c}
\text{F} \\
\text{DP}
\end{array}
\]

In effect, F creates a small clause within DP, whose subject is marked by possessive inflection. Note that (74) is deliberately vague about the precise location of subject inflection within DP/FP. There are two possibilities: inflection is either generated on the specifier, or on the head itself. We will not attempt to choose between these possibilities here; see Davis (forthcoming) for further discussion.
5. Conclusions

In this paper, we have argued for the following claims:

75 a. There is a separate functional category C in St'át'imcets. Cs encode mood and/or tense.
b. There is neutralization between D and I in St'át'imcets. A single functional category
   D/I may introduce both nominal and verbal extended projections.
c. D/I encodes (non-)assertion of existence.
d. The syntactic nominalizer s=c encodes finiteness, and heads its own functional
   projection FP.
e. Both finite and infinitival complements exist in St'át'imcets.
f. Tense is not grammatically marked as a separate category; its function is taken
   over partly by D/I, partly by C, and partly by F.

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