PARAMETRIC VARIATION IN DETERMINER SYSTEMS: SALISH VS. ENGLISH[1]

Lisa Matthewson

(Simon Fraser University)

1. Introduction

Salish languages differ from English in apparently fundamental respects; they are morphologically rich, allow null arguments, and show relatively free word order. The deep typological split between Salish and English gives rise to a parametric problem: manifold dissimilarities must be reducible to a learnable number of parameter settings. The question also arises of whether syntactic properties of Salish which differentiate it from English should be directly linked to morphological properties, such as the head-marking nature of Salish languages.[2]

This paper addresses one aspect of the parametric problem raised by Salish. It provides a detailed examination of determiner systems in Salish languages, and argues that there are fundamental differences between determiners in Salish and in English-type languages. These include the absence in Salish of definiteness marking and of quantificational determiners, and the overt encoding of the presence or otherwise of existential force. I argue that Salish determiner systems can be accounted for by means of the parameter in (1).

(1)   *Common Ground Parameter*
      Determiners may access the common ground of the discourse:

      Yes: { English, ... }   No: { Salish, ... }

With a small extension, the Common Ground Parameter can also account for features of Salish deictic systems and the nature of a set of sentence-level clitics. While the Common Ground Parameter has syntactic and semantic effects, it is statable at the level of the lexicon, in line with proposals that restrict parametric variation to lexically defined properties (e.g. Borer 1983, Chomsky 1993).

The analysis presented here differs from accounts of the Salish-English split along the lines of Jelinek (1995) and Baker (1996). Jelinek and Baker propose single over-arching 'macro-parameters' which produce fundamental typological splits between languages. The Common Ground Parameter is not a macro-parameter; it is not intended to account singlehandedly for all differences between Salish and English. However, the Common Ground Parameter achieves maximal empirical coverage within its domain; wider-ranging parameters fail to account for the complex range of facts evidenced by Salish determiner systems.

Based on the evidence presented in this paper, I will suggest that the semantic-syntactic features of Salish determiners should not be tied to morphological properties of Salish. This predicts that a negative setting of the Common Ground Parameter is possible in languages whose morphology differs from that of Salish; this prediction is argued to be upheld.

A note is in order regarding the extent of the current study. The Salish family contains approximately 20 extant languages. Data presented here come from a subset of 10 of those languages, with representation from all major subgroups except the Southern Interior Branch.

2. Proposals about Salish determiner systems

In this section, I argue for the following three proposals about Salish determiners (see also Matthewson 1996):

(2)   a. Salish determiners do not encode definiteness.
        b. Salish determiners do not encode specificity.
        c. There are no quantificational determiners in Salish (see also Jelinek 1995).

Salish determiners differ from English determiners with respect to (2a) and (2c). Let us examine the three proposals one by one.

2.1. Salish determiners do not encode definiteness

Following Heim (1982) and others, I take the major distinction between definite and indefinite determiners to be a familiar-novel distinction. Definites are familiar to the common ground of the discourse, while indefinites are novel to the common ground of the discourse. 'Common ground' is defined in (3).

(3)   The common ground:
        The set of propositions that both the speaker and the addressee believe.

(Chierchia and McConnell-Ginet 1990: 290)

The common ground includes, but is not restricted to, information introduced overtly into prior discourse; see Heim (1982), Chierchia and McConnell-Ginet (1990), among others.

The distinction between definites and indefinites is illustrated in (4-6) for English. When an individual has no discourse antecedent and is unfamiliar to the common ground of the discourse participants, an indefinite is the only possible choice, as shown in (4).

(4)   No discourse antecedent:
      a. I met [*a* man] today.   b. *I met [*the* man] today.

If, on the other hand, an individual is already familiar to the discourse participants, a definite is the only possible choice, as shown in (5) and (6) (where co-indexation indicates coreference).[3]

(5)   A. I met [*a* man]$_i$ today.   *(novel)*
      B. What did [*the* man]$_i$ look like?   *(familiar)*

(6)   A. I met [*a* man]$_i$ today.   *(novel)*
      B. *What did [*a* man]$_i$ look like?   *(familiar)*

The familiar-novel distinction, crucial for determiner choice in many languages, is absent in Salish determiner systems. This can be shown by finding pairs of coreferential Determiner Phrases (DPs), one of which is used in a novel context, and one of which is used in a familiar context. If the same determiner is used in both novel and familiar instances, familiarity is not overtly encoded in that particular language.

The example from Sechelt in (7) will illustrate the point. (7a) is the first mention of a snake woman in the text; (7b) contains a subsequent mention of the same creature. In both cases, the same determiner *(lhe)* is used.[4]

(7)   a. t'i   súxwt-as   [*lhe*   7úlhka7   slhánay]$_i$ ...
         fact   saw-he   [*det*   snake   woman] ...
         'He saw [a snake-woman]$_i$ ...'   *(novel)*
     b. t'i   tl'um s-u<u>k</u>wal-s   [*lhe*   slhánay]$_i$: ...
         fact   then nom-speak-her   [*det*   woman]: ...
         'Then [the woman]$_i$ said: ...'   *(familiar)*
                          (Sechelt; Beaumont 1985: 188)

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(3) There are exceptions to the claim that definite descriptions must always be familiar to the common ground of the discourse. For example, (i) can be uttered felicitously even in a situation where there was no previous mention of a dog and there is no dog in sight (Heim 1982: 371; see also Hawkins 1978).

    (i) Watch out, the dog will bite you.

Heim (1982) claims that novel definites are rendered felicitous by ACCOMMODATION (see Lewis 1979), a process which adjusts the common ground in the face of a violation of a felicity condition. See Heim (1982) and references cited therein for discussion of the conditions under which accommodation is possible.

(4) A list of abbreviations is given at the end of the paper. Examples taken from printed works are provided in the script of the original source, except that in Sechelt examples I substitute a 7 for Beaumont's ʔ.

The definite-indefinite distinction is not encoded in Sechelt. See Matthewson (1996) for examination of six other Salish languages, none of which encode a definiteness distinction.[5]

In languages like Sechelt, which have no overt distinction between definite and indefinite determiners, there are a priori two logical possibilities, given in (8). The first possibility entails a relatively trivial difference between languages; the second possibility suggests a more fundamental difference.[6]

(8)   a. A definiteness distinction is not encoded on the determiners, but is still present in the grammar of the language (i.e. definite and indefinite determiners are homophonous).

        b. No definiteness distinction is present in the grammar of the language.

Matthewson (1996) argues in detail against the homophony analysis; the arguments are briefly summarized in (9):

(9)   a. In English, definite DPs allow an Individual Concept Reading (Enç 1981). In St'át'imcets, DPs do not allow an Individual Concept Reading (Demirdache 1996a, b, c). If DPs in Salish were homophonous between definite and indefinite DPs, we would expect them to be able to display all the properties of definite DPs.

        b. DPs in St'át'imcets do not allow freedom of temporal reference, another property of definite DPs in English (Demirdache 1996a, b, c; see also Enç 1981, Musan 1995).

        c. The distinctions encoded in Salish determiner systems cross-cut the definite-indefinite distinction. For example, the assertion of existence distinction (see §3) divides up the semantic space differently from a definite-indefinite distinction.

        d. Looking outside the determiner system itself, there is no evidence for a definiteness effect elsewhere in the grammar, which might provide indirect support for an underlying definiteness distinction on the determiners.

        e. The homophony analysis requires that all determiners in all Salish languages (a set comprised of hundreds of non-cognate forms) be accidentally homophonous. Even setting aside the empirical problems listed in (9a-d), the conceptual disadvantages of the homophony analysis may outweigh the perceived advantages of maintaining a universally available definiteness distinction.

(5) The languages investigated by Matthewson (1996) are St'át'imcets (Lillooet), Secwepemctsín (Shuswap), Sechelt, Lushootseed, Bella Coola, Upper Chehalis and Straits. Jelinek (1995: 512) also claims that Straits determiners do not encode definiteness.

(6) Thanks to Robert May (p.c.) for pointing out the first possibility.

2.2. Salish determiners do not encode specificity

Determiners in St'át'imcets do not encode specificity. The absence of specificity encoding is illustrated here using a test provided by Enç (1991).[7] Enç claims that in (10), a specific reading of the object *two girls* picks out two of the children already under discussion, while a non-specific reading picks out two separate girls, not already under discussion.

(10)   Several children entered my room. I knew two girls.

In a language which overtly encodes specificity such as Turkish, the second sentence of (11) is rendered in two different ways, depending on the specificity of the object.[8]

In the St'át'imcets example in (11), both specific and non-specific readings are available for the object of the second sentence.[9]

(11)   a.   [x^{w}ʔit   ʔi   šḱ^{w}əmḱ^{w}úḱ^{w}miʔt-a]   ʔuɫx^w
         [cw7it   ˙ i   sk'wemk'úk'wmi7t-a]   ulhcw
         [many   pl.det   child(redup)-det]   go.in
         'A lot of children came in.'

     b.   zwát-ən-ɫkan   [ʔi   nʔánwaš-a   šməɫməmɫač]
         zwát-en-lhkan   [i   n7án'was-a   smelhmém'lhats]
         know-tr-1sg.subj   [pl.det   two(human)-det[10]   girl(redup)]
         'I knew two girls.'

     i.   I knew two of the girls who came in.
or   ii.   I knew two (unconnected) girls.   (St'át'imcets)

The object *i n7án'wasa smelhmém'lhats* 'two girls' is ambiguous with respect to specificity, showing that specificity is not overtly encoded by determiner choice. By the same reasoning as was outlined for definiteness in the previous section, I claim that the specificity distinction is absent from St'át'imcets determiners. While there is a lack of available evidence from other Salish languages, I predict that the same is true of other languages in the family.

2.3. There are no quantificational determiners in Salish

In this section, I will show that elements satisfying the definition in (12) are absent from Salish languages.

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(7) See Matthewson (1996) for evidence that St'át'imcets determiners also do not encode specificity as it is defined by Ludlow and Neale (1991), or by Fodor and Sag (1982).

(8) See also Chung (1981), Bauer (1994), who claim that determiners in some Polynesian languages encode a specificity distinction.

(9) St'át'imcets (Lillooet) examples are given both in a phonemic script and in the practical orthography devised by Jan van Eijk (see van Eijk and Williams 1981). The practical orthography version is provided in order to facilitate access for native speakers of the language.

(10) Certain determiners in St'át'imcets contain an enclitic -*a*, which attaches to the first full word in the DP. See §4.

(12)   *Quantificational determiner* $=_{def}$ a quantificational element which occupies the syntactic position of a determiner (D^0) within the Determiner Phrase (DP).

I assume the basic X-bar structure for DP in (13).

(13)

Specifier ／ DP ＼ D' ＼
D^0 ／ ＼ Complement   (cf. Abney 1987)
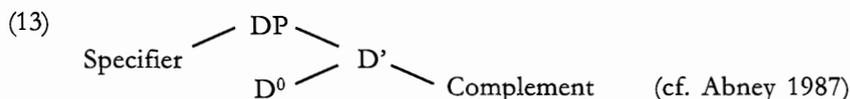
Quantificational determiners in English are illustrated in (14). The lexical items *every*, *no*, and *most* are in complementary distribution with definite or indefinite determiners.

(14)   a.   [*Every* man] loves hockey.   a'. [(*the) *every* (*the) man] loves hockey.
        b.   [*No* man] loves hockey.   b'. [(*the) *no* (*the) man] loves hockey.
        c.   [*Most* men] love hockey.   c'. [(*the) *most* (*the) men] love hockey.

This follows under the common analysis whereby the quantifiers occupy the D^0 position (since there may only be one D head in each Determiner Phrase).[11]

I will argue in the remainder of this section that Salish languages lack quantificational determiners. This does not mean that quantificational elements are lacking per se, but rather that quantificational elements may not occupy the head of DP.[12]

The discussion of quantifiers presented here is organized according to the strong-weak quantifier distinction. Weak quantifiers are those that are legitimate in *there*-insertion contexts in English. The quantifiers in (15a) are weak, while those in (15b) are strong (see Milsark 1974).

(15)   a.   There are some / many / three / no New Zealanders in the garden.
        b.   *There are the / every / all / most New Zealanders in the garden.

2.3.1. The absence of strongly quantificational determiners in Salish

Universal quantifiers do not occupy determiner position in Salish; rather, they obligatorily co-occur with a determiner whenever they appear DP-internally. (16a,b), for example, would be ungrammatical if the determiners *ta*, *re* were absent. The obligatory co-occurrence of the quantificational element with the syntactic determiner shows that the quantifier does not occupy the D^0 position.

(11) This is not unanimously accepted; see for example Stowell (1993), who proposes a separate phrase QP, of which the quantifiers in (14) presumably occupy the head position.

(12) The semantic literature on quantification consistently groups together pre-determiners, adjoined modifiers and determiners into one category called 'determiner' (see Barwise and Cooper 1981, van Benthem 1986, Jelinek 1995, Löbner 1987, Keenan and Moss 1985, Keenan and Stavi 1986, Partee 1995, Keenan 1996, among others; an exception is Rothstein 1988). The fact that Salish allows DP-internal quantifiers, but disallows quantifiers which occupy D^0, is argued by Matthewson (1996) to provide evidence that finer syntactic distinctions are relevant than those usually admitted by semanticists.

(16) a. na   ch'aw-at-as   [*i7xw*   *ta*   sw'i7ka]   [ta   slhenlhanay']
        rel   help-tr-3erg   [*all*   *det*   men]   [det   women]
        'All the men helped the women.' (Squamish; Demirdache et al. 1994)

   b. qwetséts   [*xwexwéyt*   *re*   sqélemc]
        leave   [*all*   *det*   man]
        'All the men left.'   (Secwepemctsín; Demirdache et al. 1994: 165)

A distributive universal quantifier corresponding to *each* is rare in Salish, but does exist in St'át'imcets, where it must co-occur with a determiner. Again, (17) is ungrammatical if the determiner which co-occurs with *zi7zeg'* is missing.[13]

(17) a. *ʔúm̓-ən-ɬkan*   *kʷu*   *kándi*   [*ziʔʐəʕ*   *ʔi*   *šk̓ʷəmk̓ʷúk̓ʷmiʔt-a*]
        úm'-en-lhkan   ku   kándi   [*zi7zeg'*   i   sk'wemk'úk'wm'it-*a*]
        give-tr-1sg.subj   det   candy   [*each*   pl.det child(redup)-*det*]
        'I gave each child some candy.'   (St'át'imcets)

   b. *qʌlqʌl-č-mín-ɬkan*   [*ziʔʐəʕ*   *ta*   *šqayxʷ-a*   *ʔác̓x-ən-an*]
        qvlqvl-ts-mín-lhkan   [*zi7zeg'*   ta   sqáycw-*a*   áts'x-en-an]
        bad(redup)mouth-appl-1sg.su [*each*   det   man-*exis*   see-tr1sg.conj]
        'Each man I saw, I swore at.'   (St'át'imcets)

Given the structure for DP in (13), the data in (16) and (17) suggest that universal quantifiers appear either in Spec, DP or adjoined to DP. Matthewson and Davis (1995), Matthewson (1996) argue that universal quantifiers (including the distributive universal) adjoin to DP; see also Demirdache et al. (1994).

There is no lexical item corresponding to the strong quantifier *most* in Salish. The meaning of *most* must be paraphrased, as for example in (18). The complex quantificational element *almost all* forms part of the DP constituent, yet does not replace the determiner *i...a*.

(18) [*tqiɬ*   *ƛuʔ*   *tákəm*   *ʔi*   *šməɬmúɬač-a*]   *ƛiq*
     [tqilh   t'u7   tákem   i   smelhmúlhats-*a*]   t'iq
     [almost   just   all   *pl.det*   woman(redup)-*det*]   arrive
     'Most of the women arrived.' ('Almost all of the women arrived.') (St'át'imcets)

2.3.2. The absence of weakly quantificational determiners in Salish

Weakly quantificational elements corresponding to *many*, *a few* and the cardinal numbers co-occur with determiners when they appear inside DP. This is illustrated for *many* in (19).

(19) a. *čís-n*   [*t*   *qə́xɬ*   *čawaɬ[ó.]mš*]
        come-3subj   [*det*   *many*   girl[dimin]]
        'Many girls come.'   (Upper Chehalis; M.D.Kinkade, p.c.)

   b. *s-iʔ*   *k̓ʷən-nəxʷ-s*   [*tsə*   *ŋə́n̓*   *šə-šk̓ʷə́m̓*]
        nom-accomp   see-cont.tr-3poss   [*det*   *many*   actual-swim]
        'and he did see a bunch of swimmers.' (Saanich; Montler 1986: 251)

(13) As shown in (17), *zi7zeg'* 'each' may co-occur with either a plural or a singular déterminer.

As with the strong quantifiers, the co-occurrence of the weak quantifiers with determiners indicates that the quantifier itself does not occupy the D^0 position in (19).

There is no determiner corresponding to the negative *no* in Salish. Negation is predicative, taking scope over a subordinate clause.

(20) a. *xʷíʔ*   *gʷ-əd-yíqus*
          neg   might-my-basket
          'I don't have a basket.' ('There is not my basket.')
                                                    (Lushootseed; Hess 1976: 567, Bates et al. 1994)

      b. *ʔaxw*   [ti   ka   lhalas]   *ʔala*   *ʔats*
          neg   [det   irr   boat]   prep   here
          'There is no boat here.'   (Bella Coola; Nater 1984: 123)

      c. *xʷʔaẓ*   *kʷ-š*   *λiq*   *[kʷu*   *šmúɬač]*
          cw7aoẓ   kw-s   t'iq   [ku   smúlhats]
          neg   det-nom   arrive   [det   woman]
          'No lady came.'   (St'át'imcets)

3. Salish determiners encode 'assertion of existence'

We have so far examined three potential determiner contrasts, and seen that all three are missing in Salish. This section addresses the question of what distinctions are made by Salish determiner systems. The major proposal is given in (21).

(21) Salish determiners encode 'assertion of existence'.

Before we define and defend (21), let us look at some data from St'át'imcets. (22) contains the discontinuous determiner *ti...a*. The DP *ti púkwa* can be used either as a definite (familiar) or an indefinite (novel) description. What both interpretations have in common is the presence of existential force, as indicated semi-formally in (22c).

(22)   *təxʷp-mín-ɬkan*   *[ti*   *púkʷ-a]*   *ɬkúnša*
          tecwp-mín-lhkan   [ti   púkw-a]   lhkúnsa
          buy-appl-1sg.subj   [det   book-deî]   today

      a. 'I bought a book today.'   *(novel)*
      b. 'I bought the book today.'   *(familiar)*
      c. ∃ x, x a book, I bought x today.

The same determiner appears in (23), this time under the scope of the intensional operator *kelh* 'might'. As before, the DP *ti púkwa* may represent either a novel or a familiar individual, but in each case, existential force is involved.

(23)   *təxʷp-mín-ɬkan*   *kəɬ*   *[ti*   *púkʷ-a]*   *natxʷ*
          tecwp-mín-lhkan   kelh   [ti   púkw-a]   natcw
          buy-appl-1sg.subj   might   [det   book-deî]   tomorrow

    a. 'I might buy a book tomorrow.'   *(novel)*
    b. 'I might buy the book tomorrow.'   *(familiar)*
    c. ∃ x, x a book, I might buy x tomorrow.

There are clearly environments where one does not wish to assert the existence of an individual. In these environments, a different determiner *(ku)* is used, as in (24). Here, the existence of a book is not asserted. The sentence is translatable into English only with an indefinite determiner.

(24)   *təxʷp-mín-ɬkan*   *kəɬ*   *[kʷu   púkʷ]*   *natxʷ*
        tecwp-mín-lhkan   kelh   [ku   pukw]   natcw
        buy-appl-1sg.subj   might   [det   book]   tomorrow
        'I might buy a book tomorrow.'

The determiner *ku* is restricted in its syntactic distribution. When it appears on argument DPs, it must fall within the scope of a non-factual operator, such as negation, a *yes-no* question marker or the modal *kelh* 'might'. Thus, (25) is ungrammatical (cf. (22)), since the determiner *ku* cannot be used in a context which induces an assertion of existence, such as an ordinary declarative sentence.

(25)   *   *təxʷp-mín-ɬkan*   *[kʷu   pukʷ]*   *ɬkúnša*
        *   tecwp-mín-lhkan   [ku   pukw]   lhkúnsa
             buy-appl-1sg.subj   [det   book]   today
             'I bought a book today.'

Notice that the reading represented by (25) is also impossible in English; its interpretation can be paraphrased as 'I bought a book today, but I do not assert that a book exists that I bought.'
An informal definition of the distinction being encoded here is given in (26).

(26)   *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).[14]

The relevant notion relates to existential force.[15] For further illustration, see (27). In the sentences in the left-hand column, the DP *a fish* has existential force; the sentences assert the existence of a fish which Sophie bought. In the right-hand column, there is no assertion of existence; the sentences could be true in a world in which fish did not even exist. The difference between the left and right-hand columns is precisely what is encoded by determiner choice in St'át'imcets.

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(14) (26) corresponds to Givón's (1978) definition of 'referentiality'. Givón bases his definition on data from Bemba (Bantu), whose determiner system shows similarity with Salish systems.

(15) A DP with an assertion of existence determiner is a description; it does not directly pick out a referent in the real world.

(27) Existencial force	No existencial force
Az'-en-as [*ti* sts'úqwaz'-*a*] kw-s Sophie buy-tr-3erg [det fish-det] det-nom So- phie Sofie bought a fish. ∃ x, x a fish, Sofie bought x.	
Cw7aoz kw-s áz'-en-as [*ti* sts'úqwaz'-*a*] kw-s Sophie neg det-nom buy-tr-3erg [det fish-det] det-nom S. Sofie didn't buy a fish. ∃ x, x a fish, ¬ Sofie bought x.	Cw7aoz kw-s áz'-en-as [*ku* sts'úqwaz'] kw-s Sophie neg det-nom buy-tr-3erg [det fish-] det-nom S. Sofie didn't buy a fish. ¬ ∃ x, x a fish, Sofie bought x.

The different ways in which determiner distinctions divide up the possible semantic space in English and in St'át'imcets are summarized in (28-29). English uses the same determiner for all DPs whose discourse referents are novel, whether they receive an existential interpretation or not. St'át'imcets, on the other hand, uses the same set of determiners (those containing an enclitic ...*a*)[16] for all nominals which induce an assertion of existence, whether novel or familiar.

(28)   English:

	novel	familiar
existential interpretation	a	the
non-exis. interpretation	a	

(29)   St'át'imcets:

	novel	familiar
assertion of existence	X...a	X...a
non-assertion of existence	ku	

The shaded areas in (28-29) represent an impossible combination; I assume that an individual which is familiar must be agreed to exist. This is shown for St'át'imcets in (30); the non-assertion of existence determiner cannot be used .when describing a familiar individual.

(30)   *təxʷp*   *kʷ*   *Mary*   [*ti*   *púkʷ-a]*ᵢ
        tecwp   kw   Mary   [ti   púkw-a]ᵢ
        buy   det   Mary   [det   book-exis]
        'Mary bought [a book]ᵢ.'

(16) The enclitic ...*a* is present on all and only the assertion of existence determiners in St'át'imcets, and is henceforth glossed as 'exis'.

ʔay	λ̓uʔ	kʷ	ʔáma-š-aš	[kʷu	pukʷ]
ay	t'u7	kw	áma-s-as	[ku	pukw]
neg	just	det	good-caus-3erg	[non.exis.det	book]

'She doesn't like books.'

* 'She doesn't like [the book]ᵢ.'   (St'át'imcets)

For a coreferential reading in the second sentence of (30), an assertion of existence determiner *(ti...a)* must be used.[17]

In English it is possible (in a restricted set of circumstances) to use a definite DP with a non-existential interpretation (see footnote 3). An example is given in (31); the individual described by the definite DP does not exist yet.

(31)   I will meet [the first baby to be born in the year 2010].

Examples similar to (31) must be rendered with a non-assertion of existence DP in St'át'imcets, in accordance with the non-existence of the individual in present time.

(32)

xʷúz̓-ɬkan	məlyi-š	[kʷu	xʷuz̓	kʷúkʷpiʔ	lákʷuʔ	Fount.]
cúz'-lhkan	mely'í-s	[ku	cuz'	kúkwpi7	láku7	Fountain]
going.to-1sg.sub	marry-caus	[non.exis.det	going.to	chief	deic	Fountain]

'I will marry the next chief of Fountain.' (whoever it is)   (St'át'imcets)

We see that although definites in English usually have an existential interpretation, the requirement for assertion of existence DPs in St'át'imcets is stronger. Assertion of existence DPs assert existence, while definite DPs presuppose existence (and are subject to accommodation). Hence, definites in English can be used in some contexts in which an assertion of existence DP is inappropriate.[18]

While Salishanists have not previously used the term 'assertion of existence' in their descriptions of determiner systems, Matthewson (1996) argues that the assertion of existence distinction is present in a number of Salish languages, including Sechelt (Beaumont 1985), Bella Coola (Davis and Saunders 1975) and Secwepemctsín (Kuipers 1974). The restriction of non-assertion of existence determiners to the environment of a non-factual operator also holds in these lan-guages.[19]

A formal analysis of the assertion of existence distinction within Discourse Representation Theory (Kamp 1981) is presented in Matthewson (1996). It is pro-

(17) For one principled exception to the claim that *ku*-DPs may not corefer with other DPs, see the discussion of modal subordination in Matthewson (1996).

(18) The contrast between (31) and (32) provides evidence that simple DPs in Salish are not presuppositional, in contrast to definite DPs in English. This in turn casts doubt on the analysis, already rejected above, whereby Salish determiners are all homophonous between definite and indefinite determiners.

(19) Straits Salish determiners do not encode assertion of existence (cf. Jelinek 1995, Jelinek and Demers 1994, Timothy Montler p.c.). Following Demirdache (1996a, b, c), Matthewson (1996) proposes that the absence of an assertion of existence distinction in Straits follows from the entirely deictic nature of determiners in that language.

posed that an assertion of existence determiner places a discourse referent into the universe of the main Discourse Representation Structure, while a non-assertion of existence determiner requires a discourse referent to be placed within a subordinate DRS. The latter restriction means that a non-assertion of existence DP obligatorily takes narrow scope with respect to a non-factual operator, and its discourse referent does not end up receiving existential force.

For the sake of completeness, it should be noted that as well as an assertion of existence / non-assertion of existence distinction, Salish determiners also encode a subset of the distinctions in (33).

> (33)   Distinctions encoded in Salish determiner systems:
> a. pronominal features of gender and number
> b. deictic notions of visibility and proximity (with respect to the speaker)

In this section I have argued that determiners in Salish encode an assertion of existence distinction. In the following sections all four proposals about Salish determiners will be accounted for by means of a single parameter setting.

4. There are no presuppositional determiners in Salish

The three proposals argued for in §2, repeated here, may be united under the single claim in (34).

> (1)   a. Salish determiners do not encode definiteness.
> b. Salish determiners do not encode specificity.
> c. There are no quantificational determiners in Salish.

> (34)   There are no presuppositional determiners in Salish.

This section begins by defining presupposition, and then argues that (34) is the relevant generalization which underlies (1a-c).

4.1. Presupposition

In recent literature, presupposition is commonly viewed as a relation between a proposition and the common ground of the participants in the conversation; this view arises out of Stalnaker's (1974) work on pragmatic presupposition. A sentence imposes certain requirements on common background assumptions (i.e. the things that are taken for granted in a conversation); these background assumptions are the presuppositions. The definition in (35) highlights the discourse-related nature of presuppositions (see also Heim 1982, Soames 1989).

> (35)   the hallmark of a presupposition is that it is taken for granted in the sense that its assumed truth is a precondition for felicitous utterance of the sentence and places a kind of constraint on discourse contexts that admit the sentence for interpretation (Chierchia and McConnell-Ginet 1990: 283).

To give a simple example, the utterance in (36) presupposes the information that someone emigrated to New Zealand, and will usually only be considered felicitous in case such information is part of the common ground at the time of utterance.[20, 21]

(36)   It was Joan who emigrated to New Zealand.

Let us now turn to the presuppositions induced by determiners. We shall see that the determiner types which are missing from Salish are precisely those which induce presuppositions of existence on the set ranged over by their common nouns.

4.2. Definite determiners presuppose existence

The individual corresponding to a definite DP such as *the woman* in English must be familiar to the discourse participants. If an individual is familiar to the discourse participants, then it is intuitively the case that it must be part of the common ground of those participants that the individual exists. This result is derived formally in Heim (1982).

According to Heim, individuals indicated by DPs are each represented by a FILE CARD.[22] Each file card contains all the information about a particular individual which is in the common ground of the discourse participants. This theory provides a simple way of distinguishing definite from indefinite DPs, as shown in (37).

(37)   a. For every indefinite, start a new file card
            (indefinites are novel with respect to the file)
        b. For every definite, update a suitable old file card
            (definites are familiar with respect to the file)   (Heim 1982)

The use of a definite DP therefore means that the speaker presupposes the content of the DP; the desriptive content of the DP has necessarily been entered into the common ground of speaker and hearer (the file) prior to that utterance.[23]

4.3. Specific determiners presuppose existence

Like definiteness, specificity has been linked to presuppositionality. Enç (1991: 9) claims that "specifics require that their discourse referents be linked to previously established discourse referents." As was argued above, a previously established

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(20) Presuppositions which are not already present in the common ground can be accommodated under certain circumstances; see footnote 3 above, Heim (1982), Stalnaker (1974), among others.

(21) Presuppositions induced by syntactic constructions such as clefts are present in Salish (see §5.3).

(22) File cards can be compared to Karttunen's (1976) 'discourse referents'.

(23) Existence within the file (the common ground of the speaker and hearer) must be differentiated from existence within the real world. For example, a DP may introduce a file card even if it has no referent in the real world. In (i), the indefinite under the scope of negation does not (under the preferred reading) correspond to an entity in the real world; it still introduces a file card, however.

(i) Sophie didn't buy a fish.

While the indefinite in (i) introduces a temporary file card which lasts only under the scope of the negation, definite DPs always correspond to 'permanent' file cards, and thus induce a presupposition of existence. See Heim (1982), Matthewson (1996) for discussion.

discourse referent is necessarily understood by conversational participants to exist. Hence, specific DPs induce a presupposition of existence.[24]

4.4. Quantificational determiners presuppose existence

It is often claimed that quantifiers induce a presupposition of existence on the set ranged over by their common noun (see Enç 1991, Milsark 1974, Soames 1989, among others). For example, the quantifier *every* in (38) induces a presupposition that unicorns exist.

(38)   Every unicorn likes bananas.

It is extremely difficult to assign a truth value to (38), if it is not assumed that unicorns exist. Since sentences without truth values are usually pragmatically infelicitous, (38) ends up sounding odd in a context where the discourse participants do not agree that unicorns exist. This pragmatic 'oddness' results from the failure of the presupposition of existence induced by the quantifier.

It has so far been argued that all the determiner types which are ruled out in Salish have one feature in common: they all involve presuppositions of existence. This common feature will be used in the following section to derive the absence of definite, specific and quantificational determiners in one fell swoop. However, before this is possible, we must deal with a potential problem with weak quantifiers.

It is well-known that weak quantifiers are at least two ways ambiguous in English (see Milsark 1974, Partee 1988, among many others). The so-called 'strong', or 'quantificational' reading of *many* in (39) (given in (39a)) requires that a large proportion of a set of aspens burned. The 'weak' or 'cardinal' reading, represented in (39b), is non-proportional, and requires only that the set of aspens which burned be large.

(39)   Many aspens burned.

   a.   proportional reading: $\dfrac{|A \cap B|}{|A|} \geq k$ (k a fraction or %)

   b.   cardinal reading: $|A \cap B| \geq n$ (Partee 1988: 1)

The proportional reading is favored by focal stress on the quantifier, as in (40b), or by an overt partitive construction, as in (40c).

(40)   a.   Many aspens burned.   *(proportional or cardinal)*
        b.   MANY aspens burned.   *(proportional)*
        c.   Many of the aspens burned.   *(proportional)*

Only the cardinal reading is available in *there*-insertion contexts, as shown in (41).

(24) Under other definitions of specificity such as that of Ludlow and Neale (1991), specific indefinites may correspond to discourse referents which have not previously been introduced into the common ground. Matthewson (1996) investigates specificity in some detail, arguing that all types of specific DPs rely on an interaction between the speaker's state of knowledge and the hearer's state of knowledge. As such, all specific DPs can be ruled out in Salish by the Common Ground Parameter to be introduced below.

(41)   a.   There are many ghosts in my house.   *(cardinal)*
       b. * There are MANY ghosts in my house.   *(proportional)*
       c. * There are many of the ghosts in my house.   *(proportional)*

Diesing (1992) claims that while strong quantifiers (such as *every, most*) always induce presuppositions of existence, only the proportional reading of weak quantifiers is presuppositional. Under the cardinal reading, weak quantifiers do not presuppose existence.

If Diesing's claim is correct, there is an apparent problem with the attempt to rule out all impossible determiner types in Salish from the single generalization that Salish lacks presuppositional determiners. It seems as if we cannot rule out weak quantifiers, under their cardinal reading, from occupying D^0 position. We would fail to rule out the sentences in (42), for example.

(42)   a. * ʔácx-ən-ɬkan   [n-ʔánwaš   šmúɬač]
           * áts'x-en-lhkan   [n-7án'was   smúlhats]
             see-tr-1sg.subj   [two(human)   woman]
             'I saw two women.'   *(cardinal)*   (St'át'imcets)

       b. * qʷačáč   [xʷʔit   šmúɬač]
           * qwatsáts   [cw7it   smúlhats]
             leave   [many   woman]
             'Many women left.'   *(cardinal)*   (St'át'imcets)

Matthewson (1996) argues in detail against Diesing's claim that weak quantifiers have a non-presuppositional reading. However, since there is not space here to outline these arguments, I shall merely point out that even if weak quantifiers were non-presuppositional on their cardinal reading, there would be an independent reason why the constructions in (42) would be ruled out in Salish languages.

Weak quantifiers which appear inside DP in St'át'imcets are not ambiguous; rather, they have only a proportional reading. This is shown in (43) for the weak quantifier *k'wík'wena7* 'few'. The sentence is acceptable when the proportion of angry children compared to the total number of children is small, as in (43a). On the other hand, the sentence is unacceptable when the number of children who are angry is small, but the proportion of angry children compared to the total number of children is large. This shows that a small cardinality is insufficient to license *k'wík'wena7*. Rather, a small proportion is required.[25]

(43)   waʔ   qlil   [ʔi   k̓ʷík̓ʷənʔ-a   šk̓ʷəmk̓ʷúk̓ʷm̓it]
       wa7   qlil   [i   k'wík'wen7-a   sk'wemk'úk'wm'it]
       prog   angry   [pl.det   few-exis   child(redup)]
       '(A) few (of the) children are angry.'   (St'át'imcets)

Possible readings:

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(25) See Partee (1988) for the test in (30b), which she attributes to an unpublished paper by Alison Huet-
tner.

    a. *True* in context: *(proportional)*
       There are 25 children waiting for Santa, and he doesn't come. 3 of
       them get angry.

    b. *False* in context: *(cardinal)*
       There are 4 children waiting for Santa, and he doesn't come. 3 of
       them get angry.

    c. *False* in context: *(cardinal)*
       There are 3 children waiting for Santa, and he doesn't come. All 3
       of them get angry.

The data in (43) (and other similar data involving the weak quantifier *cw7it* 'many') show that there are, for independent reasons, no cardinal weak quantifiers inside DP in St'át'imcets.[26] The cardinal reading is only available when a weak quantifier appears in main predicate position (see Matthewson 1996). It is therefore likely that weak quantifiers with a cardinal reading are independently ruled out from appearing in D^0 position in Salish. We can therefore exclude them from consideration in the following sections, concentrating only on accounting for the inability of proportional weak quantifiers to occupy D^0 position.

4.5. There are no presuppositional determiners in Salish

The preceding sections have argued that definite determiners, specific determiners, and quantificational determiners all induce presuppositions of existence. All these determiner types can therefore be ruled out in Salish by means of the single claim in (44).

    (44)   There are no presuppositional determiners in Salish.

(44) has been independently claimed for theory-internal reasons by Demirdache and Matthewson (1995b) and Demirdache (1996b). These authors provide evidence that while DPs containing quantifiers may undergo overt Quantifier Raising in St'át'imcets, simple DPs of the form [D NP] may not.[27] Assuming that presupposition correlates with Quantifier Raising along the lines of Diesing (1992), (44) accounts for the lack of QR with simple DPs.

In addition, Demirdache and Matthewson (1995b) argue that overt nominals are never syntactic topics in Salish (unless they contain an overt quantifier). The inability of overt simple DPs to be topical in Salish correlates with the inability of overt DPs to be presuppositional, in the following manner (see Demirdache 1996c). Syntactic topics have been argued to carry existential presuppositions (Reinhart 1982, Valduví 1995). If overt DPs cannot induce presuppositions, then it will follow that they cannot be topics.[28]

    (26) See Matthewson (1996) for some speculations as to why the cardinal reading might be lacking for DP-internal weak quantifiers in Salish.

    (27) This is true for one of the two principle dialects. In the other dialect, there is more freedom of word order for simple DPs.

    (28) Demirdache (1996c) notes that the ability of overt DPs in Salish to describe either novel or familiar discourse referents is non-problematic, since there is not a strict correlation between 'non-topical' and 'new information'. Thus, focussed DPs can be either novel or familiar.

5. The Common Ground Parameter

In this section, a Common Ground Parameter will be proposed, which states that determiners in Salish (unlike in English) may not access the common ground of the discourse. §5.1 introduces the parameter and shows how it derives the absence of presuppositional determiners in Salish, yet allows the presence of an assertion of existence distinction. The cross-linguistic predictions of the parameter are discussed in §5.2. Theoretical issues related to language typology and parameter setting are addressed in §5.3, and §5.4 and §5.5 discuss other aspects of the grammar of Salish which fall out from the Common Ground Parameter.

5.1. Presupposition relies on the common ground

Presupposition crucially relies on the notion of common ground. The common ground encompasses the beliefs of both the speaker and the hearer of any utterance. The relevance of the hearer's beliefs to presupposition is highlighted by Stalnaker (1974: 473), who claims that

> A proposition P is a pragmatic presupposition of a speaker in a given context just in case the speaker assumes or believes that P, assumes or believes that his addressee assumes or believes that P, and assumes or believes that his addressee recognizes that he is making these assumptions, or has these beliefs.

According to this definition, presupposition relies on three separate sorts of assumptions or beliefs, as shown in (45). Two of the three required components involve the speaker believing something about the hearer's state of knowledge.[29]

(45)　Assumptions or beliefs involved in a pragmatic presupposition P (following Stalnaker 1974):

    a.　The *speaker's* assumption or belief that P

    b.　The *speaker's* assumption or belief that the *hearer* assumes or believes P

    c.　The *speaker's* assumption or belief that the *hearer* recognizes that the *speaker* assumes or believes P

The ability to access or encode what the speaker believes about the hearer's knowledge (as in (45b,c)) is missing in the determiner systems of Salish languages; only the speaker's personal assumptions or beliefs (as in (44a)) can be explicitly encoded in the determiner system. For example, the presupposition of existence induced by a definite determiner is missing in Salish. In (46), determiner choice indicates only that the speaker assumes or believes that the policeman exists. The determiner *ti...a* crucially does not indicate anything about the common ground of shared beliefs between speaker and hearer.[30]

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(29) This approach to presupposition is explicitly or implicitly adopted in most recent literature; see for example Heim (1982), Chierchia and McConnell-Ginet (1990).

(30) (46) is felicitous both in contexts where the hearer has no knowledge of a policeman, and in contexts where the hearer is already familiar with the policeman.

(46)   túp-uň-aš   [ti   plíšmən-a]   [kʷ-š   John]
       túp-un'-as   [ti   plísmen-a]   [kw-s   John]
       hit-tr-3erg   [det   policeman-exis] [det-nom John]
       'John hit a / the policeman.'   (St'át'imcets)

√   Speaker assumes or believes that the policeman exists.
x   Speaker assumes or believes that the hearer assumes or believes
    that the policeman exists.
x   Speaker assumes or believes that the hearer recognizes that the
    speaker assumes or believes that the policeman exists.

This view of St'át'imcets is supported by van Eijk (1985: 223-4), who notes that
when it comes to determiner choice, 'the speaker is the sole arbiter'. See also
Kuipers (1967: 137) on the irrelevance of hearer knowledge in the Squamish deter-
miner system.

The inability of Salish determiners to access the common ground leads me to
propose the following parameter (for the final formulation, see (51) below).

(47)   *Common Ground Parameter*

       Determiners may access the common ground of the discourse:

       Yes: { English, ... }   No: { Salish, ... }

According to the Common Ground Parameter, English determiners can access
distinctions which rely on the shared beliefs of speaker and hearer, while Salish
determiners cannot. However, both Salish and English access and encode speaker
knowledge. Access to speaker knowledge must be a language universal, since speech
without the expression of speaker beliefs would result in a dearth of declarative
sentences. We can therefore predict the following typology of language types.

(48)

	English	Salish	*	*
Speaker knowledge is accessible:	+	+	−	−
Common ground is accessible:	+	−	+	−

The negative setting of the Common Ground Parameter in Salish immediately
accounts for the absence in Salish of a definiteness distinction, a specificity
distinction, and of quantificational determiners, since as was shown above, all of
these three determiner-types crucially rely on information contained in the common
ground.

The presence of an assertion of existence distinction in Salish, on the other
hand, is compatible with a negative setting of the Common Ground Parameter,
since whether the speaker asserts existence or not is independent of the common
ground, as outlined immediately above. Hence, all facets of Salish determiner
distinctions are in accordance with the parameter in (47).

5.2. Predictions of the Common Ground Parameter

The Common Ground Parameter is binary; it divides the world's languages into two groups, those whose determiners may access the common ground, and those whose determiners may not. However, there are finer issues which need to be addressed regarding the precise predictions made by the parameter. This section will not attempt to provide complete answers to these questions (since complete answers will necessarily involve a broader range of cross-linguistic evidence from other language families).

Under the strongest interpretation of the parameter, it predicts that the set of properties which access the common ground will pattern together cross-linguistically. Thus, languages will either allow all presuppositional determiner-types, or disallow all presuppositional determiner-types. An immediate problem with this prediction arises with specificity. For example, while English allows presuppositional determiners, it does not encode specificity. Indeed, it is still a matter of debate whether specificity is even relevant in the semantics of English DPs (see e.g. Heim 1989 and references cited therein).

With regard to this problem, it is useful to consider the rarity of systems which have been claimed to encode specificity, and in particular the rarity or absence of systems which encode a Ludlow and Neale-type specificity (see Matthewson 1996). Irene Heim (p.c.) and Ken Hale (p.c.) both suggest eliminating specificity altogether from the list of possible determiner distinctions. If specificity is eliminated, we can make the very strong prediction that there are only two types of languages: those whose determiners access the common ground, and those whose determiners do not. The two language-types are illustrated in (49).

(49)

	English	Salish
definiteness	+	−
quantificational Ds	+	−
Common Ground Parameter	+	−

Further research is necessary before this prediction can be either validated or disproven.

5.3. Parameter setting

Based on learnability considerations, I predict that the default setting of the Common Ground Parameter is negative. In other words, children will start out with a Salish-type system and require positive evidence to switch to an English-type system.

The reason for adopting this hypothesis is that a child would require negative evidence to change from a system which allows presupposition to a system which disallows presupposition. On the other hand, it is plausible that positive evidence

will suffice to inform a child that a particular language possesses presuppositional determiners.

For the sake of concreteness, I speculate that the triggering element for a child to switch the Common Ground Parameter to a positive setting will be any quantificational determiner. Once a child learning English has learned that the lexical item *every* (or *no*, or *most*) is (a) a determiner, and (b) a quantifier, the child will have acquired the knowledge that English possesses quantificational determiners. Since quantificational determiners always induce presuppositions of existence, it must follow that English allows presuppositional determiners, and consequently that a definiteness distinction will also be expected on the determiners.

This makes predictions about language acquisition, which may be supported or falsified on the basis of subsequent research. In particular, I predict that young children learning English-type languages will show evidence of a non-presuppositional determiner system, perhaps utilizing assertion-of-existence rather than definiteness as their major distinction.[31]

5.4. Can Salish access the common ground at all?

The Common Ground Parameter parameterizes the semantics of a small subset of lexical items, namely determiners. It is not a 'semantic parameter', in the sense that it is not being claimed that Salish languages can never access the common ground of the discourse. For example, presupposition is induced in Salish by syntactic constructions such as clefting. (50a) induces the presupposition in (50b).

(50) a. *niɬ*   *š-Henry*   *ti*   *qax^wəx^w-š-táli-ha*   *ti*   *qíl̓q-a*
          nilh   s-Henry   ti   qacwecw-s-táli-ha   ti   qíl̓q-a
          foc   nom-Henry   det   break-caus-erg.extr-exis   det   chair-exis
          'It was Henry who broke the chair.'   (St'át'imcets)
      b. Someone broke the chair.

The presupposition in (50) is induced by a specific syntactic structure, namely clefting. If presuppositions are only induced by syntactic structures in Salish, we can restate the Common Ground Parameter as in (51).

(51) *Common Ground Parameter* (strong version)
      The common ground may be accessed:

      a. By lexical items: Yes: { English, ... } No: { Salish, ... }
      b. By syntactic structures: Yes: { English, Salish, ... } No: Ø

The formulation in (51) is a stronger formulation than the version given in (47) above, which rules out access to the common ground only by a subset of lexical items, namely determiners. We will see evidence for the extension beyond the determiner system in the following subsection.

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(31) The Common Ground Parameter does not rule out a language like English from also possessing an assertion-of-existence distinction. Matthewson (1996) argues that while assertion-of-existence is not encoded on English determiners, the distinction is still relevant for coreference possibilities. Further research is required into this area.

I will from now on adopt the stronger version of the parameter given in (51). According to (51), the locus of the difference between the possible two language types is in the lexicon, which fits in with proposals that parametric differences may be situated only in the lexicon (see e.g. Borer 1983, Manzini and Wexler 1987, Chomsky 1993). If the lexicon is the only place where languages may differ, we can even propose that the ability of particular syntactic structures to induce presuppositions will be universal; what may vary is only whether particular lexical items (such as determiners) may induce presuppositions.[32]

5.5. Further implications of the Common Ground Parameter

The Common Ground Parameter has implications which extend beyond the determiner system. In this section I briefly mention two such implications, namely the deictic system and a set of speaker-oriented particles.

5.5.1. Deictics in Salish are speaker-oriented

In their cross-linguistic survey of deictic systems, Anderson and Keenan (1985: 277) observe that

> All languages identify locations by reference to that of the *Sp[eaker]*. It is also possible to determine locations by reference to that of the *Adr[essee]*, and many (but not all) languages utilize this possibility as well.

In this case, we see a subset —superset relation between languages which allow only speaker-oriented distinctions, and languages which allow both speaker-oriented and hearer-oriented distinctions.

Deictics throughout Salish encode proximity to, and visibility to, the speaker. Salish deictic systems are therefore speaker-oriented, a fact which is not only consistent with the Common Ground Parameter, but which even suggests a strengthening of it. Not only is hearer *knowledge* not accessed or encoded, but hearer *location* is also ignored in favour of speaker location.

St'át'imcets is a good example of such a system; the deictics encode visibility, proximity and a 'pivoting / non-pivoting' distinction (which relates to whether the place described is considered to be the centre or orientation point of an area; van Eijk 1985: 201).

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(32) There is one apparent counter-example to the claim that lexical items never induce presuppositions in Salish. The adverb *t'it* 'also' induces a presupposition that a certain event has taken place, as shown in (i).

(i) xʷwíl-əm   ƛ̓it   [k   Mary]   [kʷu   šxúšum]
     cwil'-em   t'it   [k   Mary]   [ku   sxúsum]
     look.for-intr also [det Mary]   [non.exis.det soapberry]
     'Mary also looked for soapberries.'
P: Someone other than Mary looked for soapberries.   (St'át'imcets)

This raises the possibility that what is absent from Salish is lexical items which introduce presuppositions of existence, rather than presuppositions consisting of propositions describing events. Further research is required into such matters.

(52)

		pivoting	non-pivoting
visible	proximal	l-ts7a	lá-ti7
	distal	l-t7u	lá-ta7
invisible	proximal	l-kw7a	lá-ku7
	distal	l-kw7u	lá-kw7a

(van Eijk 1985: 201)

Both the visibility and the proximity categories are speaker-oriented:

> The division 'visible' vs. 'invisible' hinges on whether the thing or place meant is visible or invisible to the speaker. The categories 'proximal' vs. 'distal' express that the thing or place meant is (relatively) close to vs. (relatively) far from the speaker (van Eijk 1984: 201).

The deictic component of determiner systems (see (33) above) is also speaker-oriented. For example, the Upper Chehalis determiner system marks three degrees of proximity, glossed as 'by speaker', 'near speaker' and 'not near speaker' (Kinkade 1964).

5.5.2. Morphological encoding of speaker knowledge

At least some Salish languages obligatorily encode the speaker's mental relationship to an event. Information is encoded about whether the event was personally witnessed by the speaker, and if not, exactly how the speaker came about his or her information. This is true in at least Bella Coola and St'át'imcets; further research may well turn up similar situations in other languages.

Bella Coola and St'át'imcets both contain a set of particles (suffixes and clitics respectively) which indicate how the speaker received the knowledge s/he is reporting on, and how strongly committed s/he is to the truth of the utterance. Examples are given in (53). In (53a,b), quotative particles indicate that the speaker heard the information from a third person, while in (53c), the speaker is surmising on the basis of available evidence.[33]

(53) a. *ksnmak-k*ᵂ   *[ti*   *ʔimlk]*
          work-*quot*   [non.exis.det   man]
          'I am told the man, whom I have not seen, is working.'
                                  (Bella Coola; Davis and Saunders 1975: 31)

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(33) Other suffixes in Bella Coola include -*ma* 'conjectural' and -*ck* 'inferential' (Davis and Saunders 1975: 34). Other clitics in St'át'imcets include *an'* 'evidential', and *tu7* 'complete' (a version of speaker witness). For a full list of the St'át'imcets clitics, see van Eijk (1985).

b. *ẑáx-alqʷə́m̓*   *kʷuʔ*   [k   *John*]
   zac-al'qwem'   *ku7*   [k   John]
   long-appear   *quot*   [det   John]
   'John is tall.' (speaker has heard it from somebody else)

                            (St'át'imcets)

c. *šáma?*   *k̓a*   *kʷu*   *šqwal̓-ən-táli*
   sáma7   *k'a*   ku   sqwal'-en-táli
   white.person   *surmise*   det   tell-tr-erg.extr
   'It must have been a white man who told her.'

                      (St'át'imcets; van Eijk 1985: 234)

Sentences without any of these speaker-knowledge particles unambiguously encode speaker witness. Thus, "any declarative utterance in Bella Coola implies that the speaker has witnessed what he reports" (Davis and Saunders 1975: 15). Similarly, in St'át'imcets, a declarative sentence without any speaker-knowledge particles unambiguously implies that the speaker has personal knowledge of the events or states reported on.

(54)   a. *ẑáx-alqʷə́m̓*   [k   *John*]
           zac-al'qwem'   [k   John]
           long-appear   [det   John]
           'John is tall.'
           (Speaker has seen John, and knows first-hand that John is tall.)

      b. *túp-un̓-aš*   *š-John*   [ti   *plíšmən-a*]
           túp-un'-as   s-John   [ti   plísmen-a]
           punch-tr-3erg   nom-John   [det   policeman-exis]
           'John hit a policeman.'
           (Speaker witnessed the event.)

The necessary speaker witness of declarative sentences accounts for the ungrammaticality of the sentences in (55) (as well as (25) above). In both languages, a declarative sentence (which implies speaker witness) clashes with a non-assertion-of-existence determiner (which entails that the individual concerned is not known by the speaker to exist). Since it is inherently contradictory for the speaker to have witnessed an event without holding the belief that the participants in the event exist, ungrammaticality results.[34]

(55)   a. * *ksnmak*   [ti   *ʔimlk*]
           work   [*non.exis.det*   man]
           'The man is working.'   (Bella Coola; Davis and Saunders 1975: 31)

---

(34) Mere semantic contradiction does not entail ungrammaticality, as shown by the grammaticality of (i):

    (i) No linguists are linguists.

   The sentences in (55) do not involve semantic contradiction, but rather grammatical contradiction. The grammatical encoding of existence (by the lack of a speaker-knowledge particle) conflicts with the absence of grammatical encoding of existence (by the determiner). Hence, (55a, b) are parallel to examples containing contradictory gender agreement in languages such as German.

b. * *túp-uṅ-aš*   *š-John*   *[kʷu*   *plišmən]*
    * *túp-un'-as*   s-John   *[ku*   plísmen]
        punch-tr-3erg   nom-John   *[non.exis.det*   policeman]
        'John hit a policeman.'   (St'át'imcets)

The non-ambiguity of a sentence which contains no particles suggests the presence of a null particle with a default interpretation of 'speaker witness'.[35]

The Common Ground Parameter clearly predicts that if any morphological marking of knowledge of an event is present in Salish languages, it will only mark speaker knowledge. This accords with the facts, since it is purely the speaker's mental relationship to, or state of knowledge about, an event which is encoded. Furthermore, the presence of the particles underscores the inherently speaker-oriented nature of the assertion of existence distinction. The existence-asserting determiners assert nothing more nor less than that the speaker has personally witnessed an individual. Given this, the speaker-oriented particles fall out as a natural way of enabling speakers to talk about things they have not personally seen.

6. How many parameters?

Although deriving several apparently disparate features of Salish languages, the Common Ground Parameter alone cannot account for every difference between Salish and English. In this section I briefly discuss some alternative proposals about the split between English-type languages and Salish-type languages, namely those of Jelinek (1995) and Baker (1996). I argue that these approaches, which rely basically on a single parameter, cannot capture the complex determiner facts discussed here.

6.1. An alternative: the Pronominal Argument Parameter

Jelinek (1995) aims to account for major differences between Straits Salish and English by means of the Pronominal Argument Parameter (see also Jelinek 1984, Baker 1991, 1995, 1996, Jelinek and Demers 1994). This parameter, given in (56), is intended to derive the presence of null arguments, free word order, and the lack of determiner quantifiers in Straits.

(56)   In languages with exclusively pronominal arguments, only clitics and
        affixes occupy argument positions.   (Jelinek and Demers 1994: 698)

Straits Salish is [+ Pronominal Arguments]; English is [− Pronominal Arguments].

The Pronominal Argument Parameter in turn derives from a proposed fundamental morphological difference between Salish and English, namely that there is no noun-verb distinction in the Salish lexicon. There are no zero-level categories N and V, according to Jelinek; rather, the lexicon is filled with one open class of *inflected predicates*. Predicates, while still in the lexicon, already contain pronominal markers for any internal arguments.

(35) Compare argumentation in Déchaine (1993) for the presence of a null tense operator where the absence of overt tense marking leads to unambiguous temporal interpretations.

One consequence of the claim that only clitics and affixes occupy argument positions is that all overt DPs in Straits must appear adjoined to the clause. The adjoined position of overt DPs derives the lack of quantificational determiners, as long as it is assumed that determiner quantification necessarily involves the possibility of lexical arguments in argument positions (see Jelinek 1995: 532). Since Pronominal Argument languages lack lexical arguments in argument positions, determiner quantification must also be absent.

As summarized in (57), the linking of Pronominal Argument status to the absence of determiner quantifiers is only a one-way implication, according to Jelinek. There are languages (in Northern Athabaskan, for example) which lack determiner quantifiers, but which allow overt DPs to appear in argument positions.

(57) Absence of DPs in argument position ⇒ Absence of D-quantification
      Absence of D-quantification   ⇏ Absence of DPs in argument
                                              position

If it is true that Salish languages are Pronominal Argument languages, the absence of quantificational determiners will follow. However, there are several respects in which Jelinek's (1995) analysis fails to account for the Salish facts. These are briefly summarized in (58).

(58) a. Jelinek's account does not distinguish between quantifiers which appear in D^0 position, and quantifiers which appear elsewhere within DP (e.g. adjoined to DP). As such, she cannot explain why many Salish languages disallow the former, while allowing the latter.
      b. Jelinek's account does not explicitly link the absence of definiteness to the absence of quantificational determiners. It therefore appears accidental that all Salish languages lack both definite and quantificational determiners.
      c. There is ample evidence from many Salish languages that the Pronominal Argument analysis is incorrect. On the categorial issue, see Davis and Saunders (1974), van Eijk and Hess (1986), Mattina (1994, in prep), Beck (1995a, b), Davis and Matthewson (1995), Demirdache and Matthewson (1995a), Matthewson and Demirdache (1995) and Nater (1984), among others. For syntactic evidence against the Pronominal Argument analysis, see Matthewson et el. (1993), Davis (1993), Demirdache and Matthewson (1995a), Matthewson and Davis (1995), among others.

The empirical problems encountered by the Pronominal Argument Parameter cast doubts on its usefulness as an explanation for the lack of quantificational determiners.

The Pronominal Argument Parameter constitutes an attempt to tie together diverse aspects of Salish morphology and syntax under a single explanation. It does so, however, at the expense of a complete explanation for Salish determiner systems. The Pronominal Argument approach has nothing to say about the assertion of existence contrast or the lack of specificity encoding, for example. The generalizations which emerge from in-depth examination of determiner systems receive a unified explanation so far only under the Common Ground Parameter approach.

6.2. The Polysynthesis Parameter (Baker 1996)

Baker (1996) offers a two-part 'macro-parameter' intended to derive typological differences between radical head-marking languages (a group which includes Salish) and non-radical head-marking languages like English. The relevant portion of the parameter is given in (59).

(59)   Morphological Visibility Condition / Polysynthesis Parameter:
A phrase X is visible for Theta-Role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y via an agreement relationship (Baker 1996: 14).

Obligatory agreement morphology for each argument appears on the verb. These agreement morphemes absorb the verb's Cases. In order to avoid a violation of the Case filter, overt argument DPs must always appear in adjoined positions (where they do not require Case). These overt DPs are coindexed with null pronouns in argument position.

Baker's proposal makes several syntactic predictions, which hold up in Mohawk but not in Salish. For example, the claim that overt argument DPs do not occupy argument position is argued to be incorrect for the three Northern Interior Salish languages by Matthewson et al. (1993). Condition C facts in these languages show subject-object asymmetries, which is not predicted if all overt DPs are adjoined. See also Davis (1993, 1994, 1995a, b), Demirdache (1995a).[36]

Baker also predicts that a language with a positive value for the Polysynthesis Parameter will lack non-referential quantifiers (by which he means quantifiers which take singular agreement, as in English *Every man likes his dog*). The absence of such quantifiers follows from the condition in (60):

(60)   Quantified NPs (and wh-traces) can have anaphoric relations only with pronouns which they *A-bind* at S-structure (Baker 1995: 43).

The condition in (60) rules out non-referential DPs in Mohawk, since all overt nominals in that language appear in A-bar positions at S-structure. Therefore, these overt nominals cannot be coindexed with the pronominals which appear in argument positions; this results in the overt nominals being unlicensed (see Baker 1995: 43).

Given that Salish languages allow overt nominals in argument positions, we do not expect non-referential DPs to be ruled out in Salish. This is correct, since St'át'imcets allows singular agreement with the distributive universal quantifier (see Davis 1993, Matthewson 1996, (17b) above).

The Polysynthesis Parameter is tied directly to observable morphological features of radical head-marking languages, namely rich agreement morphology. It should therefore be the case that any languages with radical head-marking properties behave similarly to Mohawk for the range of syntactic predictions which follow from the parameter. Unfortunately, Salish languages contain rich agreement morphology, yet do not uphold the relevant syntactic predictions. The Polysynthesis Parameter, like

(36) There are several other cases of subject-object asymmetries in St'át'imcets. Only subject DPs can undergo 'raising to object', and only subject DPs can raise to a position between an auxiliary and a main verb (see Davis 1995a). Polarity licensing also shows subject-object asymmetries (Matthewson 1996).

the Pronominal Argument Parameter, attempts to achieve maximally broad empirical coverage, but sacrifices accurate predictions in specific areas of the grammar.

6.3. There is more than one parameter

The Common Ground Parameter proposed in this paper is not a 'macro-parameter'. It does not alone derive radically different language-types. Rather, I claim that multiple parameter settings are required to derive all the features of Salish languages. Salish languages lie somewhere along a continuum between truly 'pronominal argument' languages such as Mohawk, and languages like English with impoverished agreement morphology. In this respect, I concur with Speas (1990: 123), who in turn agrees with Hale (1985: 7) that "there is no single parameter giving rise to the various properties commonly associated with the term 'non-configurational'."

It remains an empirical issue whether individual phenomena such as the possibility of null arguments or the presence of rich agreement morphology in Salish languages should be tied to the determiner facts. Current approaches which link the lack of quantificational determiners to morphological features of agreement suffer from empirical failings, as outlined above. However, future research may well reveal ways in which additional features of Salish can be derived from the same parameter as the determiner facts, without sacrificing empirical coverage.

7. Conclusions

There are many differences between Salish languages and English; this paper has concentrated on differences in the determiner and quantification systems. Four proposals were made about the nature of determiner systems in Salish:

(61)   a. Determiners do not encode definiteness.
          b. Determiners do not encode specificity.
          c. There are no quantificational determiners.
          d. Determiners encode 'assertion of existence'.

The three generalizations in (61a-c) were argued to follow from the lack of presuppositional determiners in Salish, a claim which in turn follows from the parameter in (62), given that presupposition requires access to the common ground of the discourse.

(62)   *Common Ground Parameter*
       The common ground may be accessed:

       a. By lexical items: Yes: { English, … }   No: { Salish, … }
       b. By syntactic structures: Yes: { English, Salish, … }   No: Ø

It has been proposed that there is not one single macro-parameter which differentiates Salish from English; rather, a combination of several parameter settings are required to produce the Salish pattern.

Abbreviations

abs = absolutive, accomp = accompanying, appl = applicative, caus = causative, conj = conjunctive, cont = contemporaneous, deic = deictic, det = determiner, demon = demonstrative, dimin = diminutive, erg = ergative, exis = existential, extr = extraction, fact = factive, foc = focus, inch = inchoative, intr = intransitive, neg = negative, nom = nominalizer, ooc = out of control, pl = plural, poss = possessive, pred = predicate, prog = progressive, quot = quotative, redup = reduplication, sg = singular, s.t. = something, stat = stative, subj = subject, tr = transitive.

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Linguistics Department.
Simon Fraser University
#345 Yellow head Hwy
Kamloops, B.C.
Canada V2H 1H1

(250) 828 9799