On the Universality of Syntactic Categories

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1. Core Claim

In this paper, we propose that distinctions between the lexical categories N, V and A, and their syntactic projections NP, VP and AP, are a universal property of language. Thus, we claim that there are no category-neutral languages (contra Bach 1992, Déchaine 1993, Jelinek 1993, in press and Jelinek and Demers 1994).

Salish languages have been claimed to provide striking evidence for the lack of lexical distinctions, and have been analyzed as category neutral - that is, as languages with a single lexical category (Kinkade 1983, Jelinek 1993, in press, Jelinek and Demers 1994). We take one Salish language, St'át'imcets,[2] and show that it is not category neutral. On the contrary, there must be a three-way distinction *in the syntax* between **NPs, APs** and **VPs.**[3] The evidence for these distinctions is subtle, implying that it reflects a fundamental property of Universal Grammar.

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[2] St'át'imcets (Lillooet Salish) is a Northern Interior Salish language spoken in southwest mainland B.C., with two dialects (Mount Currie and Upper).

[3] We do not discuss PPs; the existence of prepositions in Salish is non-controversial (see Jelinek 1993).

Our argument proceeds as follows. We first present Jelinek's category-neutral analysis of Salish languages, according to which every lexical item projects a clausal structure (IP). This analysis denies the existence of bare (uninflected) predicates - that is, of NP, AP or VP - in Salish. We then argue for the existence of restrictive noun modification in Salish. Restrictive noun modification entails the existence of bare (uninflected) predicates; since e.g. the head of a relative clause cannot be analysed as a clause. Finally, we show that within a class of bare one-place predicates which are semantically very close - namely, those which denote permanent properties - we must distinguish between NP and AP in the syntax. We argue that the existence of this distinction between NP and AP is surprising, not only in languages like the Salish languages which do not distinguish between categories at the inflectional level (see section 3) but also in languages like English. We claim that it reflects a deep property of the *syntax* of Universal Grammar.

2. St'át'imcets (Lillooet Salish)

In this section, we briefly summarize certain aspects of the syntax of St'át'imcets that will be relevant to the argumentation. St'át'imcets sentences are predicate initial, as shown in (1).[4]

(1) [qwatsáts-Ø] [ti smúlhats-Ø-a]
leave-3ABS DET woman-3ABS-DET
'The woman left'

St'át'imcets is a so-called head-marking language: overt subject and object arguments are optional, as shown in (2), and marked by obligatory pronominal affixes on the predicate, as shown in (3).[5]

(2) [qwatsáts-Ø]
leave-3ABS
'S/he left'

Finally, St'át'imcets is morphologically split-ergative: third person arguments induce ergative-absolutive marking on the predicate, as in (3a-a'), whereas first and second person arguments are inflected on a nominative-accusative pattern, as in (3b-b').

(3a) [ílal-**Ø**]
cry-**3ABS**
'S/he cried'

(a') [tup-un'-**Ø**-ás]
hit-TR-**3ABS**-3ERG
'He hit him'

(b) [ílal-**kacw**]
cry-**2SG.SUBJ**
'You cried'

(b') [tup-un'-ts-**kacw**]
hit-TR-1SG.OBJ-**2SG.SUBJ**
'You hit me'

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[4] Examples are presented in van Eijk's (1981) orthography. Abbreviations used: 1 = 1st person, 2 = 2nd person, 3 = 3rd person, abs = absolutive, conj = conjunctive morphology, def.past = definite past, det = determiner, erg = ergative, erg.extr = ergative extraction, ec = empty category, fut = future, nom = nominalizer, sg = singular, subj = subject, tr = transitive.

[5] For Jelinek, Salish languages are of the 'pronominal-argument' type (see Jelinek 1984, 1993, in press and Baker 1991, 1993). We do not adopt this analysis. See also footnote 10. For arguments against a pronominal argument analysis of St'át'imcets, see Davis (1993, 1994), Demirdache and Matthewson (1995) and Matthewson et al (1993).

3. Evidence for Category Neutrality in Salish

Inflectional morphology provides the strongest evidence for the category neutral analysis of Salish languages. In particular, any open-class item can be inflected (take person markers) to form a finite clause (cf. Kinkade 1983, Jelinek in press). This is shown in (4): the predicates *qwatsáts* 'leave', *smúlhats* 'woman' and *xzum* 'big' can all take second singular subject marking or null absolutive marking.

(4a) [qwatsáts-kacw]
leave-2SG.SUBJ
'You left/You leave'

(a') [qwatsáts-Ø]
leave-3ABS
'She left/She leaves'

(b) [smúlhats-kacw]
woman-2SG.SUBJ
'You are a woman'

(b') [smúlhats-Ø]
woman-3ABS
'She is a woman'

(c) [xzúm-lhkacw]
big-2SG.SUBJ
'You are big'

(c') [xzum-Ø]
big-3ABS
'It is big'

In (5), we see that even a proper name can appear in predicate position and take subject person marking:

(5) [Rose-lhkacw] ha?
Rose-2SG.SUBJ YES-NO
'Are you Rose?'

Functional categories[6] do not select for particular lexical categories in Salish; for example, all open class items can take morphological tense in St'át'imcets. This is shown in (6), where the definite past and future particles encliticize to the main predicate of the sentence (there is no copula):

(6a) [qwatsáts-Ø tu7] [kw-s Gertie]
leave-3ABS DEF.PAST DET-NOM Gertie
'Gertie left'

(b) [qwatsáts-Ø kelh] [kw-s Gertie]
leave-3ABS FUT DET-NOM Gertie
'Gertie will leave'

(c) [plísmen-Ø tu7] [kw-s Bill]
policeman-3ABS DEF.PAST DET-NOM Bill
'Bill was a policeman'

(d) [plísmen-Ø kelh] [kw-s Bill]
policeman-3ABS FUT DET-NOM Bill
'Bill will be a policeman'

(e) [xzum-Ø tu7] [ti s-géw'p-a]
big-3ABS DEF.PAST DET NOM-meet-DET
'The meeting was big'

[6] In the literature, these categories are DET and I (the latter split into AGR and T). We do not address here the exact nature of the functional category represented by the DEF.PAST and FUT particles in (6) (whether Tense or Aspect).

(f) [xzum-Ø kelh] [ti s-géw'p-a]
big-3ABS FUT DET NOM-meet-DET
'The meeting will be big'

Further, in (7), we see that the presence of a determiner turns any inflected predicate into a referring expression. Thus, when we add a determiner to the predicates *smúlhats* 'woman', *qwatsáts* 'leave' and *xzum* 'big', we obtain a DP. (Note that *ti -a* is a discontinuous determiner, where *-a* encliticizes to the first lexical item in the DP):

(7a) [qwatsáts-Ø] [**ti** smúlhats-Ø-**a**]
leave-3ABS DET woman-3ABS-DET
'The woman left'

(b) [smúlhats-Ø] [**ti** qwatsáts-Ø-**a**]
woman-3ABS DET leave-3ABS-DET
'The one who left is a woman'

(c) [qwatsáts-Ø] [**ti** xzúm-Ø-**a**]
leave-3ABS DET big-3ABS-DET
'The big one left'

We have so far seen no distinctions in behaviour between any open-class lexical items. Any item can appear in predicate position - that is, sentence initially - and be inflected for person markers and tense. Furthermore, any lexical item can be closed off by a determiner to become a referring expression. This lack of distinctions between lexical categories at the level of inflectional morphology[7] has been the basis for a well-known analysis of Salish, namely that there is a single categorial distinction in these languages - that between functional and lexical categories. However, within lexical categories, there are no distinctions (i.e. there is no VP, NP or AP).

4. The Category Neutral Analysis: Every Lexical Item is a Clause

Our first goal will be to demonstrate the existence of bare (uninflected) predicates in Salish. Therefore, it is crucial to understand why the category neutral analysis entails that there are no bare predicates. Jelinek's (1993) major claim for (Straits) Salish is given in (8):

(8) "There are no lexical items that on *syntactic grounds* are exclusively either nouns or verbs. There is no subclass of predicate that alone is associated with the maximal projections NP and VP."

To understand the claims underlying the single category analysis of Salish, consider the DPs in (9a-b). These referring expressions must be relative clauses (that is, noun phrases containing a restrictive subordinate clause) for two reasons. First, these DPs contain a clause because they name participants in an event. Second, the predicate in (9b) has overt subject (ergative) inflection; therefore, there must be a clause inside this DP. The same analysis is extended to (9a), although inflection is null in an intransitive clause:

[7] Note that there is evidence for categorial distinctions in the domain of derivational morphology (for example see Davis and Matthewson 1995, Davis, Demirdache and Matthewson in prep., Kinkade 1964, Mattina 1994 and van Eijk and Hess 1986).

(9a) ti qwatsáts-Ø-a
DET leave-3ABS-DET
'The one who left'
[$_{DP}$ the [$_{IP}$ pro leave]]

(b) ti tup-un-Ø-**á**s-a
DET hit-TR-3ABS-**3ERG**-DET
'The one he hit'
[$_{DP}$ the [$_{IP}$ pro hit pro]]

Let us now turn to the DPs in (10a-b). Note that here we cannot tell whether D selects a *bare* predicate (NP) as illustrated by the structure in (10a), or whether D selects a clause (IP) as in (10b); the same phonological string has two possible analyses. The syntax of the noun phrase *ti smúlhatsa* is ambiguous for three reasons. First, there is no copula in the language; hence, there is no visible distinction between 'a woman' and 'is a woman'. Second, Salish allows null arguments; hence, the null subject analysis in (10b) is available. Finally, the null subject of an intransitive clause induces absolutive marking on the predicate, and third absolutive is phonologically null. Consequently, a DP containing a clause with an intransitive predicate inflected for subject agreement is phonologically identical to a DP containing a bare predicate.

(10a) ti smúlhats-a
DET woman-DET
'The woman'
[$_{DP}$ the [$_{NP}$ woman]]

(b) ti smúlhats-Ø-a
DET woman-3ABS-DET
'The one who is a woman'
[$_{DP}$ the [$_{IP}$ pro is a woman]]

For proponents of the single category hypothesis, however, all the DPs in (9) and (10) must have an identical structure. In particular, the DP 'the woman' must have the same syntax as the DP in (9b) 'the one whom he hit'. Therefore, 'the woman' must be analysed as a covert relative clause (as 'the one who is a woman' (10b)), on a par with (9a-b). Thus, under the category neutral analysis of Salish, **every DP consists of a determiner and a clause** - with phonologically null pronominal arguments when the predicate is intransitive (Kinkade 1983, Jelinek 1987, 1993, in press[8, 9]). Hence, Jelinek assumes that every lexical item always projects the same syntactic category (IP), and that it is the presence of a determiner that turns a clause into a referential expression.

In conclusion, the category neutral analysis of Salish recognizes only two categories: IP and DP. The main claims of this analysis which we will dispute are summarized in (11):

(11a) Bach (1992), on Jelinek: "...there are simply no predicates ... What appear to be predicates are in fact logically full sentences or formulas, which contain pronominal arguments (perhaps phonologically null). Such languages do not have full NP (term phrase) arguments at all."

(b) Under the single-category hypothesis, **there are no bare predicates**. Every predicate is inflected, analysed as a clause.

Apparent support for this analysis is provided by the syntax of relative clauses. Relative clauses in Salish often appear to be of the 'adjoined' relative type (Hale 1976). For example, consider the relative clause in (12). Determiners are homophonous with complementizers in St'át'imcets, so it is not clear whether we have one instance of D followed by an instance of C (and hence a single DP containing a subordinate clause, as in (12i)), or whether we have two Ds (and therefore two distinct DPs, as in (12ii)):

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[8] See Bach (1968) for a similar (covert relative clause) analysis of English noun phrases.

[9] Under this analysis, every DP is a covert relative clause. Note, however, that there is no null NP head in these relative clauses, as illustrated in (10b). The semantic head of the relative is a pronominal argument within IP (bound by the determiner).

(12) [ats'x-en-Ø-lhkan] **[ti** sqaycw-Ø-**a]** **[ti** qwatsáts-Ø-**a]**
saw-TR-3ABS-1sg.subj DET man-3ABS-DET DET leave-3ABS-DET

(i) 'I saw him, [the man who left]' or 'I saw [the man who left]'[10]
(ii) 'I saw him, [the one who is a man], [the one who left]'

In summary, there are two factors that conspire to create an ambiguity in the structure of relative clauses: 1) a clausal structure containing an intransitive predicate (i.e. 'he is a man') is phonologically identical to a bare predicate (i.e. 'man') and, 2) determiners are homophonous with complementizers.

As is well known, the head of a restrictive relative can never be referential. DPs are referential categories. NPs are not, they are predicates. Under the analysis in (i) of (12), we have a single DP with a non-referential head (NP). Under the analysis in (12ii), we have two distinct referential categories (two DPs) narrowing the reference of a pronominal argument inside a clause. Thus, (12ii) cannot involve restrictive noun modification. For the proponents of the single category hypothesis, the absence of restrictive noun-modification follows from the absence of predicates (NPs) in Salish.[11]

We will now demonstrate that there are bare (uninflected) predicates in the syntax in St'át'imcets. This entails that (10a) is a possible analysis of 'the woman'. We will then show that there are two distinct categories of bare predicates in St'át'imcets: NPs and APs.

5. Restrictive Noun Modification

5.1. Relative Clauses: Evidence for NP

Compare the relative clauses (henceforth, RCs) in (13) to the 'adjoined' RC which was illustrated in (12). In particular, note that in (12) we have two (discontinuous) determiners, whereas in (13) we have a single (discontinuous) determiner:

(13a) [ats'x-en-Ø-lhkan] [ti qwatsáts-Ø-a **sqaycw**]
see-TR-3ABS-1SG.SUBJ [DET leave-3ABS-DET man]
'I saw the man who left'

(b) [ats'x-en-Ø-lhkan] [ti xzúm-Ø-a **spzúza7**]
see-TR-3ABS-1SG.SUBJ [DET big-3ABS-DET bird]
'I saw the bird who is big'

(c) [ats'x-en-Ø-lhkan] [ti wa7 alkst-Ø **sk'úk'wmi7t**]
see-TR-3ABS-1SG.SUBJ [DET prog work-3ABS-DET child]
'I saw the child who was working'

(d) [ats'x-en-Ø-lhkan] [ti tup-un'-Ø-táli-ha **sqaycw**]
see-TR-3ABS-1SG.SUBJ [DET hit-TR-3ABS-ERG.EX-DET man]
'I saw the man who hit him' * 'I saw the one who hit the man'

[10] The single DP analysis in (12i) does not bear on the issue of whether nominals are arguments or adjuncts; hence, the two alternatives in (12i). The two DP-analysis in (12ii), however, requires nominals to be analysed as adjuncts: two (or more) DPs in a sentence are free to corefer precisely because they are not arguments but adjuncts in A'-positions (respectively) binding the same pronominal argument. Thus, the category neutral analysis entails the pronominal argument hypothesis.

[11] Note that Jelinek does not claim that these 'adjoined' relative clauses have the interpretation of appositive relatives. Indeed, she states that there are no appositive relative clauses in Straits Salish, as is the case in St'át'imcets (see in particular Jelinek 1987).

We first establish that the bracketed constituents in argument position in (13) do indeed have the syntax of RCs. The presence of an inflectional element - namely, the progressive auxiliary *wa7* - in (13c) entails that the first element of the bracketed constituent (e.g. *qwatsáts, xzum* or *wa7 alkst)* has a clausal structure. Note also in (13d) the presence of *-tali* on the predicate. This morpheme always signals that extraction of an argument, specifically the ergative (subject) argument, has taken place, as shown in (14):

(14) swat ku tup-un'-Ø-**táli** ti sqáycw-a
who DET hit-TR-3ABS-**ERG.EXT** DET man-DET
'Who hit the man?'
* 'Who did the man hit?'

The presence of *-tali* in (14) indicates that the ergative argument has been extracted. The question in (14) cannot be construed as involving extraction of the internal (absolutive) argument. Returning to (13d), the occurrence of *-tali* here entails that extraction of the ergative argument has taken place. Notice that the lexical item *sqaycw* 'man' in (13d) must be construed as the ergative argument - that is, it must be coreferential with the argument that has been extracted. A partial structure for the relative clause in (13d) is provided in (15):

(15) $[_{DP}$ ti $[_{CP}$ Op_i $[_{IP}$ $[_{VP}$ tup-un'-Ø-táli-ha $_{VP}]$ t_i $]_{IP}]_{CP}$ **sqaycw**$_i]_{DP}$
DET hit-TR-3ABS-ERG.EX-DET man
'the man who hit him'

Now, suppose we close off the final lexical item of the RC in (13d/15) with a determiner, as shown in (16). Note, crucially, that *sqaycw* 'man' can no longer be interpreted as the ergative (extracted) argument. It must be construed as the absolutive (internal) argument - in other words, it cannot be interpreted as the head of the RC. The semantic head of the relative is the null ergative argument (marked by *-tali* on the predicate).

(16) [ats'x-en-Ø-lhkan] [ti tup-un'-Ø-táli-ha] [ti sqáycw-a]
see-TR-3ABS-1SG.SUBJ DET hit-TR-3ABS-ERG.EX-TR-DET DET man-DET
'I saw the one who hit the man'
* 'I saw the man who hit him'

What the contrast between (16) and (13d) demonstrates is that it is the *absence vs. presence of a determiner* which determines whether an overt nominal is construed as the head of an RC. In particular, when the determiner is present, *sqaycw* 'man' must be interpreted as the internal (absolutive) argument of the predicate *tupun'táli* 'hit', as shown in (16). When the determiner is absent, *sqaycw* 'man' must be interpreted as the head of the RC (i.e..as coreferential with the extracted ergative argument), as shown in (13d/15)[12].

Thus, the DPs in (13) have the syntax of *head-final* RCs: the first item is a clause (as shown by the presence of an inflectional element in (13c)), in which extraction has taken place (as shown by the presence of *-tali* in (13d)); and the final element must be construed as the head of the RC (as shown by the contrast between (13d) and (16)).

[12] Note that once we add a determiner to *sqaycw* 'man' as in (16), the result is an RC with a null head (i.e 'I saw the one who hit the man'), and *not* an 'adjoined' RC (i.e. 'I saw the one who hit him, the one who is a man'). This is the case because in an 'adjoined' RC, only the first nominal can be construed as the semantic head. Note that the adjunct analysis of these RCs (see the discussion of (12) in section 4) fails to account for this ordering restriction.

5.1.1. Bare Predicates

We now show that the head of the RCs in (13) must be a *bare predicate*: it cannot be inflected with overt subject (ergative) person-marking, as shown in (17a). Furthermore, only predicates with the semantics of nouns can appear in this position, as the ungrammaticality of (17) demonstrates.

(17a) * [ats'x-en-Ø-lhkan] [ti sqáycw-Ø-a **tup-un'-Ø-as**]
saw-TR-3ABS-1SG.SUBJ DET man-DET hit-TR-3ABS-3ERG
'I saw the hitting one who is a man' or 'I saw the hit one who is a man'

(b) * [ats'x-en-Ø-lhkan] [ti sqáycw-Ø-a **qwatsáts**]
saw-TR-3ABS-1SG.SUBJ DET man-3ABS-DET leave
'I saw the leaving one who is a man'

(c) * ats'x-en-Ø-lhkan [ti spzúz7-Ø-a **xzum**]
saw-TR-3ABS-1SG.SUBJ DET bird-3ABS-DET big
'I saw the big one who is a bird'

(d) * ats'x-en-Ø-lhkan [ti xzum-Ø-a **tseqwtsíqw**]
see-TR-3ABS-1SG.SUBJ DET big-3ABS-DET red
'I saw the red one who is big'

(e) * ats'x-en-Ø-lhkan [ti tup-un-Ø-án-a **ílal**]
see-TR-3ABS-1SG.SUBJ DET hit-TR-3ABS-1SG.CONJ-DET cry
'I saw the crying one that I hit'

We thus conclude that the DPs in (13) are head-final restrictive RCs, for the reasons summarized in (18):

(18a) The last element must be construed as the head (as shown by the contrast in (13d) vs.(16))

(b) The head is a bare predicate with the semantics of a noun phrase (as shown in (17))

(c) The head of a restrictive RC must be an indefinite.[13] In (13), we saw that the head of these RCs is not closed off by a determiner; in (16) we saw that it *cannot* be closed by a determiner.

Recall that the single-category hypothesis denies the existence of bare predicates since every predicate is analysed as a clause (inflected for either overt (ergative) or null (absolutive) subject marking). Thus, the paradigm in (17) first establishes the existence of bare predicates in St'át'imcets. Notice that this must be the case if the DPs in (13) are *restrictive* relatives. A restrictive relative denotes the set of individuals that falls in the intersection of the set denoted by the head and the set denoted by the clause (the determiner is defined on that set). The semantics of restrictive relatives thus require the head to be a bare predicate (a predicate not closed off by a determiner), and the restricting clause to be an open sentence (where movement takes place precisely in order to create a predicate variable).

However, if the semantics of restrictive noun modification only require set intersection, why must the head of an RC be a bare predicate of the category NP? In other words, why is the DP in (19b) ungrammatical with the meaning 'the big (x) such that x is a

[13] For instance, see Williamson (1987) on head-internal relatives in Lakhota.

bird', when compared with the grammatical (19a), 'the man (x) such that x is big'? Similarly, why is (19c) ungrammatical?

(19a) [ti xzúm-Ø-a **sqaycw**]
DET bird-3ABS-DET man
the man (x) such that x is big

(b) * [ti spzúz7-Ø-a **xzum**]
DET bird-3ABS-DET big
the big (x) such that x is a bird

(c) * [ti xzúm-Ø-a **zácalqwem'**]
DET big-3ABS-DET tall
the tall (x) such that x is big

The fact that the head of a restrictive relative is a one-place predicate of the category NP is taken for granted in a language like English. However, in a language which has been claimed to be category-neutral (to show no distinction in syntactic behaviour of any lexical item), we must explain why an RC with the structure in (20a) is well-formed, whereas an RC with the structure in (20b) is ill-formed. Note that this question is all the more puzzling since in both (20a-b), as in (19), the head is a one-place predicate denoting a *permanent property*. Semantically, then, there is no reason why (20b) should be impossible:

(20a) the [[$_{CP}$ t_i left] [$_{NP}$ man$_i$]]
the [[$_{CP}$ x left] [$_{NP}$ man (x)]]

(b) * the [[$_{CP}$ t_i left] [$_{AP}$ tall$_i$]]
the [[$_{CP}$ x left] [$_{AP}$ tall (x)]]

Our explanation for the contrast between (20a) and (20b) is as follows: in an RC, the head noun must correspond to an *argument* position within the restrictive clause. In particular, the restrictive clause must be predicated of the head noun[14]. Thus, (20b) is ungrammatical because 'left' cannot be predicated of 'tall', whereas (20a) is grammatical because 'left' can be predicated of 'man'. In other words, the only difference between the one-place predicates 'man' and 'tall' is that the former can serve an argument (be the subject of a predication), whereas the latter cannot serve as an argument.

The ungrammaticality of (20b) shows that although projections of any lexical item in St'át'imcets can serve as predicates (see section 3), it is not the case that projections of any lexical item can serve as arguments (without a determiner). We thus conclude that the ability to serve an argument is not exclusively a property of the determiner; it must be an intrinsic property of certain lexical items, which are called *nouns*.

To derive the ungrammaticality of (20b) vs. (20a), we follow Williams (1981) in assuming that Ns inherently differ from all other lexical categories. For concreteness, we adopt Williams' proposal that N has a non-thematic <R>-role which allows its projection to serve as an argument (that is, to be assigned a theta-role). Projections of other lexical categories can serve as arguments only when they are closed off by a determiner. These conclusions are summarized in (21):

[14] We make the standard assumption that predication in RCs is achieved via null operator movement.

(21a) The ability to serve as an argument is not exclusively a property of D

(b) N differs from all other categories: it has an external non-thematic <R> role which allows its projection - NP - to serve as an argument (i.e. to be assigned a theta-role, as in Williams 1981).

The claim in (21) is that the category NP has the intrinsic ability to serve as an argument. The claim is *not* that the category NP has the intrinsic ability to be used referentially - without a determiner[15]. These two notions (argumenthood and referentiality) are not coextensive. Thus in (22), the NP *an apple* is the internal argument of the verb *ate.* However, an NP under the scope of negation is not referential; in (22), there is no specific apple that Max never ate.

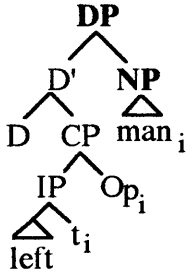
(22) Max never ate an apple in his life.

5.1.2. The Article-S Analysis of Head-Final Relatives

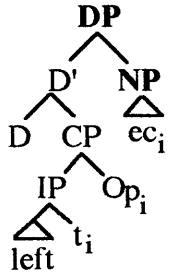
We propose that head-final relatives in St'át'imcets have the structure given in (23a), which recasts Smith's (1964) Article-S analysis in DP terms (cf. Larson 1987). Under the Article-S analysis, the relative clause and the head are both arguments of D.

(23) *The Article-S analysis* (see Smith 1964, Larson 1987):

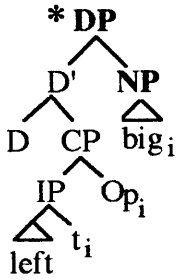
(a) RC with overt head:
[[ti qwatsáts-a] [sqaycw]]
DET leave-3ABS-DET man
'the man that left'



(b) RC with a null head:
[ti qwatsáts-a] [ec]]
DET leave-3ABS-DET
'the one that left'



(c) * RC:
*[ti qwatsáts-a] [xzum]]
DET leave-3ABS-DET big
'the big one that left'



More traditional structures are compatible with our analysis; we have selected this structure for two basic reasons. First, the core idea of the Article-S analysis is that the relative clause is selected by D, since it is a complement of the determiner. Hence, a relative clause is not licensed if there is no D: there can be no complement without a head to select it. As we shall see in the next section, this assumption explains why RCs cannot serve as predicate nominals in St'át'imcets. Second, this analysis explains the typological properties of these head-final relatives; namely, D forms a syntactic constituent with the restricting clause and not with the semantic head[16], as illustrated in (24a). In contrast, under the standard NP-S' analysis of relatives, D forms a syntactic constituent with the head noun and not with the restricting clause, as illustrated in (24b):

(24a) The Article-S analysis: $[_{DP}\ [_{D'}\ D\ [RC]\ ]\ [\ NP\ ]\ ]$

(b) The NP S' analysis: $[_{NP}\ [_{NP}\ D\ NP]\ \ [\ RC\ ]\ ]$

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[15] For instance, in St'át'imcets, referential expressions are DPs (i.e. are always closed off by a determiner).

[16] Recall that the discontinuous determiner encliticizes to the first lexical item in an RC.

In (23b) above, we show how our analysis extends to headless relatives, assuming that the head can be non-overt. (23c) is an ill formed relative clause: the RC cannot be predicated of the head. In particular, the head does not have the intrinsic ability to serve as an argument: an AP does not have an external <R> role which allows it to serve as the subject of a predication (to be assigned a theta-role).

5.2. Complex Predicate Nominals: Evidence for NP and AP

We will now show there are two distinct categories of uninflected one-place predicates in St'át'imcets: NPs and APs. Consider the sentences in (25). Note that the main predicate is complex: it consists of two predicates (without determiners):

(25a) [kwikws spzúza7] [i sáq'w-a]
small bird PL.DET fly-DET
[small bird]$_{PRED}$ [the ones who flew]$_{DP}$
'The ones who flew were small birds'

(b) [án'was smúlhats] [i qwatsáts-a]
two woman PL.DET leave-DET
[two woman]$_{PRED}$ [the ones who left]$_{DP}$
'The ones who left were two women'

We argue that these complex predicates are predicate nominals (NPs), for the following reasons. First, the final item in these complex predicates must be an NP, as the ungrammaticality of (26) shows:

(26a) * [án'was qwatsáts] [i smúlhats-a]
two leave PL.DET woman-DET
[two leave]$_{PRED}$ [the ones who are women]$_{DP}$
* 'The women were two who left'

(b) * [an'was kwikws] [i smúlhats-a]
two small PL.DET woman-DET
[two small]$_{PRED}$ [the ones who are women]$_{DP}$
* 'The women are two who are small'

(c) * [kwikws tseqwtsíqw] [i ats'x-en-Ø-án-a]
small red PL.DET see-TR-3ABS-1SG.CONJ-DET
[small red]$_{PRED}$ [the ones I saw]$_{DP}$
'The ones I saw were small red ones'

The fact that the rightmost predicate in (25-26) must be of the category NP suggests that these complex predicates could be analysed as RCs used predicatively. This analysis, however, is untenable. In particular, the first item cannot have a clausal structure as shown in (27). In (27a), we see that the first item cannot be analysed as a (restrictive) clause because it cannot take overt subject (ergative) inflection. Further the impossibility of *-tali* in (27b) shows that extraction has not taken place (cf. (14) above). Thus, we conclude that the first lexical item in a complex predicate must be a bare (uninflected) predicate.

(27a) * [tup-un'-Ø-as sqaycw] [ti ats'x-en-Ø-án-a]
hit-TR-3ABS-3ERG man DET see-TR-3ABS-1SG.CONJ-DET
[[$_{IP}$ hit -pro-t_i] man$_i$]$_{PRED}$ [the one I saw]$_{DP}$
'The one I saw was a man who hit him' or 'The one I saw was a man he hit'

(b) * [tup-un'-Ø-táli sqaycw] [ti ats'x-en-Ø-án-a]
hit-TR-3ABS-ERG.EXT man DET see-TR-3ABS-1SG.CONJ-DET
[[$_{IP}$ hit -pro-t_i] man$_i$]$_{PRED}$ [the one I saw]$_{DP}$
'The one I saw was a man who hit him' or 'The one I saw was a man he hit'

Note that in English, RCs can be used predicatively, as shown in (28).

(28) Max is a man who likes asparagus

The Article-S analysis (proposed in section 5.1.2) explains why RCs cannot be used predicatively in St'át'imcets. Under the Article-S analysis, a restrictive subordinate clause is not licensed unless it is selected by D, since it is the internal argument of D. However, once it is selected by D, it can no longer be used predicatively. In other words, RCs in St'át'imcets must be DPs and DPs cannot be predicate nominals. In particular, the indefinite article *a* in (28) is not analysed as a determiner but as a cardinal adjective (see for instance Higginbotham 1985).

In (29) we see that the first item in a complex predicate cannot have the semantics of either a noun or of an intransitive verb - it can only be a bare one-place predicate of the category AP.

(29a) * [saq'w spzúza7] [ti ats'x-en-Ø-án-a]
fly bird DET see-TR-3ABS-1SG.CONJ-DET
[fly bird]$_{PRED}$ [the ones I saw]$_{DP}$
'The ones I saw were flying birds'

(b) * [plísmen naplít] [ti ats'x-en-Ø-án-a]
policeman priest DET see-TR-3ABS-1SG.CONJ-DET
[policeman priest]$_{PRED}$ [the one I saw]$_{DP}$
'The one I saw is a priest (and) policeman'

Complex predicates are the only evidence that we have found to date in St'át'imcets for the category adjective; more precisely, for a categorial distinction between adjectives and (intransitive) verbs. Although the evidence is very subtle, it is nonetheless robust. In particular, complex predicates are very productive. Furthermore, St'át'imcets and English predicate nominals are subject to similar syntactic constraints. For example, a complex predicate with three predicates is well-formed but shows syntactic restrictions: categorial restrictions (there can only be one predicate of the category NP) and ordering restrictions - for instance, the numeral must precede the adjective in (30):

(30a) [á7en'was kwikws maw] [i am'ts-án'-Ø-an-a]
two small cat PL.DET feed-TR-3ABS-1SG.CONJ-det
[two small cat]$_{PRED}$ [the ones I fed]$_{DP}$
'The ones I fed were two small cats'

(b) * [kwikws á7en'was maw] [i am'ts-án'-Ø-an-a]
small two cat PL.DET feed-TR-3ABS-1SG.CONJ-det
[small two cat]$_{PRED}$ [the ones I fed]$_{DP}$
* 'The ones I fed were small two cats'

Why must complex predicates be predicate nominals? - that is, why must they be projections of the category N? If restrictive modification merely has the semantics of conjunction (for instance, involves theta-identification in the sense of Higginbotham 1985), then why are (31b) in English or (27) and (29) in St'át'imcets ungrammatical? Again, the

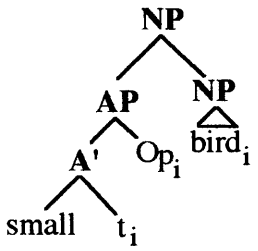
contrast between (31a) and (31b) is very surprising in English since both *crazy* and *man* denote permanent properties. If restrictive modification only requires the conjunction of sets, then (31a) and (31b) should be equally well-formed. (31a) states that Max has the property of being a man and the property of being ugly. Why should the intended meaning of (31b) (that Max has the property of being ugly and the property of being crazy) be expressed only via overt co-ordination, as in (31c)?[17]

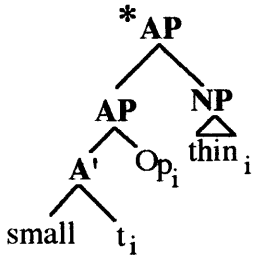
(31a) Max is $[_{NP}$ an ugly man]
(b) * Max is $[_{AP}$ ugly crazy]
(c) Max is ugly and crazy

To explain this restriction, we make the following proposal. Restrictive noun modification *always* requires predication between the head and the modifier - be the modifier a bare predicate (AP), or an open sentence (a restrictive subordinate clause). Thus, in both *an ugly man* and *a man that is ugly* 'ugly (x)' must be predicated of 'a man'. This is illustrated in (32). (32b) is ill-formed because the AP 'small' cannot be predicated of the head 'thin'. Conversely, (32a) is well-formed because the head 'bird' can serve as the subject of a predication.[18] There is only one category of predicates that have the intrinsic ability to serve as arguments (that is, to be assigned a theta-role): NPs.

(32a) [kwikws spzúza7] [i sáq'w-a]
small bird PL.DET fly-DET
$[\text{small bird}]_{PRED}$ $[\text{the ones who flew}]_{DP}$
'The ones who flew are small birds'

(b) * [kwikws sq'wacw] [i sáq'w-a]
small thin PL.DET fly-DET
$[\text{small thin}]_{PRED}$ $[\text{the ones who flew}]_{DP}$
* 'The ones who flew are small thin'





6. Conclusions

The single category hypothesis is based on the undisputed fact that any lexical item in Salish can be a predicate. The data from inflectional morphology overwhelmingly point to a lack of categorial distinctions. The category neutral hypothesis denies the existence of bare predicates in Salish: any open-class lexical item must project the same syntactic category, namely IP. We have shown, on the contrary, that there are bare uninflected

[17] We have no idea whether or not (or to what extent) the absence of (31b) is universal. However, its impossibility in languages as typologically diverse (in particular, with respect to categorial distinctions) as English or French and St'át'imcets is striking and requires explanation.

[18] Again we assume that predication in (32) is achieved via null-operator movement (see footnote 14). See also Larson's (1987) analysis of null operator structures in terms of 'indirect θ-role identification'.

predicates that have the ability to serve as arguments - that is, that there are noun phrases - in St'át'imcets. We have further argued for a three-way categorial distinction between NP, AP and VP in St'át'imcets Salish. We summarize our claims in (33).

(33a) Projections of any lexical item can serve as predicates; it is not the case that projections of any lexical item can serve as arguments

(b) The ability to serve as an argument (in the sense of 'to be assigned a theta-role') is universally intrinsic to certain lexical items (Ns)

(c) There are no category-neutral languages

The evidence for the distinctions between NP, AP and VP in St'át'imcets is very subtle. In contrast, the evidence for category neutrality (e.g. inflectional morphology) is overt. We have argued, however, that the fact that complex predicates must be NPs (and not APs) or that the head of a relative clause must be an NP (and not an AP) is surprising not only in languages like the Salish languages which neutralize categorial distinctions at the inflectional level but even in languages like English which do not neutralize these distinctions[19]. We do not see any semantic explanation for why the predicate denoting the permanent property *man* can serve as an argument in restrictive noun-modification structures in both St'át'imcets and English whereas the predicate denoting the permanent property *red* cannot serve as an argument in either St'át'imcets or English. We take this distinction to be an arbitrary categorial distinction. We claim that it reflects a deep property of the *syntax* of Universal Grammar.

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[19] See Davis, Demirdache and Matthewson (in prep) for an analysis of category-neutral and non-category-neutral phenomena in St'át'imcets .

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