Consequences of long-distance extraction morphology in Gitksan[*]

Clarissa Forbes
University of Toronto

Abstract: This paper explores morphological patterns in a variety of extraction contexts in Gitksan. I examine a tripartite pattern in the extraction of the three core argument types which extends to long-distance extraction in transitive and intransitive verbal contexts. In addition, I examine deviations from these three morphological patterns in the marking of extraction from complex nominals and over different types of nominal predicate, and in the extraction of adjuncts and obliques. This has several implications for an analysis of Gitksan syntax, including accusativity in the clause.

Keywords: Gitksan, Tsimshianic, extraction, A-bar movement, morphosyntax, ergativity

1 Introduction

In this paper I explore issues regarding A'-extraction in Gitksan, a Tsimshianic language of northern interior BC. I present some novel data from long-distance intransitive extraction as well as extraction from nominal and oblique contexts.

The issues on which this paper focuses are, first, the fundamentally *tripartite* nature of Gitksan extraction morphology, and, second, the areas where we can find slight deviations from this pattern. Extraction of the three core argument types (S, A, O) follows the tripartite pattern in both local and long-distance extraction contexts; I show that the calculation of which morphological strategy to use in a given clause is always based on factors local to that CP domain. However, we can see areas where the tripartite pattern does not hold in extraction over possessed nominal predicates, and in extraction from oblique argument and adjunct positions. Ultimately, I suggest that the data presented here warrants a somewhat different approach to extraction morphology than that recently forwarded by Brown (2016). In particular, I suggest that Gitksan extraction morphosyntax is best explained with reference to formal accusativity in the clause, contra to its otherwise strong ergative/absolutive pattern.[1]

In section 2 I briefly lay out some basics to Gitksan syntax. In section 3 I discuss the main *tripartite* pattern to the morphology of extraction in Gitksan, first focusing on the local extraction of core-arguments, and then exploring different types of long-distance extraction (including over intransitive predicates). Section 4 discusses deviations from these three patterns in extraction from nominal contexts, and extraction of adjuncts and obliques. These contexts feature the re-appearance of so-called ergative extraction, as well as a morphologically bare strategy. In section 5 I review some implications of these findings, with particular reference to Brown's (2016) recent analysis; section 6 concludes.

[1] These theoretical questions are pursued in more detail in Forbes (to appear); I refer any reader interested in more analytical discussion to that paper.

2 Gitksan syntax

Gitksan exhibits a consistent VSO word order in its syntax. This word order is disrupted by focus fronting: A'-moved elements are fronted to a sentence-initial position before the verb and all auxiliaries. Such fronting, as well as the extraction marking to be discussed in the rest of the paper, applies in all cases of A'-movement: *wh*-questions, argument focus, clefts, and relative clauses (Davis and Brown 2011; Rigsby 1986).

Agreement in Gitksan is complex, with three different paradigms of person-marking, each of which is incorporated into an overall morphologically ergative/absolutive distribution. Ergative agreement may be a pre-predicate clitic (glossed as series I) or a suffix (glossed as series II), depending on clause type.[2] Clitics (I) are ergative in dependent clauses, while suffixes (II) are ergative in independent clauses (Rigsby 1986). Suffixal agreement is often obscured on the surface, whenever it is immediately followed by an enclitic determiner of the DP argument coreferent with it (Davis and Forbes 2015; Tarpent 1987). However, clitic agreement is never obscured, making it easy to distinguish the two clause types.

The different extraction-marking patterns examined in the next section use different styles of agreement, some patterning more like 'independent' clauses with ergative suffixal agreement, and others patterning like 'dependent' clauses with ergative clitic agreement and absolutive suffixal agreement.

3 Tripartite extraction patterns

3.1 Local core-argument extraction

Extraction morphology does not follow an ergative/absolutive split, but instead surfaces differently when each of the three types of core argument (S, O, and A) are extracted, as shown by Rigsby (1986) and Davis and Brown (2011). That is, extraction morphology exhibits a *tripartite* split, demonstrated below; (a) examples provide a simple declarative sentence, and (b) examples provide a *wh*-question with A'-extraction. Morphemes characteristic of each extraction type are bolded.[3]

(1) *Subject extraction (SX)*
    a. Limx 'nit.
        sing   3.III
        'He's singing.'   (BS)

---

[2] Other arguments not indexed by any agreement surface as full pronouns (glossed as series III); ergatives never surface this way.

[3] Examples are from my primary elicitation or from the coordinated data of the UBC Gitksan Research Lab, with speaker initials provided as attribution, unless otherwise cited. Cited examples have been adapted for consistency in glossing. All mistakes are my own. Abbreviations in examples are as follows: 1 = first person, 2 = second person, 3 = third person, AFFRM = affirmative, ANTIP = antipassive, AX = agent extraction, CAUS = causative, CNTR = contrastive, CN = common noun determiner, COMP = complementizer, DETR = detransitive, DN = determinate noun determiner, FOC = focus, IMPS = impersonal, INS = instrumental, IPFV = imperfective, IRR = irrealis, NEG = negative, NMLZ = nominalizer, OBL = oblique, OX = object extraction, PASS = passive, PL = plural, PR.EV = prior evidence, PREP = preposition, PROSP = prospective, REPORT = reportative, SG = singular, SX = intransitive subject extraction, TR = transitive.

b. Naa=**hl** lim-**it** __?
who=CN sing-SX __
'Who sang?' (Rigsby 1986:303)

(2) *Object extraction (OX)*
a. Hlimoo-yi-'y=t Mary.
help-OX-1SG.II=DN Mary
'I helped Mary.' (VG)

b. Naa=**hl** hlimoo-**yi**-n __?
who=CN help-OX-2SG.II __
'Who did you help?' (Rigsby 1986:303)

(3) *Agent extraction (AX)*
a. Gub-i=s Jeremy=hl hon-n.
eat-OX=CN Jeremy=CN fish-2SG.II
'Jeremy ate your fish.' (VG)

b. Naa **an**=t gup(__)=hl susiit?
who AX=3.I eat(__)=CN potato
'Who ate the potato?' (Davis and Brown 2011:50)

Intransitive subject extraction (SX) and transitive object extraction (OX) are each characterized by morphology suffixed to the predicate. These each also have a common noun determiner =*hl* 'CN' intervening between the *wh*-element and the remnant clause. In contrast, transitive subject extraction (AX) is characterized by a pre-predicate morpheme *an*, and lack of the determiner. The transitive cases (OX and AX) also differ in terms of their transitive agreement morphology: OX is 'independent style, with suffixal ergative agreement, while AX is 'dependent style, with ergative clitic agreement. The suffix, when it surfaces, indexes the object.

It should be noted that *intransitive subject* (S) and *object* (O) marking can sometimes look quite similar, particularly when an OX clause contains agreement with a 3SG pronominal Agent. The form in either case is VERB-*it*.

(4) Ansiip'insxw-i'y **'witxw-it** __ ky'oots.
friend-1SG.II arrive-SX __ yesterday
'My FRIEND came yesterday.' (BS)

(5) G̲al t'is=hl **gub-i-t** __.
too large=CN eat-TR-3.II __
'He/she ate too much. (Lit: (What) he/she ate was too much.)' (BS)

It's tempting to suggest that these are underlyingly the *same strategy*, where SX -*it* can be decomposed as including a vowel (-*i*-) and third person agreement with the *wh*-gap (-*t*), just as AX involves third-person agreement with the ergative gap. Were the morphology analyzed this way, Gitksan would appear to have an ergative/absolutive extraction pattern, matching strong ergative patterning found elsewhere in the language.

However, the vowels which surface in the SX and OX strategies behave differently with respect to hiatus resolution. When affixed to a vowel-final stem, SX *-it* undergoes vowel deletion, while OX *-i-t* triggers glide epenthesis.

(6) *S extraction*

    (Am) k'i'y=hl ts'uuts' luu **t'aa-t** __ ts'im gan.
    only one=CN bird   in sit-SX __ in   tree
    'There is one bird in the tree.'   (BS)

(7) *O extraction*

    Nee, nigwoot-t=hl **hlimoo-yi-t** __.
    no   father-3.II=CN help-TR-3.II __
    'No, her FATHER (is who) she helped.'   (VG)

The distinct morphophonological behavior of the two suffixes with respect to vowel hiatus prevents us from concluding that these are underlyingly the same 'absolutive' extraction strategy. This leaves us with a basic tripartite extraction marking system based on the argument position of the extracted *wh*-word.

Table 1: Summary of tripartite extraction morphology (Brown 2016)

Extraction type	Morphology			
Subject (SX)	S=**hl**		Pred-**it**	
Object (OX)	O=**hl**		Pred-**i**-Agr$_A$	(A)
Agent (AX)	A	**an**=Agr$_A$	Pred-Agr$_O$	(O)

The final pattern of extraction morphology in each case of local extraction can be summarized as in Table 1. This tripartite pattern is repeated in matrix clause morphology in cases of long-distance extraction, as the next section will show.

3.2 Long-distance extraction

Matrix clauses in long-distance extraction also exhibit a tripartite pattern in their extraction morphosyntax, although the conditioning property for such morphology across a higher clause is somewhat different than the conditioning factor in local extraction out of a single clause. Specifically, rather than copying the same extraction morphology used in the lowest clause up through each clause along the extraction path, individual matrix predicates show a consistent morphological extraction strategy, based on one of the three types discussed above, no matter what kind of argument is extracted from them. Brown (2016) suggests that this is based on the position of the embedded CP within the higher clause, as an argument or adjunct.

I here present a more complete picture of long-distance extraction morphology than discussed in prior work, referencing three types of predicate demonstrating the full range of tripartite extraction strategies when an argument is extracted from an embedded CP. The first is novel; the latter two are referenced from work by Davis and Brown (2011) and Brown (2016).

I refer to the first type of predicate as 'simple intransitive predicates' (SIPs). These are intransitive predicates which take a single clausal argument. These arguments take a single CP argument;

when something is extracted from that CP, S-extraction marking optionally occurs on the matrix SIP above. Below, the same S-style marking appears in the matrix clause when extracting O (8) and S (9) from the lower clause.

(8) Gu=hl   nee=dii t'is**(-it)** ji   jeb-i-n   __?
    what=CN   NEG=FOC big-SX   [IRR do-OX-2SG.II __]
    'What do you not do often?' (Lit: What is it not much that you do (it)?)   (VG)

(9) Gu=hl   ga̲y aam-**it** ji   jap-xw-it   __?
    what=CN   CNTR good-SX [IRR make-PASS-SX __]
    'What would it be good if (it) were made?'   (VG)

The second type of matrix predicate are 'transitive bridge predicates' (TBPs; terminology from Brown 2016). These are transitive predicates taking an ergative DP subject and a CP complement. Such predicates are marked with O-extraction morphology when something is extracted from the lower CP. Below, this marking appears in the matrix clause when extracting O (10) and A (11) from the lower clause.

(10) Gu=hl   da'ak̲hlxw-**i**=s Michael 'wa-yi-t   __?
     what=CN   able-OX=DN   Michael [find-OX-3.II __]
     'What was Michael able to find?'   (VG)

(11) Michael=hl amgoo-d-**i**-'y   an=t   giikw(__)=hl jixjik.
     Michael=CN   remember-T-OX-1SG.II [AX=3.I buy(__)=CN   car]
     'I remember that MICHAEL bought a car.'   (VG)

Finally, there are 'intransitive bridge predicates' (IBPs; from Brown 2016). These are intransitive predicates with an absolutive DP argument, and an additional CP. Brown (2016) refers to these clauses as adjoined to the predicate. When something is extracted from the lower clause, the matrix IBP receives marking similar to A-extraction (the morpheme *an*). Below, this appears when extracting O (14) and S (13) from the lower clause.

(12) Gwi=hl   **an** bisxw-in   dim   'wa-yi-n   __?
     what=CN   AX expect-2SG.II [PROSP find-OX-2SG.II __]
     'What do you expect you will get?'   (BS)

(13) Naa=hl   **an** x̲bits'exw-in dim   'witxw-it __?
     who=CN   AX afraid-2SG.II [PROSP arrive-SX __]
     'Who do you fear will arrive?'   (Brown 2016:18)

Brown (2016) explicitly proposes that the associated CP in an intransitive bridge predicate is an *adjunct*, and that the function of the AX morpheme *an* is to license extraction from within the adjunct. Looking at long-distance extraction, under the assumption that predicates of any transitivity can have a CP adjoined to them, we might expect a typology of upstairs predicates as in Table 2.

We find CPs in complement position of both transitive and intransitive predicates, but so far we have only seen CPs adjoined to intransitive predicates. Based on these parameters, we might expect

Table 2: Typology of upstairs predicates

	CP Argument	CP Adjunct
Intransitive	*aam* 'good (SIP)'	*bisxw* 'expect (IBP)'
Transitive	*anook̲* 'allow (TBP)'	?

to find a transitive predicate with adjoined CP, but I haven't yet found one. The closest example I have looked at is *mahl* 'tell', which involves two arguments and a CP (14). However, the CP is in object position and the tell-ee is an oblique.

(14) Mehl-d-i=s Lisa loo-'y win siipxw=s Michael.
 tell-T-TR=DN Lisa OBL-1SG.II [COMP sick=DN Michael]
 'Lisa told me that Michael was sick.' (VG)

This then may not be the right way to conceptualize a 'typology' for the types of long-distance extraction possible in Gitksan; other parameters might be appropriate. I suggest that the simple analysis of the CP in Intransitive Bridge Predicates like *bisxw* 'expect' as an *adjunct* may not be sufficient, if the gap of transitive predicates without a possible CP adjunct holds.

In summary, extraction marking in higher clauses during long-distance extraction follows a tripartite pattern, just as it does when extracting out of the base clause. However, the choice of morphology is determined by properties of the matrix predicate rather than the syntactic role of the extracted argument. The morphology which surfaces for each type of predicate is summarized in Table 3. Extraction contexts using *an* (in the AX style) will be discussed further in section 5.2.

Table 3: Long-distance extraction marking by predicate

Extraction	Morphology					Resembles
Simple Intransitive (SIP)	WH=hl		Pred-**it**		[CP]	→ SX
Transitive Bridge (TBP)	WH=hl		Pred-**i**-Agr$_A$	(A)	[CP]	→ OX
Intransitive Bridge (IBP)	WH(=hl)	**an**	Pred-Agr$_S$	(S)	[CP]	→ AX

4 Deviation from tripartite patterning

4.1 Extraction over nominals

In this section, I discuss extraction over nominal predicates and out of complex nouns. I will show that while extraction in these contexts uses parts of the tripartite strategy, it deviates from that pattern in a major way – the OX strategy cannot be used when extracting from a nominal environment.

Predicates of thought and feeling (such as *think*, *want*, or *believe*) are typically bridge predicates that can be used to illustrate long-distance extraction. In Gitksan, many of these are nominal, involving an NP predicate with a CP complement or modifier, and a possessive/genitive experiencer. When extracting something from the associated CP, there are two ways to morphologically mark extraction on the nominal predicate. The first, and most common by far, is with *no* morphological marking on the high NP predicate. This is shown in (15), where the form of the predicate *ha'nig̲oots*

James 'James' thought' remains unchanged between plain declarative and *wh*-question. In the lower CP from which the *wh*-element moves, ergative extraction marking appears (the morpheme *an*).

(15) a. Ha-'nii-g̲oot=s   James ji=t   gup=s   Tyler=hl anaax.
          INS-on-heart-3.II=DN James [IRR=3.I eat-3.II=DN Tyler=CN bread]
          'James thinks Tyler ate the bread. (Lit: James' on-heart is that Tyler ate the bread.)'

  b. Naa=hl ha-'nii-g̲oot=s   James ji an=t gup   _ =hl anaax?
      who=CN INS-on-heart-3.II=DN James [IRR AX=3.I eat-3.II _ =CN bread]
      'Who does James think ate the bread?'   (Davis and Brown 2011:57)

Because Gitksan lacks a copula, it is unclear whether these should be referred to as 'copular constructions', despite their most literal English translation. Instances of local extraction over a possessed NP in equative or possessive predication also result in the absence of any new morphological marking.

(16) Nde=hl   g̲ay   duus-in   _?
      which=CN CNTR cat-2SG.II _
      'Which one is your cat?'   (VG)

Another morphological possibility in extracting around a nominal is that the ergative extraction strategy using *an* may be used when extracting from the associated CP. I have so far only found this with the root *he* 'say, saying'.[4]

(17) a. **He**=s   Clarissa gya'a-t=g̲at=hl   hlgu gaak̲hl!
          say-3.II=DN Clarissa [see-TR-3.II=REPORT=CN small rat]
          'Clarissa said she saw a mouse!'

  b. Hlgu gaak̲hl **an he**=s   Clarissa=hl gya'a-t   _.
      small rat   AX say-3.II=DN Clarissa=[CN see-TR-3.II _]
      'It was a MOUSE that Clarissa said she saw.'   (VG)

The morpheme is not obligatory, as demonstrated by its absence in (18a), making it similar to the other nominal bridge predicates we have examined. Curiously, when the AX strategy is used in (18b), the lower clause does not necessarily reflect extraction, but rather resumption with the pronoun *-t*.

---

[4] The resulting word *anhe* is described by Tarpent (1987:556) straightforwardly as an instance of nominalization with the nominalizer *an-*, but it is interesting to note that plain *he* must be categorized as nominal even without the addition of *an* – the experiencer/possessor NP receives suffixal agreement or the *=s* determiner in a plain declarative like (17a), suggesting it is either an ergative subject or possessor, but intransitive SX marking is used when this argument is extracted (21). It can only be a possessor, not a transitive verbal subject. Brown (2016) argues that the 'ergative' extraction marker *an* is in fact a nominalizer, and that all extraction using this strategy is indirect.

(18) a. Gwi=hl   he=s   Michael=hl nee=dii hugwag-**at** _ gi?
        what=CN say-3.II=CN Michael=CN NEG=FOC correct-SX _ PR.EV
        'What did Michael say wasn't true?'

    b. Gwi **an-he**=s   Michael=hl nee=dii hugwax̲-t gi?
        what AX-say-3.II=DN Michael=CN NEG=FOC correct-3.II PR.EV
        'What did Michael say wasn't true?'   (BS)

We can compare these two types of nominal upstairs predicates to the verbal upstairs predicates discussed in the previous section, where three types of extraction marking matched exactly to the tripartite pattern could be identified. If the possessor of each nominal qualifies as an argument, and the associated CP as a second argument, these nominal bridge predicates can be broadly classified as transitive, and grouped to correspond with OX (no marking, as with *ha'niigoot* 'thought') and AX (*an*-marking, with *he* 'say'). The primary difference is that the OX marker itself, *-i/a-*, is absent in the nominal context.

We can also identify intransitive (SX-like) extraction marking in nominal contexts. The intransitive extraction morpheme *-it* is used when extracting the possessor of any noun phrase, including experiencer-possessors (Rigsby 1986:285; Tarpent 1987:257).

(19) Mary=hl duus-**it** _ a=s   Rover.
     Mary=CN cat-SX   _ PREP=DN Rover
     'Rover is MARY'S cat; MARY (is the one who)se cat is Rover.'   (BS)

(20) Naa=hl hasag-**at** _ n=im   gin-diit   a=hl   candy?
     who=CN desire-SX _ [1.I=PROSP feed-3PL.II PREP=CN candy]
     'Who wants me to give them candy? (Lit: Whose desire is it that I give them candy?)' (BS)

(21) Naa=hl (gay) hee-**t** _ loo-n   win   siipxw=s Michael?
     who=CN CNTR say-SX _ OBL-2SG.II COMP sick=DN   Michael
     'Who told you that Michael was sick?'   (VG)

This behavior clearly distinguishes nominal predicates from transitive verbal predicates (which use Agent extraction with *an* to extract the first argument).

Intransitive extraction marking can also be found in situations of standard nominal predication as well. This marking is not consistently required.

(22) Naa loo-si'm=hl   sim'oogid-**it** _?
     who OBL-2PL.II=CN chief-SX   _
     'Who here is a chief?'   (VG)

(23) Naa loo-si'm=hl   an-su-wilaay-a'a(-**t**)   _?
     who OBL-2PL.II=CN NMLZ-CAUS-know-DETR(-SX) _
     'Who here is a teacher?'   (VG)

In sum: fronting a possessor within a DP, or extracting the argument of a standard nominal predicate, seems to allow the same extraction marking as extraction from the sole argument position

of an intransitive verb or adjective. We can thus generalize that the intransitive extraction marker *-it* 'sx' is category neutral, but consistently intransitive. The other strategies (AX and non-marking) arise when the configuration involves extraction of another element besides the possessor. These are summarized in Table 4. Although the precise difference between the two long distance strategies over a possessed nominal is as yet unclear, For now I label them as a 'copular' structure (non-marking) and an 'adjoined' structure (*an*-marking).

Table 4: Extraction marking from nominal contexts

Extraction	Morphology					Resembles
Possessor	WH=hl		Pred-**it**			→ SX
Arg of NP predicate	WH=hl		Pred-**it**			→ SX
Copular CP	WH=hl		Pred-Agr$_{Psr}$	(Psr)	[CP]	→ none
Adjoined CP	WH(=hl)	**an**	Pred-Agr$_{Psr}$	(Psr)	[CP]	→ AX

4.2 Adjunct/oblique extraction

In this section I discuss some data regarding different patterns in the extraction of adjuncts and oblique material, and demonstrate how it deviates from the tripartite pattern we have previously discussed. This will lead us in the next section to question Brown's (2016) suggestion that one of the tripartite extraction strategies is in fact a type of adjunct extraction strategy.

In the main type of adjunct extraction strategy, discussed by (Rigsby 1986:289), the main morpheme used is the complementizer *wil/win*, which obligatorily surfaces between the fronted adjunct and the remaining clause.

(24) Hinda **wil** nee=dii aam ji hadixs-dix?
why COMP NEG=FOC good IRR swim-IMPS
'Why is it not good to swim?' (BS)

(25) a. Gi'nam-i-'y=hl majagalee a=s Michael.
give-TR-1SG.II=CN flowers PREP=DN Michael
'I gave flowers to Michael.'

b. Naa *(**wi**)=ma gi'nam=hl majagalee __?
who COMP=2.I give=CN flowers __
'Who did you give flowers to?' (VG)

We may also identify a second strategy used in the extraction of what appear to be oblique-marked indirect objects (cf. Tarpent 1987:281 "specified complements"), or rather, oblique-marked themes. For these, no special morphology appears at all. The extracted element simply appears before a bare remnant clause with dependent-style agreement marking. Use of the complementizer *wil/win* is disallowed.

(26) Fluffy=t si-we-di-t.
Fluffy=3.I CAUS-name-T-3.II
'FLUFFY is what she called it; She named it FLUFFY.' (VG)

(27) a. Gin-i-'y   Michael a=hl   yip$\underline{x}$.
      feed-TR-1SG.II Michael PREP=CN soup
      'I gave Michael soup.'

    b. Gu (*wi=)ma   gin=s   Michael __?
      what (*COMP=)2.I feed=DN Michael __
      'What did you feed Michael?'   (VG)

A final type of oblique-extraction strategy is one we have seen before: when oblique themes of antipassives are extracted, the AX strategy using the pre-predicate morpheme *an* is used.[5]

(28) a. Yukw=hl gibee-'esxw-i'y   a=s   Henry.
      IPFV=1.I wait.for-ANTIP-1SG.II PREP=DN Henry
      'I'm waiting for Henry.'

    b. Naa=hl **an** gibee-'esxw-t   __ =ist?
      who=1.I AX wait.for-ANTIP-3.II __ =AFFRM
      'Who's she waiting for?'   (BS)

These non-core extraction patterns are compiled in Table 5.

Table 5: Extraction marking of non-core arguments

Extraction type	Morphology			
Adjunct	Adjunct	**wil**(=Agr$_A$)	Predicate-Agr$_{S/O}$	(A) (S/O)
Indirect Obj	IO	Agr$_A$	Predicate-Agr$_O$	(A) (O)
Antipassive Obj	APO=hl	**an**	Predicate-Agr$_S$	(S)

5   Generalizations and implications

A major contribution of this paper is to point out that the morphosyntax of extraction appears to be a prominent way to distinguish between different types of nominal in Gitksan. The existence of three patterns for the local extraction of an adjunct/oblique, plus the three-way strategy of core argument strategy and the additional bare pattern for extraction over a complex possessed predicate nominal, raises a major question: Exactly how is each realization triggered?

For reference, all the extraction patterns are compiled together in Table 6. As ergative clitic agreement and the common noun determiner =*hl* appear in roughly complementary distribution after the *wh*-word and preverbal particles, I leave them in their own column.[6]

There are some interesting things to note about these patterns: first, S- and Possessor-extraction with the morpheme -*it* occurs exclusively in intransitive contexts, giving it a quite clear distribution. Almost all the other types of extraction, which all have a remaining argument which undergoes

---

[5] Thanks to Henry Davis (p.c.) for pointing me in this direction.

[6] Further checking is required to determine the complementarity of ergative clitics and the determiner in adjunct extraction, where the following clause may be transitive or intransitive. It is not yet clear whether these elements are complementary by morphological 'coincidence' or for a deeper syntactic reason.
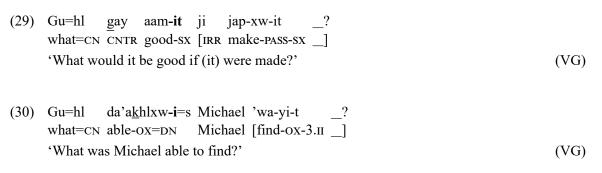
Table 6: All extraction patterns

Extraction type	Morphology				
Subject	WH$_S$		=hl	Predicate-**it**	
Arg of NP predicate	WH$_S$		=hl	Pred-**it**	
Possessor	WH$_{Psr}$		=hl	Pred-**it**	
Object	WH$_O$		=hl	Predicate-**i**-**Agr**$_A$	(A)
Agent	WH$_A$	**an**	=Agr$_A$	Predicate-Agr$_O$	(O)
Copular CP	WH		=hl	Pred-Agr$_{Psr}$	(Psr) [CP]
Adjoined CP	WH	**an**	=hl	Pred-Agr$_{Psr}$	(Psr) [CP]
Antipassive Obj	WH$_{Obl}$	**an**	=hl	Predicate-Agr$_S$	(S)
Adjunct	WH	wil	(=Agr$_A$)	Predicate-Agr$_{S/O}$	(A) (S/O)
Indirect Obj	WH$_{IO}$		=Agr$_A$	Predicate-Agr$_O$	(A) (O)

agreement, notably see a dependent-clause agreement pattern, with ergative clitic agreement before the predicate and absolutive agreement suffixed to the predicate. Direct object agreement is an outlier in both respects. It is transitive, and is furthermore the *only* type of agreement which has an independent-clause agreement pattern.

In the rest of this section I provide a brief discussion of two implications of these patterns: first in section 5.1, an emergent accusative pattern underlying the more-than-tripartite patterns that this investigation has unearthed; and second in section 5.2, some obstacles to Brown's (2016) analysis of the morpheme *an* as being related to adjunct extraction.

5.1 Accusativity

No precise mechanism for differentiating the morphosyntactic reflexes of extraction in Gitksan has yet been developed, particularly regarding the Intransitive (S) and Object (O) morphemes *-it* and *-i/a-*. The primary source for discussion on the syntax of these morphemes is Brown (2016:31), who briefly proposes that *-it* 'sx' "index[es] agreement between a head and its ex-situ argument". I note in addition that *-it* must specifically be an *intransitive* head in an exclusive relationship with that argument. This is because the object marker also indicates relation of an ex-situ argument with a head, but one in a transitive relation. These morphemes are differentiated exclusively on the basis of transitivity in the clause where extraction occurs. This is of particular note for the morphological difference, which this paper has highlighted, between extraction from within Simple Intransitive upstairs predicates versus Transitive Bridge predicates. Relevant examples are repeated below.

(29) Gu=hl gay aam-**it** ji jap-xw-it __?
   what=CN CNTR good-SX [IRR make-PASS-SX __]
   'What would it be good if (it) were made?'   (VG)

(30) Gu=hl da'a<u>k</u>hlxw-**i**=s Michael 'wa-yi-t __?
   what=CN able-OX=DN Michael [find-OX-3.II __]
   'What was Michael able to find?'   (VG)

In each case, an element is extracted from what under standard assumptions would be considered a complement CP. For (29), *gu* 'what' is extracted from within a CP which serves as the sole argument of an intransitive predicate, triggering *-it*, while for (30) the *wh*-word is extracted from a CP complement over an ergative argument, triggering *-i-*. Transitivity is the major property distinguishing the two cases.

Gitksan, which is strongly morphologically ergative, does not otherwise morphologically distinguish between intransitive S and transitive O. The existence of such a contrast in the morphosyntax of extraction is striking, and furthermore suggests that S and O cannot be treated in a homogeneous fashion in all syntactic and morphological operations. The most obvious mechanism of differentiating between two syntactic roles in this way is with some form of abstract Case assignment, particularly *accusative* Case assignment. I therefore suggest that extraction marking (both in the distribution of *-i-* and independent clause-type agreement, which are restricted to instances of verbal object extraction) motivates an accusative interpretation of Gitksan syntax.[7]

An underlying mechanism of accusative Case assignment would have some implications for the analysis of ergativity in Gitksan. For example, Legate (2008) classifies ergative languages into two types: **ABS = NOM**, where both S and O receive the same underlying nominative case from T, and therefore cannot be distinguished in case-related syntactic processes; and **ABS = DEF**, where the S and O arguments receive case from different sources, and can be distinguished in syntactic processes. Only their morphological representation is the same. Underlying accusativity, motivated by the heterogeneity of S and O in extraction morphosyntax, would categorize Gitksan as an ABS = DEF type language.

This runs counter to Brown's (2016) proposal that Gitksan is of the ABS = NOM type, following Coon et al.'s (2014) claim that only ABS = NOM language have extraction restrictions. Brown's (2016) analysis that ergative A extraction is conducted only indirectly via the nominalizer *an* 'AX') would be an instance of such an ergative extraction restriction. The implication of this paper is to suggest, therefore, that ergative extraction restrictions can co-exist with abstract accusativity in a single language (contra Coon et al. 2014).

5.2 Examining adjunct extraction

In considering the extraction of nominals from adjunct positions, or from within adjoined CPs, we must note the fact that the A-extraction morpheme *an* has surfaced in every context we have looked at, including the extraction of ergative subjects and from within CPs associated with intransitive and nominal predicates like *bisxw* 'expect' (verbal) and *he* 'say/word' (nominal). These predicates cannot be interpreted as transitive, and so the associated CPs cannot be easily interpreted as complements. Thus, we return to Brown's (2016) proposal that the CP in at least the case of the Intransitive Bridge Predicates (like *bisxw* 'expect') is an adjunct, and that the morpheme *an* is a nominalizer licensing extraction from the adjoined CP. Following this proposal, one repair strategy for 'illicit' extraction is an indirect extraction strategy, where there is nominalization of some portion of the clause and resumption within it.

However, we have also directly constrasted the strategy using *an* with a strategy for the extraction of most adjuncts, which uses *wil*. Why does extraction from within a presumed adjunct-CP not follow the morphological strategy *of* an adjunct (as extraction from within a CP in S or O position

---

[7] See Forbes (to appear) for further discussion of accusativity and how the mechanism for extraction morphosyntax might work.

directly mirrors extraction of the S or O argument itself)? Furthermore, how is it possible to extract from within an adjunct at all, given that Gitksan has been shown to obey the Adjunct Island Condition (Davis and Brown 2011; Hunt 1993)?

(31) a. Ha'w   t   James wil=t   boogabaag-a=s Jane t   Bill.
           go.home DN James [COMP=3.II kiss-TR=DN   Jane DN Bill]
           'James left because Jane kissed Bill.'

      b. *Naa=hl   ha'w=s   James wil=t   boogabaag-a=s Jane __?
           who=CN go.home=DN James [COMP=3.II kiss-TR=DN   Jane __]
           '*Who did James leave because Jane kissed?'   (Davis and Brown 2011:59)

Clausal adjuncts which allow extraction using *an* and those which bar extraction altogether likely have some differing property. The fact that these types of CP adjuncts pattern with the extraction of oblique themes in antipassives clearly plays an important role; perhaps these are oblique CPs which are not adjoined high in the predicate, but are rather theta-linked to the predicate in some way.

Brown (2016) analyzes the distribution of the morpheme *an* (combining its appearance with A-extraction and intransitive long-distance extraction) as one where the *wh*-element must move over an absolutive argument to extract. While this fits with the occurrence of *an* in local antipassive contexts, where the extracted oblique must pass over a theme, it does not work when considering the appearance of *an* with the nominal predicate *he* 'say, feeling'. There does not appear to be an absolutive argument in these cases; the argument that gets passed over is a possessor.

(32) Naa=hl   an he=s   Lisa=hl siipxw-it __?
      who=CN AX say=DN Lisa=CN [sick-sx   __]
      'Who did Lisa say was sick?'   (VG)

If passing over an absolutive argument doesn't characterize the set of *an*-marked extraction configurations, how else should we understand the distribution of the *an* morpheme? I leave it to future research to identify the precise syntactic nature of the difference between *an* and *wil* adjuncts, whether it be in the syntactic size of the adjoined clause or where/how it is adjoined. I also leave it to future work to determine whether there *wil*-extraction can be found long-distance, or whether the sorts of adjuncts where we might expect it to surface are those which entirely bar extraction.

6   Conclusion

This paper has constituted an exploration of morphological patterns in a variety of extraction contexts in Gitksan. I have examined a tripartite pattern in the extraction of the three core argument types which extends to long-distance extraction in verbal contexts. Further, I have examined deviations from these three morphological patterns in the marking of extraction from complex nominals and over different types of nominal predicate, and in the extraction of adjuncts and obliques.

In total I have presented five morphological extraction patterns:

(33) a. Intransitive *-it*

      b. Accusative *-i-*

      c. Nominalization/misc *an*

    d. Adjunct *wil*

    e. Bare/misc

Further details of their distribution await additional research. Even given the broad discussion presented here, I have laid out two major implications of these patterns: first, Gitksan can possibly be analyzed as a language with some level of abstract accusativity, which weakens the link proposed by Coon et al. (2014) between ergative extraction restrictions and systems entirely lacking ergativity. Second, I demonstrate that the distribution of the nominalizer *an* cannot be adequately characterized as one where the *wh*-element moves across an absolutive (Brown 2016), as has been suggested for Agent Focus in Mayan Coon et al. (2014).

References

Brown, C. (2016). Extraction restrictions in Gitksan. Master's thesis, McGill University.

Coon, J., Pedro, P. M., and Preminger, O. (2014). The role of case in A-bar extraction asymmetries: Evidence from Mayan. *Linguistic Variation*, 14(2):179–242. To appear in the Oxford Handbook of Ergativity (Coon et all, eds).

Davis, H. and Brown, J. (2011). On A'-dependencies in Gitksan. In *Papers for the 46th International Conference on Salish and Neighbouring Languages*, pages 43–80. UBC Working Papers in Linguistics.

Davis, H. and Forbes, C. (2015). Connect four! The morphosyntax of argument marking in Tsimshianic. In *Papers for the 50th International Conference on Salish and Neighbouring Languages*. UBCWPL.

Forbes, C. (to appear). Extraction morphosyntax and *wh*-agreement in Gitksan: The case for accusativity. In *Proceedings of the 2017 Canadian Linguistic Association*. Ryerson University.

Hunt, K. (1993). *Clause Structure, Agreement and Case in Gitksan*. PhD thesis, University of British Columbia.

Legate, J. A. (2008). Morphological and abstract case. *Linguistic Inquiry*, 39:55–101.

Rigsby, B. (1986). *Gitxsan Grammar*. Ms., University of Queensland, Australia.

Tarpent, M.-L. (1987). *A Grammar of the Nisgha Language*. PhD thesis, University of Victoria.