Syntactic ergativity in Gitksan*

Colin Brown McGill University

Abstract: Ā-movement in Gitksan (Tsimshianic) morphologically and syntactically distinguishes between the extraction of intransitive subjects, transitive subjects, and objects. Despite the tripartite appearance of this system, I suggest that this pattern instantiates a ban on the extraction of ergatives. The main piece of evidence for this claim comes from a similar construction that surfaces in long-distance extraction from adjunct clauses. Both agent extraction and long-distance extraction from adjunct clauses. Both agent extraction and long-distance extraction from adjunct clauses are characterized by a pre-predicative morpheme *an* and a dependent clause remnant (contra intransitive subject and object extraction). I suggest that *an*, which is also a productive nominalizer in Gitksan is appearing in these constructions as a 'fix' for otherwise illicit extraction of ergatives, as well as from adjunct clauses. This can provide a piece of counter-evidence to a recent claim that head-marking languages cannot have extraction restrictions (Deal 2016).

Keywords: Gitksan, Tsimshianic, ergativity, Ā-movement, syntactic ergativity

1 Introduction

The extraction of transitive subjects, or agents (A), intransitive subjects (S), and objects (O) in Gitksan (Tsimshianic) corresponds to unique morphological marking. Object extraction involves the DP appearing in a left-peripheral position, and the appearance of the determiner-like clitic (or "connective") =hl on the extracted DP:¹

- (1) a. Gub-i=s Lisa=hl smax. eat-TR=DNC Lisa=CNC meat 'Lisa ate meat.'
 - b. Gwi=hl gub-i=s Lisa? what=CNC eat-TR=DNC Lisa 'What did Lisa eat?'

Subject extraction involves the same left-peripheral position and =hl clitic, but also has an added suffix -Vt on the predicate:

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Contact info: colin.brown@mail.mcgill.ca

¹Abbreviations: I = Series I person marker, II = Series II person marker, III = Series III person marker, CNC = common noun connective, DNC = determinate, PROSP = prospective, PL = plural, SG = singular, SX = S (intransitive subject) extraction marker, TR = transitive. A dash (-) marks an affix boundary and an equals sign (=) a clitic boundary. All examples, unless otherwise noted, come from my own elicitations with three first language Gitksan speakers. Any mistakes are my own.

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- (2) a. Limx t Lisa. sing DNC Lisa 'Lisa sang.'
 - b. Naa=hl lim-it? who=CNC sing-SX 'Who sang?'

Agent extraction is quite different from the above examples. It involves a dependent clause remnant, a pre-predicative morpheme an, and a default third-person agreement marker =t:

- (3) a. Gya'a=s Lisa=hl 'ul. see[-TR]=DNC Lisa=CNC bear 'Lisa saw the bear'
 - b. Naa **an=t** gya'a=hl 'ul? who AN=3.I see=CNC bear 'Who saw the bear?'

The question I put forth in this paper pertains to whether or not this pattern should be analyzed as an asymmetry between the extraction of absolutive, and ergative arguments. These asymmetries arise via a ban on relativization, focusing, or wh-questioning of ergative arguments — henceforth referred to as extraction restrictions.

I argue that despite being at least superficially a tripartite paradigm (in that S, O, and A extraction are marked uniquely), Gitksan *does* exhibit ergative extraction restrictions, thus exhibiting aspects of syntactic ergativity.² The main piece of evidence for this claim comes from new longdistance extraction data. A similar construction to the agent question pattern (in that it has the morpheme *an* as well as a dependent clause remnant) arises during long-distance extraction from clauses that attach as adjuncts. I therefore suggest that *an* appears in contexts in which movement is illicit, such as extraction from clausal adjuncts, as well as the extraction of ergatives.

I also propose that a nominalization analysis is tenable for these two constructions. The inspiration for this analysis arises from the observation that the *an* morpheme involved in these constructions is cognate with the verbal nominalizer *an* in Gitksan. Nominalization is also a fairly common 'fix' for illicit extraction in neighbouring, but unrelated languages in the Pacific Northwest Sprachbund.

Finally, I suggest that if Gitksan does exhibit ergative extraction restrictions, it would provide counter-evidence to a recent analysis of syntactic ergativity put forth in Deal (2016). Under Deal's analysis, extraction restriction effects are centred around morphological case discrimination, and that pure head-marking languages (such as Gitksan) will therefore not have extraction restrictions. Apparent cases of extraction restrictions in head-marking languages are instead analyzed as instances of extraction interacting with agreement. The *an* morpheme involved in both of the constructions under discussion should not be analyzed as agreement with an extracted ergative, as in the long-distance extraction cases, it appears with the extraction of intransitive subjects, and objects, in addition to the transitive subjects. Therefore ergative extraction restrictions should not be confined to languages with overt case marking.

²Contra Hunt (1993) which explicitly claims that Gitksan does not have syntactic ergativity.

The language-internal implications are as follows: (i) *an*, which is traditionally described as an agent relativization or extraction morpheme (Davis and Brown 2011; Hunt 1993; Rigsby 1986; Tarpent 1987) is not utilized solely to mark or agree with extracted agents, (ii) a unified analysis of Gitksan's two *an* morphemes ('agent extraction' and nominalizer) is tenable, and (iii) the agent extraction construction in Gitksan is syntactically quite dissimilar to the intransitive subject and object extraction constructions, despite semantic/pragmatic similarity (Brown 2014; Davis and Brown 2011). The main theoretical implication is that apparent extraction asymmetries in head-marking languages cannot be straightforwardly analysed as *wh*-agreement (contra Deal (2016)).

In Section 2 I provide relevant background information on Gitksan morphosyntax, in Section 3 I turn to extraction in Gitksan, reintroduce the basic extraction paradigm, and then discuss two kinds of long-distance extraction. In Section 4 I discuss and compare the two constructions under discussion (agent extraction, and long-distance extraction from adjunct clauses). In Section 5 I conclude.

2 Language background

Gitksan is an Interior Tsimshianic language spoken in the northern interior of British Columbia, Canada by fewer than 400 fluent speakers. Word order is rigidly VSOX. Predicates are followed by grammatical subjects, direct objects, and then adjuncts/indirect objects (which are often introduced by the preposition *a*):

(4) Gi'nam-i=s Henry=hl hun a=s Lisa.
 give-TR=DNC Henry=CNC fish PREP=DNC Lisa
 'Henry gave the fish to Lisa.'

Non-canonical word order typically arises in sentences with wh- or focus movement, with certain quantifiers, and relative clauses (for an overview of these processes, see Davis and Brown 2011).

This section is an introduction to the necessary background on Gitksan morphosyntax needed to accurately describe and discuss the extraction patterns that follow. The main goal is to introduce the two main clause types in Gitksan (independent and dependent), and the morphology affected by this clause-type distinction (person marking and "connectives"). For more in-depth descriptions of these processes in Interior Tsimshianic I refer the reader to Rigsby (1986) for Gitksan, and Tarpent (1987) for the neighbouring and mutually intelligible Nisga'a.

2.1 Word order and clause typing

An important aspect of clausal syntax in Gitksan is the split between dependent and independent clauses (Rigsby 1986). Dependent clauses are triggered by subordination as well as the presence of a "dependent marker". Dependent markers are a set of pre-predicative morphemes including clausal coodinators, subordinators, and aspectual morphemes such as *yukw* (imperfective), *hlis(xw)* (perfective), *nee(=dii)* (negation), and *ii* (clausal coordinator).

This clause-type distinction affects the distribution of certain morphemes including the verbal suffix $-\partial/$ (glossed as "transitive" Rigsby 1986, "control" Tarpent 1987, and "ergative" Hunt 1993), which appears in independent transitive clauses, but is prohibited in dependent clauses:³

³The surface form of this suffix is phonologically conditioned, and has allomorphs in [-i], [-a] and some-

(5)	Independent		(6)	Dependent	
	Yats -i -'y	'nit.		Nee=dii=n	yats(*-i)-t.
	hit-TR-1SG.II	3sg.III		NEG=FOC=1SG.I	hit(-TR)-3SG.II
	'I hit him.'			'I didn't hit him.'	

The independent/dependent clause distinction also affects the distribution of person marking, agreement and the determiner-like connectives.

2.2 Person marking and connectives

Gitksan has three morphologically distinct series of person markers, named for their linear order in the clause: Series I, II, and III. Series I clitics appear only in dependent clauses, in a pre-predicative position, and mark transitive subjects. Series II suffixes attach to verbs and mark transitive subjects in independent clauses, as well as transitive subjects and objects in dependent clauses. Series III pronouns appear as intransitive subjects and objects in independent clauses, and also as strong pronouns elsewhere.

(7)	Independent clauses		(8)	Dependent clauses		
	a.	Ba <u>x</u> 'nii'y .		a.	Yukw=hl limx-'y.	
		run 1SG.III			IPFV=CNC sing-1SG.II	
		'I ran.' intrans.			'I'm singing.' intrans.	
	b.	Gya'a- 'y 'nii'n . see-1sg.11 2sg.111		b.	Yukw ni hlimoo- n . IPFV 1SG.I help-2SG.II	
		'I see you' trans.			'I'm helping you.' trans.	

The full paradigm of these person markers and their basic distribution is shown below:⁴

	I Clitics		II Suffixes		III Pronouns	
	SG	PL	SG	PL	SG	PL
1	n	(n) dip	-'y	-'m	'nii'y	'nuu'm
2	m	m sim	-n	-si'm	'niin	'nisi'm
3	t	t	-t	-diit	'nit	'nidiit

 Table 1: Gitksan person marking

The clause-type distinction also affects the distribution of the determinate noun connectives =s and =t. In independent clauses the determinate connective =t appears with intransitive subjects, and objects, while the connective =s appears with transitive subjects. This is a straight-forward ergative pattern:⁵

times [-yi].

⁴Series III independent pronouns can appear in dependent clauses under specific circumstances, and Series II suffixes sometimes mark ergatives in dependent clauses. See Forbes (2016) for data and discussion.

⁵Determinate nouns in Gitksan include proper names, *wh*-words, and ascending kinship terms. Everything

		Independent	Dependent
ERG	А	II	Ι
ABS	S	III	II
	0	111	11

Table 2: Basic distribution of person markers

(9) Determinates in independent clauses

- a. Ba<u>x</u> [t Gidi] run [DNC Katie] 'Katie ran.' (intrans)
- b. gya'a [=s Michael] [t Gidi] see[TR] [=DNC Michael] [DNC Katie]
 'Michael saw Katie.' (trans)

(Davis and Forbes 2015)

(Davis and Forbes 2015)

In dependent clauses, only objects are introduced by =t, while =s can appear with intransitive subjects (10a), transitive subjects (10b), as well as objects (when they are adjacent to the predicate, as in (10c)):

(10) **Determinates in dependent clauses**

a.	Nee=dii ba <u>x</u> [=s Michael]	
	NEG=FOC run [=DNC Michael]	
	'Michael didn't run.' (intrans)	(Davis and Forbes 2015)
b.	Neediitgya'a[=sMichael][tAidan]NEG=FOC=3.Isee[=DNCMichael][DNCAidan]	
	'Michael didn't see Aidan.' (trans)	(Davis and Forbes 2015)
c.	Nee=dii=n gya'a [=s Michael] NEG=FOC=1SG.I see [=DNC Michael]	
	'I didn't see Michael.'	(Davis and Forbes 2015)

Davis and Forbes (2015) argue that =s is not a case marker (contra Hunt 1993), and that it is an allomorph of =t, whose appearance is triggered by adjacency to a predicate containing a coindexed third person Series II person marker -t (therefore a -t followed by a =t surfaces as =s). Under this analysis, which I adopt, there is no overt case marking in Gitksan.

In this section I introduced the independent/dependent clause distinction, and the clause-type diagnostics. These diagnostics include the distribution of person markers, determinate connectives, and the transitive suffix $-\partial$. These diagnostics will be used to discuss and compare the constructions involved in \bar{A} -movement in Gitksan.

that does not fall into this class is marked by the common noun connectives =hl. These connectives typically encliticize to the preceding element.

3 Extraction restrictions in Gitksan

In this section I reintroduce the basic extraction paradigm in Gitksan, and claim that it instantiates a ban on the extraction of ergatives. One piece of evidence that this is the case is that long-distance extraction from clauses that attach as adjuncts triggers a very similar construction to that of agent extraction. Both constructions have the same pre-predicative *an* morpheme, and dependent clause remnant. I suggest that this *an* morpheme surfaces in order to fix otherwise illicit movement.

Before I turn to the Gitksan data I will provide a quick background on ergative extraction restrictions and two kinds of analysis that aim to account for them: (i) The "high-absolutive" analysis, in which extraction restrictions are caused by the movement of objects over subjects (Aldridge 2012; Bittner and Hale 1996; Coon et al. 2014), and (ii) the "case-discrimination analysis", in which a DP's morphological case determines its ability to be extracted (Deal 2016).

3.1 Extraction restrictions

Languages with morphological ergativity vary as to whether or not they also show syntactic effects of ergativity.⁶ The most common and best described aspect of syntactic ergativity is the restriction or blocking of the extraction of ergatives Polinsky (*forthcoming*). This process can be found in West Greenlandic. In (11) and (12) we see that absolutive arguments are freely relativized, while in (13) relativization of an ergative is not possible:

(11)	Miiqqa-t [ABS sila-mi pinnguar-tu-t]	
	child-PL.ABS [outdoors-LOC play-REL.INTRANS	-PL]
	'The children who are playing outdoors.'	(West Greenlandic, Bittner 1994)
(12)	Miiqqa-t [Juuna-pABS paari-sa-i] child-PL.ABS [juuna-ERG look.after-REL.TRANS	-3sg.pl]
	'The children that Juuna is looking after.'	(West Greenlandic, Bittner 1994)
(13)	*Angut [<u></u>	6G]
	Intended: 'The man who took the gun.'	(West Greenlandic, Bittner 1994)

To express the intended meaning in (13), an antipassive suffix *-si* must appear on the predicate. The former ergative argument is now grammatically absolutive, and extraction is now possible:

 (14) Angut [__ABS aallaam-mik tigu-si-sima-su-q] man.ABS [__ gun-INS take-ANTIP-PRF-REL.INTR-SG]
 'The man who took the gun.' (West Greenlandic, Bittner 1994)

The gap in West-Greenlandic relative clauses must therefore always be the trace or copy of an absolutive argument.

A number of analyses suggest that extraction restrictions such as those found in West Greenlandic arise due to the systematic inversion of objects over subjects (Aldridge 2012; Bittner and

⁶This section largely follows/summarizes the discussion in Deal (2016).

Hale 1996; Coon et al. 2014). For Bittner and Hale (1996); Coon et al. (2014) the object moves to be case licensed, while for Aldridge (2012) v bears an [EPP] feature, which attracts the object to an outer specifier of vP. The abstracted version of these accounts is schematized in (15).

(15)	High-absolutive analysis (adapted from Deal 2016)						
	POSITION X				BASE POSITION		
	[Object	[VP]	Subject	[V	Object]]]	
	★				J		

Under this family of approaches, ergative extraction restrictions arise in this way: (i) objects move to 'Position X', (ii) position X is also needed for \bar{A} -movement, (iii) the occupation of Position X by the object blocks the subject (which is lower) from \bar{A} -movement.

Deal (2016) provides an alternative analysis, after Otsuka (2006, 2010), that seeks to account for syntactic ergativity in \bar{A} -movement as a result of case discrimination, and appeals to accessibility hierarchy such as (16).

(16) Accessibility hierarchy (Bobaljik 2008, after Moravcsik 1974; Marantz 1991)

unmarked case	>	dependent case	>	lexical/oblique case	<i>or</i>
nominative/absolutive	>	accusative/ergative	>	Dative	

Case discrimination is the process in which the morphological case of a DP determines its ability to participate in Agree. According to (16), DPs with oblique or lexical case are only accessible for Agree if DPs with dependent case and unmarked case are also accessible, DPs with dependent case are only accessible if those with unmarked case are, while DPs with unmarked case are always accessible.

Deal extends case discrimination to syntactic ergativity/Ā-movement in this way: (i) Ā-movement of XP to Spec,CP requires Agree between XP and the C head in an operator feature — [WH], [REL], or [FOC], (ii) the operations Agree-[WH], Agree-[REL], and Agree-[FOC] are case discriminating: elements in dependent and lexical/oblique case are not accessible, (iii) the result will be that ergatives cannot enter into the relevant Agree relationship, and therefore cannot be extracted.

A side effect of this analysis is that there is no way to derive similar constructions observed in pure head-marking languages (as there is no case-marking on the DP to prevent it from entering into an Agree relation with an operator). Deal addresses this issue, and suggests that patterns resembling extraction restrictions in purely head-marking languages can be reanalysed as *wh*-agreement, where special morphology indexes extracted arguments.

However, *wh*-agreement, which is traditionally analyzed as the form a probe takes when it has agreed with an operator (Chung and Georgopoulos 1988; Watanabe 1996), is not the correct analysis for *an*. This is based on the following observations: *wh*-agreement occurs on the verb in a canonical agreement slot, and replaces regular agreement markers (Chung and Georgopoulos 1988), while *an* does not occur in a canonical agreement slot, nor on the predicate itself. This morpheme also appears in environments in which non-agents are being extracted (therefore not agreeing with an ergative gap).

I suggest that Gitksan is a counter-example to the analysis in Deal (2016), in that it is a purely head-marking language that exhibits extraction restrictions.

3.2 The basic pattern

Subject, object, and agent extraction all show predictable extraction morphology. Extracted objects appear in a left peripheral position with the common noun connective =hl cliticized to its right edge, with an independent clausal remnant (indicated here by the presence of the transitive morpheme $-/\partial /$):

(17) Gwi=hl gub-i=s Lisa? what=CNC eat-TR=DNC Lisa 'What did Lisa eat?'

Intransitive subject extraction also involves the connective =hl, but also a -Vl suffix on the predicate (glossed as "subject extraction marker" (Davis and Brown 2011; Hunt 1993)):⁷

(18) Naa=hl lim-it? who=CNC sing-SX 'Who sang?'

Agent extraction involves the morpheme *an* (glossed as "agent extraction" Davis and Brown 2011; Hunt 1993), a third person Series I clitic =t and a dependent clause remnant:⁸

(19) Naa **an=t** gya'a=hl 'ul? who AN=3.I see=CNC bear 'Who saw the bear?'

These generalisations can be schematicized as below, where subscripts on A, S, and O refer to the person agreement that appears before the predicate (in the case of Series I agreement), or suffixed to the predicate (in the case of Series II agreement):⁹

S=hl		pred -ət	
O=hl		pred-tr-II	A_{II}
А	an (=3.I)	pred-II	O_{II}

Table 3: Extraction morphology in Gitksan

Though this paradigm can be described as a tripartite system, in which objects, subjects, and agents are all marked with unique extraction morphology, subject and object extraction share a characteristic that is absent in agent extraction: the =hl morpheme. Agent extraction appears to be quite different, structurally. Despite this, discussion on the possibility of extraction restrictions in

⁷The issue of intransitive subject extraction, and what exactly the -Vt suffix is, cannot be fully addressed here. It is actually not clear what kind of clause is involved in S extraction (dependent or independent) as none of the the diagnostics for dependent clauses are available. Work on subject extraction and its morphology is left as important future research.

⁸The the clitic =t can also appear before an (as t=an), or not appear at all Rigsby 1986.

⁹The extraction of indirect objects and adjuncts triggers a cleft-like construction involving the complementizer *wil/win*, which, like agent extraction, triggers a dependent clause (Davis and Brown 2011).

Gitksan has largely been overlooked. I take up that challenge now, starting with new evidence from long-distance extraction.

3.3 Long-distance extraction

Here I discuss two types of long-distance extraction. The first type, previously described in Hunt (1993) and Davis and Brown (2011), involves a transitive bridge predicate, that freely allows the extraction out of its clausal complement. This can be seen with predicates such as *amgoot* 'remember' or *anook* 'allow'. In (20) we see *amgoot* appearing as a bridge predicate, inflected with transitive morphology: the transitive suffix -/ə/, and the Series II person marker:

(20) Amgood-i-t John [dim=t hlimoo-n] remember-TR=3.II John [PROSP=3.I help-2SG.II] 'He remembered to help you.'

These ingredients suggest that -t 'he' is the agent, and that *dimt hlimoon* 'to help you' is occupying the object position. Long-distance extraction from structures such as (20) occurs freely. The extracted DP from the lower clause can appear to the left of the bridge predicate, with the =hl suffix enclitized to it:¹⁰

(21) Gwi=hl anoog-a-n [dim da'witxw-i=s James]?
what=CNC allow-TR-2SG.II [PROSP bring-TR=DNC James]
'What did you allow James to bring?' (Davis and Brown 2011)

As the only extraction morphology in the higher clause is the connective =hl, this construction resembles the object extraction pattern (see Table 3). There seems to be no distinction between extracting *out of* an object and extracting an object, itself¹¹.

The second type involves an *intransitive* bridge predicate, where the lower clause appears to attach as an adjunct, and long-distance extraction is blocked.¹² A construction similar to agent extraction licenses long distance movement from this second type. This can be see with predicates

(i) <u>X</u>bits'exw t Michael (e=s Henry) fear DNC Michael (PREP=DNC Henry) 'Michael is afraid (of Henry).'

¹⁰Canonical extraction morphology corresponding to A, S, and O appears in the lower clause as expected. (20) involves extraction of the object of the lower clause, and the morphology in the lower clause reflects that. Extraction of an intransitive subject in a lower clause would trigger a -Vt suffix on that clause's predicate. Whether the extracted DP is an A, S, or O, does not affect the morphology in the higher clause.

¹¹This mirrors the long-distance extraction pattern seen in Upriver Halkomelem (Coast Salish) in which longdistance extraction occurs with formally transitive bridge predicates where the embedded clause is analysed as its direct object. The inflection in the matrix clause in these cases of long-distance extraction is the same as canonical object extraction (Thompson 2012)

¹²Evidence that these clauses are attaching as adjuncts comes from the behaviour of these predicates in simple clauses. Here we see that the same intransitive predicate can take a single argument with an optional indirect object introduced by a preposition:

They also appear as a bridge predicate:

such as *bisxw* 'expect', and <u>*xbits*'exw</u> 'fear'. Note that there is no transitive suffix and that the subject of *bisxw* is marked by a Series III pronoun, which marks intransitive subjects in independent clauses:

 (22) Bisxw 'nii'y [dim 'witxw=s Aidan] expect 1SG.III [PROPS come=DNC Aidan]
 'I expect Aidan will arrive'

Extraction from these constructions is not straight-forwardly available:

(23) *Naa=hl bisxw 'niin [dim 'witxw-it]?
who=CNC expect 2sG.III [PROSP arrive-sx]
Intended: 'Who do you expect will arrive?'

To convey the intended meaning in (23) we have to include the *an* morpheme before the matrix verb, and series II marking instead of series III (therefore indicative of a dependent clause):

(24) Naa=hl an [bisxw-in [dim 'witxw-it]]? who=CNC AN [expect-2SG.II [PROSP arrive-SX]] 'Who do you expect will arrive?'

The long-distance extraction in (24) thus resembles the ergative extraction in (19) in that there is a pre-predicative *an* morpheme, as well as the same switch from an independent to a dependent clause. However, these constructions are not identical. (24) lacks the third person series I = t, and includes the common noun connective =hl on the extracted word. The absence of the =t is easily explained, as the matrix predicate is intransitive, and series I only appears in transitive dependent clauses. The presence of =hl is trickier — however, in other contexts =hl and =t appear to be in complementary distribution. In the examples below, we can see that certain dependent markers (such as *yukw*) introduce intransitive dependent clauses with =hl, while transitive dependent clauses have a series I person marker in its place:

- (25) Yukw=hl lin=hl os. IMPV=CNC growl=CNC dog 'The dog is growling.'
- (26) Yukw=t giba=s John t Mary. IPFV=3.I wait=DNC John DNC Mary 'John is waiting for Mary.'

Further examination of the interaction between series I clitics and the common noun connective clitic is needed.

(Forbes 2013)

(Hunt 1993)

 ⁽ii) <u>X</u>bits'exw 'nii'y [dim 'witxw=s Henry] fear 1SG.III [PROSP arrive=DNC Henry]
 'I fear that Henry will arrive.'

Regardless, the ability of *an* to license movement in constructions such as (24) suggests that its appearance in the extraction of ergatives is indicative of an extraction restriction. This would be a counter example to Deal (2016), as Gitksan is a purely head-marking language which exhibits extraction restrictions. If this is the case, then morphological case marking is *not* a prerequisite for extraction restrictions.

In this section I provided a background to extraction in Gitksan, including the basic extraction paradigm, and two kinds of long distance extraction: those with formally transitive bridge predicates, and those with intransitive bridge predicates. I compared the agent extraction construction to that of the intransitive bridge predicate extraction, as they both appear with the same *an* morpheme and dependent clause complement. In the next section I discuss what *an* might be, and why it is showing up in these two constructions.

4 Why is some movement illicit, and what is *an*?

I have suggested, contra Deal (2016), that *an* cannot be analyzed as *wh*-agreement with ergatives, as it does not appear (i) on the predicate, (ii) in an agreement slot, or (iii) only with ergatives. I have also shown that *an* appears in agent extraction, and extraction from adjoined clauses. In this section I discuss some possibilities as to why agent extraction, and long-distance extraction with intransitive bridge predicates might be illicit, and how *an* might be fixing them. I suggest that *an* is nominalizing clauses, and that both extraction types are illicit for independent reasons, leaving implementation as future research.

Why is intransitive bridge predicate extraction illicit? Contra transitive bridge predicate constructions (such as (21)) in which the lower clause acts as an argument of the verb, the lower clause in intransitive bridge predicate constructions actually attaches as an adjunct, which blocks the canonical movement out of it via the adjunct island constraint.¹³ This is consistent with the monoclausal behaviour of the predicates that appear in these constructions. The predicate is intransitive, taking a single argument and an optional oblique argument which function as an ajdunct (see footnote 12).¹⁴

Why is ergative extraction illicit? This question is less straightforward. If we turn to existing analyses of ergative extraction restrictions, Deal (2016)'s analysis does not apply as Gitksan lacks the overt morphological case needed for case-discrimination. Likewise, an analysis provided in Polinsky (*forthcoming*) that treats ergatives as PPs is untenable for Gitksan, as again, ergatives are not overtly marked in any way (while PPs in Gitksan *are*). I propose that an analysis based around the "high-absolutive" approach discussed above (Aldridge 2012; Bittner and Hale 1996; Coon et al. 2014), is tenable.

 (i) Naa wil bisxw-in [dim 'witxw-it]? who COMP expect-2SG.II PROSP arrive-SX 'Who do you expect to arrive?' Consultant's comment: Good, yes.

¹³Davis and Brown (2011) show that extraction in Gitksan is sensitive to strong island constraints, including the adjunct island constraint.

¹⁴It is unclear why the default pattern for this kind of extraction involves *an* instead of the complementiser *wil* that appears in other adjunct extractions. However some speakers show a certain variability between *an* and *wil* in these constructions:

Under this family of analyses the object moves above, or is case licensed by a head that is structurally higher than the subject, which in turns blocks the movement of the subject:

(27) High-absolutive analysis (repeated from (15)) POSITION X BASE POSITION [Object [VP Subject [V Object]]]

Coon et al. (2014) suggest that extraction restrictions in Mayan arise through intransitive subjects, and objects being assigned (nominative) assigned case by a Infl⁰:

(28) High-absolutive



In Mayan languages in which case is assigned as above, movement of a transitive subject is blocked, and a special agent extraction construction must be used to license movement. Also, non-finite clauses do not have absolutives, as there is no Infl⁰ to case license them (Coon et al. 2014).

There is some evidence that this might be the case for Gitksan. One piece of evidence comes from the basic distribution of Series III pronouns. Recall that these pronouns appear as intransitive subjects, and objects in independent clauses, and generally do not appear in dependent clauses (see Forbes (2016) for a thorough discussion on the licensing of Series III in dependent clauses):

		Independent	Dependent
ERG	А	II	Ι
ADC	S	III	II
ADS	0	III	II

 Table 4: Basic distribution of person markers = Table 2

If absolutive in Gitksan (Series III) is licensed by Infl⁰, then its general absence from dependent clauses could be explained by the absence of Infl⁰ in this clause type. It could also explain the presence of extraction restrictions. Thus Gitksan might be a parallel case to the Mayan languages discussed in (Coon et al. 2014). Implementation of such a theory is left as future research.

Finally, turning to *an*, I suggest that it could be analyzed as a nominalizer. This is based on the following observations. There is another morpheme *an* in Gitksan which is a productive verbal nominalizer:

(29) **an-**jam NOM-cook 'kettle/pot'

The second observation is that predicate and clausal nominalization is used extensively in neighbouring, but unrelated languages in the Pacific Northwest Sprachbund. For instance, locative relative clauses in St'át'imcets (Interior Salish) involve the nominalization and possession of the clause:

(30)	Tsícw=kan	l=ta=	[tsal'álh=a	[l=t=s=wá7=sw=a
	get.there=1SG.SU	at=DET=	[lake=EXIS	[at=det=nom=impf=2sg.poss=exis
	í7w'es]]			
	fish.with.rod]]	i i		
	'I went to the lake	where you	were fishing	g.' (St'át'imcets, Davis 2010)

In Halkomelem (Coast Salish) we see a predicate nominalization construction arising to license otherwise illicit long-distance movement. The nominalized predicate below allows subordinate clauses to appear as arguments (unlike the non-nominal equivalent), allowing extraction to occur freely:

(31) Stæm \dot{k}^w a?-s- $\theta \Rightarrow c$ - $\theta \Rightarrow ax$ [$\dot{k}^w = \Rightarrow = s$ hak^w- \Rightarrow]? what DET 2SG.POSS-NOM-tell-TR-1SG.0 [COMP=1SG.POSS=NOM wear-TR.30] 'What did you tell me to wear?' (Upriver Halkomelem, Thompson 2012)

Clausal and predicate nominalization, and its potential interaction with extraction in Gitksan is also left as future research. Though the similarities between (31) and (24) are striking, and need to be examined.

In this section, I suggested that both types of extraction under discussion (agent extraction and extraction from clauses that attach as adjuncts) are illicit for different reasons. Agent extraction might arise through the case licensing of absolutives by a higher head, while the latter type are prohibited by the adjunct island constraint. I also suggested that *an* can be analyzed as a nominalizer as another morpheme *an* functions as such, and that neighbouring languages extensively utilize nominalization in certain kinds of extraction.

5 Conclusion

In this paper I discussed \bar{A} -movement in Gitksan and suggested that Gitksan *does* exhibit ergative extraction restrictions, despite the descriptive generalization that S, O, and A pattern uniquely during extraction. The main piece of evidence for this claim comes from the long-distance extraction from clauses that attach as adjuncts. A similar construction, involving the same clause-type and morpheme (*an*) appears in both agent extraction, and this kind of long-distance extraction. I suggested that *an* surfaces in these constructions to license illicit movement.

The main theoretical claim was that purely head-marking languages such as Gitksan *can* have extraction restrictions, which Deal (2016) argues cannot be the case. Implementation of a nominalization analysis of both agent extraction and extraction from clauses that attach as adjuncts is left as important future research.

References

- Aldridge, E. (2012). Antipassive and ergativity in Tagalog. Lingua, 122:192-203.
- Bittner, M. (1994). Case, Scope and Binding. Dordrecht, Neth.: Kluwer.
- Bittner, M. and Hale, K. (1996). Ergativity: toward a theory of a heterogeneous class. *Linguistic Inquiry*, 27:531–604.
- Bobaljik, J. (2008). Where's phi? agreement as a post-syntactic operation. In Harbour, D., Adger, D., and Béjar, S., editors, *Phi Theory: Phi-features across interfaces and modules*. Oxford: Oxford University Press.
- Brown, C. (2014). Clefts without presuppositions? evidence from Gitksan. In Semantics of Underrepresented Languages of the Americas (SULA) 8.
- Chung, S. and Georgopoulos, C. (1988). Agreement with gaps in chamorro and palauan. In Barlow, M. and Ferguson, C. A., editors, *Agreement in natural languages: Approaches, theories, and descriptions*, pages 251–267. Center for the Study of Language and Information.
- 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.
- Davis, H. (2010). A unified analysis of relative clauses in St'át'imcets. Northwest Journal of Linguistics, 4(1):1–43.
- Davis, H. and Brown, J. (2011). On A'-dependencies in Gitksan. In *International Conference on* Salish and Neighbouring Languages.
- 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*.
- Deal, A. R. (2016). Syntactic ergativity: analysis and identification. *Annual Review of Linguistics*, 2:165–185.
- Forbes, C. (2013). Coordination and number in the Gitksan nominal domain. Master's thesis, University of Toronto.
- Forbes, C. (2016). Clause-typing and ergativity: Agreement in Gitksan. Ms. University of Toronto.
- Hunt, K. (1993). *Clause Structure, Agreement, and Case in Gitksan*. PhD thesis, University of British Columbia.
- Marantz, A. (1991). Case and licensing. In Westphal, G., Ao, B., and Chae, H., editors, *In Proceedings of the Eastern States Conference on Linguistics*. Ithaca, NY: Cornell Univiversity.
- Moravcsik, E. (1974). Object-verb agreement. Working papers on language universals, 15(25-140).
- Otsuka, Y. (2006). Syntactic ergativity in Tongan: resumptive pronouns revisited. In Johns, A., Massam, D., and Ndayiragije, J., editors, *Ergativity: Emerging Issues*, pages 79–107. Berlin: Springer.
- Otsuka, Y. (2010). Dp ellipsis in Tongan: Is syntactic ergativity real? *Natural language and linguistic theory*, 28:315–42.
- Polinsky, M. (forthcoming). Syntactic ergativity. In Everaert, M. and van Riemsdijk, H., editors, *The Companion to Syntax.* New York: Wiley-Blackwell.

Rigsby, B. J. (1986). Gitksan Grammar. PhD thesis, University of Queensland, Australia.

- Tarpent, M. L. (1987). A Grammar of the Nisgha Language. PhD thesis, University of Victoria.
- Thompson, J. (2012). *Syntactic Nominalization in Halkomelem Salish*. PhD thesis, University of British Columbia.

Watanabe, A. (1996). Case Absorption and WH-Agreement. Kluwer Academic Publishers.