

Feature sets in Gitksan split-absolutive agreement

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This paper presents an analysis of a split-absolutive agreement pattern in Gitksan (Tsimshianic), conditioned by properties of the ergative subject. In this pattern, DP and third-plural subjects trigger nominative agreement, while third-singular and local-person pronouns trigger absolutive agreement; ergative agreement occurs simultaneously. It is proposed that the DP and third-plural arguments differ in their feature structure from that of other pronominal arguments; they bear D-features in excess of traditional ϕ -features, and agreement is able to target these D-features even if the argument has already undergone ergative ϕ -agreement. Multiple ergative and nominative agreement with a single argument is therefore possible because different groups of features are targeted during different agreement operations. This results in what initially appears to be inter-language variation in the applicability of the Activity Condition (Chomsky 2001). The paper sheds light on the feature-specific nature of Agree, and presents an elaboration on the organization and role of nominal feature geometries in grammar, including variation in the crosslinguistic representation of number.

1 Introduction

Feature structures and geometries (Harley & Ritter 2002a,b; Béjar 2003; Adger & Svenonius 2011) have been used to represent nominals and the features accessible to operations on nominals. Work discussing the nature of such geometries has typically focused on the set of ϕ -features: person and number features (e.g. Harbour 2007, 2016; Cowper & Hall 2014), and sometimes also reviews noun class and gender (Harley & Ritter 2002a; Cowper & Hall 2009). Of course, nominals are categorized in a number of other ways, including definiteness, pronominality, and individuation, but these properties are less frequently referenced in the syntactic process of agreement, and so are rarely discussed in work on feature structure and feature relativization.

In this paper I present a crosslinguistically atypical agreement split which draws on such properties as third-person number and the DP/pronoun contrast in determining the controller of agreement, and demonstrate that the data is optimally accounted for by structuring such properties in a feature geometry, contrasting with ϕ -features like person. I propose an elaboration of the structure of nominal features, and argue that agreement probes may be relativized to search for different subsets of this structure, with ϕ -features being only the most common example. Agreement operations which search for different feature sets may consequently interact with one another in different ways based on the order that they probe and the different features they target.

The empirical focus of the paper is a *nominal-type split* in Gitksan (Tsimshianic, Canada). Alignment in this language is predominantly ergative/absolutive; it is well known that ergative languages frequently display a split in their grammar, with the alignment of morphological agreement or case shifting from ergative to nominative or neutral in some context (Moravcsik 1978; Dixon 1994). However, the nominal-type split which I here explore instead affects absolutive agreement: it is an example of an *absolutive-nominative* split, illustrated below in (1). The agreement paradigm under investigation is bolded below, and the argument it indexes underlined in the gloss.

- (1) a. Neediit iileni'y.
 nee=dii=t hilen-'y
 NEG=FOC=3.I chase-1SG.II
 'She didn't chase me.'
- b. Neediit iilendiit 'nii'y.
 nee=dii=t hilen-**dii**t 'nii'y
 NEG=FOC=3.I chase-3PL.II 1SG.III
 'They didn't chase me.'
- c. Neediit iilens Mark 'nii'y.
 nee=dii=t hilen-**t** =s Mark 'nii'y
 NEG=FOC=3.I chase-3.II =DN Mark 1SG.III
 'Mark didn't chase me.'
- (VG)¹

Here, two types of agreement are present in the clause. A pre-predicative agreement marker (of the 'Series I' paradigm) consistently tracks the ergative subject of the transitive clause. The agreement marker suffixed to the clause predicate ('Series II', here bolded) is the focus of investigation: it switches which transitive argument it agrees with, marking the object if the subject is a third singular pronoun (1a), but marking the subject if the subject is a third-plural pronoun (1b) or a full DP argument (1c) (Hunt 1993).

The nominal properties of the ergative subject are responsible for triggering the split between absolutive and nominative alignment for the suffixal paradigm. However, the nominal types conditioning the split (different types of third persons) are ill-accounted-for by existing approaches to nominal markedness, which commonly reference the role of person or definiteness. This makes the Gitksan split an interesting empirical ground for investigation into the mechanics of agreement, the interaction of agreement with nominal properties beyond person and definiteness, and how these nominal properties should be modeled in syntactic theory.

In this paper I demonstrate that ϕ -feature markedness alone is inadequate to differentiate the nominal types on each side of the agreement split. Instead, I draw upon a distinction between ϕ -features and more general nominal *D-features*, which in Gitksan includes third-person number as well as the D-property of full lexical nouns, which contrasts DPs from pronouns. With this means

¹ Examples are from the author's own fieldnotes, with consultant initials provided as attribution, unless otherwise cited. Abbreviations in glossing are as follows: 1=first person, 2=second person, 3=third person, ABS=absolutive, ACC=accusative, ANIM=animate, ART=article, AX=agent extraction, CAUS=causative, CCNJ=clausal conjunction, CN=common noun determiner, COM=comitative, COMP=complementizer, DAT=dative, DESID=desiderative, DN=determinate noun determiner, DUR=durative, DWID=domain widener, EPIS=epistemic, ERG=ergative, FOC=focus, INCEP=inceptive, INS=instrumental, IPFV=imperfective, IRR=irrealis, NEG=negative, NOM=nominative, OBJ=object, PL=plural, PREP=preposition, PROSP=prospective, PST=past, REPORT=reportative, SG=singular, SPT=spatiotemporal, SX=intransitive subject extraction, T=T-morpheme, TR=transitive.

of differentiating nominal types available to us, I propose that the absolutive/nominative pattern of Series II agreement is best modeled as *highest-argument agreement*, with ergative arguments typically made inaccessible to this operation due to an earlier process of ergative agreement (Coon 2017).

I crucially capitalize on the interaction of two ordered agreement probes in the clause, relativized to a *subset* and *superset* of nominal features, respectively. I propose that the first probe (ergative Series I) is relativized to ϕ -features, a proper subset of nominal D-features, and that the second probe (Series II) is relativized to the D-feature superset. The split absolutive-nominative agreement pattern exhibited by the Series II suffix is a result of potential targets differing in their featural size. Ergative Series I agreement can sometimes rob the Series II probe of its most local target, if the target argument only contains ϕ -features; however if the target argument is featurally larger, both agreement operations may target it simultaneously. The interaction that we see between the two ordered probes is therefore one of a *bleeding* nature (to borrow a term from rule-based phonology); the application of one Agree operation may prevent the application of a second.

This constitutes the first analysis of the Gitksan split-absolutive pattern since Hunt (1993), who drew on a contrast in features *strength*. It contributes to our understanding of ergative-agreement languages—useful, given that most literature in this area focuses on morphological case. I essentially propose that Gitksan has both an ergative and a ‘nominative’ (that is, a *highest-argument-seeking*) agreement probe.

The organization of the paper is as follows: section 2 lays out the Gitksan agreement split data and paradigms in more detail. Section 3 presents my analysis of the split as a type of *agreement bleeding*, based on a distinction between ϕ -features and other nominal features and ordered application of Agree. I defend it against an alternative in which the contrast is a result of structural size between the different groups of nominals. Section 4 extends the empirical scope of the analysis to the related Coast Tsimshian language, identifying how my analysis predicts an attested difference in agreement in this variety, and reviews some additional person-conditioned variation. Section 5 discusses some issues faced by approaches which aim to account for this data by other means, including ϕ -feature markedness and dependent case. Finally, section 6 considers crosslinguistic applications of the proposed approach to distinguishing third-person plurality, and section 7 concludes.

2 The morphosyntax of Gitksan agreement

Gitksan is an endangered language of the small Tsimshianic family, spoken in the northern interior of British Columbia, Canada.² The Tsimshianic languages are all predicate-initial and predominantly VSO they are also ergative and consistently head-marking (Davis & Forbes 2015; Davis 2018).³ The Interior languages in particular are consistently ergative in their agreement alignment

²More properly, the language is referred to as Gitksanimx̱, Gitksenimx̱, or Gyaanimx̱, depending on the dialect of the speaker. I adopt the spelling *Gitksan* for the name of the language following previous work (Rigsby 1989; Hunt 1993; Forbes et al. 2017); it is based on a reconstructed form not in use by speakers today, and is intended to be dialect-neutral. The agreement facts considered here are identical across the speakers I have consulted, regardless of dialect (from 5 of 6 villages).

³Modern Gitksan exhibits the strictest VSO ordering of arguments across the family. In the other varieties, VOS order commonly emerges when the object argument is a local person (Jelinek 1986; Peterson 2017; Forbes 2018).

across multiple syntactic splits. These splits include an overarching *clause-type split*, and a secondary *nominal-type split* found within only one of the two clause-types (as originally described by Rigsby 1986 for Gitksan and Tarpent 1987 for mutually intelligible Nisga’a). In this paper, I present an analysis of the latter split, conditioned by nominal type.

This section first presents the broader context of agreement in Gitksan, including the nature of the person-indexing paradigms and the clause-type split. Discussion of the broader agreement split across clause-types is necessary to successfully contextualize the absolutive/nominative nominal-type split upon which the paper focuses; by so contextualizing the pattern I aim to provide a successful model of this split within the agreement system as a whole. After this context is provided, I narrow in to provide a detailed description of the absolutive/nominative agreement split.

2.1 Three paradigms; two sets of agreement

Gitksan has three person-marking paradigms, each with distinctive morphophonological characteristics. There is a set of phonological clitics that appear before the verb (Series I), a set of verbal suffixes (Series II), and a set of pronouns that appear as independent words (Series III). These are given in Table 1.

Table 1: Gitksan person-marking series

Pre-predicate clitics (I)			Predicate suffixes (II)		Independent (III)	
	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	-diit	’nit	’nidiit

The Series I/II/III labels indicate the linear order of each paradigm with respect to a VSO sentential template, following Rigsby (1986). A basic template for a sentence is given in (2). The clitics appear pre-predicatively (I), the suffixes appear after the predicate (II), and the full pronouns appear in the place of arguments, following the predicate complex (III).

(2) (Aux/Subord=I) Predicate-II DP/III_{Subj} DP/III_{Obj}

A close morphophonological relation can be seen between the independent pronouns (III) and the suffixes (II), with the pronouns resembling the suffixes on a *’ni-* or *’nii-* base (or, vice versa, the suffixes resembling truncated versions of the independent pronouns). In contrast, the clitic series (I) is quite distinct from the other two based on its first and second person forms. The single phoneme [t] is used for a third person in both Series I and Series II, but the position of these morphemes remains distinct: the Series I clitic precedes V, appearing on pre-predicate auxiliaries and operators, while the Series II morpheme suffixes to V. Also of note are plurality distinctions in the paradigms; the suffixes (II) and pronouns (III) exhibit a third-person number contrast, while the clitics (I) have only a neutral third person exponent. Local persons contrast for number in all paradigms.

The Series I and II paradigms never co-occur with a Series III element, but do co-occur with lexical DP arguments, as demonstrated in (3) with the DP =s *Mark*.

(3) Neediit iilens Mark 'nii'y.
 nee=dii=t hilen-t =s **Mark** 'nii'y
 NEG=FOC=3.I chase-3.II =DN Mark 1SG.III
 'Mark didn't chase me.' (VG)

I analyze the independent Series III set as true *pronouns*, and both the Series I and Series II sets as *agreement*. This merits a brief discussion, as many languages with multiple paradigms of person-markers have been argued to exhibit one verbal agreement paradigm and one clitic paradigm (e.g. Neo-Aramaic (Semitic), [Kalin & van Urk 2015](#); Ch’ol (Mayan), [Coon 2017](#)). I argue that such an analysis is less well-suited to Gitksan.

Following much recent work (e.g. [Kramer 2014](#); [Oxford 2014](#); [Harizanov 2014](#); [Coon 2017](#); [Baker & Kramer to appear](#)), I adopt a definition of clitics as elements of category D, in opposition to verbal agreement markers, which spell out features copied to a verbal or clausal head as a reflex of Agree. A clitic is a D-element associated with an argument, pronounced along at some point along that argument's agreement or movement chain as an instance of multiple spell-out. The chain may be either a verbal agreement chain (a feature copy generated by the argument in response to an agreement operation) or a movement chain (where a clitic results when the argument engages in either A- or A'-movement). Clitic 'doubling' may occur when a full argument, rather than a pronoun, appears in the original base position. In a doubling situation, the clitic is pronounced even when the argument is present.

Clitics are primarily distinguished from agreement in that their features are *nominal*, rather than verbal, and consequently are expected to share some properties with pronouns and determiners that exponents of agreement do not. Agreement features, in contrast, are verbal, and consequently have a greater dependency on clausal properties and an ability to interact with other verbal features. Several tests for agreementhood versus clitic-hood reference this opposition (Zwicky & Pullum 1983; Arregi & Nevins 2012; Kramer 2014) however, most of these tests are inconclusive for the Series I and II paradigms (see Forbes 2016). The most telling diagnostic in Gitksan is one which concerns the obligatoriness of the paradigms. Both the Series I and II elements are strictly obligatory, and must double DP arguments. This suggests that the best way of understanding the Series I and II paradigms is as *verbal agreement*. Agreement is typically obligatory within a particular clausal configuration, while clitics may be optional in the same clausal configuration, as they are generated based on the properties of the noun within that configuration.

We could potentially consider either paradigm an instance of *obligatory* clitic doubling. However, across languages we typically find that clitic doubling exhibits some sort of restriction, usually on the basis of definiteness or specificity; for example, direct object clitics in Spanish must double specific arguments, but may not double non-specific ones (e.g. Spanish: Jaeggli 1982, Suñer 1988). Indeed, Baker & Kramer (to appear) argue that clitics, being pronominal, should fail to double quantificational nouns and *wh*-pronouns.⁴ In Gitksan, both the Series I and II paradigms must double indefinite arguments, as demonstrated in (4) and (5) by their co-occurrence with *=hl ligit naa* ‘someone’.

⁴Series I always doubles an extracted ergative *wh*-element (Rigsby 1986; Davis & Brown 2011; Brown 2016). This test is more difficult to apply to Series II, sometimes entirely inapplicable, due to enclitic determiners obscuring the presence of the suffix on the predicate in many environments.

- (4) Yukwt gigi'yhl ligit naa 'nii'n.
 yukw=**t** gi~gi'y-**t** =hl ligit naa 'niin
 IPFV=3.I DUR~look.for-3.II =CN DWID=DN who 2SG.III
 'Someone was looking for you.' (BS)

- (5) Gya'atgat ligit naa 'niin.
 gya'a-i-**t**=gat ligit naa 'niin
 see-TR-3.II=REPORT DWID=DN who 2SG.III
 'I heard that someone saw you.' (BS)

Such specificity-insensitive behavior is particularly unexpected if either paradigm were a set of syntactic clitics (i.e. pronouns), given the fact that other pronouns in Gitksan *must* be interpreted as definite or specific. The following examples demonstrate that only phrases built with the element *ligi* and a *wh*-indefinite may reference a nonspecific indefinite; an independent Series III pronoun is impossible, as shown in (6), and null *pro* is also impossible, as shown in (7).

- (6) a. Gi'nami'yhl daal ehl ligit naa ii neediin
 gi'nam-i-'y =hl daal e-t =hl **ligi=t** **naa** ii nee=dii=n
 give-TR-1SG.II =CN money PREP=3.II =CN DWID=DN who CCNJ NEG=FOC=1.I
 hilaa'yhl naa.
 hilaax-'y =hl naa
 know-1SG.II =CN who
 'I gave the money to someone but I don't know who.'
 b. *gi'nam-i-'y =hl daal e-t =hl '**nit** ii nee=dii=n hilaax-'y =hl
 give-TR-1SG.II =CN money PREP=3.II =CN 3.III CCNJ NEG=FOC=1.I know-1SG.II =CN
 naa
 who
 Comment: When you put 'nit in it, it just killed the whole thing. (Brown 2014: 13)

- (7) Gos siwoga'y.
 gos si-wok-'y
 unable CAUS-sleep-1SG.II
 'I can't get to sleep...'
 a. Gya'a'yhl ligi agu gyalk.
 gya'a-i-'y =hl **ligi** **agu** gyalk
 see-TR-1SG.II =CN DWID what outside
 'I saw something outside.'
 b. #gya'a-i-'y **pro** gyalk
 see-TR-1SG.II *pro* outside (VG)

As already stated, the primary property distinguishing clitics from agreement is their pronominal (D-element) status. In light of this, I suggest that we would expect clitics in Gitksan to display the same definiteness restrictions as their true pronominal counterparts. More strongly, we might crosslinguistically expect syntactic clitics in a language to exhibit semantic restrictions consistent with any restrictions on the interpretation of pronouns that hold in the language, for example reflecting the availability of definite or indefinite interpretations. That is, for languages with a *pro* that

can only be construed as definite, a paradigm of syntactic clitics must exhibit similar restrictions on construal.

With this in mind, the lack of definiteness effects for either the Series I or Series II paradigm, despite both a language-internal and crosslinguistic tendency for clitic and pronominal elements to exhibit such effects, suggest that neither paradigm should be analyzed as syntactic clitics. These paradigms' obligatoriness, illustrated by their insensitivity to definiteness, is therefore best accounted for under an analysis as verbal *agreement*. In sum, Gitksan is best analyzed as a language with two overt agreement paradigms (Series I and II). This makes it an interesting case study for the ways that independently operating agreement mechanisms may or may not interact.

2.2 An overarching agreement split

The alignment of Gitksan's person-marking paradigms is predominantly *ergative/absolute*, as illustrated in (8).

- (8) a. Bax 'nii'y.
 bax 'nii'y
 run 1SG.III
 'I run.' (VG)
- b. Iilenn 'nii'y.
 hilen-i-n 'nii'y
 chase-TR-2SG.II 1SG.III
 'You chased me.' (VG)

Both of the absolute arguments (S and O) are spelled out with the independent Series III paradigm 'nii'y '1SG', in contrast to the ergative A argument in (8b), which is realized via the Series II verbal suffix *-n* '2SG'.

The agreement pattern in (8) above, where Series II suffixes mark the ergative and Series III pronouns mark absolutes, is disrupted by a primary syntactic split based on clause-type. Clauses in the Tsimshianic languages may be categorized as 'independent' or 'dependent';⁵ each of these two clause types exhibits a distinct pattern of agreement (as well as some other verbal morphology). The independent clause type is generally predicate-initial, while dependent clauses typically begin with one or more of a set of 'dependent markers' (Hunt 1993): clause-level operators or auxiliaries such as complementizers, negation, coordinators, some modals, aspectual markers (including imperfective, perfective, inceptive), and an irrealis marker. Aside from their effect on the morphosyntax of the clause they introduce, the set of dependent markers do not form a clear morphological or semantic class; some are derived from verbs, while others are not, and they encode a wide variety of meanings. In short, all embedded clauses are inflectionally 'dependent', but some matrix clauses are also 'dependent'; only a subset of matrix clauses, lacking all the above elements, are 'independent' in this sense. In running speech, dependent clauses greatly outnumber independent clauses.

The most striking difference between independent and dependent clauses—and most relevant,

⁵This 'independent/dependent' terminology is drawn from Rigsby (1986); I adopt it as an analysis-neutral set of labels. Alternate terminology for the clause-type split in the Tsimshianic literature includes 'indicative/subjunctive' (Boas 1911) and 'predicate-focused/normal' (Tarpent 1987).

for the purposes of this paper—is a shift in the function of pronominal paradigms and which arguments they mark in the clause.⁶ Examples of each clause type are provided in (9) and (10); the (a) examples are intransitive, and the (b) examples are transitive. (In each set, ergative-marking morphemes are bolded and absolutive-marking morphemes are italicized.) Both clause types have an ergative/absolutive alignment. However, the paradigms which mark ergative versus absolutive arguments differs across the clause types.

(9)	INDEPENDENT CLAUSES	(10)	DEPENDENT CLAUSES
a.	Bax 'nii'y. bax 'nii'y run 1SG.III 'I ran.'	a.	Needii baxa'y. nee=dii bax-'y NEG=FOC run-1SG.II 'I didn't run.'
b.	Iileni'y 'nit. hilen-i-'y 'nit chase-TR-1SG.II 3.III 'I chased her.'	b.	Neediin iilent. nee=dii=n hilen-t NEG=FOC=1.I chase-3.II 'I didn't chase her.'

(VG)

In the independent clauses in (9), the Series III pronouns mark absolutive arguments ('nii'y and 'nit) and the Series II suffix marks the ergative (-'y). However, in the dependent clauses in (10), the Series II suffixes switch their function to instead mark the absolutive arguments (-'y and -t), and a different paradigm—the Series I clitic set—marks the ergative (=n). This pattern can be described as ‘agreement reversal’ (Kalin & van Urk 2015) or ‘pivoting ergativity’ (Davis 2018), with Series II suffixes *reversing* or *pivoting* with respect to their alignment: the Series II suffixes are either ergative or absolutive depending on the clause type. Series I clitics strictly mark ergatives, and only appear in dependent clauses; conversely, Series III pronouns only mark absolutives, and are restricted to independent clauses.⁷

This basic pattern of ergative/absolutive ‘agreement reversal’ is attested in all the Tsimshianic languages, and is illustrated in Table 2.

Table 2: Initial distribution of person paradigms

	Independent		Dependent
ERG	A	II	I
ABS	S	III	II
	O	III	II

To summarize, both the independent and dependent clause-types exhibit an ergative/absolutive

⁶Independent and dependent clauses also differ in the patterning of certain nominal connective morphemes, which I analyze as determiners introducing full DP arguments. I adopt Davis & Forbes (2015) and Davis’s (2018) analysis of this alternation in the connective system, whereby the change in the distribution of connectives is a morphophonological effect entirely generated based on differences in verbal agreement. That is, so long as we can find an appropriate analysis for the distribution of verbal agreement (particularly Series II agreement), then the distribution of nominal connectives falls out as a natural consequence.

⁷Independent clauses have a secondary morphosyntactic cue: an additional vowel, which I gloss TR ‘transitive’, is present on transitive verb stems (Hunt 1993). This vowel can be seen in (9b).

alignment. While Gitksan can be described as having a clause-type split, it cannot be described as a split-ergative system on the basis of that split.

2.3 The absolutive/nominative sub-split

The agreement split upon which this paper focuses—a secondary split based on *nominal type*—appears only within dependent clauses, where both Series I and II agreement appear. This ‘sub-split’ is conditioned based on the properties of the transitive subject (the ergative argument), and affects the alignment of Series II suffixal agreement. In this split, the target of Series II agreement shifts between the subject and the object of a transitive clause. As Series I agreement remains consistently ergative, this sometimes results in *doubled agreement* for the transitive subject. The full distribution of agreement, with the split pattern of Series II agreement highlighted, is given in Table 3.

Table 3: Revised distribution of person paradigms (nominal-type split shaded)

Independent		Dependent	
		3PL or DP A	other pronoun A
A	II	I + II	I
S	III	II	II
O	III	III	II

Earlier examples in this section have only involved simple pronouns. If the ergative argument is a local or third-singular pronoun, it is marked exclusively by the Series I clitic paradigm, as we have seen so far. This is exemplified in (11) and (12) for a local and third-singular ergative pronoun, respectively.

- (11) Needipdii iilent.
nee=**dip**=dii hilen-*t*
NEG=1PL.I=FOC chase-3.II
‘We didn’t chase him/her.’ (VG)

- (12) Neediit iilent.
nee=dii=**t** hilen-*t*
NEG=FOC=3.I chase-3.II
‘He/she didn’t chase him/her.’ (VG)

This pattern of transitive agreement can be referred to as a **ERGATIVE/ABSOLUTIVE** pattern: Series I agreement is ergative, marking the transitive subject, and Series II suffixes are absolutive, marking the object (and intransitive argument).

In contrast, if the ergative argument is a third-plural pronoun or a DP, a different pattern emerges. To mark a third-plural ergative pronoun, the Series I clitic =*t* ‘3’—which, recall from Table 1, is number-neutral—is not sufficient; the third-plural suffix *-diit* from the Series II paradigm must be used as well. With the Series II paradigm spoken for, the absolutive object is in some sense ‘bumped off’ the verb, and spelled out with an independent Series III pronoun, as illustrated in (13) with object *’nit* ‘him/her’.

- (13) Neediit iilendiit ('nit).
 nee=dii=t hilen-**diit** 'nit
 NEG=FOC=3.I chase-3PL.II 3.III
 'They didn't chase him/her.' (VG)

Essentially, third person plural transitive subjects, which are not morphologically distinguished from third-singulants in the Series I clitic paradigm, receive priority for Series II marking over an object. Because Series I and II agreement jointly serve to index the ergative argument, I refer to this pattern of transitive agreement as a DOUBLE ERGATIVE pattern.

The new Double Ergative pattern that emerges in the case of third-plural ergatives cannot be exclusively attributed to the lack of a third-plural contrast in the Series I paradigm. When the ergative subject is a DP, regardless of number, the same Double Ergative pattern is used, as demonstrated in (14). The Series I clitic before the verb and the Series II suffix on the verb are here both third person, marking the subject, and the object follows as a Series III full pronoun.

- (14) Neediit gya'as Michael 'nidiit.
 nee=dii=t gya'a-t =s Michael 'nidiit
 NEG=FOC=3.I see-3.II =DN Michael 3PL.III
 'Michael didn't see them.' (Davis & Forbes 2015: 168)

- (15) Neediit iilens Mark 'niin.
 nee=dii=t hilen-t =s Mark 'niin
 NEG=FOC=3.I chase-3.II =DN Mark 2SG.III
 'Mark didn't chase you.'⁸ (VG)

Though we have previously described Series III full pronouns as only marking absolutes in independent clauses, this data makes clear that they appear in dependent clauses as well. Objects seem to surface as Series III pronouns when Series II suffixal marking has been used on the ergative argument. In other words, Series III full pronouns are utilized as something like a last resort means of argument marking when Series II agreement is not available.

Taking intransitives into consideration as well, (16) and (17) demonstrate that the Series II suffixes always mark the intransitive subject of a dependent clause.

- (16) Needii 'wihl goli'm.
 nee=dii 'wihl gol-'m
 NEG=FOC around run.PL-1PL.II
 'We didn't run around.' (BS)

- (17) Needii huutdiit.
 nee=dii huut-**diit**
 NEG=FOC flee.PL-3PL.II
 'They didn't run away.' (VG)

With this in mind, the full distribution of agreement in Gitksan is presented in Table 4. The pattern in independent clauses from the previous section is also included for completeness.

⁸An alternative to this example, where Series II agreement marks the local object is discussed in section 4.2. Alternations in the marking of local objects under DP subjects will be discussed further in that section.

Table 4: Gitksan agreement distributions, by paradigm

ERG is →	Dependent		Independent
	Most Pron.	3PL/DP	
Series I (clitic)	A	A	
Series II (suffix)	S, O	S, A	A
Series III (full)		O	S, O

Within dependent clauses specifically, the Series II suffixal paradigm appears to follow a split absolutive-nominative alignment. The Series I clitics consistently agree with the ergative argument of transitive clauses, while Series II agreement varies between an absolutive and nominative pattern: the Series II suffixes index the arguments of intransitive clauses, but vary between picking out the subject or object in transitive clauses. Between the two possible transitive agreement patterns, we can conceptualize a difference in the *interaction* of the two types of agreement (Series I and II) in terms of whether they will index the same argument, or different arguments.

(18) ERGATIVE/ABSOLUTIVE

Needipdii iilent.
nee=**dip**=dii hilen-*t*
NEG=1PL.I=FOC chase-3.II
‘We didn’t chase him/her.’ (VG)

In the Ergative/Absolutive agreement pattern of (18), Series I and II agreement are *complementary*. That is, suffixal Series II agreement indexes the highest argument *not* indexed by ergative Series I agreement. The Series II pattern is ultimately absolutive (S + O).

(19) DOUBLE ERGATIVE

Neediit ’wadiit ’niin.
nee=dii=**t** ’wa-**diit** ’niin.
NEG=FOC=3.I find-3PL.II 2SG.III
‘They didn’t find you.’ (BS)

In the Double Ergative agreement pattern of (19), Series I and II *overlap*. That is, suffixal Series II agreement indexes the highest argument (the subject), even though it may have already been indexed by ergative Series I agreement. The Series II pattern is ultimately nominative (S + A).

In dependent clauses, both of the two types of agreement—Series I clitics and Series II suffixes—are capable of agreeing with the ergative argument. Series I is, like a standard ergative marker, present only in transitive clauses, while Series II agreement is consistently present regardless of the transitivity of the clause. Series I indexes only the A argument, while Series II may target any of A, S, or O. A major question is why, if there are conditions where Series II is able to agree with the A argument on some occasions, it does not do so consistently.

In my answer to the puzzle, I propose that Series II agreement is interpreted as highest argument agreement, typically expected to result in subject agreement. However, the highest *accessible* argument may differ based on the outcome of earlier Series I ergative agreement.

3 Proposal

The alternation between Ergative/Absolutive agreement and Double Ergative agreement can be understood if we consider that Series II suffixal agreement with the A argument seems to be blocked by Series I agreement with that same argument. That is, Series II can agree with an ergative argument (and indeed must do so) only in the conditions where the properties of the ergative *are not spelled out completely by the Series I clitic*. Recall that one context for obligatory simultaneous Series I and II agreement (the Double Ergative pattern) is with third person plural arguments: this is the precise feature combination where Series I agreement is underspecified, offering only a generic third person =*t* clitic, as shown in Table 5.

Table 5: Series I agreement paradigm

	SG	PL
1	=n	(=n) dip
2	=m	=m sim
3		=t

This observation is largely morphological—however, I propose a syntactic analysis. To translate it into syntactic terms, I propose that Series I clitic agreement precedes Series II suffixal agreement in the derivation, but that the Series I probe is sensitive to only a *subset* of the features visible to Series II agreement. The third plural feature, in particular, is only visible to later Series II agreement, not Series I. Specifically, I propose that the Series I clitic and Series II suffix agreement probes are relativized to *different* sets of features, and that the Gitksan nominal-type split pattern falls out naturally as a consequence of this difference and the order in which they probe.

I propose that both agreement probes initially target the ergative argument position, but are relativized to different feature sets: person-related ϕ -features for one (Series I), and a more general set of nominal features, which I refer to as *D-features*, for the other (Series II). I assume that ϕ -features are a proper subset of nominal D-features, and are themselves structured into sets such as [PERSON] and its associated values. When an argument bears both ϕ - and D-features, it is possible for each type of feature to be independently targeted by a different probe. In contrast, when an ergative argument has only ϕ -features, agreement by one probe necessarily pre-empts and blocks agreement by the other. Understood in a different way, Gitksan DPs and third-plurals constitute ‘bigger’ featural targets, while other pronoun arguments are smaller.⁹ The relationship between the two agreement probes (Series I and Series II) therefore has aspects of intervention and competition, in that the probes are capable of agreeing with some of the same features, but do not fully overlap. This results in a visible *bleeding* alternation: both probes are fundamentally capable of establishing an agreement relation with the same argument, but one probe sometimes prevents the other from establishing that relationship.

In the rest of this section, I discuss the organization of nominal features in Gitksan, determining what properties each of the Series I and II agreement probes are sensitive to. Then I discuss the

⁹The availability of more features on a nominal does not necessarily correlate directly with *structural size* of that nominal. This is discussed further in section 3.3.

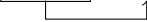

order of operations and how the interaction of the two agreement probes results the attested split-absolutive pattern.

3.1 Feature sets and relativization

To account for the alternations in agreement across the nominal-type split in Gitksan dependent clauses, I utilize the mechanism of *feature relativization* (Rizzi 1990; Chomsky 1995). The relativization of probes to particular feature specifications in ϕ -agreement is used to derive patterns where some types of arguments are favored for agreement over others (e.g. Béjar 2003; Nevins 2007). Relativized ϕ -agreement is therefore particularly useful in the analysis of systems where agreement may choose between arguments in several different syntactic positions, depending on their features. Due to the “pickiness” of the relativized probe, the agreeing head may seek out non-local elements to agree with. This is therefore an appropriate initial mechanic to utilize in an account of Gitksan agreement, where Series II agreement chooses between the A or O argument of a transitive clause based on their features.

In prior work, agreement probes have been relativized to increasingly specific groups of features: ϕ -features in general, marked subsets of ϕ -features (e.g. local person features, as in many accounts of person-sensitive agreement; Béjar 2003; Coon & Preminger 2017), or even a single marked feature (e.g. [PLURAL]; Nevins 2011). The Agree operation may also be relativized to non- ϕ features (e.g. *wh*-features or focus properties in *wh*-agreement or A'-movement), and in principle is not limited in the types of features it can search for.

Relativization to marked features is frequently used to model patterns where arguments bearing that feature are preferred for agreement even when another argument intervenes between it and the probe. This is demonstrated abstractly in (20).

- (20) a. AgrF Subject.F Object.G
 
 b. AgrF Subject.G Object.F
 

An example of this is so-called ‘omnivorous’ agreement, where an agreement probe preferentially registers the marked feature value no matter which argument it occurs on, as in Georgian number agreement. Example (21a) is singular; in (21b), the plural marker *-t* can be interpreted as indexing plurality on the subject, object, or both.

- (21) a. g-xedav
 2.OBJ-saw
 ‘I/he saw you.’
 b. g-xedav-t
 2.OBJ-saw-PL
 ‘I saw y’all_{pl}; he saw y’all_{pl}; we_{pl} saw you; we_{pl} saw y’all_{pl}.’ (Nevins 2011: 941)

The Gitksan nominal-type split, despite showing a particular sensitivity to third-person number, does not follow an omnivorous pattern (contra Nevins’s 2011 predictions that number agreement should be typically omnivorous). Although the Series II probe has the ability to choose between either the subject or object in determining its agreement target in dependent transitive clauses, it does not appear to do so on the basis of seeking out a particular marked feature long-distance.

Recall that Series II agreement can ignore the Series I-indexed subject in favor of establishing an agreement relationship with the otherwise unindexed absolutive object – as in (22), which features the Ergative/Absolutive pattern:

- (22) Neediin yatst.
 nee=dii=**n** yats-*t*
 NEG=FOC=1.I hit-3.II
 ‘I didn’t hit him.’

This choice by the Series II suffix is based entirely on the properties of the *subject* argument, not on the features of the object. Gitksan does not allow objects bearing local person features to be preferentially agreed with instead of a third-plural subject, as demonstrated by the ungrammaticality of agreement with the second-person object in (23b).¹⁰

- (23) *No omnivorous person: 3A over 2O*
- a. Neediit ’wadiit ’niin.
 nee=dii=**t** ’wa-**diit** ’niin.
 NEG=FOC=3.I find-3PL.II 2SG.III
 ‘They didn’t find you.’ (BS)
- b. *nee=dii=**t** ’wa-*n* ’nidiit
 NEG=FOC=3.I find-2SG.II 3PL.III

Neither does it allow third-plural objects to be preferentially agreed with over a simple singular DP subject, as demonstrated by the ungrammaticality of agreement with the third-plural object in (25b).

- (24) *No omnivorous number: A.SG over O.PL*
- a. Neediit gya’as Mary ’nidiit.
 nee=dii=**t** gya’a-**t** =s Mary ’nidiit.
 NEG=FOC=3.I see-3.II =DN Mary 3PL.III
 ‘Mary didn’t see them.’ (VG)
- b. Neediit gya’adiit Mary.
 nee=dii=**t** gya’a-**diit** =t Mary.
 NEG=FOC=3.I see=3PL.II =DN Mary
 *‘Mary didn’t see them.’ (Only ‘They didn’t see Mary.’) (VG)

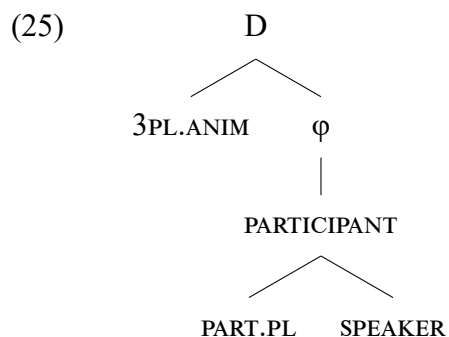
This data serves to demonstrate that Series II agreement is not drawn to marked objects, and particularly not plural objects; there are no other long-distance person or long-distance number effects that would suggest agreement is drawn to plural objects. Rather than markedness drawing agreement to specific kinds of objects, I propose instead that Series II is only able to look to the object when it *fails* to be satisfied by the properties of the ergative subject—specifically, whenever the subject is a local person pronoun or a simple third-person pronoun, lacking third-person plurality

¹⁰It is, however, possible for a local object to be agreed with over a DP subject (e.g. in a DP.A<1.O sentence, Series II may agree with 1.O rather than with the DP.A as expected. Sentences such as the equivalent of (ib), with a DP subject, are commonly volunteered. This is described in more detail in section 4.2. Reflexes of this pattern can be identified in both independent and dependent clauses in Maritime and Interior Tsimshianic, so I leave them aside for now to focus on the dependent-only split.

or the lexical content of a full DP.

To model this generalization, I propose that the Series II agreement probe of a Gitksan dependent clause is relativized not to a more specific feature group, but instead to a larger *superset* of features which take ϕ -features as its subset. Series II agreement is sensitive to non- ϕ nominal properties such as a feature distinguishing lexical and pronominal nouns, and a third-person plural feature. The Series II suffixes prefer to agree with more-local arguments bearing these features in subject position (for Double Ergative agreement), but may look further down to a less-local object when these features are not present on the subject (for Ergative/Absolutive agreement).

I refer to the general set of nominal features as D-features, and suggest that in Gitksan they consist of three subgroups: a root [D] feature, present on any argument consisting of more than a pronominal feature bundle; plurality, which specifically denotes the plurality of animate third persons; and the pronominal features themselves (ϕ -features), from which can be derived a three-way person split and plurality distinctions specifically for participants. The entire set can be represented in a feature-geometric manner as in (25) (Harley & Ritter 2002a).¹¹



Recall the Series I and II paradigms, repeated in Table 6, which differ in the presence of a number contrast for third persons. I propose that the Series I clitics have an agreement sensitivity (in other words, are *relativized*) only to the group of ϕ -features, while the Series II suffixes have an agreement sensitivity to all nominal D-features. The Series I clitics target only the features distinguished at the level of the ϕ node, and spell out these contrasts in their entirety through the Series I paradigm. This leaves us with a clitic set distinguishing three potential person values, and plurality contrasts only for the local persons, in contrast to the Series II set which distinguishes number at the third-person level. The Series II agreement probe is sensitive to these remaining D-features; this allows both third-plurals and full DP arguments to behave as a natural class for the purposes of agreement, with respect to their ability to trigger the ‘Double Ergative’ pattern. They have additional features with which to attract agreement.

Crucially, third person plurality is located at a representationally higher level than participant plurality, directly under [D]. The feature [D] itself distinguishes lexical and pronominal nominal structures. This feature structure directly entails that third-person plurality and the property of being a DP are both features able to be targeted by a D-focused agreement probe, but not a ϕ -agreement

¹¹I do not claim that this feature structure is exhaustive—other features (like individuation, and a feature distinguishing common and proper/determinate nouns) must exist as well, but are irrelevant to our purposes here. I assume they are either located in a different portion of feature structure or have been deactivated by the time Series II agreement proceeds.

Table 6: Gitksan agreement paradigms (Series I and II)

	I: Clitics		II: Suffixes	
	SG	PL	SG	PL
1	n	(n) dip	-’y	-’m
2	m	m sim	-n	-si’m
3		t	-t	-diit

probe. Concretely, these properties are not ϕ -properties.

3.2 Order of probing

As a second mechanical component of the analysis, I assume that features are deactivated upon being successfully agreed with, in line with the Activity Condition (Chomsky 2000, 2001). On initial glance at the split-absolutive pattern, it seems as though there may be some sort of variation within Gitksan with respect to the application of the Activity Condition; in the Ergative/Absolutive pattern an argument does not agree from more than a single source, while in the Double Ergative agreement pattern an argument may be agreed with twice, in apparent contravention of the condition. I crucially assume that the Activity Condition plays a role in both contexts, but that deactivation is applied to individual features on an argument, not to an argument as a whole. As a consequence, nominals with features of a single type (e.g. ϕ -features) may be agreed with once, while nominals with features of multiple types (e.g. both D- and ϕ -features) may be agreed with twice.¹²

The stages of the dependent clause derivation proceed as follows. First, ergative Series I agreement, sensitive to ϕ -features, probes for a target in a transitive clause. It always finds and agrees with the ϕ -features on the ergative argument, rendering them inaccessible for future agreement probing. This is demonstrated in the string-based representation in (26).

$$(26) \quad \text{DEP.MARKER} = \boxed{\text{Agr.}\phi} \text{ Predicate-} \boxed{\text{Agr.D}} \text{ Agent Object}$$

Second, the Series II suffix on the verb probes for a target. This agreement probe is sensitive to a larger set of nominal features (D-features), and enters into an agreement relation with the highest nominal with active D- or ϕ -features. The outcome of this agreement operation is therefore dependent on whether all the features of the A argument have been exhausted by prior Series I agreement.

In an ERGATIVE/ABSOLUTIVE sentence like (27), Series II agreement targets the object, ignoring the 1st person ergative subject. Under my analysis, the first-person A argument only has ϕ -features, and thus has been fully deactivated by prior Series I agreement. The Series II probe must look further to the object to find an active set of either D- or ϕ -features. This is illustrated in (28).

¹²This is a desirable assumption: arguments must remain active and accessible to different operations such as earlier number agreement (Hunt 1993; Forbes to appear) or *wh*-agreement (Brown 2016; Forbes 2017), which apply at different points in a single derivation on top of the ϕ -agreement that I discuss here. An argument participating in number agreement must not be rendered inert for later ϕ -agreement, for example.

- (27) Needipdii iilent.
 nee=**dip**=dii hilen-*t*
 NEG=1PL.I=FOC chase-3.II
 ‘We didn’t chase him/her.’ (VG)

- (28) *Ergative/Absolutive*
 DEP.MARKER= Agr.φ Predicate- Agr.D Agent.1PL(φ) Object.3(φ)
-

If the A argument has both φ- and D-features, as I propose for sentences like (29) with third-plural or DP ergative subjects, then the Series II D-agreement probe may agree with it, even though it has already been the target of a previous agreement operation. Earlier Series I φ-agreement only deactivates the φ-features on the ergative argument, leaving its D-features still accessible. The procedure for Double Ergative agreement is illustrated in (30).

- (29) Neediit ’wadiit ’niin.
 nee=dii=**t** ’wa-**diit** ’niin.
 NEG=FOC=3.I find-3PL.II 2SG.III
 ‘They didn’t find you.’ (BS)

- (30) *Double Ergative*
 DEP.MARKER= Agr.φ Predicate- Agr.D Agent.3PL(φ,D) Object.2(φ)
-

This process cleanly generates the alternating target of Series II agreement based on the features of the ergative A, and links this alternation to the prior process of Series I agreement, which remains consistent throughout.

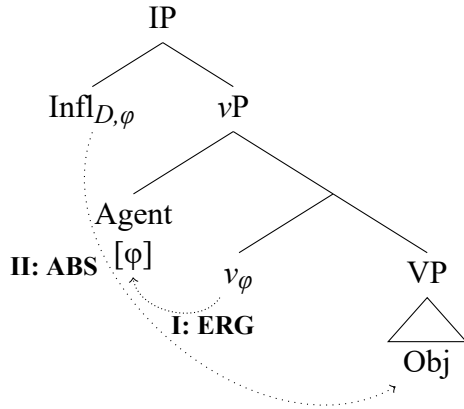
We must also consider a precise location for the Series I and II agreement probes within the clause. I propose that the Series I clitic probe is located low in the head of a transitive *v* where the external argument is merged, following Coon’s (2017) proposal for ergative agreement in Vh’ol (Mayan), another head-marking ergative language—as well as many prior proposals regarding the locus of ergative case (Woolford 2006; Legate 2017).¹³ The Series II suffix probe, which may have an ergative, nominative, or absolutive distribution, is located higher, not being so closely linked to transitivity. Recall that in dependent clauses Series II agreement is available in both transitive and intransitive sentences; I propose that Series II agreement in dependent clauses should be interpreted as *highest argument agreement*. It only fails to target the highest argument in situations where Series I, acting first, is able to agree with the ergative argument and spell out its features in their entirety. As the higher Series II probe agrees second, it is sometimes forced to look lower for a target.

The proposed structures, abbreviated to show the relevant projections, are represented hierarchically below. The tree in (31) shows the agreement pattern for a sentence with Ergative/Absolutive agreement, where the subject is a third-singular or local person pronoun. The tree in (32) shows

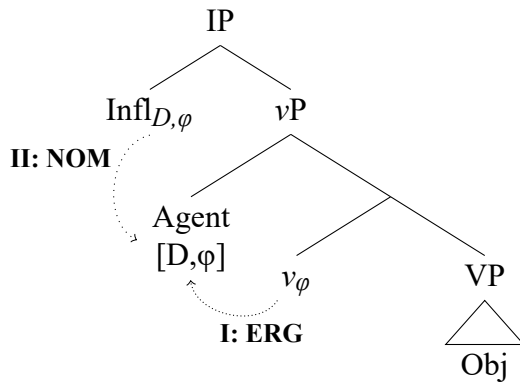
¹³ This low locus for Series I agreement is seemingly inconsistent with the position of the Series I clitics near the beginning of the sentence; we might instead consider that these elements could be interpreted as agreement on C. However, complementizer agreement is typically nominative in its alignment, as opposed to ergative. Though I do not intend to provide a full account of Gitksan word order in this paper, I believe that my analysis of near-initial Series I agreement can be connected to Gitksan’s VSO word order. I suggest that both ergative agreement on *v* and the verb itself raise over the subject and object arguments to initial position through *v*P-remnant raising (Massam 2000).

the agreement pattern for a sentence with Double Ergative agreement, where the subject is a DP or third-plural pronoun.

(31) *Ergative/Absolutive*



(32) *Double Ergative*



In sum, split absolutive-nominative alignment in Gitksan, or ‘split-absolutivity’, can be understood as highest-argument agreement, a typically nominative-patterning alignment, which may be interrupted by intervening ergative Series I agreement, resulting in absolutive alignment. This pattern is derived as the effect of two independent agreement probes which are relativized to near-identical sets of features in a superset-subset relation. The subset-relativized probe intervenes between the superset-relativized probe and two potential goals, resulting in two distinct agreement patterns.

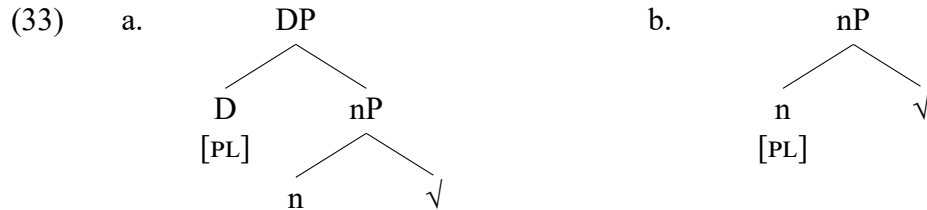
In a sense, the result of this interaction is apparent intra-language variability in the applicability of the Activity Condition, given that multiple agreement is possible in some contexts (for some nominals) but not others. In previous work it has been proposed that the Activity Condition is a microparameter (Oxford 2017) or macroparameter (Baker 2008) across languages; I have here proposed instead that the source of variation is in a slight difference to the features to which two different agreement probes are relativized (φ versus D). Perhaps this type of subtle variable could help to accommodate some of the patterns discussed in previous work. I leave this question open for future exploration.

3.3 Contrasting D-features and the D-projection

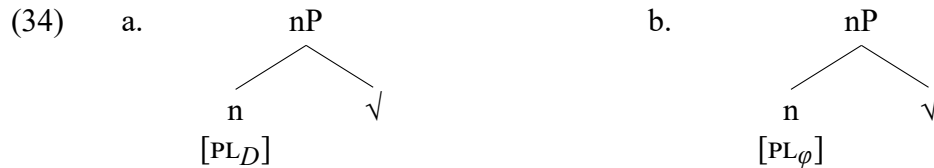
I have proposed a split between person/number features (ϕ) and a more inclusive set of nominal features (D). I take ‘D’ to represent a set of all nominal features, including both ϕ -features and other nominal features including an additional feature carried by full DPs and—at least in Gitksan—third-person plurality. D-features are therefore a superset, and ϕ -features a subset, of formal features that may be held by nominals.

We can consider an alternate way of formulating the contrast between nominal types. We might suppose that the distinct behavior of DPs does not arise due to their featural content, but instead because they are full D projections, and that other pronouns lack a D layer. That is, perhaps the contrast is not featural, but structural. In exploring this idea, it then remains to be determined whether the same can be said of third-plurals, which pattern like DPs across the split. I will here concretely demonstrate that the contrast proposed in this chapter between D-level and ϕ -level plurality, in terms of a feature-geometric representation, cannot be equated with a language-internal difference in the structural placement of a [PLURAL] feature for different types of nominals. That is, what I have referred to as D-level plurality in the geometry of nominal features cannot be equated with placement of the [PLURAL] feature on D, as opposed to Num.

If my proposed set of D-features, including third-person plurality are structurally modeled as appearing on the D head itself, and ϕ -type features somewhere lower in the nominal spine, it follows that all nominals bearing a D-type feature have a DP projection. Other nominals—in particular, the nominals which I have proposed consist only of ϕ -features and no D-features—may be smaller (NPs or pronominal ϕ Ps). That is, we would expect a potential contrast in the structural size of nominals *with* and *without* D-features, as illustrated in (33a) and (b), respectively.



If, by contrast, my proposed contrast between D and ϕ -features is independent of the D-projection itself, it is possible that nominals with or without D-features could be the same structural size—and in particular, could both lack a DP layer, as illustrated in (34).



Let us consider the predictions of the first approach from (33), where D-features are associated with the DP layer. Under this interpretation of the D/ ϕ contrast, we potentially expect third-plural pronouns to contrast with third-singular pronouns, as DPs as opposed to ϕ Ps. A prediction of this would be that third-plural pronouns, but not third-singular pronouns, should exhibit the characteristics of Déchaine & Wiltschko’s (2002) D-type pronouns, such as strict referentiality. D-type pronouns are specifically argued to be unable to function as bound variables.

In Gitksan, third-singular and third-plural elements may *both* function as bound variables; more specifically, either a third-singular or third-plural element may be used to indicate an animate plural bound variable, with no change in meaning. Several examples of this are provided below where the plural quantificational DP *mehla k'i'yhl niinixsxwit* ‘each married (pair)’ binds into a variable. Example (35) illustrates binding into a possessive pronoun, marked with singular or plural Series II agreement; example (36) illustrates binding into an intransitive S, also marked with singular or plural Series II agreement.

- (35) Siip'ihl mehla k'i'ihl niinixsxwithl ost/osdiit.
 siip-'in-t =hl mehla k'i'y =hl niinixsxw-it =hl os[-t/-**diit**]
 ache-CAUS-3.II =CN each one =CN marry.PL-SX CN dog[-3.II/-3PL.II]
 ‘Each couple_i loves their_i dog.’ (VG)

- (36) Mehla k'i'yhl niinixsxwithl enigoot dim xsdaat/xsdaadiit.
 mehla k'i'y =hl niinixsxw-it =hl he-'nii-goot dim xsdaa[-t/-**diit**]
 each one =CN marry.PL-SX CN INS-on-heart PROSP win[-3.II/-3PL.II]
 ‘Each couple_i thinks that they_i will win.’ (VG)

Both of the above examples involve a null *pro* and co-occurring Series II agreement. The same singular~plural alternation is found in the absence of Series II agreement, instead with full Series III pronouns used as bound variables, demonstrated in (37). Either singular/neutral *'nit* or plural *'nidiit* may be used as the variable.¹⁴

- (37) He'niigoothl mehla k'i'yhl niinixsxwit dim xsi guudihl mayor
 he-'nii-goot =hl mehla k'i'y =hl niinixsxw-it dim xsi-guu-T-t =hl mayor
 INS-on-heart =CN each one =CN marry.PL-SX PROSP out.from-take-T-3.II =CN mayor
 'nit/'nidiit.
 [**'nit/'nidiit**]
 [3.III/3PL.III]
 ‘Each couple_i thinks that the mayor will choose them_i.’ (VG)

This data demonstrates that both third-singular and third-plural pronouns seem to behave as ϕ P-type pronouns, rather than DP-type pronouns. This is consistent only with an approach to the D/ ϕ feature contrast which models the split between features exclusively as part of a feature geometry, rather than by the association of identical features with distinct projections.

The Gitksan nominal type split, in conjunction with the properties of its pronouns, therefore drives me to model featural contrasts in a manner independent of syntactic structure. Feature geometries and lattices (e.g. [Harley & Ritter 2002a](#); [Harbour 2007](#)), where features are organized into sets, are a potential means of doing so; I suggest that we take these set structures as concrete grammatical objects that differ between languages. The relation that holds between a feature and its dependent is sometimes assumed to be a logical entailment; I suggest it is more than that, instead concretely encoded somewhere in the grammatical system (see. e.g. [Harley & Ritter 2002a](#); [Cowper & Hall 2014](#)).

¹⁴ Another speaker I have consulted (LW) allows cases like (36) to vary in plurality, but requires plural agreement in (35) and a plural pronoun in (37). LW's judgements, indicating *obligatory* plurality for these bound variables, are just as incompatible with an analysis of plurals as D-type pronouns as are VG's judgements.

Nominal feature structure in Gitksan includes two positions for pronominal number: that associated with speech act participants, and that associated with animate third persons. I discuss the crosslinguistic applicability of this contrast further in section 6.

4 Further empirical coverage within Tsimshianic

Having developed a concrete proposal to account for the split-absolutive pattern of Gitksan dependent clauses, I here discuss some additional empirical facts—within Gitksan, but also in related Coast Tsimshian. My analysis extends well to the agreement pattern of Coast Tsimshian dependent clauses; the diachronic development of the split-absolutive pattern can be easily traced, providing some diachronic-comparative support for this approach.

4.1 Fixed absolutive in Coast Tsimshian

The Tsimshianic language family is relatively small and closely related. It is composed of only four distinct languages, which share many syntactic and morphological properties, grouped into two minor families: Maritime, and Interior.¹⁵ One major benefit of the analysis I have proposed to account for the nominal-type split in Gitksan (Interior) is in how it naturally extends to the agreement pattern of dependent clauses in closely related Coast Tsimshian (Maritime), spoken to the west in the Pacific coast region where British Columbia and Alaska meet.

We can identify a straightforward point of variation between the Maritime and Interior pronominal systems: the innovation of third-person plurality. I propose that this innovation is the origin of split-absolutive agreement in the Interior.

Coast Tsimshian exhibits a clause-type contrast identical in all relevant respects to Gitksan and Nisga’a (the Interior languages); its agreement paradigms are largely cognate with the three series we are familiar with from Gitksan. A notable difference, however, is in third-person number: there is no number contrast for third persons in any of the Coast Tsimshian agreement series. The Coast and Interior suffixal paradigms (Series II) are presented for comparison in Table 7.

Table 7: Series II suffix paradigms across Tsimshianic

	Gitksan (Interior)		Coast Tsimshian (Maritime)	
	SG	PL	SG	PL
1	-’y	-’m	-u	-m
2	-n	-si’m	-n	-sm
3	-t	-diit		-t

¹⁵The Interior languages, Gitksan and Nisga’a, are mutually intelligible but distinguished on a cultural and political basis (Rigsby 1986, 1989); in some past work they have jointly been referred to as Nass-Gitksan. In the Maritime branch, there is Coast Tsimshian (commonly Sm’algyax) and Southern Tsimshian (Sgüüxs), the latter of which recently lost its last living speaker. I adopt the term ‘Coast Tsimshian’ in this paper, following prior linguistic work (e.g. Dunn 1979; Sasama 2001; Davis 2018), as the phrase *sm’algyax* (Coast) or *sim alg(y)ax* (Interior) can be used as an autonym across the family, meaning ‘true speech’.

Third persons in Coast Tsimshian are referred to with the neutral suffix *-t* regardless of number.¹⁶ There is no number contrast for third-persons in any Coast Tsimshian paradigm; third-plurals with the morpheme *-diit* are an innovation of the Interior Tsimshianic branch. This is highly relevant, as third-person plurals are one of the two types of nominal that trigger the Double Ergative agreement pattern when functioning as an ergative subject in the Interior varieties. With this class of arguments absent, how does agreement function in Coast Tsimshian?

It turns out that Coast Tsimshian dependent clauses contain no split whatsoever. All combinations of arguments uniformly take the Ergative/Absolutive agreement pattern across the cognate Series I and Series II paradigms. Three transitive examples are presented below, with the ergative Series I clitic bolded and absolutive Series II suffix italicized.

- (38) *1sg subject < 3sg object*
 ... dzida ɫan didaalxt.
 ... dzida ɫa=**n** di-daalx-*t*
 ... when INCEP=1.I COM-talk-3.II
 ‘(I’ll ask Lucille) when I talk to her.’ Coast (Sasama 2001: 69)
- (39) *DP subject < 1pl object*
 ɫat ts’inslooygm gyat.
 ɫa=**t** ts’ins-looyk-*m* =a gyat
 INCEP=3.I away-move.away-1PL.II CN people
 ‘People are moving away from us.’ Coast (Sasama 2001: 151)
- (40) *DP subject < 3sg object*
 Yagwat ɫumoomdit Meli.
 yagwa=**t** ɫumoom-*t* =t Meli
 IPFV=3.I help-3.II =DN Mary
 ‘Mary is helping him.’ Coast (Bach 2004)

As demonstrated in particular by (39) and (40), even clauses with ergative DP subjects, which receive Double Ergative agreement in Interior Tsimshianic, see complementary Ergative/Absolutive agreement in Coast Tsimshian. In each case, it is the absolutive object that is represented by the verbal suffix, rather than the ergative DP. The absolutive object does not surface as a free Series III pronoun.

We can also compare the Coast Tsimshian pattern directly with the split-absolutive pattern in Gitksan; the Interior correlate of (40) is given below in (41). Here we find a Double Ergative agreement pattern: both Series I and II agreement is with the subject, and the object is instead realized as an overt Series III pronoun.¹⁷

¹⁶Third plural pronouns in Coast Tsimshian are specified with *dp* ‘*niit*’, formed from the neutral third person pronoun ‘*niit*’ plus *dp*, the cognate of which can be analyzed in Gitksan as an associative plural marker (Forbes to appear).

¹⁷The third-person pronoun ‘*nit*’ may also be null, or *pro*-dropped; it is the only Series III pronoun for which this is the case (Tarpent 1987). Forbes (to appear) analyzes this as a zero-pronoun for the third person, not as true *pro*-drop. Other pronouns are realized as null when they have received Series I or II agreement, in a case of agreement-pronoun complementarity.

- (41) Yukwt hlimoos Mary ('nit).
 yukw=**t** hlimoo-**t**=s Mary ('nit)
 IPFV=3.I help-3.II =DN Mary (3.III)
 'Mary is helping him.'

Interior (Bach 2004)

One might remark that both (40) and (41) involve third-person subjects *and* objects; it is not obvious which argument the simple third-person agreement suffix refers to on either of the two languages. This has been the topic of extensive discussion in the Tsimshianic literature, particularly recently (Hunt 1993; Davis & Forbes 2015; Davis 2018). Two surface differences between the examples in the different languages can be observed:

1. The object may be expressed as a Series III full pronoun only in the Interior.
2. The subject DP is introduced with the connective determiner =*t* in Coast Tsimshian (40), but =*s* in the Interior (41).

I adopt Davis's (2018) proposal that the latter of these cues in particular is indicative of a difference in agreement between the Coast and the Interior: if a verb-adjacent argument receives the =*s* determiner, it is the target of Series II suffixal agreement. In Coast Tsimshian examples like (40), where the verb-adjacent ergative subject instead has the =*t* determiner, it is not the target of Series II agreement.¹⁸ The Coast Tsimshian examples in (38)-(40) therefore illustrate a uniform absolutive alignment for Series II agreement—the same as the Ergative/Absolutive agreement pattern in Gitksan.

This is partially expected: the Double Ergative pattern is triggered by *third-plural* arguments in the Interior languages, and as we have seen, Coast Tsimshian does not incorporate a grammatical third-plural contrast in its pronominal system (or indeed any paradigm). However, full DPs pattern like third-plurals in Gitksan, also following the Double Ergative pattern, as in (41). That is, DPs behave like plurals, not like simple third-person pronouns. It is notable, then, that Coast Tsimshian ergative DPs behave no differently than simple third person pronouns. There is no obvious evidence that anything about DPs themselves is different between the two varieties, yet in Coast Tsimshian, all combinations of arguments engage in identical Ergative/Absolutive agreement, rather than the Double Ergative pattern.

The divergent agreement patterns of DPs in the two branches is well-accommodated by my account of the Interior nominal type split, which places the locus of the split in the realm of general nominal D-features. I propose an analysis for Coast Tsimshian agreement as follows. In Coast Tsimshian,

¹⁸The argument regarding this diagnostic for agreement, in brief, is as follows. First, it is important to note that determiners in the Tsimshianic languages are enclitics, attaching to words other than the nouns which they actually refer to, in a case of syntax-prosody mismatch. Hunt (1993) proposes for Gitksan that the determiner =*s* 'DN (determinate/proper noun)' is only used when an argument is immediately preceded by a Series II suffix that agrees with it. This means that =*s* encliticizes directly onto the Series II verbal suffix. Davis (2018) further proposes that across the Tsimshianic family, the proper noun determiner is underlyingly /=*t*/, and the =*s* determiner is an allomorph, lenited when it cliticizes onto an agreement suffix associated with the same argument. That is, the underlying string /-*t*_i=*t*_i/ lenites to [-*t*=*s*] and in (41) is further reduced to [=s] (following 'Deaffrication', Tarpent 1988). When coreference between Series II suffix and a following determiner enclitic is absent, lenition does not occur. In Gitksan, the result is two sequential stops (i.e. /-*t*_i=*t*_k/ becomes [-*tt*]), and in Coast Tsimshian a vowel is inserted to break up the cluster (i.e. /-*t*_i=*t*_k/ becomes [-*dit*]), as in (40)). This morphophonological explanation successfully generates the otherwise highly unusual distribution of the =*s* determiner across the Tsimshianic family.

both the Series I and Series II agreement probes are relativized to ϕ -features (person and participant number). D-features are entirely irrelevant; the third-plural number contrast does not exist, and the contrast between lexical and pronominal nouns goes unreferenced. With both the Series I and II probes relativized to the same set of features, agreement is expected to proceed as illustrated in (42). Series II agreement on Infl is unable to target the ergative subject, whose ϕ -features have been deactivated through earlier agreement with the Series I probe on v .

- (42) *Coast Tsimshian Ergative/Absolutive*
 DEP.MARKER= Agr.I(ϕ) Predicate- Agr.II(ϕ) Agent. ϕ Object. ϕ
-

Once an argument has entered into an agreement relation with either probe, all of its ϕ -features will be entirely deactivated, making it inaccessible to a subsequent agreement attempt. The Series I and II probes necessarily target different arguments.

The position of the agreement probes and the featural content of other nominals is otherwise exactly the same as proposed for the Interior. In the Interior branch, third person plurality was innovated into the set of D-features and incorporated into the Series II (and III) pronominal feature system. The Series II agreement probe was reanalyzed as being sensitive to this newly modified set of more general nominal features, rather than only ϕ -features. This allowed not only third-plurals but also DP arguments, which bear a [D] feature in both languages, to remain accessible to D-relativized agreement after their ϕ -features have been deactivated by ϕ -agreement. Agreement proceeds differently if the A argument *does not* have D-features (illustrated in (43)) versus if it *does* have D-features (illustrated in (44)).

- (43) *Interior Tsimshianic Ergative/Absolutive*
 DEP.MARKER= Agr.I(ϕ) Predicate- Agr.II(D) Agent.1SG(ϕ) Object
-

- (44) *Interior Tsimshianic Double Ergative*
 DEP.MARKER= Agr.I(ϕ) Predicate- Agr.II(D) Agent.3PL(ϕ ,D) Object
-

Under this analysis, nothing needs change in the representation of DP arguments themselves; only the existence of the D-level third-person plural contrast, and consequent sensitivity of the Series II agreement probe to D-features, changes. The innovation of D-feature-sensitivity onto Series II agreement in the Interior results in the rise of the Double Ergative agreement pattern in the Interior, and allows third-singular and third-plural ergatives to be differentiated even though these are non-contrastive in the ergative Series I paradigm.

Crucially, third-person plurality is not referenced specifically; the expansion of agreement is to D-type features in general. This analysis therefore accommodates the extension of Double Ergative agreement to both third-plural ergatives and DP ergatives, even though double agreement for DPs is redundant in a functional sense; no information is conveyed by Series II agreement with a DP that is not already apparent from the DP itself. The close formal connection that my analysis draws between third-person number and the lexical/pronominal feature of DP arguments, both falling under the umbrella of D-features, is a major positive aspect of the analysis. As I will discuss in section 5, competing approaches do not typically predict that the development of a third-plural contrast should affect agreement with DP arguments.

4.2 Further variation with local objects

There is a final note of variability in the picture of Interior Tsimshianic agreement that I have presented in this paper, which I have not discussed to this point. In situations where DP ergatives act on local-person objects, Series II suffixal agreement has the option of agreeing with *either* the subject or object of the configuration. That is, in a ‘DP<Local’ configuration, either the Ergative/Absolutive or Double Ergative agreement pattern is possible. Speakers do not note any difference between the two options and appear to switch between them freely.¹⁹

- (45) a. Jidaat ’maji’mhl lo’op, ...
 ji-daa=t ’mats-’m =hl lo’op ...
 IRR-SPT=3.I hit-1PL.II =CN rock ...
 ‘If a rock hits us ...’ *Ergative/Absolutive*
- b. Jidaat ’matshl lo’op ’nuu’m, ...
 ji-daa=t ’mats-t =hl lo’op ’nuu’m, ...
 IRR-SPT=3.I hit-3.II =CN rock 1PL.III ...
 ‘If a rock hits us ...’ *Double Ergative*

With this additional data, we can provide a final summative picture of Gitksan’s agreement patterns and the types of arguments that trigger them as in Table 8. The final two rows of the table illustrate the two different agreement patterns available when DP agents act on local person objects, indicating free variation.

Table 8: Possible agreement patterns in Gitksan dependent clauses

AGENT	agreement	OBJECT	agreement	pronoun?
Pronoun (1,2,3SG)	I	(any)	II	
Pronoun (3PL)	I, II	(any)		→ III
DP	I, II	DP, Pronoun (3)		→ III
DP	I	Pronoun (1/2)	II	
DP	I, II	Pronoun (1/2)		→ III

This variable pattern in what the Series II probe chooses to agree with might be taken as a subtle indication that the Series II suffixal agreement probe is in fact, contrary to what I have proposed, relativized to the feature [PARTICIPANT] in some way. Might this mean that dependent clauses actually exhibit some sort of person-split, rather than the ϕ /D split I have proposed? I propose that the answer is *no*. In this section, I will discuss three reasons why a person-based analysis is not best used to derive split-absolutive patterning, and should instead be understood as an independent factor in Gitksan grammar.

First, the Ergative/Absolutive pattern is not consistently available in clauses featuring third-plural ergatives over participant objects, as previously demonstrated in discussion on the lack of omnivorous person or number effects in section 3.1. Such ‘3PL<Local’ configurations obligatorily

¹⁹No targeted analysis has yet been conducted on the conditioning properties for either possible pattern, though anecdotally I believe the Ergative/Absolutive pattern is volunteered more often in elicitation. A corpus-based or variationist investigation might be a suitable point of departure for further investigation.

result in Double Ergative agreement with the third-plural argument, as illustrated in (46). Series II agreement must target the third-plural ergative subject, and cannot look below to the local-person object. We therefore cannot claim that local person objects consistently attract Series II agreement.

- (46) a. Neediit 'wadiit 'niin.
 nee=dii=t 'wa-**diit** 'niin.
 NEG=FOC=3.I find-3PL.II 2SG.III
 'They didn't find you.' *Double Ergative*
- b. *nee=dii=t 'wa-**n** 'nidiit.
 NEG=FOC=3.I find-2SG.II 3PL.III *Ergative/Absolute*

Second, with this data in mind, the claim that participants should in some way 'outrank' DPs on a hierarchy of preference for agreement leads to a paradox in argument ranking. As stated at the beginning of this section (illustrated in (45)), the Series II suffix alternates freely between agreeing with a DP subject or local person object. We might take this to mean that the Series II has an equal preference for agreeing with either a local person or a DP, as in (47).

- (47) 1/2 = DP

However, if we attempt to add third person plurals to this preference ranking, we immediately run into problems. The earlier example in (46) demonstrates that third-plural subjects are strictly preferred for agreement over local person objects. Yet, the following example in (48) demonstrates that DP subjects are always preferred for agreement over third-plural objects.

- (48) a. Neediit gya'as Mary 'nidiit.
 nee=dii=t gya'a-**t**=s Mary 'nidiit.
 NEG=FOC=3.I see-3.II =DN Mary 3PL.III
 'Mary didn't see them.'
- b. *nee=dii=t gya'a-**diit** Mary.
 NEG=FOC=3.I see=3PL.II Mary
 (Only 'They didn't see Mary.')

These two preferences can be represented in their own preference hierarchy as in (49).

- (49) DP > 3PL > 1/2

Adding the two mini-hierarchies together, we reach a paradoxical result, given in (50).

- (50) 1/2 = DP > 3PL > 1/2 = DP > 3PL ...

Relating this back to the mechanism of agreement probing, rather than a hierarchy, we see that local person objects are optionally preferred for agreement over a DP subject, but never over a third-plural subject. Yet, third-plural objects are never preferred for agreement over any kind of subject. That is, there is no obvious reason to interpret this as a situation where arguments of a particular marked feature value (either local persons, third-plurals, or DPs) are specifically targeted for agreement by a 'picky' probe, with preference for particular arguments.

The third point against modifying my previous proposal for the Gitksan nominal-type split

based on variation with local-person objects lies in the broader availability of marked constructions with local objects, not restricted to the behavior of Series II agreement. Though this paper has primarily discussed the syntax of dependent clauses, independent clauses also show an atypical pattern when a third person acts on a local person object. Local person objects may appear immediately adjacent to the verb even when a subject DP is present, resulting in VOS (rather than VSO) order.²⁰ This pattern is only rarely volunteered but always accepted by the Gitksan speakers I have worked with, and is used consistently in the mutually intelligible Nisga'a (Jelinek 1986; Tarpent 1987). The typical VSO sentence used in Gitksan is presented in (51a). The (likely older) VOS alternative is given in (51b).

- (51) a. Hlimooyis Mary 'nuu'm.
 hlimoo-i-t =s Mary 'nuu'm.
 help-TR-3.II =DN Mary 1PL.III
 'Mary helped us.'
 b. Hlimooyit 'nuu'm t Mary.
 hlimoo-i-t 'nuu'm =t Mary
 help-TR-3.II 1PL.III =DN Mary
 'Mary helped us.'

(Rigsby 1986: 263-4)

This points to the need for a special syntax for local person objects regardless of clause type, and independently of the behavior of Series II agreement. That is, there may be a person-related grammatical split able to cross-cut the clause types on top of the previously established ϕ /D nominal-type split affecting Series II agreement in dependent clauses.²¹

This broader person split, however it is implemented, is of some interest to theories of split-ergativity on the basis of person. Some syntactic analyses of person-based split ergativity specifically utilize constructions to structurally pick out the marked persons, for example by raising local persons to an additional PersonP, which may disrupt ergative case assignment (Deal 2015; Coon & Preminger 2017). By contrast, the syntactic split sketched here leaves the ergative alignment of agreement intact, in both dependent and independent clauses, and adopts no obvious additional structure. An alternate analysis is therefore required, which will allow for the desired movement of marked persons without disrupting the ergative agreement configuration. I leave this problem for future work.

5 Alternate approaches to the nominal-type split

In this section I discuss some challenges faced by other possible analyses of the nominal-type split in Gitksan dependent clauses, including those which interpret the split as relativization to a marked feature, as a post-syntactic operation, or the output of a 'dependent' case approach to agreement. I also review Brown's (2016) recent account of agreement marking in Gitksan, which primarily focuses on independent agreement.

²⁰This can be described as a 'word order inverse' pattern (Givón 1994).

²¹Mulder (1994) and Forbes (2018) note person-related asymmetries in Coast Tsimshian as well, even in the absence of the nominal-type split.

5.1 Simple ϕ -markedness

I have discussed several facts which cast doubt on the possibility of analyzing the Series II probe as relativized to specific marked ϕ -features. Because it is such a robustly used and successful method of generating complex agreement patterns, in this subsection, I collect these facts together with the intent of providing a clear counterargument for taking this approach to the Gitksan pattern.

In analyses relying on ϕ -markedness, arguments bearing particular marked features are preferred for agreement, and arguments without these marked features are ignored, at least on the first pass (cf. Cyclic Agree, Béjar & Rezac 2009). In some analyses of relativized ϕ -feature agreement, the data is argued to merit only one of the two groups of canonical ϕ -features (person and number) being initially referenced when evaluating markedness. This has led several researchers to argue that distinct sets of features like [PERSON] and [NUMBER] are considered one at a time on a so-called ‘split probe’ (Béjar & Rezac 2003). Breaking down ϕ -features into person and number so that they may be evaluated independently on the basis of their marked values does not allow adequate characterization of either group of nominals involved in the Gitksan pattern: The [PERSON] feature is insufficient, given that third-person singulars group with participants. The [NUMBER] feature is insufficient, given that third-person plurals pattern together with singular DPs, and differently than first- or second-person plurals. Finally, although the property distinguishing DPs and PRONOUNS is not a typical ϕ -feature, it too is insufficient, given that third-person plural pronouns group with DPs. This is collectively illustrated in (52); splits by any of these features individually fail to produce the appropriate natural classes of bolded (‘Double Ergative’-triggering) versus non-bolded (‘Ergative/Absolutive’-triggering) argument types.

(52) Argument types split by single features

<i>Split by PERSON</i>	1, 2	<	3SG, 3PL , 3.DP
<i>Split by NUMBER</i>	1PL, 2PL, 3PL , 3PL.DP	<	1SG, 2SG, 3SG, 3SG.DP
<i>Split by PRONOUN</i>	1, 2, 3SG, 3PL	<	3.DP
<hr/>			
<i>The Gitksan split</i>	1, 2, 3SG	<	3PL , 3.DP

Analyses splitting person and number are often built to account for *omnivorous* effects (Nevins 2011; Preminger 2012). As discussed in the prior section, Gitksan fails to exhibit clear omnivorous agreement: omnivorous person effects are not consistently attested, as shown in (53) repeated from (23), and neither are omnivorous number effects, as in (54) repeated from (24).

- (53) a. Neediit ’wadiit ’niin.
 nee=dii=t ’wa-**diit** ’niin.
 NEG=FOC=3.I find-3PL.II 2SG.III
 ‘They didn’t find you.’
 b. *nee=dii=t ’wa-*n* ’nidiit.
 NEG=FOC=3.I find-2SG.II 3PL.III
- (54) a. Neediit gya’as Mary ’nidiit.
 nee=dii=t gya’a-**t**=s Mary ’nidiit.
 NEG=FOC=3.I see-3.II =DN Mary 3PL.III
 ‘Mary didn’t see them.’

- b. #nee=dii=t gya'a-diit Mary.
 NEG=FOC=3.I see=3PL.II Mary
 (Only 'They didn't see Mary.')

More frequently, such analyses generate *Person Case Constraint* (PCC) effects, where marked arguments cannot appear in certain positions when an argument of equal or lesser markedness appears above them (Bonet 1991). The Basque examples in (55) exemplify such patterns: in the presence of an indirect object, a direct object may not be a local person.

- (55) a. Zuk niri liburu-a saldu d-i-0-da-zu.
 you.ERG me.DAT book-ART(ABS) sell 3.ABS-√-SG.ABS-1SG.DAT-3SG.ERG
 'You have sold the book to me.'
 b. *Zuk harakin-ari ni saldu n-(a)i-0-o-zu.
 you.ERG butcher-ART.DAT me(ABS) sell 1.ABS-√-SG.ABS-3SG.DAT-3SG.ERG
 'You have sold me to the butcher.'

(Preminger to appear, from Laka 1996: 98)

Neither does Gitksan exhibit PCC effects. There are no apparent restrictions on forming sentences involving a third person goal and local theme, as there are in Basque and other PCC languages. In (56) below, a local person oblique theme 'nuu'm 'us, 1PL' is located below a third person direct object goal *gawk'aw* 'crows', with no apparent issue.²²

- (56) Na_x'ni'y wint 'nim ginhl gawk'aw as 'nuu'm.
 na_x'ni-i-'y [win=t 'nim gin-t =hl gawk'aw a-t =s 'nuu'm]
 hear-TR-1SG.II [COMP=3.I DESID feed-3.II =CN crow PREP-3.II =DN 1PL.III]
 'I heard [that she wants to feed us to the crows].' (VG)

Finally, it might be supposed that the Series II probe does not in fact engage in agreement with DPs, but that instead the *-t* morpheme that appears is some sort of default value, returned if agreement has failed. This would allow some of the difficulties in understanding Series II agreement with DPs to be sidestepped, and an analysis about object-markedness pursued. However, we would then expect the same 'default' *-t* morpheme to appear with weather predicates, where agreement fails due to a lack of target. Weather predicates instead show *no* agreement, as illustrated in (57), a dependent clause. The Series II morpheme *-t* therefore cannot be a morphological default.

²²Though curiously, there does seem to be variation in which overt nominal is realized as oblique. An alternative version of (56) is given in (i); while the third person goal *gawk'aw* 'crows' always receives Series II agreement, the theme 'nuu'm 'us, 1PL' may appear directly after the verb, and need not always be marked as oblique.

- (i) Na_x'ni'y wint 'nim gint 'nuu'm ahl gawk'aw.
 na_x'ni-i-'y [win=t 'nim gin-t 'nuu'm a-t =hl gawk'aw]
 hear-TR-1SG.II [COMP=3.I DESID feed-3.II 1PL.III PREP-3.II =CN crow]
 'I heard [that she wants to feed us to the crows].' (VG)

This pattern requires further investigation. In combination with the possible alternations discussed in section 4.2, I hypothesize that there is a pressure to realize local person arguments in a verb-adjacent position.

- (57) Yugwimaa dim wis.
 yukw=imaa dim wis
 IPFV=EPIS PROSP rain
 ‘It might be going to rain.’ (BS)

In summary, the predictions of accounts which relativize agreement probes to particular marked values of feature groups are not borne out in Gitksan. In order for a ϕ -probe to target the relevant set of arguments, some precise configuration of many features (including all of person, number, and DP/pronoun) would have to be referenced. For this to happen on a single probe, the arrangement of relevant features would be little more than stipulation; this is more characteristic of morphology and spellout than it is of systematic syntactic patterning. My approach, which conversely targets a larger, less-marked set of features and interprets Series II as highest-argument agreement, has better empirical coverage.

5.2 A morphologically-driven split

We can also entertain the idea of an approach to the absolutive-nominative split of Series II agreement as arising *post-syntactically*, in the morphological component.

Given that third-plural is not spelled out contrastively by the Series I clitics (refer to Table 5 for the full set of paradigms), we might suppose that there is a morphological pressure to overtly realize a plural feature on an ergative argument. This might trigger post-syntactic movement of the plural feature from the site of Series I agreement, where it goes unrealized, to the site of Series II agreement, where third-person plurality can be spelled out.²³

To demonstrate more clearly, we might suppose that Series I clitic agreement is strictly ergative, and Series II suffixal agreement is strictly absolutive. The standard situation would therefore be the Ergative/Absolutive agreement pattern, illustrated in (58); a schematic of agreement is given in (59).

- (58) Neediit yatst.
 nee=dii=t yats-t
 NEG=FOC=3.I hit-3.II
 ‘S/he didn’t hit him/her.’ (BS)

- (59) *Agreement:*
 NEG=I Predicate-II Agent.3 Object.3
-

When the Double Ergative pattern arises, as it does in (60) with a third-plural agent, agreement is the same in the syntax (61a). However, after the derivation is sent to PF for spellout, the 3PL feature cannot be realized via the Series I paradigm. This leads to the feature shifting to the Series II head where it can be morphologically accommodated, as in (61b), and the remaining object features being realized as a full pronoun.

²³Note that plurality in the Series I paradigm is usually realized as a second exponent, even for local persons: 2nd person =*m*, plural =*m=sim*; and 1st person =*n*, plural =*n=dip* for some speakers (e.g. HH, Gijgyukwhla) but only *dip* for others. It’s plausible that a person/number fission operation applies for these clitics. However, it is not immediately clear why 3rd person plural, in contrast to the other two persons, would transfer its plural feature to be realized on a different probe altogether rather than simply realizing it as two exponents in the same position as predicted by Fission, as the other persons do.

- (60) Neediit yatsdiit 'nit.
 nee=dii=t yats-**diit** 'nit
 NEG=FOC=3.I hit-3PL.II 3.III
 'They didn't hit him/her.' (BS)

- (61) a. *Agreement:*
 NEG=[I] Predicate-[II] Agent.3PL Object.3
 b. *Postsyntactic shift:*
 NEG=[I] Predicate-[II] Agent.3PL Object.3

This post-syntactic feature movement is essentially motivated to resolve the issue of ambiguity: to more robustly realize possible morphological contrasts, and to prevent sentences like (58), which only have neutral 3rd-person ergative agreement on the Series I clitic, from being ambiguous between a singular or plural agent. However, an analysis motivated by the resolution of ambiguity does not explain why the Series II paradigm follows a Double Ergative pattern not just for third-plural agents, but also for full DP agents as in (62), where the presence of the DP itself is sufficient to resolve any possible case of ambiguity.

- (62) Neediit gya'as Michael 'nii'y.
 nee=dii=t gya'a-t=s Michael 'nii'y
 NEG=FOC=3.I see-3.II =DN Michael 1SG.III
 'Michael didn't see me.' (Davis & Forbes 2015: 170)

Indeed, the relocation of third-plural features to the point of Series II agreement even *generates* ambiguity, as (63) demonstrates; with the Series II suffix *-diit* able to refer to either subject or object, its syntactic role is ambiguous in the absence of any overt object argument.

- (63) Neediit t'isdiit.
 nee=dii=t t'is-diit
 NEG=FOC=3.I hit-3PL.II
 (a) 'They didn't hit him/her.'
 (b) 'S/he didn't hit them.' (Davis & Forbes 2015: 168)

In closing, McGinnis (2008) advises caution in adopting morphological analyses at the outset, given that syntactic analyses typically result in predictions for structure elsewhere in the language, driving further investigation. She suggests that morphological analyses should be taken up only after syntactic approaches have been explored; for this reason, I suggest that the D/φ feature split I have discussed is accessed by syntactic agreement operations, though it could potentially be operationalized exclusively in the morphology.

5.3 Dependent case

I here consider the possibility of a dependent case analysis of the Gitksan facts (Marantz 1991; Bobaljik 2008). This style of analysis contrasts with the Probe-Goal approach to agreement that I have adopted, but has significant traction in work on ergativity and complex case/agreement systems (e.g. Baker & Vinokurova 2010; Baker 2015; Levin & Preminger 2015). In this framework,

after syntactic structure has been built, the nominals present in a domain are assigned case on the basis of, first, their proximity to a lexical or inherent case-assigner, and second, whether they are the unique nominal in the domain. Specific lexical items such as prepositions or particular verbs are capable of assigning *lexical* case to their arguments. Arguments without lexical case that are alone in their domain receive *unmarked* case. Where two nominals are present in a domain, and neither takes a lexically-assigned case, one must be assigned a *dependent* case, and the remaining argument receives unmarked case. Languages are taken to vary parametrically in whether the dependent case is assigned to the lower nominal in the domain (= accusative case) or the higher nominal (= ergative case).

Though this framework has typically been used to account for morphological *case* systems in natural language, Marantz (1991) notes that it is easily extensible to morphological agreement. This extension might be direct or indirect; Bobaljik (2008) proposes that agreeing heads may target nominals with certain types of the three above cases. Specifically, he argues that agreement with the three abstract types of case is available in an individual language on the basis of an implicational hierarchy as in (64); if one case on the hierarchy is a possible target for agreement, then all cases to its right are also possible targets. For example, if nominals with abstractly-assigned dependent case are available for a morphological agreement process, then elsewhere in the language nominals with unmarked case must also be targeted by agreement.

(64) Lexical Case (DAT) < Dependent Case (ACC/ERG) < Unmarked Case (NOM/ABS)

Gitksan initially appears a promising system for analysis in a dependent case framework. Just as Marantz (1991) proposes three abstract cases (lexical, dependent, unmarked), Gitksan has three types of person-marking paradigm (Series I, II, III). However, the approach faces several problems. First, to engage in direct correspondence with Marantz's (1991) three cases, one of the three Gitksan paradigms would have to be associated with Marantz's *lexical case*, typically reserved for so-called 'quirky' dative arguments. There is no obvious case or agreement form in Gitksan for quirky case—to the extent that quirky arguments might be presumed to exist, they are realized as obliques under the preposition *a-* or oblique pronominal base *loo-*. Beyond this, Series I has the most restricted distribution (ergative of dependent clauses) so it might be considered the best candidate for the lexical case. This is problematic for a number of other reasons: first, Baker & Bobaljik (2017) argue explicitly that ergative case should *not* be interpreted as inherent (theta-related, lexical) case; second, it goes unexplained why the most lexical of cases should be assigned in one clause type but not the other, as Series I is (clause type being a thoroughly non-thematic property).²⁴

It is most appropriate to assume that none of the three paradigms corresponds to lexical case. Which paradigm corresponds to the dependent case, then? Recall the distribution of the three paradigms in their entirety, as repeated in Table 9.

It is of particular importance to note that ergative alignment can be identified for some agreement paradigm across every split context. Independent clauses, which exhibit a simple ergative/absolutive alignment between Series II agreement and Series III pronouns, can be accounted for if Series II (ergative) is interpreted as the dependent case and Series III (absolutive) as the unmarked case. However, extension into dependent clauses proves more troublesome, partially due to agreement switch across the clause-type split. In the Ergative/Absolutive pattern, the same erga-

²⁴Baker & Bobaljik's (2017) arguments present a problem for any analysis of Gitksan that attempts to associate Series I agreement with 'inherent' or theta-related case along the lines of Woolford (2006) including my own.

Table 9: Gitksan agreement distributions, by paradigm

ERG is →	Dependent		Independent
	Most Pron.	3PL/DP	
Series I (clitic)	A	A	
Series II (suffix)	O, S	A, S	A
Series III (full)		O	O, S

tive/absolutive alignment that arises would be best accommodated if instead Series I (ergative) were the dependent case and Series II (absolutive) the unmarked case.²⁵ How does the Series II paradigm come to agree with nominals that have dependent case in independent clauses, but unmarked case in dependent clauses? This type of analysis seems to require a particular case-specification for Series I and II agreement in the context of one clause type, but not the other.

The nominal type split further complicates the picture, as third plurals and DPs trigger what can be described as a morphological ERG/NOM/ACC system for the three paradigms. Under a dependent-case framework, it is impossible to pick out an ergative distribution and a nominative distribution simultaneously, since nominative as a distribution is only defined in relation to the *accusative* dependent case. If dependent case is parametrically set to pick out the ergative as it must be in Gitksan, how does the nominative/accusative pattern also arise? Thinking in terms of a dependent case parameter set to ‘ergative’, the distribution of Series II (targeting both A, with expected dependent case, and S, with expected unmarked case) is difficult to understand.

We are forced to say that the Series II suffixes have a more abstract distribution: they may agree with arguments with either dependent *or* unmarked case. This picture is illustrated in Table 10.

Table 10: Gitksan agreement distributions mapped to a dependent case framework

ERG is →	Dependent		Independent
	Most Pron.	3PL/DP	
Series I (clitic)	DEP	DEP	
Series II (suffix)	UNM	DEP+UNM	DEP
Series III (full)		UNM?	UNM

At this point, the distribution of Series II agreement across the language as a whole, in light of these splits, is boiled down to a list of which types of arguments it may or may not agree with in

²⁵Baker (2015) presents a dependent-case analysis of Coast Tsimshian wherein he interprets Series I as dependent case and Series II as pronominal clitics; I have argued in section 2 that the Series II markers in Gitksan are agreement, not clitics. Specific investigation into the Coast Tsimshian suffixes is required to determine whether the two languages diverge in this respect. Beyond this, Baker’s (2015) analysis suffers from some misinterpretation of the (quite complex) agreement facts; he looks primarily at dependent clauses and does not appropriately interpret the distribution of Series II suffixal marking (cf. discussion of the data by Davis & Forbes 2015; Davis 2018). Accordingly, his dependent-case analysis ultimately fails to accommodate the full range of complexity in Coast Tsimshian alignment patterns. Subsequent discussion by Bárány (2018) suffers from the same issue.

each particular context. Ideally, there should be something about the contexts themselves that would naturally trigger the necessary specifications—perhaps by defining ‘domains’ differently in the two clause types, or across the nominal type split—but this is not obviously the case. Concentrating on the nominal-type split in particular, it would be ideal if the switch in the distribution of Series II was due to some property of the nominals involved, as I have proposed.

We might consider, for example, that DP and third-plural arguments are particularly “large” or “heavy”, and in some way each qualify as “two” nominals, able to receive both dependent and unmarked case simultaneously. That is, a “heavy” A argument (like a DP) could receive both dependent and unmarked case. In this way, Series II in dependent clauses could exclusively mark nominals with unmarked case, yet still agree with either A or O. However, if DP arguments are treated as “two nominals” when functioning as A, the same should be true when they function as S. Intransitive S arguments only ever receive a single type of agreement, however, and never receive ergative (dependent case) marking, as would be expected if they counted as two nominals and received both types of abstract case.

While it remains possible that the dependent case mechanic is at work in the Tsimshianic languages for the assignment of *abstract* case,²⁶ it does not seem intuitive to reference dependent case notions for the patterning of *morphological agreement* in Gitksan, particularly across the two split contexts. The persistent ergative alignment of Series I and Series II in either clause type, and in particular the doubled agreement within dependent clauses, both present challenges to the dependent case framework. Doubled agreement is accounted for in a relatively straightforward way, with reference to the features of the nominals involved, under my approach to the nominal-type split in a probe-goal agreement framework.

5.4 Non-finiteness (Brown 2016)

This section considers a final alternative, this time not a family of analyses, but instead a particular syntax proposed specifically for Gitksan. Brown (2016) suggests that Gitksan independent clauses exhibit the ‘canonical’ style of agreement, on the assumption that dependent clauses are *nonfinite*. In his analysis of the clause-type split, he interprets Series II agreement as ergative agreement from *v* in independent clauses, following an inherent case approach (Woolford 2006; Coon 2017), and as possessor agreement in ‘nonfinite’ dependent clauses. He proposes that licensing by T makes it possible for an argument to be realized as a Series III pronoun in independent clauses, but not ‘nonfinite’ dependent clauses.

However, I find the basis for Brown’s assumption about the finiteness contrast across clause types unclear. We will also see in the following section that Series III pronouns do appear in dependent clauses. In addition, dependent clauses exhibit *more* overt agreement than independent clauses do, in the form of both Series I and II agreement. Nonfinite clauses are typically characterized as lacking certain contrasts or syntactic licensors in comparison to finite clauses, yet they have more morphological agreement; furthermore, there are no tense, aspectual, or modal contrasts that are present in independent clauses but are lost or neutralized in dependent clauses, as might be predicted. More frequently the opposite is the case, with many aspectual and modal distinctions being realized exclusively in dependent clauses.

Brown (2016) provides no analysis for the absolutive-nominative sub-split in dependent clauses.

²⁶Indeed, see Davis’s (2018) analysis, which adopts this assumption.

In this paper, I have focused on the syntax of dependent clauses, but lack an analysis of the larger clause-type contrast (although see [Forbes 2018](#)). I have here pursued an alternate analysis where dependent clauses are not necessarily nonfinite, or at least in which there is no clause type that lacks licensing by T/Infl. As [Doner \(to appear\)](#) notes, many verb-initial languages (or more broadly in her analysis, ‘predicate-EPP languages’) lack an identifiable finiteness contrast.

6 Implications for the crosslinguistic modeling of number

The unique grouping of nominals on either side of nominal-type split discussed in this chapter (a split in which third-singular pronouns contrast with third-plurals and all full DP arguments) has demanded that we come to a more nuanced understanding of ϕ -features and other nominal features. In this section, I explore the potential crosslinguistic application of this slightly elaborated feature structure.

I have proposed that third-person number in Gitksan, while now a formal contrast innovated into the pronominal and agreement system, is not part of the language’s ϕ -feature inventory as participant number is. This contrasts with previously proposed feature geometries (e.g. [Harley & Ritter 2002a](#)), where the behavior of number features is not influenced by person features; all number features are grouped together as a subset of ϕ -features. My proposed representation of third-person number under [D] rather than [ϕ] suggests that plurality might behave differently in a language like Gitksan, where participant and third-person number features contrast, versus a language where number is independent of person.

One tradition of morphosyntactic work seeks to understand crosslinguistic variation in the properties of features—for example, number features—as a difference in the structural position of these features across languages. Different behaviors of plurals in different languages have been analyzed in previous work by locating number features at distinct structural levels: for example, the level of the root (e.g. [Wiltschko 2008](#) for Halkomelem) versus NumP (e.g. [Ritter 1992](#) for Hebrew and others). Following this tradition of work, [Forbes \(to appear\)](#) analyzes Gitksan plurality in the Series II paradigm not as part of a nominal NumP projection, linked to individuation and countability, but instead higher in the nominal spine.

Third-person plurality in Gitksan does indeed function in a fundamentally different way in Gitksan than it does in, for example, English. First, the plurality marked by Gitksan *-diit* or *’nidiit* exclusively refers to an animate entity; it is never used to agree with or refer to an inanimate plural argument ([Rigsby 1986](#); [Tarpent 1987](#); [Forbes to appear](#)). This is illustrated in (65). Third-person neutral *-t* agreement is used in the context of inanimate entities; plural agreement with *-diit* is impossible.

- (65) Naa ant guphl xcookies’y?
 naa an=t gup-t =hl x-cookies-’y
 who AX=3.I eat-3.II =CN consume-cookies-1SG.II
 ‘Who ate my cookies?’
 a. ’Nii’y ant gupt.
 ’nii’y an=t gup-t.
 1SG.III AX=3.I eat-3.II
 ‘I ate them.’

- b. #’nii’y an=t gup-**diit**
 1SG.III AX=3.I eat-3PL.II
Comment: I guess ‘diit’ is for people, not cookies. (BS)

English plurality, by contrast, is used to refer to the count properties of all types of arguments. The example in (66) illustrates plural agreement with inanimate entities.

- (66) A: Where **are**/*is your toys?
 B: They **are**/*is all broken.

Second, a plural DP in Gitksan never co-occurs with plural Series II agreement. The Gitksan third-person plural marker *-diit* is in complementary distribution with a full DP argument, as demonstrated in (67). Third-plural *-diit* appears in conjunction with a null *pro* (67a), but may not co-occur with a full noun like *=hl duus* ‘the cats’ (67b,c).

- (67) a. Gapgaapdiidimahl aats’ip.
 gap~gaap-i-**diit**=imaa *pro*_{pl} =hl aats’ip
 PL~scratch-TR-**3PL.II**=EPIS *pro* =CN door
 ‘They might have scratched the door.’
 b. Gapgaabidimahl duushl aats’ip.
 gap~gaap-i-t=imaa [=hl duus]_{pl} =hl aats’ip
 PL~scratch-TR-**3.II**=EPIS [=CN cat] =CN door
 ‘The cats might have scratched the door.’
 c. *gap~gaap-i-**diit**=imaa [=hl duus]_{pl} =hl aats’ip
 PL~scratch-TR-**3PL.II**=EPIS [=CN cat] =CN door (BS)

English verbal plural agreement, by contrast, is obligatory in the presence of a plural DP, as illustrated in (68b) (contrasting with singular (68a)).

- (68) a. [That fish]_{sg} **is**/*are jumping very high.
 b. [Those fish]_{pl} *is/**are** jumping very high.

The Gitksan agreement facts mirror patterns of complementarity between number agreement and DP arguments in other languages, including Irish, Welsh, and Arabic (specifically, Arabic sentences with unmarked VSO order). Below, (69) illustrates the complementarity between an overt nominal argument and plural agreement on the verb in Welsh.

- (69) Darllenodd y dynion y llyfr.
 read.PST the **men** the book
 ‘The men read the book.’
 (69) *Darllenasant y dynion y llyfr.
 read.PST.**3PL** the **men** the book
 Intended: ‘The men read the book’ (Doron 1988: 204; from Harlow 1981)

These facts are well-known and have received numerous treatments in the literature (Mohammad 1990; Rouveret 1991; Benmamoun 1992; Fassi-Fehri 1993; Aoun et al. 1994). Some of these analyses draw on the crosslinguistic generalization that complementarity between DPs and plural

agreement seems to arise for postverbal arguments, but not preverbal arguments, proposing that full (number-inclusive) agreement is restricted to arguments in certain structural positions.

I suggest that the feature-geometric organization of plurality is another factor that may contribute to crosslinguistic variation of this kind, or perhaps is another means of modeling it. An analysis of third-person plurality as a D-level feature, rather than a ϕ -level feature, may be extensible to other languages exhibiting the aforementioned two properties: an animacy restriction on third-person number (e.g. [Corbett 2000](#) discusses Slave [Dene, Canada] and Marind [Marind, New Guinea] as languages with a plural animacy restriction), or complementary between full nouns and number agreement (e.g. Celtic and Semitic languages). Verbal agreement in these languages might feasibly be relativized to the larger set of D-features, rather than person-number ϕ -features exclusively. Or, perhaps agreement higher in a clause has access to fuller sets of features, and agreement lower in the clause only certain subsets.

7 Conclusion

In this paper, I have presented an analysis of split-absolutive agreement in Gitksan dependent clauses. This split picks out third-plural pronouns and DPs and contrasts them with other pronouns, including third-singular/neutral pronouns. The grouping of nominals on either side of this split is crosslinguistically atypical, and in standard approaches to nominal features can only be categorized by simultaneously cross-referencing all of person, number, and the DP-pronominal contrast. This motivated me to propose a distinction between ϕ - and D-features, which fall in a subset-superset relation to one another. The set of ϕ -features are characterized by [PERSON] and participant-related [NUMBER] on the ergative subject, while D-features additionally include third-person [NUMBER] and the [DP/PRONOUN] contrast. I proposed that the two agreement paradigms in Gitksan were relativized to seek these two different feature sets, one each.

Capitalizing on the consequences of the Activity Condition ([Chomsky 2001](#)), where features that have been agreed with are deactivated in later agreement operations, I argued that the Series I agreement probe agrees first, deactivating nominal features which were part of the ϕ -feature set. Agreement by the subset (ϕ) probe followed by the superset (D) probe allows for a split-absolutive pattern whereby some nominals may be agreed with twice, when they bear both D- and ϕ -features, but only once otherwise. The split-absolutive pattern can therefore be characterized as highest-argument agreement which is sometimes bled by prior ergative agreement.

Examination of this data has provided a novel perspective on nominal features and how multiple agreement probes in a single clause may interact; sometimes they agree with distinct arguments, and sometimes they double up in a case of multiple agreement. I have argued that this alternation results entirely from slight differences in the relativization of the two probes, to ϕ - versus D-features. This is a syntactic approach to a nominal-type split which neither demands raising one group of arguments to a prominent syntactic position, nor the assignment of a specific type of nominal case.

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