Split ergativity is not about ergativity*

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X.1   Introduction

In an ergative system, transitive objects pattern together with intransitive subjects (absolutives), and to the exclusion of transitive subjects (ergatives). While this pattern is quite common cross-linguistically, it has been frequently noted in the literature on ergativity that few—if any—ergative systems are *purely* ergative.

> "No ergative language is fully consistent in carrying through the ergative principle throughout its entire morphology, syntax, and lexicon: all languages that exhibit ergative patterning in their commonest case-marking system also exhibit some accusative pattern somewhere in the rest of their grammar. "

> [*Moravcsik 1978:237*]

Moravcsik's statement is intended to be quite general: even in languages which show a high number of ergative characteristics, there can generally be found *some* portion of the grammar in which the ergative pattern is lost, and transitive and intransitive subjects are treated alike. The term "split ergativity" typically has a more narrow focus, reserved for splits in the morphology of argument indexing—i.e. splits in morphological case and agreement. The two most commonly described types of split ergativity are **(i)** aspectual splits, and **(ii)** person splits. In the former, the ergative pattern is lost in some subset of non-perfective aspects (or possibly certain tenses; see Coon 2013b for discussion); and in the latter, the ergative pattern is lost with some particular combination of "highly-ranked" nominal arguments (we return to the details of such "rankings" below).

The central argument put forth in this paper is that split ergativity—of the aspectual and person type—is frequently epiphenomenal, and that the factors which trigger the appearance of such splits are not limited to ergative systems in the first place. In both aspectual and person splits, we argue, the split is the result of a bifurcation of the clause into two distinct case/agreement domains; this bifurcation results in the subject being, in structural terms, an *intransitive subject*. Since intransitive subjects do not appear with ergative marking, this straightforwardly accounts for the absence of ergative morphology in those cases. But crucially, such bifurcation is not specific to ergative-patterning languages; rather, it is obfuscated in nominative-accusative environments because—by definition—transitive and intransitive subjects pattern alike in those environments, and the terminology in question ('ergative' vs. 'non-ergative') specifically tracks the behavior of subjects. Thus, Moravcsik's generalization, quoted above, does not reflect any deep instability of ergative systems, nor a real asymmetry between ergativity and accusativity (contra Visser 2006, for example).

In an ergative system that exhibits one of these types of splits, ergative-absolutive alignment is always associated with a fixed set of substantive values (e.g. perfective for aspectual splits, 3rd person for person splits). The account we will present derives this universal directionality of splits by connecting the addition of extra structure to independently attested facts: the use of locative constructions in progressive and non-perfective aspects (Bybee, Perkins & Pagliuca 1994, Coon 2013a, Laka 2006), and the requirement that 1st and 2nd person arguments be structurally licensed (Béjar & Rezac 2003, Preminger 2014). Though it is certainly possible that splits may also arise from other factors—for example, differences in feature inventories of functional heads, or morphological syncretism (see e.g. Ura 2006, Anand & Nevins 2006, Bjorkman 2014, Legate 2014)—a goal of this paper is to see how much empirical coverage can be gained by limiting the source of splits to independently attested differences in structure.
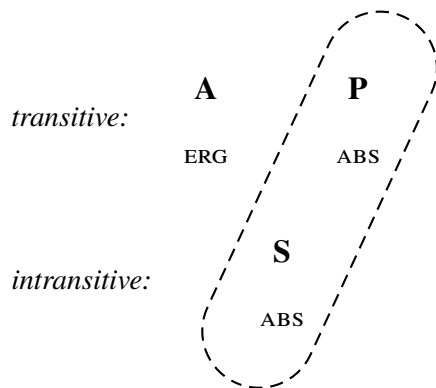
The remainder of this paper is organized as follows. Section 2 briefly reviews ergative and split ergative patterns. Section 3 focuses on aspectual splits, summarizing the different types of split patterns that emerge, and presenting a structural motivation for the loss of ergativity in certain

aspects. In section 4 we turn to person splits, and present a structural account of this phenomenon, as well. Section 5 concludes.
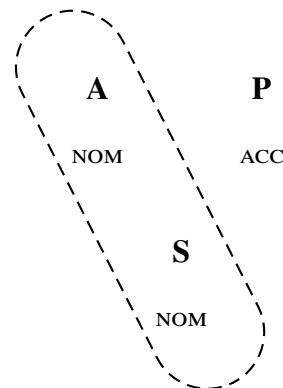
X.2   Ergativity and split ergativity

Typical ergative-absolutive and nominative-accusative alignment systems are represented in (1) and (2), where we follow Dixon (1979) in using the following labels: **A** = transitive subject; **P** = transitive object; and **S** = intransitive subject.

(1)   ERGATIVE-ABSOLUTIVE SYSTEM   (2)   NOMINATIVE-ACCUSATIVE SYSTEM

As evidenced by the range of work in the present volume, accounts of ergative case and agreement patterns within the generative tradition have been numerous, and we do not aim to adjudicate among them here. Instead, we aim to show how a structure-based account of split ergativity can account for non-ergative patterning in an otherwise ergative system, without assuming a *sui generis* category of "split ergativity."

Throughout this paper, we will speak of ergative *patterns*, rather than ergative *languages*. As noted at the outset, a given language rarely shows a consistent ergative pattern of alignment throughout its entire grammar (see Comrie 1978, DeLancey 1981, Moravcsik 1978, Silverstein 1976, Tsunoda 1981 for discussion, as well as numerous examples). As observed by Dixon (1994), the two main factors that one finds as triggers of split ergativity cross-linguistically are aspectual splits (discussed in section 3), and person splits (discussed in section 4). We take it to be a relevant and crucial fact that both in aspect-based and in person-based splits, one finds a universally fixed

directionality (Dixon 1994, inter alia). What this means is that for each split-triggering substantive category, the ergative-absolutive alignment is always associated with a fixed value (or set of values) of that substantive category (e.g. perfective for aspectual splits, 3rd person for person splits). This fixed directionality is schematized below, for aspectual splits (3) and person splits (4):[1]

(3) FIXED DIRECTIONALITY OF ASPECTUAL SPLITS

$\longleftarrow$ ERGATIVE   NON-ERGATIVE $\longrightarrow$

perfective $\gg$ imperfective $\gg$ progressive

(4) FIXED DIRECTIONALITY OF PERSON SPLITS

$\longleftarrow$ ERGATIVE   NON-ERGATIVE $\longrightarrow$

| common nouns | $\gg$ | proper nouns | $\gg$ | demonstratives, 3rd person pronouns | $\gg$ | 1st/2nd person pronouns |
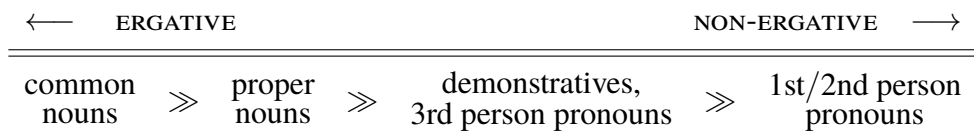
In this paper, developing the proposal in Coon & Preminger 2012, we offer a unified account of aspect-based and person-based split ergativity, which captures the universal directionality across these two substantive categories. Crucially, the proposed account reduces both types of splits to structural factors that are not specific to ergative languages in particular—while explaining why, in a nominative-accusative language, these same factors would not result in what one would characterize as an "alignment split."

X.3 Aspectual splits

This section is a brief synopsis of aspectual splits, discussed in much greater detail in Coon 2013a,b.[2] As (3) illustrates, different languages may make the split in different places along

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[1]While person splits are commonly described as involving this type of scale, we demonstrate in section 4 that the relevant cut may in fact always be between 1st/2nd person pronouns and all other nouns. We discuss factors that have obscured this distinction, particularly in the language Dyirbal.

[2]Though these are sometimes called TAM (i.e., tense, aspect, mood) splits, Salanova (2007) and Coon (2013b) call into question the existence of tense- or mood-based splits that do not also involve aspect or clause-type. See, however, Malchukov & Hoop 2011 and Malchukov 2015 for a more gradient view of such splits. In what follows, we assume that aspect is the only true trigger of this type of split—though in practice, of course, perfective aspect frequently overlaps with past tense. See also Bjorkman 2014 and references therein for discussion of perfective aspect vs. *perfect*.

the aspectual scale, but ergativity crucially remains consistently anchored to the left side of this scale (i.e., to the *perfective*).[3] Coon (2013b) argues that aspectual splits have two underlying causes: **(i)** the introduction of complex syntactic structure associated with non-perfective aspects (discussed in section 3.1, below); and **(ii)** reduced transitivity, manifested as *demotion* of the direct object, triggered in non-perfective aspects (discussed in section 3.2, below). In both scenarios, the transitive subject of a "split"-patterning non-perfective construction will not receive ergative marking because it is, structurally speaking, no longer a transitive subject (where being a *transitive subject* means being the higher of two non-oblique noun phrases in a single, non-bifurcated clause).

Furthermore, as we will show below, the factors responsible for these splits are not limited to ergative-patterning languages. We therefore need not think of split ergativity as a property that is particular to "ergative languages" to the exclusion of other languages. Rather, when the structural conditions for a split arise, the result is that transitive subjects pattern with intransitive subjects; this goes unnoticed in a non-ergative system because, in these systems, all subjects receive the same marking (viz. nominative).

X.3.1   Added structure

In Basque one finds an aspectual split that is demonstrably triggered by the addition of syntactic structure, in this case in the progressive aspect (Laka 2006). In the perfective and imperfective aspects, Basque shows an ergative-absolutive alignment in the forms of the suffixal article. Taking singular noun phrases as an illustration, **A** arguments take the article *-ak* (ergative sg.), while **P** and **S** arguments take the article *-a* (absolute sg.):[4]

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[3]Note that since progressive aspect is a sub-type of imperfective aspect, the hierarchy in (3) is predictable in another way: the split can either target just the progressive, or also the imperfective, which properly contains the progressive; see Coon 2013a for discussion.

[4]Abbreviations in glosses are as follows: 1, 2, 3 – 1st-, 2nd-, 3rd-person; ABS – absolutive; AOR – aorist; ASP – aspect; AUX – auxiliary; DET – determiner; ERG – ergative; FEM – feminine; FUT – future; GEN – genitive; HON – honorific; IMPF – imperfective; LOC – locative; MASC – masculine; NML – nominal; NONFUT – non-future; PL – plural; PRES – present; PRFV – perfective; PROG – progressive; PREP – preposition; PST – past; POSS – possessive; PTCP – participle; SG – singular. In some cases, glosses have been simplified or modified from those of the original authors for consistency. We follow the original authors' choices regarding capitalization and punctuation. If no citation is provided, data is from the authors' field notes.

(5) BASQUE – PERFECTIVE

   a. [$_A$ Ehiztari-**ak**   ] [$_P$ otso-**a**   ] harrapatu d-ϕ-u-ϕ.

       hunter-ART$_{sg}$.ERG   wolf-ART$_{sg}$(ABS) caught   3.ABS-sg.ABS-$\sqrt{\text{AUX}}$-3sg.ERG

       'The hunter has caught the wolf.'

   b. [$_S$ Otso-**a**   ] etorri   d-a.

       wolf-ART$_{sg}$(ABS)   arrived 3.ABS-$\sqrt{\text{AUX}}$(3sg.ABS)

       'The wolf has arrived.'   [*Laka 1996*]

In the progressive, however, the ergative marking is lost. Here all singular arguments take the *-a* suffix, as shown in (6). Furthermore, while the auxiliary agrees with both the subject and the object in the ergative-patterning perfective (as in (5)), only the subject is agreed with in the progressive— even if the lexical verb is transitive, as in (6a):[5]

(6) BASQUE – PROGRESSIVE

   a. [$_A$ emakume-**a**   ] [$_P$ ogi-**a**   ] ja-te-n   ari   d-a.

       woman-ART$_{sg}$(ABS)   bread-ART$_{sg}$(ABS) eat-NML-LOC PROG 3.ABS-$\sqrt{\text{AUX}}$(3sg.ABS)

       'The woman is eating the bread.'

   b. [$_S$ emakume-**a**   ] dantza-n   ari   d-a.

       woman-ART$_{sg}$(ABS)   dance-LOC PROG 3.ABS-$\sqrt{\text{AUX}}$(3sg.ABS)

       'The woman is dancing.'   [*Laka 1996*]

Note that the split in the Basque progressive crucially does *not* involve the language switching from an ergative-absolutive to a nominative-accusative pattern, though this is frequently how such splits are informally described. While it is the case that both subjects pattern alike in (6), the pattern seen here is more accurately described as "neutral": all core arguments are in the unmarked absolutive form, including the transitive object (*ogi-a* "bread-ART$_{sg}$(ABS)"). Similar patterns are found in Nakh-Daghestanian and Indo-Aryan languages (see Coon 2013b).

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[5]This is somewhat of a simplification. As shown by Arregi & Nevins (2008, 2012) and Preminger (2009), so-called "subject agreement" (or "ergative agreement") and "indirect object agreement" (or "dative agreement") in Basque are actually an instance of obligatory clitic doubling.

Laka (2006) argues that these "split" forms in the Basque progressive are in fact *bi-clausal*, involving a progressive auxiliary (*ari*; see (6a–b)) which embeds a locative-marked subordinate clause containing the lexical verb and its object. This proposal accounts elegantly for the properties shown above: the **A** argument is not marked ergative, *because it is not a transitive subject*; it is the subject of an auxiliary whose complement is something other than a non-oblique nominal—and therefore, this auxiliary is formally *intransitive* (in Basque, the complement of this subordinator is oblique, as reflected in the glosses of (6a–b). The **P** argument does not trigger agreement because it is in a separate, lower clause. Similar proposals have been made for Nakh-Daghestanian languages; see Forker 2010, Gagliardi et al. 2014, Kazenin 1998, 2001, Kazenin & Testelec 1999.[6] This analysis is advanced further in Coon 2010, 2013a, where it is argued that such clausal bifurcation is always found in non-perfective aspects rather than in the perfective, because it is precisely non-perfective aspects whose structure is constructed using *spatial/locative* building-blocks (see also Bybee, Perkins & Pagliuca 1994, Demirdache & Uribe-Etxebarria 2000).

There are two important consequences of this analysis. **First**, it provides a natural explanation for why no such "splits" have been observed in nominative-accusative languages. In many nominative-accusative languages, the progressive, and sometimes the imperfective, are built on locative constructions—just as they are in Basque. An example is given in (7).

(7) Ik ben het huis **aan** het bouwen.   (Dutch)

   I am the house at   the build

   'I am building the house.'   [*Demirdache & Uribe-Etxebarria 2000:178*]

The difference is that in a nominative-accusative system, this insulation of the subject for case purposes has no effect on the marking of subjects: **A** and **S** arguments in a nominative-accusative system receive the same marking (nominative) regardless of whether or not a direct object is syntactically accessible.

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[6]The proposal that non-perfective aspects may involve added structure also provides an explanation for the behavior of aspectual splits in the Mayan family, for example in Yucatec (Bricker 1981), in Chol (Coon 2010, Vázquez Álvarez 2002), and in Q'anjob'al (Mateo Pedro 2009, Mateo-Toledo 2003); see Larsen & Norman 1979 and Dayley 1981 for overviews. Splits in these languages involve an "extended ergative" pattern, not discussed here for reasons of space, but see Coon 2013b for an overview.

Second, examples like (7), as well as their myriad cross-linguistic counterparts (Bybee, Perkins & Pagliuca 1994), illustrate that independently of split ergativity—or even ergativity more generally—it is typically the *non-perfective* aspects that are built using elements of locative morphosyntax not found in the perfective. In conjunction with the clausal bifurcation analysis presented here, this provides an explanation for the cross-linguistically fixed directionality of aspectual splits (recall (3), above): given a language that is underlyingly ergative, the perfective—in which no structure is added to the basic clausal skeleton—will reveal the underlying ergative alignment. But the structure added in a non-perfective aspect could, if it bifurcates the clause into two separate case/agreement domains, result in what looks like a "shift" out of this underlyingly ergative pattern.

Importantly, nothing said so far dictates that the structure added in a non-perfective aspect *must* bifurcate the clause in this manner. It is conceivable that the relevant locative elements used to construct non-perfective aspects would be syntactically opaque (e.g. phasal) in one language, but syntactically transparent in another. The parametric choice between these two options would yield, accordingly, the distinction between "split-ergative" and "consistently ergative"—now conceived of as an epiphenomenal, descriptive distinction.

X.3.2 Reduced transitivity

Like the languages surveyed in section 3.1, Samoan (Polynesian) has also been described as a language with aspect-based split ergativity. The pattern in Samoan, however, looks slightly different than what we have seen so far. The basic ergative pattern is shown in (8a–b), where the **A** argument in (8a) appears with the ergative case marker *e*; absolutive arguments, like the subject in (8b), are unmarked.

(8) SAMOAN (POLYNESIAN)

    a. Na fasi [_A **e**   le   tama] [_P Sina].

       PST hit   ERG DET boy   Sina

       'The boy hit Sina.'

    b. 'olo'o   moe [_S le   tama].

       PRES.PROG sleep   DET boy

       'The boy is sleeping.'   [*Ochs 1988:89*]

Samoan exhibits a split between the perfective and imperfective aspects, as illustrated by the pair of transitives in (9a–b). Just as we saw for Basque in §3.1, the ergative marking on the **A** argument in (9b) is lost in the "split" pattern, and replaced with (unmarked) absolutive. However, while in the languages from section 3.1 we saw absolutive marking retained on the **P** argument (resulting in what we described as a 'neutral' pattern, with all core arguments marked absolutive), here the **P** argument takes an oblique suffix. We will refer to this as an 'ABS-OBL' pattern.

(9)   a. PERFECTIVE

      na va'ai-a   [_A **e**   le tama] [_P le i'a]

      PST look.at-PRFV   ERG the boy   the fish

      'The boy spotted the fish.'

    b. IMPERFECTIVE

      na va'ai   [_A le tama] [_P i   le i'a]

      PST look.at   the boy   OBL the fish

      'The boy looked at the fish.'   [*Milner 1973*]

In the linguistic literature on Polynesian, forms like those in (9a) are known as "ergative", while those in (9b) are labeled "objective" (Milner 1973) or "middle" (Chung 1978).[7] But despite the term

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[7]Though the distinction between forms like (9a) and (9b) has previously been treated as a *voice* contrast, Milner (1973) argues that the distinction is aspectual, and that the English translations of some pairs are often best captured by using distinct lexical items—e.g. *spotted* vs. *looked at*—one which emphasizes the "totality" of the action (i.e., perfective), and the other which focuses on "the action itself" (i.e., imperfective); see Milner (1973:631).

"objective", the object in the imperfective is marked with *i*, whose function throughout Polynesian is that of an oblique marker (Chung 1978:26).

The same essential pattern is found in Warrungu (Pama-Nyungan), and a related pattern is found in Adyghe (NW Caucasian), also discussed in Tsunoda 1981 (citing Anderson 1976). Here, however, the variation (shown in (10a) and (10b)) is not per-aspect, but per-lexeme: *iwik'iʁ* ("killed") follows an ergative pattern, while *jcpidʒiʁ* ("stabbed") follows an ABS-OBL pattern (certain verbs in Adyghe can appear in both constructions).

(10)   ADYGHE (NW CAUCASIAN)

  a. [_A bojetsi-**m**   ] qamemk'e [_P piji-**r**   ] iwik'iʁ

       warrior-ERG   dagger-INST   enemy-ABS   killed

     'The warrior killed the enemy with his dagger.'

  b. [_A bojetsi-**r**   ] qamemk'e [_P piji-**m**   ] jcpidʒiʁ

       warrior-ABS   dagger-INST   enemy-OBL   stabbed

     'The warrior stabbed the enemy with his dagger.'   [*Tsunoda 1981:415*]

In order to account for patterns like this, Tsunoda (1981) proposes an *Effectiveness Condition* ('EF-CON')—which appeals to notions like "effectiveness", "conclusiveness", "definiteness", "actualness", and several others—meant to account both for aspectual splits like the one in (9), and lexeme-based splits as in the Adyghe data in (10a–b). (A similar proposal was developed independently by Hopper & Thompson 1980; see Malchukov 2005 for a recent survey.) The idea behind EF-CON is that failures to meet some portion of the factors associated with high transitivity have a common morpho-syntactic consequence—namely, the **P** argument surfacing as oblique—regardless of whether these factors are related to grammatical aspect, or alternatively, tied to the specific meaning of a given verb. Tsunoda concludes: "Verb-split and TAM-split are fundamentally no different from each other, their semantics and case-marking mechanisms involving common principles" (Tsunoda 1981:391). In non-perfective aspects, objects are generally more likely to be

indefinite, non-referential, and less affected; in the perfective the focus is on the culmination of the event, and objects are more likely to be affected.

We might also add to this group "antipassive" constructions, described in a number of ergative languages (including Iñupiaq, Chukchi, Salish, and Dyirbal; see for example Heath 1976 and Spreng 2010).[8] Generally speaking, antipassive constructions have the effect of *demoting* the notional **P** argument, by relegating it to an oblique, by incorporating it into the verb, or by omitting it altogether. Crucially, this triggers a concomitant change in marking of the **A** argument from ergative to absolutive (see Polinsky this volume for a review). In the domain of grammatical aspect, antipassives are typically found in imperfective or "unbounded" aspects; the internal argument of an antipassive is often described as non-specific and/or indefinite. Formally, then, these constructions appear strikingly similar to the aspectual and "verb-type" splits reviewed above. Indeed, Spreng (2010:563) notes: "If we review the triggers for ergativity splits across languages, we find that the Antipassive occurs under some of the same conditions."

While the ABS-OBL aspectual splits, "verb-type" splits, and antipassive constructions discussed in this section are most commonly noted in so-called "ergative languages", Tsunoda (1981) notes that the general phenomenon of object demotion in *less affected* environments is not limited to languages with ergative alignments. Consider the English conative alternation: in (11a), *the bear* is assigned a direct case (presumably, accusative/objective), and is clearly an affected argument; in (11b), the Patient is expressed as a PP, and there is no requirement that the act of shooting be successful—that is, the bear may be totally unaffected by the event. In English, of course, subjects carry unmarked nominative regardless of whether they are transitive subjects or intransitive subjects; but if English were ergative, we would expect to find ergative on the (transitive) subject in (11a), but absolutive on the (intransitive) subject in (11b). See Kiparsky 1998 for a related discussion of partitive alternations that arise with Finnish objects.

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[8]While far more commonly described in languages that exhibit an ergative argument alignment, the antipassive construction is noted to not be exclusive to such languages (see, e.g., Dryer & Haspelmath 2013).

(11)   a. Sam shot [**p** the bear].

       b. Sam shot [**p** at the bear].

A survey of the various proposals put forth to account for conative and related alternations is beyond the scope of this paper (see, e.g., Borer 2005, Kiparsky 1998, Levin 1993). Let us assume that some account of these alternation is in place; that means we have a way of predicting that loss of *affectedness* (or some closely related notion) on the part of the **P** argument will correlate with oblique marking on that argument, as it does in (11a–b). Crucially, such oblique marking creates a very similar state of affairs, syntactically, to what we saw in section 3.1: in the Basque progressive, for example, the **A** argument was the subject of a syntactically intransitive aspectual auxiliary, because that auxiliary selected a PP as its complement; here, in cases of reduced *affectedness*, it is the main lexical verb that selects a PP complement. The absence of ergative marking on the subject of these split constructions, then, simply reflects the fact that the **A** argument *is no longer a transitive subject* (in the sense that it no longer has a non-oblique clausemate object)—as was the case in the "split" patterns surveyed in §3.1. In other words, the pattern shown here is triggered by the very same syntactic factor that triggered the aspectual splits: a PP layer separating the subject from the object.[9]

X.3.3   Summary

In this section, we have briefly examined several types of aspectual splits. Importantly, it is not clear that any of these patterns really instantiate a split between ergative-absolute and *nominative-accusative* per se; that verdict might ultimately be a matter of terminology (e.g. whether one wants to call the marking on the **P** argument in non-ergative alignments 'accusative' even though it is identical to a marker that serves as oblique elsewhere in the language).

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[9]In recent work Kalin & van Urk (to appear) argue that a complex pattern of "agreement reversal" in certain Neo-Aramaic languages can also be captured through the addition of structure precisely in non-perfective aspects. Crucially, neither of the Neo-Aramaic patterns in question is characterized as "ergative"—lending further support to the proposal here that the structural factors which trigger the appearance of "split ergativity" are independent of ergativity or an ergative argument alignment.

These splits share the following two properties. **First**, the split is not the result of special rules of case assignment or agreement, active only in certain aspects and not others; case-assigning functional heads in different aspects need not bear different case/agreement features (cf. Anand & Nevins' 2006 analysis of Hindi, as well Ura 2006). **Second**, the underlying mechanisms responsible for these splits are not a special property of ergative-patterning languages; the phenomena above are also found in predominantly nominative-accusative languages (for example, the progressive construction in Dutch and the English conative alternation). The difference between, e.g., Samoan on the one hand and, e.g., English on the other, is that—by definition—transitive and intransitive subjects are marked alike in a nominative-accusative system, making it impossible to see what would otherwise be a split in subject marking.

Of course, further careful work remains to be done in order to determine whether the subjects of these and other split constructions—whether in the "added structure" examples in section 3.1, or the "reduced transitivity" examples in section 3.2—indeed pattern consistently with more transparent **S** arguments in other respects. Nonetheless, we hope to have laid the groundwork for a line of investigation into why splits appear, and provided a useful starting hypothesis for further research.

X.4 Person splits

In this section, we turn to person- or NP-based split ergativity. This refers to systems that exhibit a non-ergative alignment when certain types of arguments are involved (e.g. 1st/2nd person pronouns), but exhibit an ergative alignment otherwise. There are important parallels between person-based split ergativity and *Differential Argument-Marking*—which we use, for now, as a cover-term for both Differential Subject Marking (DSM) and Differential Object Marking (DOM); see also Hoop & Malchukov (2008), Malchukov & Swart (2009), and Malchukov (this volume). This refers to the relatively well-studied phenomenon whereby a certain class of arguments (e.g. definites, proper nouns), when they occur in a particular structural position (e.g. direct object), bear a case-marking that is atypical for arguments in that position (e.g. dative, instead of accusative). We believe that these parallels are significant and should be considered carefully. We therefore turn

first to Differential Argument Marking, and outline a particular approach to this phenomenon and a proposal for how it arises. This proposal will then be related back to the structure-based account of split ergativity put forth in section 3, above.

X.4.1 Differential Argument Marking as a configurational phenomenon

We start with a basic observation drawn from the work of Baker & Vinokurova (2010) on Sakha (Turkic), that Differential Object Marking (DOM)—at least in this language—is determined configurationally. In Sakha, the presence of overt accusative marking on the direct object covaries with specificity: specific objects bear overt accusative marking, non-specific ones do not.[10] So far, this characterization would fit nicely within the foregoing description of 'Differential Argument Marking' (in particular, Differential Object Marking). But Sakha also exhibits a correlation— familiar from other languages in the Turkic family and beyond—between specificity and the structural position of the object. In effect, what one finds, at least in simple cases, is a three-way correlation between position, specificity, and (overt) case-marking: the specific object in (12a) bears accusative case marking and appears outside of the VP (as demarcated by the adverb *türgennik* "quickly"), while the non-specific object in (12b) has no accusative marking and remains VP-internal.
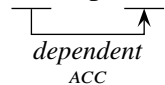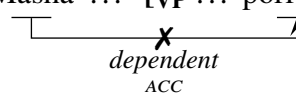
(12) a. Masha salamaat$_1$-*(y) [$_{VP}$ türgennik t_1 sie-te   ].   (Sakha)
         Masha porridge-*(ACC)   quickly   eat-PAST.3sg.SUBJ
         'Masha ate the porridge quickly.'

     b. Masha [$_{VP}$ türgennik salamaat-(#y)   sie-te   ].
         Masha   quickly   porridge-(#ACC) eat-PAST.3sg.SUBJ
         'Masha ate porridge quickly.'   [*B&V:602; annotations added*]

This three-way correlation between specificity, structural position, and case-marking raises the question of cause-and-effect: is one of these three factors the underlying cause, from which the

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[10]An exception to this involves accusative-marked objects that are contrastively focused; we will not discuss this here (see Baker & Vinokurova 2010:602).

other two stem? We take short object movement of the kind shown in (12a) to be an operation that obligatorily applies to all specific noun phrases within the VP; and whose successful culmination depends on whether the noun phrase in question is in a position from which vacating the VP is possible (see Preminger 2011a, 2014 for discussion, building on Diesing 1992, 1997, Vikner 1997, and others). In this sense, the morpho-semantic feature of *specificity* is the underlying cause for object movement.

Turning to the morphological side, the reason DOM manifests itself as case morphology is because case is assigned *configurationally*—and therefore, case depends on the positions of different noun phrases in the clause.[11] When a (specific) object moves out of VP, it is in a local enough configuration with the subject to receive DEPENDENT CASE (viz. accusative), as shown in (13a). When the object remains inside VP, i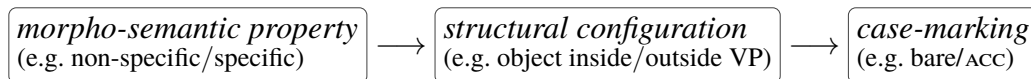t receives a non-specific interpretation, and is not in a local enough configuration with the subject to receive DEPENDENT CASE, as shown in (13b).

(13) a. Masha porridge$_1$-ACC [$_{VP}$ … t_1 …]

              dependent
                ACC

    b. Masha … [$_{VP}$ … porridge …]

              dependent
                ACC

The picture that emerges, concerning the causal relations between specificity, structural position, and case-marking, is therefore the following:[12]

(14) CAUSAL RELATIONS IN DIFFERENTIAL ARGUMENT MARKING

morpho-semantic property (e.g. non-specific/specific)	$\longrightarrow$	*structural configuration* (e.g. object inside/outside VP)	$\longrightarrow$	*case-marking* (e.g. bare/ACC)

---

[11] Baker & Vinokurova's (2010) actual claim is that the facts of case in Sakha require a 'hybrid' theory of case, consisting of a configurational component and a probe-goal component. However, Levin & Preminger (2015) have shown that this is incorrect, and that the facts regarding case in Sakha can be derived in a completely configurational manner, given certain independently-motivated changes to Baker & Vinokurova's theory of agreement.

[12] See Merchant 2006 for a different (and pre-dating) proposal—building on Aissen 1999, 2003 and implemented in a 'cartographic' fashion—that nevertheless preserves the fundamental insight that *position* is the independent variable in Differential Argument Marking, whereas changes in interpretation and case-marking are derivative.

Extending this approach to ergative systems, let us suppose that just like accusative on Sakha objects, ergative on subjects (at least in those languages that show differential ergative marking) depends on a second DP occupying a position *in the same case-domain* (following Marantz 1991; see also Baker 2013, in press). If something were to disrupt this sufficiently-local configuration of two DPs, it would bleed the assignment of ergative—just like the assignment of accusative is bled in the Sakha (12b/13b). In fact, it appears that precisely such a disruption is attested. As shown by Baker (in press), Massam (2013) and Woolford (2008), an object that remains inside VP can bleed the assignment of ergative to the subject of said VP. This is illustrated for Eastern Ostyak (Finno-Ugric, Siberia) in (15). In (15a), the specific object appears outside of the VP and the subject is marked with ergative case. In (15b), in contrast, the object remains VP-internal, and the subject appears in its nominative form.

(15) a. mə-ŋən ləɣə₁ [vP əllə juɣ kanŋa t₁ aməɣaloɣ   ].   (Eastern Ostyak)
          we-ERG   them   large tree beside   put.PAST.3pl.OBJ/1pl.SUBJ
          'We put them (pots of berries) beside a big tree.'

      b. mä   [vP t'əkäjəɣlämnä   ula   mənɣäləm   ].
          we.dual(NOM)   younger.sister.COM berry pick.PAST.1pl.SUBJ
          'I went to pick berries with my younger sister.'

                                                    [*Gulya 1966, via Baker in press; annotations added*]

Here, failure of the object to move into a sufficiently local configuration with the subject results in a failure to assign dependent case to the *latter*—since this is an ergative language. Crucially, though, this state of affairs is completely parallel to what we saw in Sakha, aside from the directionality of dependent case assignment; compare (13), above, with (16):

(16) a. we-ERG them$_1$ [$_{VP}$ … t_1 …]

dependent
ERG

    b. we … [$_{VP}$ … berry …]

dependent
ERG

In a similar vein, Massam (2013) shows that in Niuean, specificity/non-specificity of the object has the same effect on the case-marking of the subject (i.e., ergative vs. bare), even when the object in question is null—all but ruling out an account of this subject case alternation in terms of (pseudo-)noun-incorporation of the object.

Overall, these patterns are a rather powerful demonstration that Differential Argument Marking is fundamentally a *configurational* phenomenon. Changes in the case-marking of a particular argument are not a response to changes in the semantic properties of that argument per se, except insofar as those semantic changes affect the argument's structural position. Indeed, in the limiting case, changes in the semantic properties of a given argument can trigger changes in the case-marking on a *different* argument (if the case-marking on the latter depends on the structural relation between the two, as in (16)). In the terminology of Hoop & Malchukov (2008), this pattern is *global* (marking that depends on properties of more than one argument), rather than *local* (marking that depends only on properties of the argument in question). A theory of Differential Argument Marking that attempts to derive the morphological marking of an argument directly from that argument's own properties (e.g. Legate 2014) thus fails to generalize to cases like (15a–b). But a configurational theory, where the independent variable is not semantic type (specific/non-specific), but relative position, does generalize to such cases.

Before concluding this sub-section, it might be instructive to consider a question of terminology: would the difference between the Sakha (12a) (with a specific, accusative-marked object) and (12b) (with a non-specific, unmarked object) have led anyone to characterize Sakha as a "split accusative" language? i.e., to assert that in the presence of a non-specific object, the language "shifts" out of its normal accusative alignment, and into a neutral alignment (where all core arguments are

unmarked)? Note that similar alternations in subject marking *routinely* result in a language being classified as "split ergative"; this terminological bias towards focusing on the marking of subjects, we contend, is behind the impression that ergative languages—but not nominative-accusative ones—are where "splits" tend to arise (see the discussion in section 1). We return to this terminological bias in section 4.7, below.

X.4.2 "Binary split" systems and the prospects of unification with Differential Argument Marking

In light of the results presented in the previous sub-section, it is obviously intriguing to explore the possibility of unifying person-based split ergativity with Differential Argument Marking, under a configurational approach to both. However, there is one type of person-based split ergativity, which we will refer to as a "binary split" system, which seems to pose a serious challenge to such a unification. Dyirbal is an example of such a system. Focusing on clauses with *lexical* (i.e., non-pronominal) arguments, we find an ergative alignment, as shown in (17a): the **A** argument is marked with the suffix -*ŋgu*, while **P** and **S** arguments are morphologically unmarked.

(17) a. TRANSITIVE: LEXICAL SUBJECT, LEXICAL OBJECT

[**P** ŋuma] [**A** yabu-**ŋgu**] bura-n   (Dyirbal)

father   mother-ERG   see-NONFUT

'Mother saw father.'

b. INTRANSITIVE: LEXICAL SUBJECT

[**S** ŋuma] miyanda-n^{y}u

father   laugh-NONFUT

'Father laughed.'   [*Dixon 1994:161*]

Turning to clauses which involve 1st and 2nd person pronominals, as in (18), we find the opposite pattern. Here, only the **P** argument receives morphological case, resulting in a nominative-accusative alignment pattern.

(18) a. TRANSITIVE: 1ST/2ND PERSON SUBJECT, 1ST/2ND PERSON OBJECT

    [_A ŋana] [_P n^yurra-**na**] bura-n

      we   y'all-ACC   see-NONFUT

    'We saw y'all.'

   b. INTRANSITIVE: 1ST/2ND PERSON SUBJECT

    [_S ŋana] miyanda-n^yu

      we   laugh-NONFUT

    'We laughed.'   [*Dixon 1994:161*]

Importantly, and in contrast with the dependent case configurations examined in section 4.1, the choice of marking on a given nominal appears independent of properties of other nominals in the clause. As shown in (19), unmarked subjects may coincide with unmarked object as in (19a); and marked subjects may coincide with marked objects, as in (19b).

(19) TRANSITIVE: MIXED CLAUSES

   a. 1ST/2ND PERSON SUBJECT, LEXICAL OBJECT

    [_A ŋana] [_P ŋuma] bura-n

      we   father see-NONFUT

    'We saw father.'

   b. LEXICAL SUBJECT, 1ST/2ND PERSON OBJECT

    [_P ŋana-**na**] [_A ŋuma-**ŋgu**] bura-n

      we-ACC   father-ERG see-NONFUT

    'Father saw us.'   [*Dixon 1994:130*]

These facts are summarized in (20):

(20)   Dʏɪʀʙᴀʟ ᴀʀɢᴜᴍᴇɴᴛ ᴍᴀʀᴋɪɴɢ — ᴀ sᴜᴍᴍᴀʀʏ

	1st/2nd person pronouns	other nominals
A	ϕ	**-ŋgu** ('ᴇʀɢ')
S	ϕ	ϕ
P	**-na** ('ᴀᴄᴄ')	ϕ

The crucial observations are as follows (Dixon 1994): 'accusative' and 'ergative' can co-occur, as in (19b); but neither depends on the presence of the other, as shown in (17a) and (18a). It is therefore tempting to view this as two separate systems—a *subject* system and an *object* system—both of which are sensitive to interpretation (1st/2nd person vs. 3rd person), but each of which operates independently of the other. This type of view is schematized in (21) (we note that there have been several attempts to derive (21), or something like it, from factors such as "prototypicality" and "iconicity"; see, e.g., Wierzbicka 1981; and see Silverstein 1981 for a critical discussion).

(21) a. subjects:

- 1st/2nd person → unmarked

- 3rd person → marked ('ᴇʀɢ')

b. objects:

- 3rd person → unmarked

- 1st/2nd person → marked ('ᴀᴄᴄ')

Recall, however, that such a treatment would not generalize to the Eastern Ostyak and Niuean patterns discussed in section 4.1; ideally, we would want a *configurational* account of these Dyirbal facts, as well. In what follows, we propose such an account, based on the premise that Dyirbal has the kind of very short object movement proposed by Johnson (1991), inter alia:

(22)
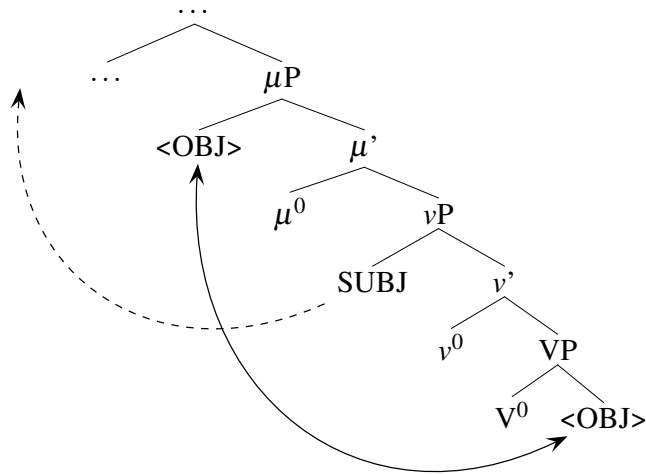
We follow Baker & Vinokurova (2010) in assuming that dependent case is assigned as soon as possible; and that it can be relativized to a particular cyclic domain (in Baker & Vinokurova's analysis of Sakha, dative is assigned to the higher of two DPs within the VP domain, whereas accusative is assigned to the lower of two DPs within the CP domain). With this assumption in place, we can begin to derive the distribution of 'accusative' and 'ergative' in Dyirbal in purely configurational terms. Consider a first attempt, given in (23):[13]

(23) CASE IN DYIRBAL

    a. <u>'accusative' in Dyirbal:</u>

       DEPENDENT CASE assigned to the *higher* of two DPs outside of VP.

    b. <u>'ergative' in Dyirbal:</u>

       DEPENDENT CASE assigned to the *higher* of two DPs inside of vP.

Given (23a), the object will only be 'accusative' if it undergoes the kind of short object movement that, in Sakha, was associated with specificity. Only then will there be two noun phrases outside of VP; and the higher of these two will be the object, at least prior to any subsequent movement of the subject (and recall that dependent case is assigned as soon as the conditions on its assignment

---

[13]Varying the directionality of dependent case in (23a–b) creates, in both instances, non-differential assignment of case. Changing the direction of (23b) to *lower* results in invariable assignment of dependent case to the object (which, terminologically, would then be called 'accusative' rather than 'ergative'). Changing the direction of (23a) to *lower* results in invariable assignment of dependent case to the transitive subject ('ergative', rather than 'accusative'). Importantly, then, these parametric options do not seem to overgenerate.

are met). The only difference is that in Dyirbal, the relevant semantic property associated with short object movement is not *specificity* per se, but some other property that groups 1st and 2nd person pronouns together to the exclusion of all other nominals; we return to the precise nature of this property in §4.5, below.

The problem with (22–23) as an account of case in Dyirbal pertains to (23b): as it stands, the subject will *always* be marked with 'ergative' case, since the subject and object satisfy (23b) in their base positions. The solution to this problem, we argue, lies in recognizing the unique agreement requirements that apply to 1st/2nd person arguments, which we turn to now.

X.4.3 The formal agreement requirement on 1st/2nd person pronouns

The Person Case Constraint (PCC), also known is the **Me-Lui Constraint*, is a prohibition against certain combinations of arguments, usually affecting the two internal arguments of a ditransitive. There are at least three attested varieties of the PCC (see Nevins 2007 for a recent review); of interest here is the so-called "strong" PCC. The strong PCC prohibits 1st/2nd person direct objects from co-occurring with an indirect object. In other words, it amounts to the requirement that direct objects of ditransitives be 3rd person. (See Anagnostopoulou 2005, Bonet 1991, Nevins 2007, inter alia, for further discussion.) But when one looks at formal accounts of the (strong) PCC, what one finds is that they do not rule out 1st/2nd person direct objects per se—what they rule out is 1st/2nd person *object agreement*, or 1st/2nd person *object clitics*. This is for good reason: the PCC arises precisely where object-agreement/object-clitics are found (e.g. the Basque (24)), and its effects disappear when no such object marking is found (e.g. the embedded clause in (25), which is the infinitival counterpart of (24b)).

(24) a. Zuk   niri   liburu-a   saldu d-i-ϕ-da-zu.   (Basque)
           you.ERG me.DAT book-ART$_{sg}$(ABS) sold   3.ABS-$\sqrt{}$-sg.ABS-1sg.DAT-2sg.ERG
           'You have sold the book to me.'

b. * Zuk   harakin-ari   ni   saldu *n-(a)i-ϕ-o-zu*.

    you.ᴇʀɢ butcher-ᴀʀᴛ_{sg}.ᴅᴀᴛ me(ᴀʙs) sold   1.ᴀʙs-√-sg.ᴀʙs-3sg.ᴅᴀᴛ-2sg.ᴇʀɢ

    Intended: 'You have sold me to the butcher.'

(25) Gaizki iruditzen   ϕ-zai-ϕ-t   [zuk   ni   harakin-ari

       wrong look-ɪᴍᴘꜰ   3.ᴀʙs-√-sg.ᴀʙs-1sg.ᴅᴀᴛ   you.ᴇʀɢ me(ᴀʙs) butcher-ᴀʀᴛ_{sg}.ᴅᴀᴛ

       saltzea].

       sold-ɴᴍᴢ-ᴀʀᴛ_{sg}(ᴀʙs)

       'It seems wrong to me for you to sell me to the butcher.'   [*Laka 1996*]

Thus, what the PCC rules out is not a given combination of (internal) arguments, but rather a given combination of object-agreement markers (or object-clitics).

Without further provisions, however, the expectation arises that a 1st/2nd person strong pronoun in direct object position of a ditransitive would be just fine, just as long as the finite verbal element carried agreement morphology expressing *3rd person* features (rather than the 1st/2nd person features of the actual object). But this expectation is of course false:

(26) * Zuk   harakin-ari   ni   saldu d-i-ϕ-o-zu.

      you.ᴇʀɢ butcher-ᴀʀᴛ_{sg}.ᴅᴀᴛ me(ᴀʙs) sold   3.ᴀʙs-√-sg.ᴀʙs-3sg.ᴅᴀᴛ-2sg.ᴇʀɢ

      Intended: 'You have sold me to the butcher.'

To handle this, accounts of the PCC are commonly supplemented with something along the lines of (27)—or, on Preminger's (2014) formulation, (28).[14]

(27) Pᴇʀsᴏɴ Lɪᴄᴇɴsɪɴɢ Cᴏɴᴅɪᴛɪᴏɴ (PLC)

     Interpretable 1st/2nd person features must be licensed by entering into an *Agree* relation

     with an appropriate functional category.   [*Béjar & Rezac 2003*]

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[14] A principle like (27) or (28) will correctly rule out cases like (26), but it leaves open the question of how the local direct object pronoun in the infinitival clause in (25) satisfies its licensing requirements. See Preminger (2011b) for an explanation based on locality.

(28) PERSON LICENSING CONDITION (PLC) – alternative formulation

The feature [participant] on a pronoun must participate in a valuation relation.

NB: '[participant]' is the feature that distinguishes 1st/2nd person nominals from 3rd person ones;
see Harley & Ritter (2002) and McGinnis (2005) for further discussion.

As noted by Preminger (2011b), this requirement appears to be a sui generis requirement on marked PERSON features, which does which does not extend to other φ-feature classes (NUMBER, GENDER (*pace* Baker 2008).

X.4.4 The Person Licensing Condition meets Differential Subject Marking

Recall the analysis of the Dyirbal "binary split" system put forth in section 4.2, repeated here:

(29)   *[=(22)]*
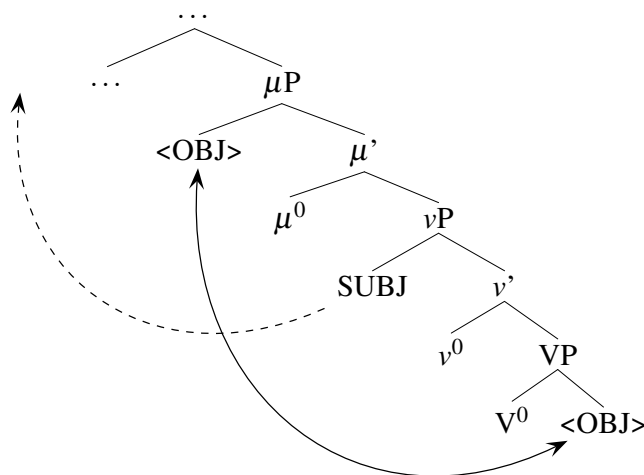
(30) CASE IN DYIRBAL

a. 'accusative' in Dyirbal: *[=(23a–b)]*

DEPENDENT CASE assigned to the *higher* of two DPs **outside of VP**.

b. 'ergative' in Dyirbal:

DEPENDENT CASE assigned to the *higher* of two DPs **inside of *v*P**.

The problem with this version was that it predicted invariable ergative case on the subject, contrary to fact (see §4.2 for details). This can be remedied, we propose, if—in light of the Person Licensing Condition—we add the following provision:[15]

(31) a. If the External Argument bears [participant], agreement with v^0 (upon first merge in [Spec,vP]) will satisfy its PLC requirement.

b. [participant]-bearing v^0 is phasal: **yes**/**no**.   ⟵ *per-language parameterization*

In a language where (31b) is set to 'yes', the assignment of ergative will be bled precisely when the subject bears [participant] features (i.e., when the subject is 1st/2nd person). That is because the phasehood of v^0 will render the object, located inside the complement of v^0, inaccessible for the purposes of (30b).[16] And crucially, (30a) will be unaffected by phasehood (or lack thereof) of vP, because the subject is already at the edge of vP. Thus, the assignment of 'accusative' will not be sensitive to the features of the subject, even if (31b) is set to 'yes'.

This produces the attested behavior of the "binary split" system of Dyirbal. The object will be assigned 'accusative' only if it undergoes short object movement—which, by hypothesis, applies only to 1st/2nd person pronouns in Dyirbal. The subject will be assigned 'ergative' unless it is 1st/2nd person, in which case the phasehood of vP will prevent (30b) from applying successfully.[17]

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[15]One might wonder whether, and to what degree, the parameterization in (31b) conflicts with the idea that vP is a category whose phasal status alternates based on the transitivity of the verb (Chomsky 2001, et seq.). In the Baker & Vinokurova treatment of DOM—which we build upon—it is crucially VP (and not vP) that is the 'phase' for the purposes of case computation. We take this to mean that the "classic" vP phase is simply a poor fit for the kind of locality domain required in an adequate case-assignment algorithm. We therefore set aside the traditional, transitivity-based definition of vP phasehood for the present purposes.

[16]Since case assignment rules apply as soon as possible (see §4.1), it is conceivable that later movement of the subject *out of* vP will once again bring the subject and object into a single case domain, resulting in the assignment of 'ergative' to the subject (or even to the object, depending on their relative hierarchical configuration). To avoid such spurious case assignment configurations, we tentatively assume that the rule in (30a) does not apply outside of μP.

[17]Andrej Malchukov (p.c.) points out that while DOM has a clear effect on word order in some languages, there may not be any clear cases where DSM affects word order in the same fashion. Notice that, in the system sketched here, movement of the subject (or lack thereof) plays no role in the presence/absence of DSM (cf. Merchant 2006). Depending on whether this is a real distinction between DOM and DSM, this could be seen as a form of support for the current proposal.

X.4.5 DSM vs. DOM

There is a residual issue with the account of the "binary split" system that was put forth in the preceding sub-section. If Differential Argument Marking is fundamentally a configurational phenomenon, as argued here, then it comes out as a coincidence that in Dyirbal, the same factors that regulate movement of the object out of VP also regulate the phasehood of *v*P—namely, the presence or absence of a [participant] feature.

We contend, however, that this is actually a desirable state of affairs: we *want* this to be a Dyirbal-specific coincidence. To see why, we must first attend to the featural bases for DSM and for DOM, cross-linguistically. Both DSM and DOM have historically often been claimed to adhere to a scale like (32):

(32)

$\longleftarrow$ *subj marked* ERG				*obj marked* ACC $\longrightarrow$
common nouns	$\gg$	proper nouns	$\gg$ demonstratives, 3rd person pronouns $\gg$	1st/2nd person pronouns

[*Dixon 1994, Silverstein 1976, inter alia*]

While this has proven to be an extremely useful (and influential) first approximation, it belies the finer typological differences one finds between DSM and DOM. To wit:

> "Intuitively we could expect [the DSM] split to be found between humans and non-humans, or between animates and inanimates. Actually, no language places the split in such positions; most of them indeed single out 1/2 pronouns from the rest."
>
> [*Cocchi 1999:112*]

> "If [a unified approach to DOM and DSM is correct], we expect to find an equal diversity of types of subject and object splits in the world's languages; however, that prediction is not borne out. Instead, there are very few kinds of subject splits, in contrast to an enormous diversity of object splits. For example, Comrie (1981:123) notes that while definiteness is

frequently the basis of object splits, there is an embarrassing absence of clear attestations of the predicted marked indefinite subject."

[*Woolford 2001:535*]

And with respect to Australian languages (like Dyirbal) in particular:

> "My key point is simply that [Hopper & Thompson (1980)] clearly establish that special accusative marking tends to occur with proper nouns, human and animate nouns, and definite, referential usages *in many language families*. There is no reason to link this phenomenon when it occurs in Australian languages with the incidental fact that Australian languages have ergative case."

[*Goddard 1982:191*]

While our brief discussion has not touched on a range of more complex patterns associated with DSM (see e.g. Malchukov 2008, Malchukov & Swart 2009, and references therein), the general pattern is consistent. Overall, it appears that while differential ergative marking on subjects (DSM) typically correlates with the *1st/2nd person vs. 3rd person* distinction, differential case marking on objects (DOM) is typically sensitive to features like *animacy*, *specificity*, and *definiteness*. Malchukov (2008:207) notes that "the rarity of the animate/inanimate split is unaccounted for under [a hierarchy-based] approach."[18]

Consequently, a language like, e.g., Balochi (NW Iranian) might be a far better representative for how "binary split" systems usually work than Dyirbal is (we return to Dyirbal itself in

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[18]One potentially problematic case involves patterns of apparent DOM that are sensitive to person features *per se*, rather than the canonical DOM features discussed here. Roberta D'Alessandro (p.c.) points out that in the Italian dialect Ariellese, an *a* marker is added to 1st/2nd person object pronouns, but not to the 'unmarked' 3rd person pronoun *esse* (Ariellese also has a system of proximate/medial/distal 3rd person demonstratives, all of which apparently marginally tolerate the *a* marker). A similar though non-identical system, involving optionality of *a* with 3rd person pronouns (but obligatoriness of it with 1st/2nd person ones) is reported by Manzini & Savoia (2005) for the Canosa Sannita dialect.

While nothing in our account specifically rules out person-sensitive DOM, the overwhelming tendency of DOM to be based on other features (in contrast to DSM, which is frequently—perhaps always—based on person distinctions) is still a very robust cross-linguistic generalization. We therefore tentatively set aside the pattern in Ariellese and Canosa Sannita for future work.

section 4.6). In Balochi, DSM distinguishes 1st/2nd person from 3rd person, but DOM is sensitive to definiteness. This pattern is summarized in (33); see Farrell 1995:224 for details.[19]

(33) BALOCHI ARGUMENT MARKING

	1st/2nd person pronouns	3rd person pronouns, and other definites	indefinites
A	ϕ	'ERG'	'ERG'
S	ϕ	ϕ	ϕ
P	'DAT'	'DAT'	ϕ

To capture these crosslinguistic generalizations, which Balochi exemplifies, we propose the following generalization:

(34) DIFFERENTIAL ARGUMENT MARKING GENERALIZATION

a. DSM (i.e., of **A**) is based on the presence or absence of the feature [participant]

b. DOM (i.e., of **P**) is governed by *definiteness*, *specificity*, and/or *animacy*

Returning to our proposal regarding binary split systems, the basic structure of which is repeated again in (35), the generalizations in (34a–b) can be captured as follows. DOM (34b) is regulated by movement to [Spec,μP], and can therefore depend on one of a set of possible features—*definiteness*, *specificity*, and/or *animacy*—depending on what it is that μ^0 probes for. DSM (34a), on the other hand, is regulated by the phasehood of vP, which on our proposal is determined by a single, fixed feature: [participant].

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[19]An essentially identical pattern—DSM based on 1st/2nd person vs. 3rd person, with DOM based on definiteness vs. indefiniteness—is found in Kham (Tibeto-Burman; see DeLancey 1981, Merchant 2006, Watters 2002).

(35)　　　　　　　　　　　　　　　　　　　　　　　　　　　*[≈(29)]*
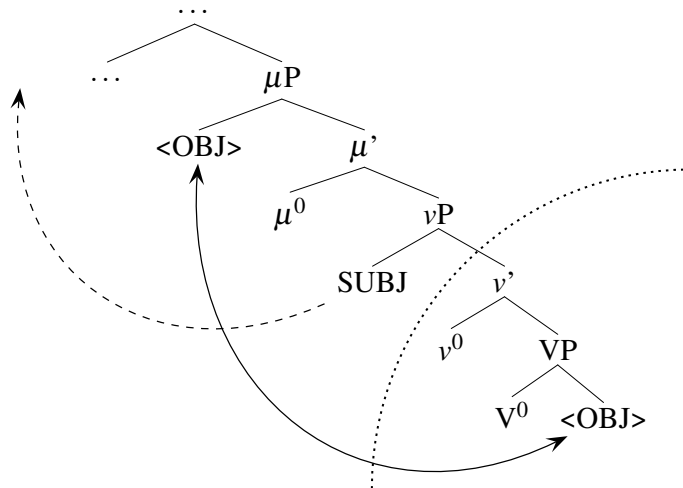
X.4.6　A new (or old) take on Dyirbal objects

While the proposal in (29–30) successfully derives systems like the one exemplified by Balochi, DOM in Dyirbal now appears to be an exception to the rule—since it is described as tracking the 1st/2nd person vs. 3rd person distinction. In this sub-section, we demonstrate that this may be based on a mischaracterization of what the relevant distinction really is. The crucial observation is that Dyirbal *doesn't actually have 3rd person pronouns*. This means that we can recast (36) (repeated from earlier) as (37), without altering the empirical coverage whatsoever:

(36)　Dyirbal argument marking — summary

[=(20)]

	1st/2nd person pronouns	other nominals
A	ϕ	**-*ŋgu*** (‘ERG’)
S	ϕ	ϕ
P	**-*na*** (‘ACC’)	ϕ

(37) Dɪʀʙᴀʟ ᴀʀɢᴜᴍᴇɴᴛ ᴍᴀʀᴋɪɴɢ — ᴇxᴘᴀɴᴅᴇᴅ ᴠᴇʀsɪᴏɴ

	1st/2nd person pronouns	3rd person pronouns	other nominals
A	ϕ	**-ŋgu** ('ᴇʀɢ')	**-ŋgu** ('ᴇʀɢ')
S	ϕ	ϕ	ϕ
P	**-na** ('ᴀᴄᴄ')	**-na** ('ᴀᴄᴄ')	ϕ

To be clear, we are not saying that there is a Dyirbal-internal argument *in favor* of (37); only that given the lack of 3rd person pronouns in the language, there is no Dyirbal-internal argument *against* (37).

It is worth noting, in this respect, that the kind of pattern we are asserting to exist in Dyirbal is attested—in a language *with* 3rd person pronominals, in Cashinawa (Panoan; Dixon 1994). As the table in (38) shows, the split in the marking of **A** arguments in Cashinawa divides 1st/2nd person from 3rd person, while for objects the distinction is between pronouns (regardless of person) and all other nominals.

(38) Cᴀsʜɪɴᴀᴡᴀ (Dixon 1994:86)

	1st/2nd-person pronouns	3rd-person pronouns	other nouns
A	-ϕ	*habũ*	ɴᴀsᴀʟɪᴢᴀᴛɪᴏɴ
S	-ϕ	*habu*	-ϕ
P	-*a*	*haa*	-ϕ

In fact, this view of Dyirbal itself is not without precedent (see also Legate 2008):

> "Proper and some common nouns (usually just those referring to humans) can take the suffix *-na*, but only when they are in transitive object function."

> [*Dixon 1972:43*]

One can therefore maintain the view that while DSM in Dyirbal is about [participant] vs. lack thereof, DOM in Dyirbal is about *pronominality*—or perhaps, given this quote from Dixon (1972), *animacy*. This brings Dyirbal into accordance with the Differential Argument Marking

generalization given in (34) and, in turn, allows those mechanisms we have proposed to derive (34) derive the behavior of Dyirbal, as well.

We note here that the view of split ergativity in Dyirbal as syntactic in nature is not without its challenges. In particular, Legate (2014:188–189), responding in part to an earlier version of this work (Coon & Preminger 2012), shows that morphologically-unmarked 1st and 2nd person subjects in Dyirbal behave identically to their ergative-marked counterparts in at least two respects. First, they trigger what has been labeled "ergative case agreement" on unselected modifiers. Second, in coordination constructions, a second conjunct that would select (if it were not part of a coordination) a morphologically-unmarked transitive subject cannot share an unmarked DP with a first conjunct selecting an absolutive subject. Legate takes this to show that split ergativity in Dyirbal arises morphologically, as a matter of neutralization of the contrast between ergative and absolutive (or 'nominative' in Legate's terms) on pronouns.

It seems to us that neither of these challenges to the syntactic account is insurmountable. Regarding the former, the fact that the marking in question is called "ergative case agreement" does not self-evidently reveal its underlying nature. Natural language is replete with morphosyntactic processes and properties that partition clausal arguments into external arguments or underived subjects on the one hand, and all other arguments on the other (an observation that goes back to Perlmutter 1978). The marking in question may simply be an instance of the same thing: a marking available only to predicates of underived subjects (regardless of whether they are 1st/2nd person and unmarked, or 3rd person and marked), and labeling them as "ergative case agreement" may be a mistake, in the first place. As for the coordination facts, it seems to us that these can be subsumed under the Coordinate Structure Constraint, assuming that the absolutive subjects of intransitives must move to their VP-external position, whereas subjects of dyadic predicates do not undergo movement from within the VP.[20]

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[20]Though we acknowledge that the question of whether or not movement that occurs this low in the clause is subject to the CSC is not as clear cut as we would like it to be.

This being said, it may yet turn out that, contrary to what we have claimed here, the ergative split in Dyirbal is indeed morphological in nature. Let us consider what this would mean. First, the syntactic path to person-based split ergativity could still turn out to be correct for other languages, such as Cashinawa (see above). More importantly, however, allowing a morphological path to person-based split ergativity reinstates the question concerning the universal directionality of splits. On our account, the universal directionality arises for the same reasons in person splits as it does in aspect splits—namely, because added structure is distributed asymmetrically among the different values of the feature in question (i.e., in 1st/2nd person contexts and in imperfective aspects, respectively). This asymmetric distribution of added structure was independently motivated (from the Person Licensing Condition and from the locative nature of non-perfective aspect markers, respectively). Such an explanation is unavailable on the morphological approach, which must stipulate that marked values for case (ergative) simply do not occur with marked values for person (1st/2nd) (Legate 2014:209), which seems to us to be a restatement of the explicandum.

X.4.7 Summary

We have argued that Differential Argument Marking, including DSM, is a *configurational* phenomenon—and crucially, that DSM encompasses what in an ergative system is characterized as "split ergativity". **First**, morpho-semantic distinctions (such as specificity, definiteness, or animacy) may give rise to changes in the relative positions of core arguments, via the mechanism of *Object Shift* (or other very short object movement). This, in turn, may affect the way case is assigned in the clause—normally resulting in the morpho-semantic properties of an argument co-varying with its own case marking; but in certain cases, via the mechanism of DEPENDENT CASE, resulting in properties of one argument co-varying with the morphological marking of another (as in Eastern Ostyak and Niuean). **Second**, even subject marking alternations based on whether the subject is 1st/2nd person or 3rd person can be recast configurationally, given the independently motivated formal agreement requirement on 1st/2nd person arguments (Anagnostopoulou 2005, Béjar & Rezac 2003). Finally, even a language like Dyirbal does not counterexemplify these generalizations,

since the lack of 3rd person pronouns in the language does not actually allow one to distinguish between a pronominality/animacy distinction and a distinction based on 1st/2nd person vs. 3rd person.

We now turn to a note on terminology. There is a common impression that DSM (also known as 'split ergativity') is more common in ergative languages than in non-ergative ones, an impression that might arise even from surveying the preceding sub-sections. Why would this be? Our answer—echoing the discussion of aspectual splits summarized in section 3.3 above—is that this is nothing more than a terminological bias towards properties of the *subject* (and not of the object) as the defining property of a morphological marking system. Recall that, on the current analysis, DSM is about the disruption (or non-disruption) of the DEPENDENT CASE relation that the subject participates in. In a language with an ergative-absolutive alignment, disrupting this relation alters the case-marking of the subject itself (namely, 'ergative'). But in a nominative-accusative system, disrupting this relation *does not affect the subject's marking*—instead, it affects the assignment of 'accusative' to the object. So, by fixating on the subject, we would not notice that anything "noteworthy" has changed (recall the discussion in §4.1 of Sakha as a 'split accusative' language).[21]

If we look carefully, we should be able to find something that looks like the mirror image of the Eastern Ostyak and Niuean pattern, discussed in §4.1: a scenario where the [participant] features on a 1st/2nd person subject—and the concomitant phasehood of v^0—affect a morphosyntactic property *other* than the subject's own morphological marking. One example may be found in the Yukaghir languages (Maslova 2008).[22] In Yukaghir, what looks like an accusative marker on the transitive object (glossed '-P', in (39b)) is suppressed when the transitive subject is 1st/2nd person, as in (40):

(39) a. qad'ir apanala: me-kelu-j   (Tundra Yukaghir; *Maslova 2008:790*)

        now   old.woman AFF-come-INTR(3)

        'The old woman came.'

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[22]Many thanks to Mark Baker and Andrej Malchukov for pointing this out to us.

b. qad'ir taŋ ile-**le**   met könn'e-pul men'-ŋu-te-m   titte-l'uol

   now   that deer-**P** my relative-PL take-PL-FUT-TR(3) their-TRNSF

   'My relatives will take those deer for themselves.'

(40)   met amā   me-pun'-me-k

   my father AFF-kill-TR-2SG

   'You(sg) have killed my father.'

Not only does Yukaghir appear to realize the aforementioned prediction (that [participant] on the transitive subject affects a property of the transitive object), but the direction of the effect is also suggestive. On our account, the effect that the transitive subject may have on the object lies in disrupting dependent case on the latter; and what we find in Yukaghir is that the object marker disappears in the presence of a 1st/2nd person transitive subject, rather than the other way around.[23],[24]

X.5   Conclusion

We argued that split ergativity, of both the aspectual sort and the person-based sort, is epiphenomenal. The absence of ergative marking on (what appears to be) a transitive subject is the result of structural properties of the clauses in question, which affect the configurational basis upon which case and agreement depend. In the domain of aspectual splits (§3), we showed that non-perfective aspects involve additional structure, either in the form of an aspectual auxiliary (e.g. Basque), or demotion of the **P** argument (e.g. Samoan). As for person splits (§4), we showed that general properties of Differential Argument Marking are implicated in so-called person-based split ergativity. Specifically, while the marking of objects (DOM) is sensitive, in most if not all cases, to features such as animacy, definiteness, and specificity—the usual features responsible for Object

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[23]There is a slight complication in Tundra Yukaghir, caused by the existence of a focus marker homophonous with the object case marker. However, Maslova (2008:794–795) points out that in Kolyma Yukaghir, the two are phonologically distinct.

[24]See Coon & Preminger 2012 for another case where a similar mechanism may be at play, involving auxiliary selection in the Abruzzese dialect of Italian.

Shift—the marking of subjects (DSM) is sensitive, in most if not all cases, to the distinction between 1st/2nd person and 3rd person. As we have shown, there is good reason to treat these patterns, too, as configurationally triggered. Object shift would bring the object into the same case domain as the subject, facilitating the assignment of DEPENDENT CASE. 1st/2nd person arguments are known to have unique licensing requirements, and if the projection satisfying these requirements on a 1st/2nd person subject is phasal, it will disrupt otherwise available DEPENDENT CASE relations.

We have presented some specific case studies in how the addition of structure may arise; but note that these are not intended to be exhaustive. Our general proposal is not that every language with split ergativity is necessarily a variation on one of these specific cases. Rather, our proposal is that splits, in general, arise as the result of structural changes to the relevant clauses, and *not* as the result of special mechanisms or featural specifications not found in nominative-accusative languages. An illustrative example is provided by Nash (this volume). She argues that while split-ergativity in Georgian (Kartvelian) does not involve the addition of morphosyntactic structure of the type seen in section 3 (contra the suggestion in Coon 2013b), it *does* nonetheless fit the general proposal advanced here: ergative-patterning aorist tenses are in fact an example of *neutral aspect*, and lack a phasal EventP present in split-patterning non-aorist tenses. We have also not examined in detail here proposals in which 1st and 2nd person arguments are base-generated in a higher clausal position (Nash this volume on Georgian; Wiltschko 2006 on Halkomelem (Salish)), though this again fits the general pattern of splits being the result of different structures, and of special licensing requirements applying only to 1st/2nd person arguments.

We have argued further that the structural differences that cause splits are not limited to ergative systems in the first place. Rather, the issue boils down to the defining characteristic used by linguists to distinguish 'ergative systems' and 'accusative systems' from one another. The simple fact that in a nominative-accusative system, both transitive and intransitive subjects receive the same marking (nominative), obscures the fact that some of these so-called transitive subjects may actually be *intransitive* subjects in the morphosyntactic sense (e.g. in the presence of a complex progressive aspectual construction, a demoted object, or phasal vP). In other words, the difference between a

transitive and intransitive subject (as in the English *John shot the bear* vs. *John shot at the bear*, for example) does not catch our attention as readily in a nominative-accusative system as it does in an ergative one. As noted above, this analysis gives us a handle on the seeming paucity of consistently ergative languages, compared to consistently accusative languages—an asymmetry which on the current view is rather superficial, and has more to do with our readiness to apply the terminology of 'split' than it has to do with any deep grammatical properties.

Furthermore, the proposed analyses of both aspect-based and person-based split ergativity are able to account for the universal *directionality* of these splits: the fact that ergative-absolutive alignment and nominative-accusative alignment each remain anchored, cross-linguistically, to fixed ends of the relevant scale (be it an aspectual scale or an NP "prominence" scale). That is because in both domains (aspect and NP-type), there is independent evidence that the values on one end of the relevant 'scale'—but not the other—are cross-linguistically associated with additional syntactic structure (in ergative languages and accusative ones alike). It is this additional structure, on the current account, that is responsible for the relevant bifurcation of the clause, in those languages where the added structure happens to be syntactically opaque; and it is this bifurcation that results, in a language that is ergative to begin with, in the appearance of a split, due to altering the configurational properties of the clause. Proposals which seek to account for split ergativity by making direct reference to the scales in (3) and (4), above (e.g. DeLancey 1981) overgenerate: in the domain of person splits, for example, it was shown that most of the splits predicted by such a scale are in fact unattested. Overwhelmingly, the only category on this scale that is relevant to subjects is 1st/2nd person—a category which is independently known to require special licensing mechanisms (cf. PCC effects).

While we make no new proposals about why some languages display an ergative-absolutive pattern and others display a nominative-accusative one, the resulting picture is one in which a given language consistently exhibits one or the other pattern—at least as far as the core principles of case assignment are concerned. There is no 'split' in the set of case-assignment rules or principles operative in the language as a whole; different constructions may result in detransitivization, which

as discussed above, is not a phenomenon that is specific to ergative systems in the first place. This "demystification" of split ergativity contributes to a growing body of work that suggests there is no ergative *macro-parameter*, which would group together ergative and split-ergative languages under a single setting, in opposition to other, fully accusative languages. Furthermore, the same results cast doubt on the idea that there is anything especially *marked* about ergativity (cf. Visser 2006).

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