

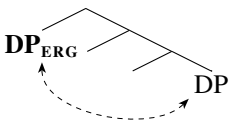
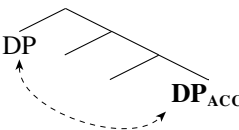
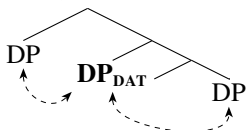
Dependent case and clitic dissimilation in Yimas*

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Baker (2015) suggests that the dependent theory of case assignment (Yip et al. 1987, Marantz 1991, among others) is essentially a formulation of the intuition that morphological case functions to differentiate nominals. This paper presents novel evidence for this idea from the verbal agreement system of Yimas. As a radical departure from previous characterizations of the language, this paper argues that the Yimas agreement morphemes are actually doubled pronominal clitics, and that they exhibit paradigmatic alternations that parallel the distributions of dependent case on nominals cross-linguistically. The core evidence comes from the fact that clitic doubling in Yimas is optional. Once this optionality is taken into account, it is revealed that the morphological form of a given clitic covaries with the total number of clitics present, even when the sentence-level syntax is held constant: how a clitic is ultimately realized is thus dependent on its clitic environment. This context-dependence is analyzed as a dissimilation process, which applies to distinguish between multiple morphosyntactically indistinguishable clitics; this arises whenever multiple DPs are doubled. Thus, both clitic dissimilation in Yimas and dependent case on nominals can be viewed as alternations that are controlled by morphosyntactic context, albeit in different structural domains.

1 Introduction

According to the theory of dependent case developed in Yip et al. (1987), Bittner and Hale (1996b), and especially Marantz (1991), morphological case assignment is determined by a nominal's structural position relative to other nominals, rather than relative to a functional head. As schematized throughout (1), this system takes ergative case to be assigned to the higher of two arguments within a local domain of case assignment, and accusative case to be assigned to the lower of two such arguments. Additionally, it has been proposed that dative case is also dependent, assigned to the intermediate of three DPs (Harley, 1995; Folli and Harley, 2007; Podobryaev, 2013).¹ Since dependent case assignment only references c-command relations between arguments, the distribution of dependent case is independent of the presence of certain functional heads that have case-assigning capabilities in other theories of case (e.g. Chomsky, 1981, 1995, et seq.).

- (1) a. ERG assigned to higher of two DPs
- 
- b. ACC assigned to lower of two DPs
- 
- c. DAT assigned to intermediate of three DPs
- 

This paper both provides novel support for dependent case theory and argues for a reinterpretation of the logic behind the theory, based on a new analysis of the agreement system of Yimas, a Papua New Guinean language from the Lower Sepik language family. Yimas is, at first blush, an unlikely source of insight into dependent case theory, which is usually discussed in the context of nominals rather than agreement morphology; moreover, characterizing the Yimas agreement system in this way is a radical departure from certain previous analyses of the language (Foley 1991; Phillips 1993, 1995; Harbour 2003; Woolford 2003, though see Wunderlich 2001). I will argue that not only does the current approach provide greater empirical coverage, it also

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¹Others have also proposed that DAT case is dependent, but not assigned to a syntactically intermediate argument. For example, Baker and Vinokurova (2010) and Baker (2015) take dependent DAT to be assigned to the higher of two arguments within a VP phase.

provides novel insights into the logic of dependent case *precisely because* it has never before been investigated through the lens of an agreement system.

I show that the Yimas agreement morphemes, which are analyzed here as doubled pronominal clitics rather than ϕ -agreement heads, exhibit paradigmatic alternations mirroring the distribution of dependent case. The core evidence for these alternations comes from the fact that these morphemes are *optional*, subject to discourse-prominence considerations—as expected if they are the products of pronominal clitic doubling. Strikingly, a comparison between ‘full’ and ‘partial’ clitic doubling patterns reveals that the morphological form of a given clitic varies with the *total number of clitics present*, even when the sentence-level syntax is held constant, (2):

(2) *Morphological alternations on Yimas clitics*²

- a. tpuk **ka-** **ka-** na- tmi- am -nt **-akn**
 sago.pancake.X.SG X.SG.ABS- 1SG.ERG- DEF- CAUS- eat -PRES -3SG.DAT
 ‘I made him eat a sago pancake.’ (F292)
- b. irwa ŋaykum **na-** **mpu-** tmi- ampa -t
 mat.IX.SG woman.PL 3SG.ABS- 3PL.ERG- CAUS- weave -PERF
 ‘The women got her to weave a mat.’ (F292)

In both examples above, there are three arguments associated with the verb—subject, causee, and direct object. However, in (2a) there are three clitics on the verb, while in (2b) there are two. The clitic cross-referencing the 3SG causee is realized with the form DAT *-akn* in (2a) but is realized with the ABS form *na-* in (2b). Thus, the morphological form of a given clitic is dependent on the presence of other clitics in the same clitic sequence. This is in essence a *dependent case pattern* within a clitic cluster. Thus, both the clitic forms in Yimas and dependent case patterns on nominals across languages display a sensitivity to morphosyntactic context in similar ways. Nonetheless, that we find the same effects cross-cutting different structural domains strongly suggests the existence of a broader linguistic principle that underlies—and unifies—both systems.

Despite the recent influx on research on dependent case theory,³ it remains generally unexplored within this literature *why* languages make use of such a system. The only explicit discussion I am aware of comes from Baker (2015), who characterizes the theory of dependent case as a generative sharpening of the functionalist idea that morphological case exists primarily to distinguish between nominals of different grammatical functions (cf. Comrie, 1978; Haspelmath, 2008). Building on this intuition, I propose that both the morphological alternations on the Yimas clitics and dependent case on nominals are fundamentally dissimilatory. This is driven by a universal well-formedness condition requiring that all elements within some local domain be featurally distinct from one another (as suggested by Grimshaw 1997 and Richards 2010, among others). I suggest that Yimas provides the core evidence for this dissimilation-based treatment: the morphological alternations on the clitics can be analyzed as strategies to order to avoid sequences of otherwise invariant clitics (cf. Wunderlich, 2001), a problem that arises from the morphological invariance of the DPs they double. Extended to dependent case systems of other languages, this provides support for Baker’s (2015) idea. Therefore, what we typically call ‘dependent case’ is dissimilation applied to nominals at the sentence level, whereas in Yimas the relevant domain of dissimilation is the clitic cluster.

This paper is organized as follows. §2 provides an overview of the Yimas agreement system and previous analyses that have been proposed to account for the agreement patterns. In this section, I moreover argue that the agreement morphemes under investigation are actually doubled pronominal clitics. In §3, I observe that the distributions of the morphological paradigms in Yimas parallel dependent case patterns on nominals cross-

²Throughout the paper, all agreement morphemes and glosses in the Yimas data will be **bolded**, while individual morphemes that are particularly salient to the present discussion will be **boxed**. The following abbreviations are used in the Yimas data: ABS = absolutive, ACC = accusative, ADV = adverbial, ALL = allative, CAUS = causative, COM = comitative, COMP = clausal complement, DAT = dative, DEF = definitive, DEM = demonstrative, DL = dual, DUR = durative, FR.DIST = far distal, FUT = future, ERG = ergative, HAB = habitual, IRR = irrealis, IV = class 4, IX = class 9, LIKE = likely, NEG = negation, NR.PST = near past, NFN = non-finite, OBL = oblique, PERF = perfective, PL = plural, POT = potential, PRES = present, PRON = pronoun, PST = past, REL = relativizer, RM.PST = remote past, SEQ = sequential, SG = singular, VI = class 6, VII = class 7, VIII = class 8, X = class 10, 1 = 1st person, 2 = 2nd person, 3 = 3rd person.

³See McFadden (2004), Bobaljik (2008), Baker and Vinokurova (2010), Podobryaev (2013), Preminger (2011, 2014), Baker (2014, 2015), Levin and Preminger (2015), Yuan (2018), a.o. for recent applications of dependent case theory to a wide range of cross-linguistic case patterns.

linguistically, and argue that, in Yimas, dependent case is calculated over the clitic cluster, not over nominals at the sentence-level. §4 provides a more explicit comparison between the Yimas clitic system and dependent case systems on nominals cross-linguistically. I show that, although the logic of dependent case assignment to clitics in Yimas is familiar, the *directionality* of case assignment is crucially the mirror image of that on nominals in other languages. §5 then extends the discussion to non-dependent instances of case assignment in Yimas. I propose that Yimas clitics may also receive a type of lexical case, which bleeds dependent case assignment. This section moreover provides a new analysis of a putative person-based ergative split claimed to exist in the language. Finally, §6 argues for a unified dissimilation-based account of both systems.

2 Yimas morphosyntax

All of the Yimas examples presented throughout this paper are originally from William Foley’s (1991) grammar of Yimas or personal communication with the author.⁴ The data in the grammar are based on extensive fieldwork that Foley conducted between 1977 and 1988; however, many of the generalizations and conclusions stemming from the data are additionally attributable to later analytical work by other authors (e.g. Phillips, 1993, 1995; Wunderlich, 2001; Harbour, 2003, 2008; Woolford, 2003).

2.1 Overview

Yimas is a Lower Sepik language of Papua New Guinea. The language is highly morphologically complex, especially in its verbal system. While word order at the sentence level is relatively free, morpheme order within the verb is rigid. Propositional content may be expressed with verbs alone, as nominals are often omitted. When they are overt, nominals are morphologically unmarked if understood as a core argument (regardless of exact thematic role or grammatical function). As (3) shows, grammatical relations are generally encoded directly on the verb with agreement morphology, rather than on nominals themselves. The examples in (4) moreover show that, in contrast to core arguments, oblique arguments are case-marked and cannot be cross-referenced by agreement agreement.

(3) *Core nominals in Yimas are unmarked*

- a. **payum** **narmaŋ** **na-** **mpu-** tay
 man.PL woman.SG 3SG.ABS- 3PL.ERG- see
 ‘The men saw the woman.’ (F193)
- b. **payum** **narmaŋ** **pu-** **n-** tay
 man.PL woman.SG 3PL.ABS- 3SG.ERG- see
 ‘The woman saw the men.’ (F193)

(4) *Core and oblique nominals in Yimas*

- a. **irpm** **mu-** **n-** wupal
 coconut.palm.IV.SG IV.SG.ABS- 3SG.ERG- climb
 ‘He climbed the coconut palm.’
- b. irpm-**un** **na-** wupal
 coconut.palm.IV.SG-OBL 3SG.ABS- climb
 ‘He climbed up on the coconut palm.’ (F234)

Turning now to the agreement morphology in Yimas, (5a) offers a simplified sketch of the basic surface morpheme order in verb complex, while (5b-d) provide examples illustrating this order. Note that the number suffix in (5d) appears primarily in the context of a small set of prefixes encoding mood or negation.⁵

⁴The citation convention I will use throughout this paper is as follows: (F[pg.#]) or (F,p.c.).

⁵An analysis of the order of agreement morphemes will be provided in §2.4.

(5) *Surface order of morphemes in Yimas*

- a. (MOD-) (**ABS-**) (**ERG-**) (**DAT_{PART-}**) verb stem (**-DAT.3**)
- b. **k-** **mpu-** **ŋa-** tkam -t
VI.SG.ABS- 3PL.ERG- 1SG.DAT- show -PERF
'They showed me it (the coconut).' (F208)
- c. **k-** **ka-** tkam -r **-akn**
VI.SG.ABS- 1SG.ERG- show -PERF -3SG.DAT
'I showed him it (the coconut).' (F211)
- d. **ta-** **pu-** **n-** tay -c -um
NEG3(ABS)- 3SG.ERG- see -PERF -PL
'He didn't see them.' (F257)

Foley (1991, p.200) organizes the Yimas agreement forms into three paradigms indicating grammatical function: S[ubject], A[gent], and O[bject]. I will assume his grouping of the morphemes throughout this paper, though I will relabel the paradigms as ABS, ERG, and DAT cases, respectively, as in (6).⁶ Each cell encodes both the person (1/2/3) and number (SG/DL/PL) of the nominal being cross-referenced.⁷ Only agreement forms encoding human referents are given here; the ABS paradigm additionally makes several noun class distinctions for non-human referents, which include animals, objects, and clausal complements (glossed throughout this paper with roman numerals).⁸

(6) *Agreement paradigms—human referents*

	ABS	ERG	DAT
1sg	ama-	ka-	ŋa-
1dl	kapa-	ŋkra-	ŋkra-
1pl	ipa-	kay-	kra-
2sg	ma-	n-	nan-
2dl	kapwa-	ŋkran-	ŋkul-
2pl	ipwa-	nan-	kul-
3sg	na-	n-	-(n)akn
3dl	impa-	mpi-	-mpn
3pl	pu-	mpu-	-mpun

The agreement system generally follows an ERG-ABS alignment pattern. As shown in (7), intransitive subjects and transitive objects are both cross-referenced by ABS morphology; in contrast, transitive subjects are cross-referenced by ERG morphology. Indirect objects of all persons are cross-referenced by DAT. These data

⁶The choice to uniformly label the 'O' paradigm as DAT diverges from previous literature (e.g. Phillips, 1993, 1995; Wunderlich, 2001), in which this 'O' paradigm is often divided into an ACC paradigm containing only 1st/2nd person members and a DAT paradigm containing only 3rd person members. I will provide arguments against this division later in the paper.

⁷Yimas also has paucal number, which may be morphologically realized differently from the other number specifications. Depending on the person specification, paucal is either expressed the same way as a proclitic, on par with the SG/DL/PL forms, or is jointly realized by a special paucal enclitic and a plural proclitic. I will mostly set aside the paucal number system in this paper; see Foley (1991, pp.216-225), Phillips (1993, pp.193-195), and Wunderlich (2001, pp.33-34) for discussion.

⁸Noun class distinctions are visible only in the ABS paradigm. When a non-human nominal is expressed with the ERG or DAT paradigm, its class is neutralized and it is encoded the same way as 3rd person human nominals, as illustrated below:

- (i) a. **kacmpt** payum **ya-** **mpu-** yamal -wat
canoe.VIII.PL man.PL VIII.PL.ABS- 3PL.ERG- carve -HAB
'The men usually carve the canoes.' (F228)
- b. **kacmpt** anti **i-** **kay-** pul -c **-mpun**
canoe.VIII.PL ground.VIII.SG VIII.SG.ABS- 1PL.ERG- rub -PERF -3PL.DAT
'We rubbed ground on the canoes.' (F212)
- c. **al** **pu-** **n-** kra -t
machete.V.SG 3PL.ABS- 3SG.ERG- cut -PERF
'The machete cut them.' (F203)

also demonstrate that the agreement morphemes always follow a linear ABS-ERG-DAT order, regardless of the number of morphemes actually present or the position of the DAT morpheme (which may be prefixal or suffixal depending on its person specification). As mentioned earlier, Yimas is ubiquitously *pro* drop; when the nominals are present, there is often a sense of topicalization or emphasis.

(7) *Agreement forms track grammatical function*

- a. **pu-** wa -t
3PL.ABS- go -PERF
'They went.' (F195)
- b. **pu-** **n-** tay
3PL.ABS- 3SG.ERG- see
'He saw them.' (F195)
- c. **k-** **mpu-** **ŋa-** tkam -t
VI.SG.ABS- 3PL.ERG- 1SG.DAT- show -PERF
'They showed me it (the coconut).' (F208)
- d. **k-** **ka-** tkam -r **-akn**
VI.SG.ABS- 1SG.ERG- show -PERF -3SG.DAT
'I showed him it (the coconut).' (F211)

The examples presented thus far have been ones in which the use of a given paradigm maps straightforwardly to a particular grammatical function or thematic role. However, as I will show shortly, these mappings often break down. Much work on Yimas—including the present paper—has focused on making sense of these divergent patterns.

2.2 Two previous generalizations

Previous literature on Yimas has observed that the ERG-ABS pattern illustrated above is disrupted in a variety of contexts (Foley, 1991; Phillips, 1993, 1995; Wunderlich, 2001; Harbour, 2003; Woolford, 2003). Two related generalizations have been put forth by these authors to account for these divergences. I summarize both generalizations below, though I will ultimately argue that neither is correct.

First, although the Yimas agreement system displays a basic ERG-ABS patterning, repeated below, Foley (1991) observes that Yimas apparently also exhibits a *person-based ergative split*, which disrupts the ERG-ABS pattern. As shown below in (8a-b), when the internal argument is 1st/2nd person (henceforth *participant*), an ABS-DAT pattern arises instead.

(8) *ABS-DAT person-based ergative split pattern*

- a. **pu-** **ŋa-** tay
3PL.ABS- 1SG.DAT- see
'They saw me.' (F196)
- b. **pu-** **nan-** tay
3PL.ABS- 2SG.DAT- see
'They saw you.' (F198)
- c. **ma-** **ŋa-** tay⁹
2SG.ABS- 1SG.DAT- see
'You saw me.' (F206)

The ABS-DAT pattern only surfaces in the presence of a participant *internal argument*. Participant external arguments trigger the expected ERG-ABS pattern, (9).

⁹While 2>1 combinations trigger the expected ABS-DAT pattern, complications accrue with 1>2 combinations, in that either the clitic cross-referencing the 1st person subject must be deleted or the two clitics surface as a portmanteau. It is worth noting that the illicitness of 1>2 combinations, though not 2>1, is attested in a number of languages and it is common for such combinations to be expressed with portmanteaux (Heath, 1998; Woolford, 2016).

(9) *Only internal arguments trigger person-split pattern*

a. **pu-** **ka-** tay
3PL.ABS- 1SG.ERG- see
'I saw them.' (F196)

b. **pu-** **n-** tay
3PL.ABS- 2SG.ERG- see
'You saw them.' (F201)

This has led to the following generalization about the Yimas agreement system, summarized in (10):

(10) *The Person-split Generalization:* Yimas exhibits a person-based ergative split, with the non-ergative side triggered by a participant internal argument.

A question that arises here is why, if only participant internal arguments are responsible for the alternative case pattern, the resulting pattern is ABS-DAT rather than ERG-DAT. In other words, how does the feature specification of the internal argument come to affect the paradigm used to cross-reference the external argument? This is addressed by the second proposed generalization about the Yimas agreement system, which is a global statement about the possible combinations of agreement paradigms, (11):

(11) *The 'ABS Requirement' Generalization:* Every verbal complex must contain an ABS agreement morpheme (or some equivalent, to be detailed below), which occupies the leftmost slot on the verb.

This requirement overrides the agreement patterns that might otherwise be expected to surface. For example, because agreement morphemes cross-referencing participant internal arguments are obligatorily DAT, the only way to satisfy this requirement is to realize the subject agreement form as ABS rather than ERG, (12). This yields the ABS-DAT person-split pattern.

(12) *The ABS requirement blocks ERG-DAT*

a. **pu-** **nan-** tay
3PL.ABS- 2SG.DAT- see
'They saw you.' (F198)

b. ***mpu-** **nan-** tay
3PL.ERG- 2SG.DAT- see
Intended: 'They saw you.' (F198)

Finally, Yimas also has a small class of what Foley (1991) calls *modal prefixes*—morphemes that encode modal concepts such as likelihood and possibility, as well as mood and negation. I exemplify this class here with *ta-* 'negation' (underlined below), and will provide a more detailed discussion of these morphemes in §6. Like the ABS paradigm, the modal prefixes strictly occupy the left edge of the verb complex. The presence of a modal prefix also affects the realization of the agreement forms; in the examples below, the expected ABS agreement morpheme is either realized as ERG, as in (13a), or realized as a number suffix, as in (13b-c).

(13) *Negation triggers loss of ABS*

a. ta- **ka-** wa -t
NEG- 1SG.ERG- go -PERF
'I didn't go.' (F251)

b. ta- **mpu-** tpul -c **-rm**
NEG- (~~3DL.ABS~~) 3PL.ERG- hit -PERF -DL
'They didn't hit those two.' (F255)

c. ta- **mpu-** **ŋa-** tkam -r **-ŋ**
NEG- (~~VI.SG.ABS~~) 3PL.ERG- 1SG.DAT- show -PERF -VI.SG
'They didn't show me it (the coconut).' (F260)

This suggests that the modal prefixes are in complementary distribution with the ABS paradigm, and moreover

that the presence of a modal prefix overrides or disrupts the mechanism responsible for the appearance of ABS agreement morphology. Previous analyses of Yimas often take the modal prefixes and ABS agreement morphemes to form a class in some way, such that the modal prefixes also satisfy the ABS Requirement.

In what follows, I discuss two prominent analyses of these Yimas data, by Phillips (1993, 1995) and Wunderlich (2001). Both analyses account for the two generalizations above, though they differ in their details. For reasons of space, I provide only a summary these analyses below; a more detailed discussion is given in the Appendix. I also present some crucial empirical challenges to these proposals, though my own analysis will draw on certain insights by both authors.

2.3 Summary of previous analyses

Again, the two generalizations are repeated as follows:

- Yimas exhibits a person-based ergative split, triggered by a participant internal argument.
- Every verbal complex must contain an ABS agreement morpheme (or a modal prefix), which occupies the leftmost slot on the verb.

To account for both generalizations, Phillips (1993, 1995) proposes that Yimas is a ‘hybrid’ polysynthetic agreement language, separating the agreement morphemes into 1st/2nd person *incorporated pronouns* and 3rd person *agreement heads*. This contrast is reflected in Phillips’ organization of the agreement paradigms, which differs from the organization assumed in this paper (see §A.1 in the Appendix). However, for expository ease, I will continue to follow the table from (6) in §2.1 in the glossing of the examples below.

An important departure from (6) is that, under Phillips’ proposal, both intransitive and transitive subjects are underlyingly ERG. To account for the fact that the subject agreement morphemes are often ABS, Phillips proposes a Yimas-specific EPP requirement (‘YEPP’), requiring that an EPP feature on T⁰ be checked. Satisfaction of the YEPP is expounded by ABS agreement, thus deriving the ABS Requirement generalization. The YEPP requirement overrides and obscures the underlying paradigmatic case patterns of the agreement forms, resulting in a wider distribution of ABS than expected. On the other hand, the presence of a modal prefix, which may independently check the YEPP, allows the underlying ERG forms to surface.

To illustrate, consider the person-based ergative split, repeated below. The regular ERG-ABS pattern is derived by having the ABS object satisfy the YEPP, (14a). However, in the presence of a DAT participant argument (an incorporated pronoun), an underlyingly ERG subject must instead satisfy the YEPP. Because the YEPP is checked by the subject, it ends up realized by the ABS paradigm, (14b). Finally, if the YEPP is instead satisfied by a modal prefix, then the subject prefix is able to surface with its regular ERG form, (14c).

(14) *Phillips: YEPP checked by ABS argument or modal prefix*

- a. **pu-** **n-** tay
 3PL.ABS- 3SG.ERG- see
 ‘He saw them.’ (F195)
- b. **pu-** **ŋa-** tay
 3PL.ABS- 1SG.DAT- see
 ‘They saw me.’ (F196)
- c. **ka-** **mpu-** **ŋa-** tput -n
 POT- 3PL.ERG- 1SG.DAT- hit -PRES
 ‘They are going to hit me.’ (F266)

Wunderlich’s (2001) analysis of Yimas is based in an Optimality Theoretic framework, such that the distributions of the agreement forms are caused by various paradigmatic gaps and substitutions. First, like Phillips, Wunderlich also reorganizes the agreement paradigms by isolating the participant internal arguments—this paradigm (corresponding to our DAT) thus contains gaps for 3rd person (see §A.2 in the Appendix). Second, the Yimas agreement forms are subject to two constraints: DEFAULT, which requires that an ABS morpheme be present in every verb complex (satisfying the ABS Requirement), and UNIQUENESS, which requires that each paradigm may surface only once per verb complex. These constraints work together to ensure that each verbal

complex contains exactly one ABS morpheme. When the internal argument is 3rd person, the ERG-ABS pattern surfaces. However, in the presence of a participant internal argument, which is always DAT, the language displays a paradigmatic substitution—the subject agreement form must be ABS, not ERG, to avoid violating DEFAULT. The proposal also includes a set of additional constraints to account for the morphological effects that surface in the presence of a modal prefix.

Although these accounts differ in many details, they face similar empirical shortcomings (again, only an overview is provided below; see the Appendix for further argumentation). First, neither Phillips’ nor Wunderlich’s analysis can account for the fact that the ABS agreement morphemes are *optional*. As shown in (15a), Yimas allows constructions without ABS. Moreover, replacing the DAT form with ABS or getting rid of the DAT form altogether are both impossible, (15b-c). The grammatical example in (15a), should not be derivable in Phillips’ system, since it contains a 3rd person argument (the subject ‘Mitchell’) that does not check the YEPP, and should not be outputted in Wunderlich’s system, since it violates DEFAULT. More generally, these examples show that the ‘ABS Requirement’ Generalization is too strong.

- (15) ABS *is not obligatory*; DAT *can surface alone*
- a. Mitchell **kra-** tay
Mitchell 1PL.DAT- see
‘Mitchell saw us.’ (F,p.c.)
 - b. #Mitchell **ipa-** tay
Mitchell 1PL.ABS- see
Intended: ‘Mitchell saw us.’ (F,p.c.)
(*grammatical only as ‘We saw Mitchell.’*)
 - c. *ipa **na-** tay
1PL 3SG.ABS- see
Intended: ‘He saw us.’ (F,p.c.)

The examples in (16), in which a 3SG raised possessor is cross-referenced by a DAT morpheme, display a similar pattern, and additionally show that participant and 3rd person DAT morphemes pattern alike in their ability to repel ABS.¹⁰ In (16b), the possessed object *narm* ‘skin’ is not cross-referenced, while in (16c) neither the object nor the subject are.

- (16) ABS *is not obligatory*; 3rd person DAT *can surface alone*
- a. narm **p-** mpu- tpul- kamprak -r **-akn**
skin.VII.SG VII.SG.ABS- 3PL.ERG- hit- break -PERF -3SG.DAT
‘They hit and broke his skin.’ (F283)
 - b. narm **pu-** tpul- kamprak -r **-akn**
skin.VII.SG 3PL.ABS- hit- break -PERF -3SG.DAT
‘They hit and broke his skin.’ (F324)
 - c. narm tpul- kamprak -r **-akn**
skin.VII.SG hit- break -PERF -3SG.DAT
‘They hit and broke his skin.’ (F,p.c.)

This parallel between the participant DAT forms in (15) and the 3rd person possessor DAT forms in (16) presents an additional challenge for both Phillips and Wunderlich. In particular, note that the example in (16b) displays the *same* ABS-DAT pattern previously noted to occur in person-split contexts; the transitive subject is encoded by ABS morphology in the presence of an obligatorily DAT element. That certain 3rd person forms pattern like participant forms is problematic for Phillips’ and Wunderlich’s analyses, which both rely on *participant-only agreement paradigms* that exclude 3rd person forms to account for Yimas’ apparent person-split. More broadly, these facts also cast doubt on the existence of the person-split itself, given that the ABS-DAT pattern is not exclusively triggered by participants.

Finally, both previous analyses cannot account for the full range of patterns that surface in the presence of

¹⁰Raised possessors in Yimas will be discussed in greater detail in §5.1.

a modal prefix. As detailed in the Appendix, both analyses predict the non-co-occurrence of a modal prefix and an ABS morpheme. However, this is contradicted by examples like in (17):

(17) *Modal prefixes and ABS morphemes may co-occur*

a- pu- tmuk -r -um
 POT- 3PL.ABS- fall -PERF -PL
 ‘They almost fell down.’ (F197)

Ultimately, a more fundamental problem with both previous accounts of Yimas is that they incorrectly hinge on the assumption that ABS agreement morphemes/modal prefixes (or the syntactic positions associated with these morphemes) are privileged or special, in that there is some sort of grammatical pressure for the agreement forms that normally would be realized with ERG and DAT morphology to instead be realized as ABS. However, we already saw that this treatment cannot be correct; recall that certain DAT morphemes cannot be realized as ABS.

As I will argue throughout the rest of this paper, turning this logic on its head will resolve this issue, and will yield many new insights about the language. I will therefore defend the following inverse characterization: all agreement morphemes are ‘born’ ABS, but surface instead as ERG or DAT in particular contexts. The presence of ABS thus actually reflects the failure of an agreement morpheme to be realized as ERG or DAT, not the other way around.

From there, I will propose a new account of Yimas that nonetheless incorporates various aspects of the analysis of both Phillips (1993, 1995) and Wunderlich (2001). Following Phillips, I will posit that the structural position of ABS is higher than that of ERG and DAT, such that the ABS paradigm is sufficiently local to interact with the modal prefixes. Following Wunderlich (2001), ERG and DAT case are assigned within the clitic cluster to satisfy a UNIQUENESS constraint banning sequences of otherwise identical clitics.

2.4 Pronominal clitic doubling and morpheme order

A core aspect of my analysis is the proposal that the nominal-referencing morphemes are not ϕ -agreement heads (exponing valued ϕ -features), but rather *doubled pronominal clitics*. Though these morphemes fail traditional metrics for clitic-hood from Zwicky and Pullum (1983), among others, this idea is more consistent with Foley’s (1991) original discussion of Yimas, in which these morphemes are characterized as ‘pronominal affixes’ (cf. Jelinek, 1984).¹¹ It is also in the spirit of much recent literature on the ϕ -agreement vs. clitic doubling distinction (Woolford, 2008; Preminger, 2009; Nevins, 2011; Kramer, 2014; Anagnostopoulou, 2016). In contrast to ϕ -agreement, doubled clitics are taken in this literature to be D⁰s that bear the features of their DP associates—so doubled clitics are effectively pronouns occurring with co-indexed DPs.¹² Treating doubled clitics as pronouns is important for the overall analysis, as it will provide a straightforward way of deriving the defaultness of the ABS paradigm.

2.4.1 Evidence for clitic doubling

Though the morphemes pattern like agreement affixes morphologically, they behave like pronominal clitics in other respects. I overview three pieces of evidence for clitic doubling in Yimas:

- Morphological identity between agreement morphology and independent pronouns
- Person-Case Constraint effects
- Presence of morphology is optional, sensitive to discourse context

First, the ABS paradigm is nearly identical¹³ to the independent pronouns of the language, as shown in (18). If doubled clitics are pronominal in nature, then this morphological similarity is to be expected.¹⁴

¹¹The idea that some of the agreement forms in Yimas are clitic or pronominal in nature is also found in Phillips (1993) and Woolford (2003). However, unlike these authors, the present analysis takes *all* of these morphemes to be clitic in nature, not just a partial set.

¹²See Postal (1966), Elbourne (2005), and Stanton (2016), among others, for arguments that pronouns are in fact D⁰s.

¹³The 2SG ABS form is *ma-* while its pronoun counterpart is *mi*; this is the only non-identical pair. The rest of the forms are entirely identical, suggesting that the slight divergence in the 2SG form might be idiosyncratic, with no bearing on the larger generalization.

¹⁴Unlike the 1st and 2nd person pronouns, which are independent morphemes, the 3rd person pronouns are bound—they always

(18) *Identity between ABS and independent pronouns*

	1sg	1dl	1pl	2sg	2dl	2pl	3sg	3dl	3pl
ABS	ama-	kapa-	ipa-	ma-	kapwa-	ipwa-	na-	impa-	pu-
Pronoun	ama	kapa	ipa	mi	kapwa	ipwa	na	impa	pu

Second, Yimas is sensitive to the Person-Case Constraint (PCC), a cross-linguistically robust constraint which bans certain combinations of indirect object and direct object clitics (Perlmutter, 1978; Bonet, 1991; Anagnostopoulou, 2003; Béjar and Rezac, 2003; Nevins, 2007; Pancheva and Zubizarreta, 2018, a.o.). In Yimas ditransitives, the clitic cross-referencing a direct object must be *3rd person* (and ABS, following the ABS requirement) in the presence of a DAT clitic, as in (19a). Participant direct object clitics in such contexts—whether ABS or DAT—are not tolerated (Foley, 1991, pp. 212-214).

(19) *PCC effects in Yimas*

- a. **na-** **mpi-** tkam -r **-akn**
 3SG.ABS- 3DL.ERG- show -PERF -3SG.DAT
 ‘They two showed it to him.’ (F212)
- b. ***ama-** **mpi-** tkam -r **-akn**
 1SG.ABS- 3DL.ERG- show -PERF -3SG.DAT
 Intended: ‘They two showed me to him.’ (constructed)
- c. ***impa-** **ŋa-** tkam -r **-akn**
 3DL.ABS- 1SG.DAT- show -PERF -3SG.DAT
 Intended: ‘They two showed me to him.’ (constructed)

However, the most striking evidence that these morphemes are doubled clitics comes from the fact that they are mostly *optional*.¹⁵ This is discussed by Foley (1991) and briefly mentioned in Harbour (2003), but is otherwise ignored in other literature on Yimas. The optionality of these morphemes is more clearly displayed in the examples in (20), which illustrate verbs with *full nominal referencing*, (20a), *partial nominal referencing*, (20b), and, importantly, *no nominal referencing at all*, (20c). Each example in (20) contains two syntactic arguments but differs in the total number of nominal-referencing morphemes present.

(20) *Full, partial, and no nominal-referencing morphology*

- a. kacmpt payum **ya-** **mpu-** yamal -wat
 canoe.VIII.PL man.PL VIII.PL.ABS- 3PL.ERG- carve -HAB
 ‘The men usually carve the canoes.’ (*full*) (F228)
- b. m-n **impa-** tay -mpi- kwalca -k paympan
 DEM.PRON-SG 3DL.ABS- see -SEQ- rise -IRR eagle
 ‘He, the eagle, saw them both and took off.’ (*partial*) (F453)
- c. num-n-mat Kampramanan wupal -k
 villager-OBL-PL place.name climb -IRR
 ‘The villagers climbed Kampramanan.’ (*none*) (F233)

The occurrence of these morphemes on a verb is sensitive to discourse considerations. As described by Foley (1991, pp.232–234), these morphemes typically cross-reference discourse-established information and are omitted with new information. For example, specifically regarding the example in (20c), Foley (1991) says the following:

“Thus far, I have been discussing referents which are old or established information and can therefore

occur with a deictic suffix indicating proximity or distality, omitted in the table below. There is also another bound 3rd person pronoun form *m*, which I also did not include below; this pronoun also has an ABS cross-referencing morpheme equivalent, *m-*, which is primarily used in subordinate clauses. This morpheme triggers various idiosyncratic morphological effects on the adjacent nominal-referencing morpheme, suggesting that it is in the same category of the modal prefixes discussed above. This is the same conclusion that Phillips (1993, 1995) comes to in his analysis of the modal prefixes.

¹⁵This optionality only holds for the ABS, ERG, and 3rd person DAT forms cross-referencing indirect objects. As will be shown later, the DAT morphemes that cross-reference participant internal arguments and raised possessors are obligatorily doubled.

be indicated by a pronominal affix. What about new information, characters or props now just being introduced in the discourse? These can appear with or without a pronominal affix [...] [(20c)] has an intransitive verb, *wapal-* ‘climb’, with no pronominal affixes [...] These examples all come from running texts in which these nouns are just being introduced or re-introduced after a longish gap. They are new information.” (p. 233)

That these morphemes do not cross-reference newly introduced nominals is further illustrated by the minimal pair in (21). In (21a), both the 3SG subject and the embedded clause are cross-referenced on the verb;¹⁶ this is the ‘full’ pattern. In (21b), however, only the matrix subject is encoded on the verb; this is the ‘partial’ pattern. These two constructions are used in slightly different contexts, reflecting the given vs. new distinction. According to Foley, in (21a) “the intention expressed by the complement has been [previously] stated explicitly” (p. 390), whereas this is not necessarily the case for (21b).

- (21) *Presence of nominal-referencing morphology is discourse sensitive*
- a. [impram pay -cu -mpwi] **pia-** **n-** kacapal
 [basket.VII.SG carry -NFN -COMP] COMP.ABS- 3SG.ERG- forget
 ‘He forgot to carry the basket’ (F389)
- b. [impram pay -cu -mpwi] **na-** kacapal
 [basket.VII.SG carry -NFN -COMP] 3SG.ABS- forget
 ‘He forgot to carry the basket’ (F389)

Crucially, this behaviour is surprising if the nominal-referencing morphemes were exponents of genuine ϕ -agreement, but is expected for doubled clitics; sensitivity to information-structural notions such as topichood and givenness has been discussed at length in the clitic doubling literature, since these clitics function like pronouns by referring to some element in the discourse (Rudin, 1997; Kallulli, 2000, 2008; Anagnostopoulou, 2006, 2016; Harizanov, 2014; Kramer, 2014, a.o.).¹⁷ As such, I will refer to the nominal-referencing morphemes in Yimas as *doubled clitics* in the rest of this paper. The rest of this section provides a analysis of clitic doubling that extends to their surface morpheme order.

2.4.2 Deriving clitic doubling and morpheme order

Clitic doubling is often argued to involve a syntactic chain between the clitic and its doubled associate. For concreteness, I assume a movement analysis in which the doubled clitic, a D^0 , is analyzed as the head of a movement chain (e.g. Kramer, 2014; Baker and Kramer, 2016; Yuan, 2018); however, nothing crucial hinges on this particular view.¹⁸ Following these authors, clitic doubling is triggered by ϕ -Agree. Recall that in Yimas morphologically unmarked (core) DPs may undergo clitic doubling, while oblique DPs may not; only the former are ϕ -Accessible in Yimas (Bobaljik, 2008; Preminger, 2011, 2014).

- (22) *ϕ -Agree with unmarked nominals*
- a. **irpm** **mu-** **n-** wapal
 coconut.palm.IV.SG IV.SG.ABS- 3SG.ERG- climb
 ‘He climbed the coconut palm.’
- b. irpm-un **na-** wapal
 coconut.palm.IV.SG-OBL 3SG.ABS- climb
 ‘He climbed up on the coconut palm.’ (F234)

¹⁶Yimas possesses two additional doubled clitics that cross-reference embedded clauses: roughly, *pia-* for embedded complements encoding speech reports and *tia-* for embedded complements encoding actions.

¹⁷The optionality seen in Yimas is also expected given the diagnostic for agreement vs. clitic doubling developed by Preminger (2009). Preminger argues that the failure to expone ϕ -agreement on a head should result in that head being spelled out as a default agreement form, e.g. 3SG; conversely, failure to clitic double an argument should result in the wholesale absence of the clitic. This is precisely what we see in Yimas.

¹⁸The overall analysis is equally compatible with the ‘Big DP’ analysis of clitic doubling, which takes a clitic to be a D^0 element generated in a complex DP with its associate, prior to its movement up to its host (Torrego, 1988; Uriagereka, 1995; Cecchetto, 2000; Nevins, 2011; Arregi and Nevins, 2012).

The locus of clitic doubling is syntactically high, within the clausal left-periphery. As demonstrated in (23), non-finite clauses in Yimas (which we can assume to be structurally reduced) never host doubled clitics.

(23) *No clitic doubling in non-finite clauses*

[patn wayk -ru -mpwi] **pia-** **ka-** i -mpi- cay -c **-mpun**
 betelnut.V.SG buy -NFN -COMP COMP.ABS- 1SG.ERG- tell -SEQ- see -PERF -3PL.DAT
 ‘I tried to tell them to buy betelnut.’ (F388)

Against this backdrop, let us now consider how syntactic clitic doubling of DPs eventually yields the ABS-ERG-(...)-DAT linear order of the clitics. We saw in §2.1 that this order is fixed, even if not all of these clitics occur in the same sentence. Delaying discussion of the prefixal participant DAT clitics until §5, let us focus for now on the string given in (24a). I posit that this surface order is derived from the underlying order given in (24b), which reflects the relative structural height of the clitics.

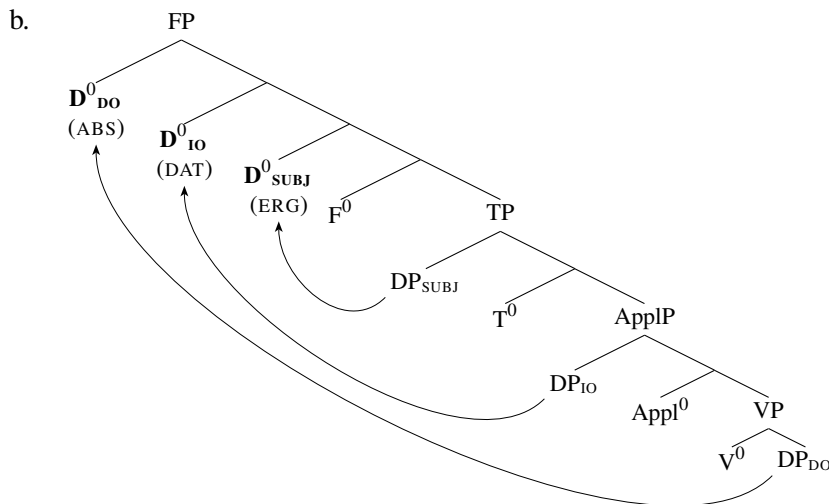
(24) *Clitic order in Yimas (simplified)*

- a. Surface: (MOD-) (**ABS-**) (**ERG-**) verb stem (**-DAT.3**)
- b. Underlying: (MOD-) (**ABS-**) (**DAT.3-**) (**ERG-**) verb stem

I propose that the surface clitic order arises from two factors: (i) nested dependencies in multiple clitic-movement to the left periphery, and (ii) a limited degree of postsyntactic reordering (e.g. the realization of 3rd person DAT clitics as suffixes). Therefore, once we control for (ii), the surface order of clitics is the *inverse* of the hierarchical order of DP arguments. This follows if multiple clitic-movement is nesting, as schematized in the ditransitive construction in (25).¹⁹

(25) *Nested dependencies in Yimas clitic doubling*

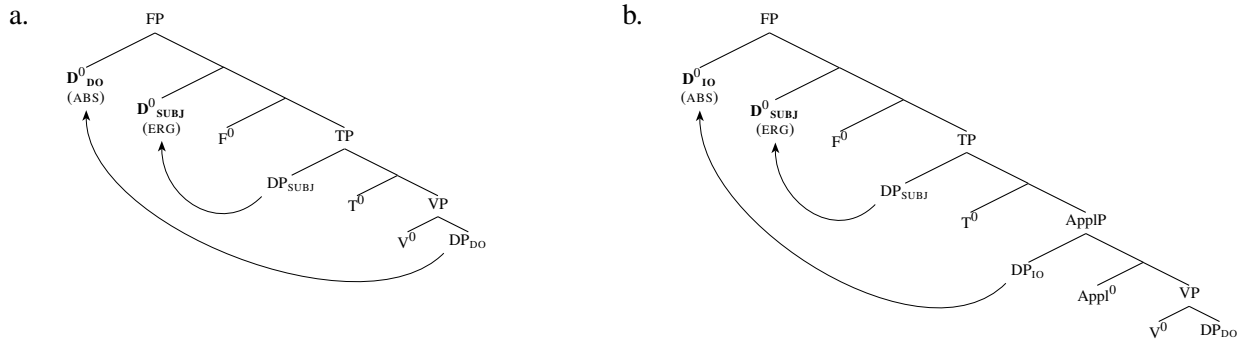
- a. **na-** **mpi-** tkam -r **-akn**
 3SG.ABS- 3DL.ERG- show -PERF -3SG.DAT
 ‘They two showed it to him.’ (F212)



This nested pattern holds regardless of which (and how many) DPs undergo clitic doubling. This is shown in the monotransitive structure in (26a) and the partial doubling structure in (26b).

¹⁹In contrast, Richards (2001) proposes that multiple syntactic movement should “tuck in,” i.e. preserve the hierarchical order of the DPs prior to movement. Nevins (2011) and Harizanov (2014) suggest that the syntactic movement operations involved in clitic doubling should also “tuck in.” I assume for now that whether clitic doubling tucks in or not can be parametrized across languages, and leave a deeper investigation of this assumption for future research.

(26) *Nested configurations*



While the structural derivation in (25) above accounts for why direct object (ABS) clitics are further away from the verb—i.e. structurally higher—than transitive subject (ERG) clitics, more must be said about the intermediate position of the clitic encoding indirect objects (DAT).

Evidence that this is indeed the structural locus of the DAT clitic comes from the behaviour of the agreement suffixes in Yimas, as discussed by Harbour (2008). Harbour proposes that suffixation (which occurs in limited contexts) is postsyntactically *derived* from the prefixal clitics, and crucially observes that the linear order of suffixal agreement morphology *perfectly mirrors* that of the prefixal clitics, i.e. they “flank” the verb. According to Harbour, this “flanking” pattern arises because suffixation occurs cyclically and outwards from the verb (bottom-up). What this means is that we expect ERG-DAT-ABS suffixal morpheme order, if the structure in (25b) is correct.

The examples below show that this is indeed the case. First, (27) provides two environments in which suffixal number morphology surfaces. In (27a), paucal number is jointly expressed with a prefixal clitic and a paucal suffix;²⁰ (27b) shows that modal prefixes may displace an ABS clitic to a suffixal position. Crucially, (28) demonstrates that, in ditransitives that also contain both an ABS and an ERG number suffix, the order of suffixes is in fact ERG-DAT-ABS—exactly as predicted.

(27) *Suffixal number morphology in Yimas*

- a. **pu-** **kay-** cay -c **-ŋkt**
 3PL.ABS- 1PL.ERG- see -PERF -PC(ERG)
 ‘We few saw them.’ (F220)
- b. **ta-** **mpi-** tpul -c **-ak**
 NEG- 3DL.ERG- hit -PERF -SG
 ‘Those two didn’t hit him.’ (F255)

(28) *Suffixal morpheme order in Yimas*

- ta-** **kay-** ckam -r **-ŋkan** **-mpan** **-ŋ**
 NEG- 1PL.ERG- show -PERF -PC(ERG) -3PL.DAT -VI.SG(ABS)
 ‘We few didn’t show them it (the coconut).’ (F260)

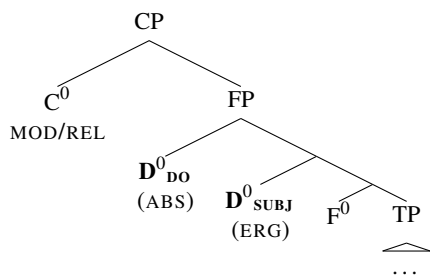
Finally, the structure in (25b) takes the ABS clitic to be structurally higher than DAT and ERG clitics—which will be important for §6. Evidence that this too is correct comes from the fact that only the ABS clitics interact with other CP-level morphemes, such as the modal prefixes, seen above in (27b) and (28). Further support comes from the fact that \bar{A} -movement processes that target the CP-domain, such as relativization and wh-movement, contain a pronominal clitic that similarly interacts with the ABS clitic paradigm.²¹

Put together, I follow Phillips (1993, 1995) in analyzing these prefixes a complementizers in C^0 , and additionally posit that C^0 immediately c-commands the clitic cluster, i.e. immediately c-commands the ABS clitic. This is schematized in (29):

²⁰Whether this paucal suffix surfaces depends on the person specification of the prefixal clitic; unlike participant clitics, paucal number is directly expressed on 3rd person clitics. See Foley (1991, pp. 216-225) for discussion.

²¹The data are complicated, and a full account lies far beyond the scope of this paper. See, however, Foley (1991, pp. 413-424) for discussion of relativization in Yimas, and pp. 430-433 for discussion of wh-question formation.

(29) *Structure of Yimas left periphery*



A summary of the analysis of clitic doubling I assume throughout the rest of this paper is given as follows:

- DPs in Yimas optionally undergo clitic doubling, based on discourse-related factors
- Clitic doubling targets a left-peripheral position, immediately below C^0
- Clitic doubling (as syntactic movement) yields nested dependencies, so that the linear order of clitics is the inverse of the hierarchical order of DPs
- Postsyntactic operations may further manipulate the linear order of clitics (e.g. converting 3rd person DAT into suffixes)

2.5 Section summary

To conclude, in this section I showed that Yimas encodes grammatical relations on a series of preverbal morphemes, which I analyze as doubled clitics that move to the clausal left periphery. The clitic forms are organized into three paradigms—ABS, ERG, and DAT. In most previous literature, the distribution of these morphemes have been described as (i) regulated by a person-based ergative split and (ii) regulated by a left edge ABS requirement; however, I discussed shortcomings of such characterizations and will illustrate them more concretely below. In the rest of this paper, I provide a closer examination of the distributions of the morphological paradigms and argue that these distributions parallel the distributions of dependent case on nominals cross-linguistically.

3 A dependent case analysis of Yimas

In this section, I argue that the distributions of the ABS, ERG, and (3rd person) DAT clitic paradigms are morphological alternations that are determined by the total number of (and types of) clitics present on a verb. Although often overlooked in the previous literature (even by Foley 1991²²), these alternations are ubiquitous in Yimas, due to the wide range of valency-changing processes available in the language as well as the optionality of clitic doubling. The latter property is especially crucial to the argument that the morphological alternations are determined *internal* to the sequence of clitics, since the alternations surface even when the sentence-level syntax stays constant. Specifically, I will show the following generalizations:

- The clitics cross-referencing intransitive and transitive subjects alike may surface as ABS or ERG.
- The clitics cross-referencing 3rd person indirect objects²³ alternate between ABS and DAT.
- 3rd person direct object clitics do not alternate at all, but always surface as ABS.
- (Finally, DAT clitics cross-referencing participant internal arguments and raised possessors follow a different pattern—not explained until §5.)

²²As mentioned in §2.1, Foley (1991) glosses the clitic morphology by grammatical function or thematic role, rather than morphological case (as we will see, morphological case does not necessarily correspond to grammatical function or thematic role). As a result, Foley does not discuss the morphosyntactic distributions of the individual paradigms.

²³I will use the term ‘indirect object’ broadly to refer to benefactives, goals, causees, applicatives, and other such arguments that sit between the subject and the direct object in ditransitive constructions.

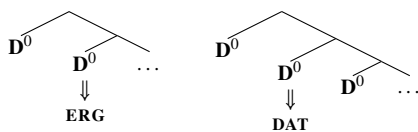
The patterns listed above moreover interact: setting aside, for the moment, the constructions that contain the modal prefixes from §2.2, an ERG clitic cannot surface unless an ABS clitic is also present in the clitic cluster, while a 3rd person DAT clitic cannot surface without both ERG and ABS clitics present. This interaction of case morphology is strikingly reminiscent of dependent case patterns found cross-linguistically. I will ultimately argue that these dependencies are determined configurationally, based on a clitic’s relative hierarchical position in the left periphery—just as dependent case is canonically determined configurationally according to the relative positions of nominals at the clause level.

The crucial empirical difference between dependent case assignment to Yimas clitics and dependent case assignment to nominals, of course, the *directionality* of case assignment. Because clitic doubling reverses the expected hierarchical order of elements due to its nesting nature, the ERG clitic paradigm surfaces closest to the verb, while the ABS clitic paradigm surfaces furthest from the verb. Despite this contrast, I hope to show that the logic of the case assignment system is otherwise exactly the same, and will briefly discuss the ramifications of this difference in §4.1.

Thus, we may reframe the Yimas case patterns in the following way, based on the syntactic assumptions made in §2.4: ERG is assigned to the lower of two clitics in the clitic cluster, while (3rd person) DAT is assigned to the intermediate of three clitics—inversely mirroring the positions of dependent ERG and DAT on nominals cross-linguistically. This parallel also extends to ABS, which will be shown to exhibit an “elsewhere” distribution; I will argue that ABS is the default appearance of a clitic that is not assigned ERG or DAT case. This is summarized below.

(30) *Realizational environments for clitic forms*

Clitic form	Morphosyntactic context
ERG	Lower of two clitics
DAT	Intermediate of three clitics
ABS	Elsewhere/default



The characterization of morphological case offered here is reminiscent of the treatment of case in Wunderlich (2001) (as well as van Valin 1991), in which morphological case encodes high, mid, and low roles, respectively. Dependent case theory, I suggest, is in many ways a generative reinterpretation of this idea, with these roles translated into relative structural height. Regardless of framework, however, the empirical profile of the Yimas clitics reveals a dissociation between morphological form and thematic role. ERG and DAT are available whenever the prerequisite realizational environments are met internal to the clitic cluster, regardless of thematic role, and unavailable whenever these environments are not met.

3.1 Alternations on subject clitics

Our discussion starts with how subject clitics are realized. As repeated in (31), subjects of transitive verbs may be cross-referenced with ERG morphology, and subjects of intransitive verbs with ABS.

(31) *An ERG-ABS patterning*

- a. **pu-** **n-** tay
 3PL.ABS- 3SG.ERG- see
 ‘He saw them.’ (F195)
- b. **pu-** wa -t
 3PL.ABS- go -PERF
 ‘They went.’ (F195)

However, I will show that the subject of any verb, regardless of its argument structure, may be cross-referenced by either ABS or ERG—depending on the presence or absence of another clitic cross-referencing a lower DP. This reveals that the choice of paradigm for the subject clitic has no direct connection to factors such as

transitivity or agentivity that are often proposed for ERG case cross-linguistically (e.g. Woolford, 1997, 2006; Aldridge, 2008; Legate, 2008).

As shown below, Yimas allows intransitive subjects to be cross-referenced by ERG morphology in certain contexts. I illustrate this with applicative constructions, in which an otherwise oblique nominal is ‘promoted’ to core status, allowing it to become available for clitic doubling (recall that oblique nominals cannot be doubled). Of interest to us is what happens when an intransitive verb is applicativized (as reflected by the presence of allative and comitative applicative morphology on the verb). In (32), we see that the subject of an intransitive verb normally surfaces with ABS morphology; however, this morphology is ERG when a lower applicative DP is also clitic doubled. In (33), the same pattern surfaces with an unaccusative subject.²⁴

(32) *Applicative of unergative; subject clitic is ERG*

- a. **na-** na- iray -n
3SG.ABS- DEF- cry -PRES
‘He is crying.’ (F426)
- b. **na-** **n-** tanjkway- iray -ɲcut
3SG.ABS- 3SG.ERG- ALL- cry -RM.PST
‘He cried over her.’ (F315)

(33) *Applicative of unaccusative; subject clitic is ERG*

- a. **impa-** kantk **na-** kwalca -t
3DL.PRON-FR.DIST with 3SG.ABS- rise -PERF
‘He got up with them both.’ (F303)
- b. **impa-** **n-** taj- kwalca -t
3DL.ABS- 3SG.ERG- COM- rise -PERF
‘He got up with them both.’ (F303)

A similar effect obtains in the examples below. Recall that modal prefixes trigger various effects on the adjacent clitic, as will be further discussed in §6. Crucially, one such effect (surfacing in particular combinations of modal prefixes and pronominal clitics) is that an otherwise ABS clitic is realized as ERG. In (34a), an indirect imperative construction, the subject *nmpi* ‘letters’ is clearly understood as a theme, yet is encoded with an ERG clitic. The example in (34b) displays the same pattern; the presence of a (class 9) relative pronoun clitic *m-* triggers ERG case on the clitic doubling the intransitive non-agentive subject *yan* ‘tree.’²⁵

(34) *Modal prefixes trigger ERG on unaccusative subjects*

- a. *nmpi* **ka-** **mpu-** tra- ya -**n**
leaf.VII.PL LIKE- 3PL.ERG- about- come -IMP
‘Let the letters get distributed.’ (F268)
- b. [_{RC} *yan* **m-** **n-** a- irm -t **-a** -n]
tree.V.SG REL.ABS- 3SG.ERG- DEF- stand -PRES -IX.SG -OBL
‘(You put the goods there) where the tree stands.’ (F418)

These unaccusative examples highlight the fact that the distribution of ERG in Yimas is independent of external argument status (cf. Baker, 2014; Deal, to appear). While these data constitute evidence against inherent analyses of ERG case, however, they do not directly show that ERG case on Yimas clitics is *dependent on the presence of a higher clitic*.

However, I argue that this is the only conclusion we can draw given the optionality of clitic doubling in Yimas. Partial doubling patterns in Yimas are crucial to the analysis because they allow us to manipulate the number of clitics present without changing the argument structure at the sentence level. Moreover, while the applicative data above showed that intransitive subject clitics may be ERG, partial clitic doubling data demonstrate the converse—that subjects of transitive verbs may surface as ABS.

²⁴I am assuming that the verbs in (33) through (i) are unaccusative, based on their English counterparts, and in the absence of any Yimas-specific unaccusativity diagnostics. While more work is needed to determine whether this is correct, it is worth noting that an agentive reading is especially difficult to obtain in the examples in (i); the inanimate subjects in these constructions are clearly themes.

²⁵In §6, I suggest that this interaction extends from the dependent case theory advocated for here.

In the minimal pair in (35), repeated from §2.4, the presence vs. absence of the ABS clitic cross-referencing the embedded complement determines whether the clitic cross-referencing the subject is ABS or ERG. In (35a), the subject clitic is ERG, as expected. However, in the absence of the ABS clitic *pia-*, the subject clitic is no longer ERG—it surfaces instead as ABS. Thus, the choice of which paradigm to use seems to depend on the presence of a second doubled clitic, *not* the presence of a second nominal argument (which is present in both examples below).

(35) *Partial doubling bleeds ERG case on subjects*

- a. [impram pay -cu -mpwi] **pia-** **n-** kacapal
 [basket.VII.SG carry -NFN -COMP] COMP.ABS- 3SG.ERG- forget
 ‘He forgot to carry the basket’ (F389)
- b. [impram pay -cu -mpwi] **na-** kacapal
 [basket.VII.SG carry -NFN -COMP] 3SG.ABS- forget
 ‘He forgot to carry the basket’ (F389)

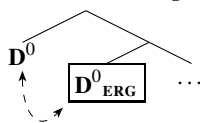
Finally, note that these data by themselves are compatible with an alternative hypothesis, that ERG forms become unavailable as soon as another clitic is removed. However, this is not tenable: in the partial doubling construction in (36), for example, ERG is retained on the subject clitic even though the direct object is not cross-referenced. This is because there is still a second clitic present (cross-referencing the indirect object).

(36) *Partial doubling allows ERG if two clitics present*

- a. tpuk **ka-** **ka-** na- tmi- am nt **-akn**
 sago.pancake.X.SG X.SG.ABS- 1SG.ERG- DEF- CAUS- eat -PRES -3SG.DAT
 ‘I made him eat a sago pancake.’ (F292)
- b. irwa ηaykum **na-** **mpu-** tmi- ampa -t
 mat.IX.SG woman.PL 3SG.ABS- 3PL.ERG- CAUS- weave -PERF
 ‘The women got her to weave a mat.’ (F292)

In summary, I have shown that the surface realization of a subject clitic in Yimas is not based on transitivity or agentivity; subjects of intransitive and transitive verbs alike may be ABS or ERG, depending on the clitic context. In all the examples shown so far, ERG on a subject clitic co-occurs with a higher ABS clitic cross-referencing a lower DP. Thus, I propose that the realization of ERG on a clitic is configurational, contingent on the presence of another, higher ABS clitic in the clitic cluster, (37); otherwise, this clitic surfaces as ABS.

(37) *ERG case assignment to clitic*



This is the exact logic of the dependent case theory of ergative case (modulo the directionality of case assignment; see §4). Crucially, however, in Yimas dependent case is calculated over the clitic cluster, rather than nominals in the clause. Below, I show that this logic also accounts for the distribution of 3rd person DAT clitics.

3.2 Alternations on IO clitics

3rd person DAT clitics (henceforth, simply ‘DAT’ in this section) are also sensitive to clitic context. As mentioned earlier, the DAT clitics encoding participants and raised possessors do not behave in this way, though a full discussion of these forms will be delayed until §5. Concentrating only on the behaviour of indirect object 3rd person DAT clitics for now, these morphemes may cross-reference various kinds of indirect objects, such as goals, causees, and applied arguments:

(38) *DAT clitics cross-reference indirect objects*

- a. **k-** **ka-** tkam -r **-akn**
 VI.SG.ABS- 1SG.ERG- show -PERF -3SG.DAT
 ‘I showed him it (the coconut).’ (IO) (F211)

- b. tpuk ka- ka- na- tmi- am -nt **-akn**
 sago.pancake.X.SG X.SG.ABS- 1SG.ERG- DEF- CAUS- eat -PRES -3SG.DAT
 ‘I made him eat a sago pancake.’ (*causee*) (F292)
- c. k- n- taj- pampat -ntuk **-nakn**
 VI.SG.ABS- 3SG.ERG- APPL- cook -RM.PST -3SG.DAT
 ‘She cooked it (the heart) for him.’ (*applied argument*) (F307)

However, just as with the ERG paradigm, the realization of DAT morphology on a particular clitic is dependent on the presence of other clitics; these clitics surface as ABS when the appropriate clitic context fails to be met. Once again, I illustrate this fact with applicatives and optional clitic doubling.

Recall the clitic patterns in applicative constructions from §3.1. Clitics cross-referencing intransitive subjects are typically ABS but are realized as ERG in applicative contexts, while the clitics cross-referencing applied arguments in these constructions are ABS, (39a-b). However, when the verb is transitive, the applied argument clitic is DAT, not ABS, (39c).

(39) *Applied argument clitics are ABS or DAT depending on transitivity*

- a. **impa-** n- taj- kwalca -t
 3DL.ABS- 3SG.ERG- APPL- rise -PERF
 ‘He got up with them both.’ (*applicative of unaccusative*) (F303)
- b. **na-** n- tajkway- iray -ꞑcut
 3SG.ABS- 3SG.ERG- ALL- cry -RM.PST
 ‘He cried over her (looking at her body).’ (*unaccusative of unergative*) (F315)
- c. k- n- taj- pampat -ntuk **-nakn**
 VI.SG.ABS- 3SG.ERG- COM- cook -RM.PST -3SG.DAT
 ‘She cooked it (the heart) for him.’ (*applicativization of transitive*) (F307)

This follows from the generalization that the realization of DAT requires *two* other clitics—thus, three clitics in total. In (39c), this requirement is satisfied; in (39a-b), however, it is not, so the clitic cross-referencing the applicativized argument is ABS.

Turning now to optional clitic doubling, we find that, just like ERG, the availability of DAT vs. ABS is truly controlled by *clitic context*, rather than clause-level factors such as transitivity or argument structure. As shown in (40), DAT is unavailable on indirect object clitics in partial doubling constructions. In both examples, a transitive verb is causativized, so both constructions contain the same three sentence-level arguments—subject, causee, and direct object—however, in (40b) the direct object is not clitic doubled. Crucially, this affects the form of the clitic cross-referencing the applicativized argument, which is DAT in the full doubling construction but ABS in the partial doubling construction.

(40) *DAT unavailable with partial doubling*

- a. tpuk ka- ka- na- tmi- am -nt **-akn**
 sago.pancake.X.SG X.SG.ABS- 1SG.ERG- DEF- CAUS- eat -PRES -3SG.DAT
 ‘I made him eat a sago pancake.’ (F292)
- b. irwa ꞑaykum **na-** mpu- tmi- ampa -t
 mat.IX.SG woman.PL 3SG.ABS- 3PL.ERG- CAUS- weave -PERF
 ‘The women got her to weave a mat.’ (F292)

Thus, DAT is also context-sensitive, appearing on indirect object clitics when they co-occur with two other clitics. Moreover, the DAT clitic is structurally *intermediate* within the clitic cluster, both c-commanding a lower clitic and c-commanded by a higher clitic. This is illustrated in (41a). Finally, note that the system set up so far also presupposes an ordering between ERG and DAT case assignment on the clitics. Because the presence of DAT seems to be contingent on both ERG and ABS also being present, DAT must be assigned before ERG, i.e. be assigned in the presence of two caseless clitics, as shown in (41). Finally, as discussed in §2.4, after case is assigned, the DAT clitic is linearized as suffixal (Harbour, 2008).

(41) DAT and ERG case assignment on clitics



3.3 ABS as an elsewhere

Given the similarities between ERG and DAT case on Yimas clitics and dependent case on nominals cross-linguistically, I further propose that the ABS clitic paradigm also has a parallel. In dependent case theory, nominals that fail to be assigned morphological case surface instead with *unmarked case*, understood as NOM or ABS (Yip et al., 1987; Marantz, 1991). In Yimas, clitics are realized as ABS if they are not assigned ERG or DAT—ABS is, in essence, an *elsewhere*. This is consistent with the fact that the ABS paradigm is always realized on the structurally highest doubled clitic present, i.e. the linearly leftmost clitic in the verb complex—ERG and DAT both require a syntactically higher clitic as case competitor.

The idea that ABS is a morphological elsewhere recalls the (ultimately spurious) ‘ABS Requirement’ from §2.2. However, not only does this account for its relatively wide surface distribution, it crucially also permits the *absence* of ABS clitics.

This elsewhere account is reminiscent of Legate (2008), who argues that “ABS case” may arise in certain languages when nominals are assigned NOM and ACC case, but these cases happen to lack dedicated morphological exponents. As a result, nominals that receive *different abstract case features* may nonetheless surface with *the same morphological case*, (mis)labelled as “ABS.” Consider, for instance, a partial case inventory for a language such as Warlpiri, under this system:

(42) Warlpiri “ABS” as an elsewhere

- a. [ergative] ↔ -rlu/-ngku
- b. [dative] ↔ -ku
- c. [allative] ↔ -kurra
- d. (...)
- e. (elsewhere) ↔ -∅ (= “absolutive”) (adapted from Legate 2008, p. 59)

This account predicts that ABS elements may display different syntactic behaviour; Legate argues that this is borne out in the languages she discusses. In Yimas, that the ABS paradigm is an elsewhere is already apparent, as it is used to cross-reference a diverse range of DPs. In (43a-b), the sole ABS clitic encodes an intransitive subject and transitive subject, respectively.²⁶ In (43c), we find ABS encoding a direct object. Finally, in (43d), a partial doubling construction, ABS cross-references an indirect object (causee).

(43) ABS has an elsewhere distribution

- a. **ama-** wa -t
1SG.ABS- go -PERF
‘I went.’ (F196)
- b. nawn **ma-** tpul?
who 2SG.ABS- hit
‘Who did you hit?’ (F235)
- c. **pu-** n- tay
3PL.ABS- 3SG.ERG- see
‘He saw them.’ (F195)
- d. irwa n̄aykum **na-** mpu- tmi- ampa -t
mat.IX.SG woman.PL 3SG.ABS- 3PL.ERG- CAUS- weave -PERF
‘The women got her to weave a mat.’ (F292)

²⁶In (43a), this is because the verb is intransitive; in (43b), this is because non-subject wh-words cannot be cross-referenced by the relativizing morpheme *m-* (Foley, 1991, p. 431).

However, the elsewhere nature of the ABS paradigm extends beyond the clitic system. Recall from §2.4 that the ABS clitic paradigm is (nearly) identical to the independent pronouns of the language, shown earlier in (18). In (44)-(45), we further see that the (non-oblique) sentence-level nominals and pronouns of Yimas are *always morphologically unmarked* (ABS), regardless of their grammatical function or thematic role—and regardless of the morphological appearance of the clitics doubling them.

(44) *Sentence-level nominals are invariant*

a. payum narmaŋ na- mpu- tay
 man.PL woman.SG 3SG.ABS- 3PL.ERG- see
 ‘The men saw the woman.’ (F193)

b. payum narmaŋ pu- n- tay
 man.PL woman.SG 3PL.ABS- 3SG.ERG- see
 ‘The woman saw the men.’ (F193)

(45) *Sentence-level pronouns are invariant*

a. kapwa taŋka-mpi kapwa- wa -t
 2DL.PRON where-ADV 2DL.ABS- go -PERF
 ‘Where have you gone?’ (*intransitive subject*) (F458)

b. kapwa na- ŋkran- a- aykapiŋa -n
 2DL.PRON 3SG.ABS- 2DL.ERG- DEF- know -PRES
 ‘Do you two know him?’ (*transitive subject*) (F462)

c. kapwa ŋkut- ŋa- ira- kwalca -kia -k
 2DL.PRON 2DL.DAT- DEF- APPL- rise -FUT -IRR
 ‘I will come up on you.’ (*applied object*) (F460)

What this reveals, I argue, is that the elsewhere characterization of “ABS case” in Yimas must be defined slightly differently on nominals vs. on clitics. On nominals, “ABS case” can be plausibly analyzed as the zero exponent of a morphologically underspecified case feature, in the sense of Legate (2008). However, in the clitic domain, the “ABS” paradigm is simply the *output of clitic doubling without further morphological manipulation* (i.e. without dependent ERG or DAT case assignment).

More broadly, what this entails is that the notion of an ABS ‘clitic paradigm’ in Yimas requires clarification—while it is a useful label for non-ERG, non-DAT clitics, it is in essence the pronominal paradigm.

3.4 Section summary

In this section, I demonstrated that the Yimas clitic system exhibits context-sensitive morphological alternations that is exactly mirror the distribution of dependent case on nominals across languages. Subject clitics alternate between ABS and ERG, while (3rd person) indirect object clitics alternate between ABS and DAT—motivating a theory in which ERG and DAT case are dependent, though calculated entirely internal to the clitic cluster. Evidence for clitic-internal dependent case computation mainly comes from the possibility of optional clitic doubling, which yields morphological case alternations on the clitics even when the nominals at the clause level are held constant.

I moreover argued that the computation of case is based on a clitic’s structural position relative to other clitics present. DAT is assigned to the intermediate of three clitics, while ERG is assigned to a clitic so long as it is c-commanded by some other caseless clitic. Finally, I proposed that the ABS clitic paradigm does not reflect an assigned case on par with ERG and DAT, but rather the default state of a clitic in the *absence* of dependent case assignment.

4 Dependent case cross-linguistically

This section shows that the context-sensitive nature of ERG and DAT clitics in Yimas mirrors the distributions of dependent ERG and DAT case on nominals cross-linguistically. As defined in §1, dependent case theory proposes that the realization of morphological case on nouns is determined configurationally, through case

competition between nominals. Dependent case is assigned to a nominal based on its structural (c-command) relationship with another nominal. This paper will not adjudicate between syntactic vs. postsyntactic approaches to dependent case, though see Baker and Vinokurova (2010), Baker (2015) and Preminger (2011, 2014) for the former, and Yip et al. (1987), Marantz (1991), and McFadden (2004) for the latter.

Nonetheless, the strength of the parallels between the Yimas clitics and nominals cross-linguistically reveals that the phenomenon that we know as ‘dependent case’ is much broader than previously thought. Just as Yimas displays morphological alternations on its clitics, languages that exhibit dependent case patterns may be thought of as displaying sentence-level morphological alternations.

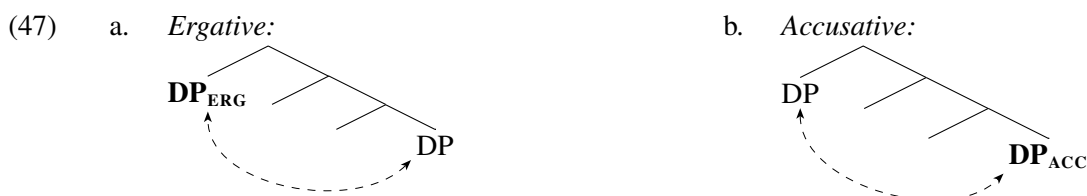
This section also briefly discusses a point concerning the directionality of ERG case assignment; recall that our morpheme in Yimas reveals that ERG case must be assigned to a *structurally lower* clitic. While this appears at odds with standard treatments of dependent ERG case assignment to nominals (which assume the opposite directionality), I suggest that the pattern seen in Yimas is actually predicted by the existence of *syntactically ergative* languages—i.e. languages in which the ABS object raises to a position higher than the subject).

Ultimately, the fundamentally unique aspect of Yimas concerning its case assignment properties is the *domain* of case assignment—the preverbal clitic cluster.

4.1 Ergative

In dependent case theory, whether a language exhibits a nominative-accusative (NOM-ACC) or ergative-absolutive (ERG-ABS) case alignment depends on the directionality of case assignment. The dependent case rules for ERG and ACC case standardly assumed are stated and schematized below.²⁷ Note that, although the structure for ACC case assignment is included here for completeness, I will focus primarily on ERG for the remainder of this section.²⁸

- (46) **Dependent case assignment:** Given multiple case-requiring nominals within a domain of case assignment,
- a. *Ergative* case is assigned to the higher of two case-receiving nominals (the c-commander)
 - b. *Accusative* case is assigned to the lower of the case-receiving nominals (the c-commandee)



That ERG case assignment can be dependent is not always immediately obvious, as dependent case assignment is often empirically indistinguishable from other mechanisms of case assignment that make use of functional heads. Take, for example, the Shipibo (Panoan) data below, from Baker (2014). The transitive subject in (48a) is marked with the ERG morpheme *-nin*, while the object in (48a) and the intransitive subject in (48b) are both morphologically unmarked (ABS).

- (48) *Shipibo displays an ERG-ABS pattern*
- a. Maria-**nin**-ra ochiti noko-ke
 Maria-ERG-PRT dog.ABS find-PRF
 ‘Maria found the dog.’
 - b. Maria-ra ka-ke
 Maria-PRT go-PRF
 ‘Maria went.’ (Baker, 2014)

²⁷Note that this diverges somewhat from the original implementation by Marantz (1991), which relies partly on government (see also Bittner and Hale (1996b)). However, characterization below is consistent with more recent approaches to dependent case, e.g. Baker (2015).

²⁸For copious evidence for ACC as a dependent case, see Baker and Vinokurova (2010), Baker (2015).

These examples, by themselves, are in principle compatible with numerous analyses of ergativity. For instance, it is often argued that ERG case is inherent, assigned by transitive v^0 to the external argument, which sits in Spec-vP (Woolford, 1997, 2006; Legate, 2002; Anand and Nevins, 2006; Aldridge, 2004, 2008, a.o.).²⁹

However, Baker (2014) provides additional data that resist analysis under inherent theories of ERG case, showing that *all* Shipibo subjects are able to take ERG or ABS case when syntactic conditions warrant.³⁰ This follows straightforwardly from a dependent case approach to ERG case assignment—and also looks remarkably similar to the behaviour of subject clitics in Yimas. As shown below, all subjects may bear ERG case morphology when the verb is applicativized, regardless of the transitivity of the verb.

(49) *Shipibo: Applicativization feeds ERG case*

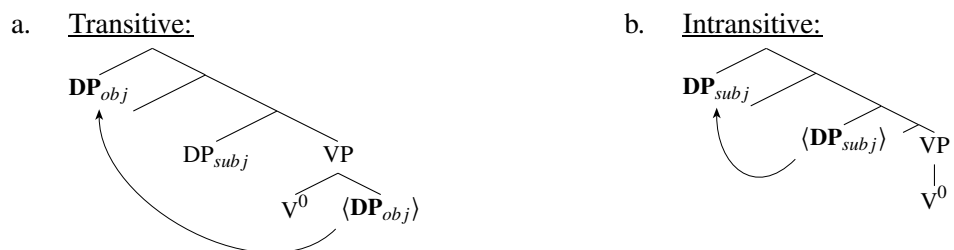
- a. Jose-**kan**-ra Rosa atapa rete-xon-ke
Jose-ERG-PRT Rosa hen kill-APPL-PRF
'Jose killed a hen for Rosa.' (*applicative of transitive*)
- b. Papashoko-**n**-ra Rosa bewa-xon-ai
grandfather-ERG-PRT Rosa sing-APPL-IMPF
'The grandfather is singing for Rosa.' (*applicative of unergative*)
- c. bimi-**n**-ra Rosa joshin-xon-ke
fruit-ERG-PRT Rosa ripen-APPL-PRF
'The fruit ripened for Rosa.' (*applicative of unaccusative*) (Baker, 2014)

Importantly, (49c) shows that even unaccusative subjects may surface as ERG in certain environments—just like in Yimas. This, according to Baker, demonstrates that ERG case in Shipibo is dependent on the presence of some lower argument, rather than assigned based on transitivity or agentivity. ERG case, though typically assumed to mark only transitive subjects, is in Shipibo able to mark subjects in a variety of two-argument constructions, regardless of the argument structural properties of the verb or the thematic role of the subject. Thus, as noted above, the core difference between Shipibo and Yimas is the *domain* in which these case alternations hold—the case patterns displayed by both languages are otherwise symmetrical.

A note on syntactic ergativity

Finally, I turn to the question of why ERG case assignment in Yimas proceeds *downwards*, while ERG case assignment within the dependent case framework is normally considered to take place *upwards*. I suggest that this distinction ultimately concerns the distinction between *morphologically ergative* vs. *syntactically ergative* languages. In the latter type of language, it is typically assumed that the (ABS) object raises to a locus where it c-commands the transitive (ERG) subject, (50) (e.g. Dixon, 1979; Murasugi, 1992; Bittner and Hale, 1996a,b; Manning, 1996; Coon et al., 2014; Ershova, 2019):

(50) *Configuration for syntactic ergativity*



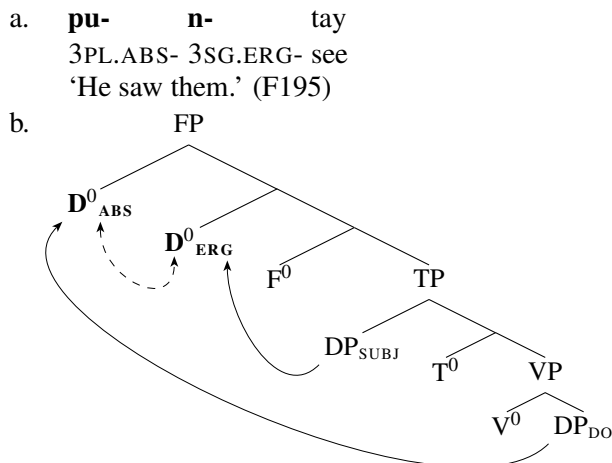
Therefore, if it can be shown that (i) a language L is syntactically ergative, (ii) ERG case in L is dependent, and (iii) case assignment *follows* object raising, then ERG case assignment proceeds downwards in L. Recently, Yuan (2018) and Ershova (2019) have argued that these conditions are in fact met in syntactically ergative languages Inuit and West Circassian, respectively (see also Bittner and Hale 1996a for a precursor of this idea).

²⁹ Another compatible view takes ERG to be abstract Case, assigned by a higher head such as T^0 (Laka, 2000; Bobaljik and Branigan, 2006; Rezac et al., 2014). However, these analyses generally require additional mechanisms to explain how intransitive subjects, presumably also in Spec-TP, receive ABS case.

³⁰ Deal (to appear) presents analogous data from Nez Perce, arguing for an analysis that is similar in spirit to Baker's.

Crucially for our purposes, the configuration in (50a) is highly reminiscent of the structure of Yimas clitic doubling offered in §2.4. This structure is presented again as (51); note that, in (51b), the solid arrows indicate syntactic movement (clitic doubling), while the dotted line indicates case competition among the doubled clitics. In Yimas, clitic doubling of the transitive object raises it above the clitic encoding the transitive subject, on par with what we see in syntactically ergative languages.

(51) *Downwards ERG dependent case assignment in Yimas*



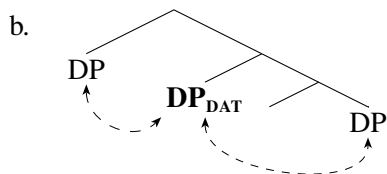
In other words, Yimas is syntactically ergative (cf. Phillips, 1993, 1995). However, its morphologically ergative patterning is, as discussed above, instantiated on its clitic cluster rather than its nominals. While I leave a deeper investigation of this parallel for future research, the present discussion suffices to demonstrate that dependent ERG case in Yimas mirrors that found across languages. Below, I extend this idea to DAT case.

4.2 Dative

Although it is often proposed that DAT is inherent, lexical, or structural (Marantz, 1984; Woolford, 1997, 2006), there is cross-linguistic evidence that DAT may also be assigned as dependent case (e.g. Harley, 1995; Folli and Harley, 2007; Podobryaev, 2013). The working definition of dependent DAT case I adopt is in (52), from Podobryaev (2013):

(52) *Dependent DAT case assignment*

- a. DAT case is assigned to a nominal that both c-commands a caseless nominal and is c-commanded by a caseless nominal within the relevant minimal domain.



Note that this definition, which takes DAT to be *intermediate* dependent case, departs from Baker and Vinokurova (2010) and Levin and Preminger (2015), who suggest that dependent DAT case is assigned to the higher of two nominals within a VP. I adopt the intermediate dependent case view in this paper in order to extend the parallel with Yimas DAT indirect object clitics; as shown earlier, DAT in Yimas seems to be computed internal to the entire domain of clitics and does not directly reference the exact structural position (i.e. VP-internal or VP-external) of the clitic-doubled DP.

I propose that treating DAT case as dependent accounts for case alternations in ditransitive (tri-argumental) constructions of various types and across a variety of languages; I will mostly discuss causative constructions here. I show that, as correctly predicted by this approach, we find differences between NOM-ACC and ERG-ABS languages in how exactly these DAT alternations surface.

To start, observe the following data from Alutor, from Podobryaev (2013). These constructions show that DAT case on an indirect object (a causee) may in certain circumstances disappear, as in (53).

(53) *Alutor: DAT on causee unavailable when DO is incorporated*

- a. gəm-nan akka-ŋ tə-nə-svitku-və-tk-ən utte-ʔut
 1SG-ERG son-DAT 1SG.A-CAUS-cut-SUFF-PRES-3SG.P wood-ABS
 ‘I am making the son cut wood.’
- b. gəm-nan **akək** tə-n-u-svitku-və-tk-ən
 1SG-ERG son.ABS 1SG.A-CAUS-wood-cut-SUFF-PRES-3SG.P
 ‘I am making the son cut wood.’ (Podobryaev, 2013)

DAT case that surfaces on the causee in (53a) is unavailable when the direct object undergoes noun incorporation into the verb, (53b). This pattern is *not expected* under functional-head and lexical/inherent analyses of DAT case assignment, as the functional head responsible for assigning a causee θ -role or DAT case to the argument in question should be available regardless of whether or not the direct object, a separate (independent) argument, is incorporated into the verb. It follows straightforwardly, however, from a view in which DAT case may also be dependent, if incorporated nominals cannot participate in the case calculation (presumably because they are structurally smaller than case-receiving DPs/KPs).

In fact, the Alutor paradigm in (53) instantiates a common pattern for the morphological marking of causees in causative constructions. Cross-linguistically, causees often exhibit case alternations between DAT and some other morphological case, depending on whether the causativized verb is transitive or intransitive. In other words, while Alutor triggers such a case alternation via valency-decreasing processes such as noun incorporation, we see the same effect simply by comparing intransitive and transitive verbs. An example of this comes from Japanese, (Kuroda, 1965; Terada, 1990; Harley, 1995, a.o.), illustrated below. Here, the causee is marked DAT when the verb is transitive, but is accusative when the verb is intransitive.³¹

(54) *Japanese: case on causee alternates between DAT~ACC*

- a. Calvin-ga Hobbes-**ni** piza-o tabe-sase-ta
 Calvin-NOM Hobbes-DAT pizza-ACC eat-CAUS-PST
 ‘Calvin made Hobbes eat pizza.’
- b. Calvin-ga Hobbes-**o** ik-ase-ta
 Calvin-NOM Hobbes-ACC go-CAUS-PST
 ‘Calvin made Hobbes go.’ (Harley, 1995)

Though not explored by Harley (1995) and Podobryaev (2013), DAT as dependent case correctly predicts a typological contrast between languages with a NOM-ACC case alignment and those with an ERG-ABS case alignment. Whereas Japanese exhibits a DAT~ACC case alternation on its causees, ergative languages are instead exhibit alternations between DAT and ABS case. This is because ERG case is assigned upward while ACC case is assigned downward. As the lower of two arguments of a causativized intransitive verb, the causee receives dependent ACC case in an accusative language but surfaces as ABS in an ergative language. This is borne out in ergative language Basque, (55), as well as in the Shipibo examples in (49) above.

(55) *Basque: case on causee alternates between DAT~ABS*

- a. Pellok **Maddiri** ogia janarazi dio
 Peter.ERG Mary.DAT bread.ABS eat.CAUS AUX.3SG.3SG.3SG
 ‘Peter made Mary eat the bread.’
- b. haurrak **katua** hilarazi du
 child.ERG cat.ABS die.CAUS AUX.3SG.3SG
 ‘The child caused the cat to die.’ (Oyharçabal, 2004)

This treatment of dependent DAT case parallels the behaviour of the Yimas DAT clitics cross-referencing intermediate arguments. Because Yimas is also ergative, DAT alternates with ABS.

In summary, I showed that, although DAT case is often inherent or structurally assigned, this is not always the case. In particular, the behaviour of certain kinds of ditransitive constructions lead us to a different conclu-

³¹ Similar data can also be seen in French (Kayne, 1975; Guasti, 1993; Bobaljik and Branigan, 2006) and Italian (Folli and Harley, 2007).

sion: DAT can be dependently assigned to the middle of three arguments. This proposal correctly predicts that causees in causative constructions often display morphological alternations, depending on the transitivity of the causativized verb. Additionally, the Alutor noun incorporation data suggest that the crucial factor is really the number of arguments present in the syntax. Finally, a new argument for a dependent treatment of DAT case comes from the fact that DAT clitics in Yimas, which are clearly not controlled by argument structure, behave in a parallel fashion.

4.3 ABS as an elsewhere case

Within dependent case theory, ABS (or NOM) case is the *unmarked case*, surfacing on nominals that fail to receive lexical or dependent case (Marantz, 1991). As I showed in §3, what we understand as “ABS” in Yimas also behaves like a morphological elsewhere (cf. Legate, 2008). Moreover, under this approach, the ABS clitic paradigm can be analyzed as the default appearance of a doubled clitic, surfacing in the absence of dependent case assignment (Kornfilt and Preminger, 2015).

The idea that ABS “case” is simply label for the absence of case assignment altogether contrasts with a subtly different analysis, which takes ABS to be *assigned* to any nominal that does not receive dependent or lexical case (cf. Marantz, 1991). Kornfilt and Preminger (2015), however, provide various arguments in support of the caselessness approach advocated for here.³² Support for the former characterization of ABS comes from the Turkic language Sakha, in which dependent ACC case is fed by object shift (Baker and Vinokurova, 2010). In (56), we see that Sakha further permits embedded subjects to undergo movement into the matrix clause, and that this too can trigger ACC case on the embedded subject.

(56) *Sakha: Raising feeds dependent ACC case assignment*

- a. Keskil **Aisen-y** [kel-**bet** dien] xomoj-do
 Keskil Aisen-ACC [come-NEG.AOR.3SG that become.sad-PST.3SG
 ‘Keskil became sad that Aisen is not coming.’ (Baker and Vinokurova, 2010)
- b. min **ehigi-ni** [бүгүн kyaj-yax-**xyt** dien] erem-mit-im
 I **you-ACC** today win-FUT-**2PL** that hope-PST-1SG
 ‘I hoped you would win today.’ (Vinokurova, 2005)

Crucially, raised ACC subjects are able to control subject agreement on the embedded verb, suggesting that the ϕ -probe in the embedded clause is valued prior to A-movement of the subject. While it is unsurprising that the raised nominal is able to agree with the downstairs verb, given that it originates within the embedded clause, what *is* perhaps surprising is the fact that we see agreement with an ACC-marked nominal at all. Crucially, Sakha generally only exhibits agreement with nominative arguments. Based on this, Kornfilt and Preminger (2015) conclude that, logically, the embedded subject must be NOM in the embedded clause prior to moving into the matrix clause. However, they also show that a case stacking approach (as pursued by Baker and Vinokurova 2010) makes some unappealing—and incorrect—predictions.³³ The solution, they suggest, is that NOM is the *absence of case* entirely, and that caseless nominals control agreement in Sakha. In the example above, the embedded verb agrees with a caseless nominal, which receives case for the *first and only time* after A-movement.

Importantly, if this is the correct approach for morphologically unmarked nominals, then the Yimas clitic system and the dependent case system converge on a common treatment of the ‘unmarked form’—in both systems, this form is simply the default form of an element in the absence of any additional morphosyntactic processes. This, in turn, casts the nature of dependent case theory in a new light. It moves away from the notion of ‘case competition’ between nominals (Marantz, 1991), which requires that *all* nominals receive case according to a case-assigning hierarchy. In contrast, the current approach allows some nominals to remain

³²Of course, this does not account for the NOM and ABS case morphemes that have non-zero exponents cross-linguistically. I leave integrating these cases into the current proposal for future research.

³³For example, Kornfilt & Preminger point out that, under a case-stacking approach, the embedded subject must receive NOM case in the lower clause and then receives dependent ACC case in the matrix clause. This is, according to them, a problematic treatment for conceptual reasons, since this means that dependent case can be assigned to nominals that already receive case; this is contrary to the standard view that only *caseless* nominals are in competition to receive dependent case and leave the case competition upon receiving case.

caseless, if lexical and dependent rules do not apply to them.

4.4 Summary

Whereas in §3 I demonstrated that Yimas exhibits morphological alternations within its clitic system, this section demonstrated that nominals also display comparable alternations. This is, I argue, dependent case. Just as ERG and DAT in Yimas are sensitive to the number of clitics present, ERG and DAT case on nominals were shown to have parallel distributions at the sentence-level cross-linguistically. Similarly, just as ABS case in Yimas seems to be the default realization of a clitic in the absence of dependent case, unmarked case on nominals can also be analyzed as caselessness.

5 Context-invariant DAT case

So far, we have seen that the distributions of the Yimas case paradigms—ABS, (3rd person DAT), and ERG—were determined configurationally, based on the number of clitics present. In this section, I broaden the discussion to participant DAT clitics, as well as the usage of the DAT paradigm to cross-reference raised possessors. Crucially, these instances of DAT do not behave like dependent case, thus warranting an alternative analysis. Again, I show that these DAT clitics have useful cross-linguistic parallels.

The broader theory of case assignment subsuming dependent case actually identifies at least three types of case, which may be hierarchically ordered. The hierarchy in (57) is adapted from Marantz (1991):

- (57) *The case realization disjunctive hierarchy (Marantz, 1991)*
- a. lexically governed case (quirky/lexical case)
 - b. dependent case (ergative, accusative case)
 - c. unmarked/default case (realized on any NP otherwise unassigned case)

In the version of this system developed in Marantz (1991), nominals are in competition to be spelled out with one of the cases above, in the order given. Once a nominal receives a particular case, it leaves the competition and is excluded from the rest of the competition. As discussed above, however, I depart from the hierarchy in (57) somewhat in that I take ‘unmarked case’ to be the absence of case assignment altogether.

Unlike dependent and unmarked case, lexical case on nominals is taken by Marantz (1991) to be assigned by a governing V^0 or P^0 , prior to dependent case. Nominals that receive lexical case are unable to participate in the rest of the case calculation and, as a result, may *bleed* subsequent dependent case assignment. In Icelandic, for example, the presence of a quirky (DAT) subject bleeds the expected ACC case assignment on the object—which surfaces instead without overt case morphology, (58).

- (58) *Icelandic: quirky DAT bleeds dependent ACC*
- a. **dagmamman** bakaði **brauðið**
day.mommy.NOM baked bread.ACC
‘The day-mommy baked the bread.’
 - b. **barninu** batnaði **veikin**
child.DAT recovered.from disease.NOM
‘The child recovered from the disease.’ (Yip et al., 1987)

This kind of bleeding interaction between lexical and dependent case is similar to what we see in Yimas, in constructions containing participant and possessive DAT clitics; recall that these instances of DAT—henceforth, “context-invariant DAT”’ also block dependent ERG case assignment. This, more broadly, is consistent with the overall analysis of this paper, as it would suggest that Yimas exhibits *all three* of the case assignment tiers in (57).

At the same time, however, there are some important differences between lexical case on nominals and context-invariant DAT in Yimas; for instance, these clitics are not idiosyncratically case-assigned in the context of particular verbs, nor are they oblique (recall that only core arguments may be clitic-doubled in the first place). Rather, what we see in Yimas is that *certain classes* of nominals are consistently and obligatorily cross-

referenced by the DAT clitic paradigm—a pattern more reminiscent of Differential Object Marking (e.g. Dixon, 1994; Aissen, 2003).

I propose that the profile of context-invariant DAT shares properties in common with *both* lexical case and DOM. DOM in Yimas involves syntactic movement (clitic doubling) of participants and raised possessors to a dedicated position, thereby licensing them (Zubizarreta and Pancheva, 2017; Kalin, 2018). Clitics that move to this particular position are spelled out as DAT. Because the determination of DAT case morphology precedes the dependent case assignment process, this yields the bleeding effect on ERG case.

5.1 Properties of context-invariant DAT

Unlike the dependent DAT clitics cross-referencing intermediate arguments, the clitics that realize participant internal arguments and raised possessors obligatorily bear DAT case. I will refer to the former as DAT_{DEP} and the latter as DAT_{PART} and DAT_{POSS} for clarity. Whereas DAT_{DEP} surfaces when there are three clitics present, this is not a requirement for DAT_{PART} and DAT_{POSS}, which are insensitive to the surrounding clitic context.

First, the examples below, repeated from earlier, show that DAT_{PART} may surface when only two clitics are present, (59a); this usage of DAT persists even when there is only one clitic, for instance in the partial doubling construction in (59b). Moreover, using ABS morphology to cross-reference a participant internal argument and omitting the DAT morpheme altogether are both impossible, (59c-d), revealing that DAT_{PART} is *obligatory*. This is in contrast to most of the other clitics, which are generally optional.

(59) DAT_{PART} in Yimas is preserved with partial doubling

- a. **na-** **kra-** tay
3SG.ABS- 1PL.DAT- see
'He saw us.' (F205)
- b. Mitchell **kra-** tay
Mitchell 1PL.DAT- see
'Mitchell saw us.' (F,p.c.)
- c. #Mitchell **ipa-** tay
Mitchell 1PL.ABS- see
Intended: 'Mitchell saw us.' (F,p.c.)
(grammatical as 'We saw Mitchell.')
- d. *ipa **na-** tay
1PL.PRON 3SG.ABS- see
Intended: 'He saw us.' (F,p.c.)

The obligatoriness of DAT interacts with dependent ERG case assignment. As repeated below, Yimas clitics alternate between ERG-ABS and ABS-DAT, depending on the person specification of the internal object, repeated below. In Yimas, DAT case on the object clitic may bleed dependent ERG case on the subject clitic.

(60) DAT blocks dependent ERG

- a. **pu-** **n-** tay
3PL.ABS- 3SG.ERG- see
'He saw them.' (F195)
- b. **na-** **kra-** tay
3SG.ABS- 1PL.DAT- see
'He saw us.' (F205)

Turning now to DAT_{POSS}, we see that raised possessors of *all persons* pattern the same way.³⁴ The possessed DP may serve as an object, (61a-b), or as an intransitive subject, (61c-d); in either case, the possessor is

³⁴According to Foley (1991, pp. 300-303), possessor raising is used for possessors of inalienably possessed things, such as body parts, entities on body parts (e.g. mosquitos), and personal characteristics (e.g. voice). Non-raised possessors are not clitic doubled and surface as independent nominals with oblique case morphology, while raised possessors are cross-referenced by DAT clitic morphology and, if overt, surface as caseless nominals.

cross-referenced by a DAT clitic.

(61) DAT *raised possessors*

- a. yampaj **k-** **mpu-** **ɲa-** kra -t
 head.VI.SG VI.SG.ABS- 3PL.ERG- 1SG.DAT- cut -PERF
 ‘They cut my hair.’ (F301)
- b. naŋkun **na-** **ka-** tu -r **-akn**
 mosquito.V.SG V.SG.ABS- 1SG.ERG- kill -PERF -3SG.DAT
 ‘I killed the mosquito on her.’ (F301)
- c. narm **p-** **kra-** nanaŋ- kacakapi -ɲcut
 skin.VII.SG VII.SG.ABS- 1PL.DAT- DUR- hide -RM.PST
 ‘Our skin is deteriorating.’ (F301)
- d. wampuj mama-k-n **na-** ti -k **-nakn**
 heart.V.SG bad-IRR-V.SG V.SG.ABS- feel -IRR -3SG.DAT
 ‘His heart felt bad.’ (i.e. he was angry) (F301)

The example in (61d) is especially illuminating, in that it demonstrates that 3rd person DAT_{POSS} clitics differ fundamentally from the surface-identical 3rd person DAT_{DEP} clitics used to cross-reference indirect objects, despite their homophony.³⁵ Whereas the latter surfaces as an intermediate dependent case when three clitics are present, the example in (61d), as well as the data below, show that 3rd person DAT_{POSS} is *insensitive* to the number of clitics. Moreover, (62a-b) demonstrate that, just like DAT_{PART}, DAT_{POSS} clitics may bleed dependent ERG case assignment.

(62) DAT_{POSS} *is context-insensitive*

- a. narm **p-** **mpu-** tpul- kamprak -r **-akn**
 skin.VII.SG VII.SG.ABS- 3PL.ERG- hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F283)
- b. narm **pu-** tpul- kamprak -r **-akn**
 skin.VII.SG 3PL.ABS- hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F324)
- c. narm tpul- kamprak -r **-akn**
 skin.VII.SG hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F,p.c.)

Finally, (63) demonstrates that raised possessors *must* be clitic-doubled.³⁶

(63) DAT_{POSS} *is obligatory*

- a. yampaj **k-** **mpu-** **ɲa-** kra -t
 head.VI.SG VI.SG.ABS- 3PL.ERG- 1SG.DAT- cut -PERF
 ‘They cut my hair.’ (F301)
- b. *yampaj ama **k-** **mpu-** kra -t
 head.VI.SG 1SG.PRON VI.SG.ABS- 3PL.ERG- cut -PERF
Intended: ‘They cut my hair.’ (F,p.c.)

The properties of context-invariant DAT are summarized as follows:

- Context-invariant DAT is used to cross-reference participant internal arguments and raised possessors of all persons
- Clitic-doubling of these DPs is obligatory

³⁵This dual function of DAT is well-attested cross-linguistically on nominals (Harley, 1995; Anagnostopoulou and Sevdali, 2015; Baker, 2015).

³⁶Although this fact is not mentioned in Foley’s (1991) grammar, the data below were confirmed by Foley himself.

- These clitics are obligatorily DAT, i.e. do not alternate in case paradigm

5.2 Differential Object Marking

The fact that certain classes of DPs in Yimas are obligatorily cross-referenced by a particular type of morphology is highly reminiscent of Differential Object Marking cross-linguistically (e.g. Dixon, 1994; Aissen, 2003). Following Kalin (2014, 2018), I assume that DOM serves a *nominal licensing* function. Although DOM is often discussed in the context of case morphology on nominals, Kalin points out that it may also surface as ϕ -agreement or clitic doubling; thus, while nominal licensing is uniformly mediated by a dedicated licensing head, L^0 , languages may differ in the exact overt reflex that this takes. Considering that Yimas has a rather limited case inventory (in which the non-zero case is mainly used to mark oblique arguments), it is perhaps not surprising that the language instead makes use of its clitic system for this purpose. The relevant data are repeated below:

- (64) *DOM as DAT cliticization in Yimas*
- Mitchell **kra-** tay
Mitchell 1PL.DAT- see
'Mitchell saw us.' (F,p.c.)
 - narm tpul- kamprak -r **-akn**
skin.VII.SG hit- break -PERF -3SG.DAT
'They hit and broke his skin.' (F,p.c.)

I assume that the locus of context-invariant clitics in Yimas is structurally immediately below the locus of the other clitics, based on morpheme order; the order of the prefixal clitics is ABS-ERG-DAT_{PART}-verb. I further assume that there is a *single position* for DOM, meaning that 3rd person DAT_{POSS} must occupy a structurally lower position than 3rd person DAT_{DEP}—even though this is obscured by the fact that they are uniformly linearized as suffixes.³⁷ The underlying clitic orders are schematized in (65).

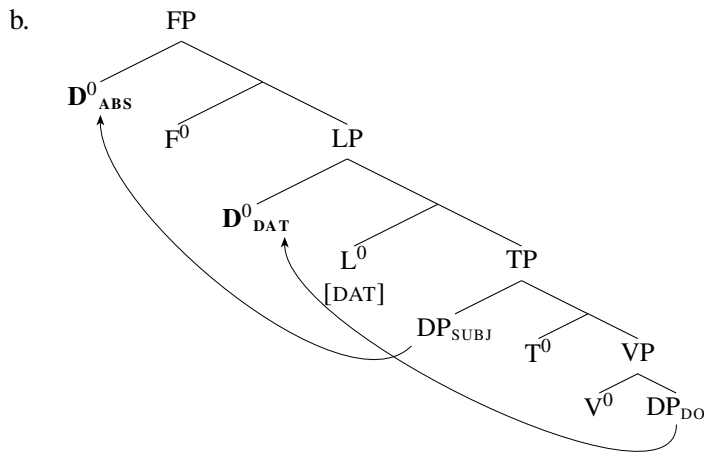
- (65) *Clitic orders in Yimas (revised)*³⁸
- Surface: (MOD-) (ABS-) (ERG-) (DAT.PART-) verb stem (**-DAT.3**)
 - Underlying: (MOD-) (ABS-) (**[DAT.3-]**) (ERG-) (**[DAT.PART/3POSS-]**) verb stem

A structure containing the DOM of a participant direct object is provided in (66). Note that clitic doubling is taken to be triggered by two distinct heads, abstractly labelled as F^0 and $L(\text{icensor})^0$, respectively. I moreover assume that L^0 is responsible for assigning DAT case to the clitic, on par with lexical case cross-linguistically. Because clitics that move to the LP domain are DAT, they cannot serve as case competitors for the other clitics. As a result, dependent ERG case is unavailable in (66).

- (66) *Clitic doubling with DOM*
- na-** **kra-** tay
3SG.ABS- 1PL.DAT- see
'He saw us.' (F205)

³⁷The claim that there are two structural positions for 3rd person DAT suffixes should be testable. Following the logic of morpheme order in §2.4, we expect the order of agreement suffixes to be verb-ERG-DAT_{DEP}-ABS and verb-DAT_{POSS}-ERG-ABS, respectively. Unfortunately, I am not aware of any data in Foley's (1991) grammar that shed light on this prediction.

³⁸A reviewer asks why DAT_{DEP} cross-referencing indirect objects and DAT_{PART} cross-referencing participant direct objects (or raised possessors) never co-occur, if they occupy different structural positions and have different functions. I assume that this is a matter of haplology, ruling out multiple instances of the same clitic paradigm in a single verb complex. I moreover take this process to crucially occur *after* case assignment to the clitics, such that it is able to eliminate pairs of DAT clitics. More broadly, while dependent case is argued here to be a means of dissimilating between clitics (§6), it is not the *only* dissimilation strategy operative in the language.



The idea that participant internal arguments and inalienable possessors obligatorily undergo cliticization (syntactic movement) to a higher position is also borne out cross-linguistically. As shown by Zubizarreta and Pancheva (2017), a language that displays this pattern is Paraguayan Guaraní. In (67a-b), we see that both participant direct objects and inalienable possessors must surface as preverbal clitics; however, (67c-d) demonstrate that their 3rd person counterparts remain postverbal as full pronouns.³⁹

(67) *Cliticization of participant internal arguments in Paraguayan Guaraní*

- a. (Ha'e) **che**=mbo-jahu
(s)he 2SG.OBJ=TR-bathe
'(S)he bathes you.'
- b. Ha'e **nde**=rova (jo)héi
(s)he 2SG.POSS=face wash
'(S)he washes your face.'
- c. (Che) re-mbo-jahu ichupe
(I) 2SG-TR-bathe him
'You bathe him.'
- d. Nde re-hova (jo)héi ichupe
you 2SG-3POSS.face wash her
'You wash her face.' (Zubizarreta and Pancheva, 2017)

While Yimas participant internal arguments behave on par with those in Paraguayan Guaraní, 3rd person raised possessors in Yimas also raise. I leave a fuller investigation of why this difference holds for future research.⁴⁰

Zooming out, we have found yet another parallel between morphological case on nominals and the clitic paradigms in Yimas, despite some surface differences. Just as lexical case-marked nominals may bleed dependent case assignment, DAT case assignment to certain clitics in Yimas—analyzed here as a DOM pattern—similarly prevents such clitics as functioning as case competitors for dependent ERG case.

5.3 Section summary

This section demonstrated that, in addition to having clitic analogues of dependent and unmarked case, Yimas also exhibits a variant of lexical case in its clitic system—DAT clitics cross-referencing participant internal arguments and raised possessors are context-insensitive, obligatory, and may block dependent ERG case on subject clitics, on par with lexical case on nominals cross-linguistically.

³⁹More concretely, Zubizarreta and Pancheva argue that Paraguayan Guaraní displays a direct-inverse system. As a result, the preverbal agreement slot in Infl⁰ always bears features of the highest ranked argument along a person hierarchy. What is crucial for our purposes is the fact that participant internal arguments must undergo movement to this position, while 3rd person internal arguments do not.

⁴⁰As discussed by Kramer (2014), the obligatory clitic doubling of inalienable possessors (without a person sensitivity) is also found in Amharic. Kramer also outlines a number of other contexts in which object clitic doubling is required (see also Baker 2012). It would be worth determining whether similar effects obtain in Yimas.

More generally, I showed that the morphological form of a given clitic in Yimas is determined by (i) its inherent properties (e.g. its person specification and thematic role, in the case of DOM) and (ii) its structural position relative to the other clitics present in the clitic cluster. A summary is provided below:

(68) *Correspondence between Yimas clitics and dependent case theory*

Type of case	Clitic form
Lexical	DAT _{PART}
	DAT _{POSS}
Dependent	ERG
	DAT _{DEP}
Unmarked/Caseless	ABS

As mentioned, the distributions of these clitic forms in Yimas parallel the distribution of lexical, dependent, and unmarked case on nominals cross-linguistically. Thus, both systems exhibit context-sensitive morphological alternations, albeit in different structural domains (the clitic domain vs. the clausal domain in other languages). That this general pattern ranges across both systems strongly suggests that they are subtypes of a single phenomenon—the topic of §6 below.

6 Dependent case as dissimilation

In the remainder of this paper, I propose that both dependent case on nominals and the clitic case alternations in Yimas are *domain-specific instantiations of morphosyntactic dissimilation*. The pressure to dissimilate, in turn, comes from a general well-formedness condition, requiring that all elements in some local domain be featurally distinct from one another (e.g. Grimshaw, 1997; Ackema, 2001; Walter, 2007; Richards, 2010; Nevins, 2012).⁴¹ This builds on and refines the UNIQUENESS constraint from Wunderlich (2001) (discussed in both §2.3 and in §A.2 in the Appendix), which prevents multiple clitics from being realized with the same case paradigm.

This proposal converges with Baker’s (2015) idea that dependent morphological case functions to differentiate nominals. Differentiation presupposes the existence of *multiple* objects that are otherwise similar; hence, dependent case assignment to a given element requires the presence of at least one other competing element in its local syntactic environment. Moreover, this proposal provides a reason for why it is typologically common for case systems to morphologically mark *either* the subject or the object (e.g. ERG, ACC), leaving the other argument unmarked (ABS, NOM): given a pair of non-distinct elements, marking only one of them is sufficient to differentiate between the two.

Once again, Yimas provides novel empirical evidence for this idea. In §6.1, I show that the ‘ABS as default’ approach, originally introduced in §3.3, motivates a dissimilatory treatment of ERG and DAT case. In light of this idea, I then speculate in §6.2 that the morphological effects triggered by modal prefixes (discussed in §2.2-2.3) may also be understood as dissimilatory. Evidence will come from the novel observation that the exact patterns that arise in Yimas mirror dissimilatory effects that are attested cross-linguistically.

6.1 Dissimilating ABS clitics

As mentioned above, I argue that the dependent ERG and DAT case assignment rules serve to disambiguate between otherwise indistinguishable ABS clitics. This idea builds on Wunderlich’s (2011) UNIQUENESS constraint, as discussed in §2.3 (see also the Appendix), which requires that each case paradigm occurs only once per clitic cluster. Wunderlich additionally characterizes the existence of such a constraint as “serv[ing] to avoid ambiguity” (p. 17). However, I highlight here a crucial difference between the details of Wunderlich’s proposal and my own. Wunderlich takes a representational approach to the overall appearance of the clitic cluster; UNIQUENESS constrains the space of possible paradigmatic combinations. In contrast, I argue that the case patterns on the clitics are *derived* by the application of morphological rules.

⁴¹Dissimilation is more widely known as a phonological phenomenon. The Obligatory Contour Principle (OCP) was proposed as a restriction on consecutive identical phonological features (Leben, 1973; Goldsmith, 1976; McCarthy, 1986). Constraints similar to the constraint discussed here have since been proposed to account for dissimilatory phonological phenomena more generally. See Bennett (2013, 2015) for a recent survey.

A derivational approach to the clitic-case patterns is necessary given the derivational relationship between the clitics and their DP associates. If all clitics are ‘ABS’ by default upon clitic doubling, then there must be morphological rules that convert these ABS clitics to ERG or DAT. Thus, I argue that these rules may be viewed as a *response* to the UNIQUENESS constraint. In contrast, the absence of ERG and DAT case signifies that this constraint is satisfied to begin with. Sequences of ABS clitics, the output of multiple clitic doubling, are banned because they are morphosyntactically indistinguishable from one another, and are thus realized with alternate paradigms in order to resolve this issue. This is schematized below:

(69) *Dependent case as dissimilation in Yimas*

- a. ***pu-** **na-** tay
 3PL.ABS- 3SG.ABS- see
 Intended: ‘He saw them.’ (*output of CD*)
- b. **pu-** **n-** tay
 3PL.ABS- 3SG.ERG- see
 ‘He saw them.’ (*dissimilation via ERG assignment*)

This captures why ERG and DAT case only surfaces in clitic clusters containing multiple clitics; UNIQUENESS is vacuously satisfied if there is only one clitic present. This approach may moreover be extended to dependent case systems cross-linguistically. If ‘ABS’ on nominals is simply the absence of case altogether (Kornfilt and Preminger, 2015), then, in a parallel vein to Yimas clitics, dependent case assignment may also be seen as a dissimilatory strategy.

In contrast to dependent ERG and DAT case, the core function of lexical case or DOM (e.g. DAT_{PART}/DAT_{POSS} in Yimas) is not to dissimilate, as its appearance is tied to particular featural specifications and thematic roles and, as assumed in §5, may also be tied to nominal licensing. Nonetheless, because its presence in monotransitive constructions may satisfy UNIQUENESS, dependent case assignment in such constructions is unnecessary, (70a-b). However, dependent case assignment must still take place in ditransitive constructions to disambiguate the two non-DOM clitics, (70c).

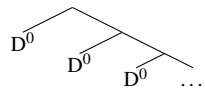
(70) *DAT blocks dependent ERG in monotransitives but not ditransitives*

- a. **pu-** **nan-** tay
 3PL.ABS- 2SG.DAT- see
 ‘They saw you.’ (F198)
- b. ***mpu-** **nan-** tay
 3PL.ERG- 2SG.DAT- see
 Intended: ‘They saw you.’ (F198)
- c. **k-** **mpu-** **ŋa-** tkam -t
 VI.SG.ABS- 3PL.ERG- 1SG.DAT- show -PERF
 ‘They showed me it (the coconut).’ (F208)

Why is dissimilation required? One possible reason could be that, as noted in §2, grammatical relations are primarily encoded on the clitics, rather than the nominals (which are often dropped in discourse). Without the case paradigms, one cannot reliably map a particular clitic to a particular grammatical function.

Another possibility stems from Richards (2010), who theorizes that dissimilation may be motivated by linearization considerations. Under this approach, linearization statements can only be made on elements that are *morphosyntactically distinct*; non-distinct elements cannot be interpreted by the linearization algorithm because they would create a contradictory linearization statement. For example, in a linearization statement like $\langle \alpha, \alpha \rangle$, the pair of α elements cannot be ordered relative to each other because they are non-distinct. The Yimas clitic system may then also be viewed as unlinearizable without morphological case. As schematized throughout (71), since the clitic cluster consists of a series of ϕ -bearing D^0 s, any linearization statement that could be generated would be $\langle D, D \rangle$ —hence, unlinearizable. However, this is resolved by case assignment.

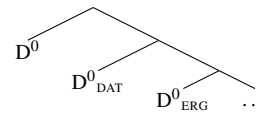
(71) a. *Unlinearizable structure:*



Linearization statements:

$\langle D, D \rangle, \langle D, D \rangle, \langle D, D \rangle$

b. *Linearizable structure:*



Linearization statements (after suffixation):

$\langle D, D_{\text{ERG}} \rangle, \langle D, D_{\text{DAT}} \rangle, \langle D_{\text{ERG}}, D_{\text{DAT}} \rangle$

Dependent case is not the only strategy that languages use to differentiate between otherwise non-distinct nominals in the syntax. The idea that languages display various ways to dissimilate nominals will be further pursued in the remainder of the section, before we turn briefly to Yimas.

6.2 Further instances of dissimilation

The idea that languages are sensitive to a condition like UNIQUENESS has been pursued across modules and in a wide variety of languages. Here, again, I refer to Richards (2010), who discusses these different strategies extensively, as well as Walter (2007) and Nevins (2012); this section offers only a small sampling of dissimilation strategies. What is crucial for our purposes is that the survey of patterns we see cross-linguistically seems to mirror certain recalcitrant constructions found in Yimas—allowing us an avenue towards incorporating these into our overall analysis.

6.2.1 Dissimilation strategies cross-linguistically

A particularly well-known case comes from the Spanish *spurious 'se'* effect (Perlmutter, 1971; Bonet, 1991). In Spanish, DAT and ACC clitics cannot co-occur, (72a); in such contexts, a would-be DAT clitic is instead realized as the reflexive clitic *se*, (72b). Following Nevins (2007), this effect takes place because the DAT-ACC clitic sequence involves two identical person features; however, deleting the person feature on the DAT clitic—resulting in the appearance of the underspecified form *se*—resolves this problem.⁴²

(72) *Spurious 'se' effect derived by impoverishment in Spanish*

- a. *A Pedro, el premio, **le** **lo** dieron ayer
to Pedro the prize 3SG.DAT 3SG.ACC gave-PL yesterday
Intended: 'To Pedro, the prize, they gave it to him yesterday.'
- b. A Pedro, el premio, **[se]** **lo** dieron ayer
to Pedro the prize SE 3SG.ACC gave-PL yesterday
'To Pedro, the prize, they gave it to him yesterday.' (Nevins, 2007)

Additionally, deleting or displacing an entire morpheme is also cross-linguistically attested as a dissimilatory repair. Arregi and Nevins (2012) show that certain varieties of Basque exhibit *participant dissimilation* (an effect also exhibited in many other languages, such as Yimas; see below), such that the language bans certain combinations of two sequences of [PARTICIPANT] features. In the Ondarru dialect of Basque, participant dissimilation effect is resolved by deleting a 1PL dative or absolutive morpheme in the presence of a 2nd person ergative morpheme, (73). Dissimilation-via-displacement is exemplified by the *double-o* constraint in Japanese, in which adjacent ACC-marked nominals are banned. Crucially, as shown by Saito (2002) (see also Richards 2010), this ban is circumvented by clefting one of the nominals, (74).

(73) *Ondarru Basque: Participant dissimilation resolved by deletion*⁴³

- a. *Su-k **gu-ri** liburu-∅ emo-∅ d-o **-ku** -su (>skusu)
you(sg)-ERG **us-DAT** book-ABS give-PRF L -PRS.3.SG **-CL.D.1.PL** -CL.E.2.SG
Intended: 'You have given us the book.'

⁴²The pervasiveness of this effect is further demonstrated by Manzini and Savoia (2005) in their survey of Italian dialects. In the exact same configuration, some Italian dialects convert the DAT clitic to a reflexive, while others realize it as a partitive or a locative.

- b. d -o -su (>su)
 L -PRS.3.SG -CL.E.2.SG
 ‘You have given us the book.’ (Arregi and Nevins, 2012)

(74) *Japanese: double-o constraint circumvented by clefting*

- a. hanako-ga taroo-ni toti-**o** zyooto sita
 Hanako-NOM Taroo-DAT land-ACC giving did
 ‘Hanako gave Taroo a piece of land.’
- b. *hanako-ga taroo-ni toti-**o** zyooto-**o** sita
 Hanako-NOM Taroo-DAT land-ACC giving-ACC did
Intended: ‘Hanako gave Taroo a piece of land.’ (Richards, 2010)
- c. [hanako-ga taroo-ni zyooto-**o** sita no wa] toti-**o** da
 [Hanako-NOM Taroo-DAT giving-ACC did C TOP] land-ACC is
 ‘What Hanako gave to Taroo is a piece of land.’ (Richards, 2010)

Finally, case assignment as a dissimilatory repair can also be illustrated with the Japanese double-o constraint. In addition to the clefting strategy shown in (74c), this constraint may be obviated by marking one of the ACC nominals with GEN case instead, (75). In Japanese, we find multiple ways of circumventing the double-o constraint, including substituting the morphological case on one of the offending nominals with a different case

(75) *Japanese: GEN can also circumvent double-o constraint*

- hanako-ga taroo-ni toti-**no** zyooto-**o** sita
 Hanako-NOM Taroo-DAT land-GEN giving-ACC did
 ‘Hanako gave Taroo a piece of land.’ (Richards, 2010)

6.2.2 Modal prefixes in Yimas, revisited

The relevance of the cross-linguistic dissimilatory data to Yimas comes from the novel observation that these kinds of effects *also surface in modal prefix constructions*. While I do not provide a concrete analysis of the data to be shown, I hope that ensuing discussion provides a foundation for future work. In particular, it introduces the possibility that modal-clitic interactions are dissimilatory in nature, which, in turn, suggests that modal prefixes and clitics must form a morphosyntactic class at some fundamental level.

Back in §2, I showed that the presence of a modal prefix triggers certain morphological effects on the adjacent ABS clitic. A (non-exhaustive) list of these prefixes is given below in (76). I also suggested, following Phillips (1993, 1995), that these prefixes occupy C^0 , and that C^0 immediately c-commands the highest clitic (ABS). That they are located high in the functional structure is suggested by the range of meanings associated with these morphemes, which all encode mood or illocutionary force.

(76) *Yimas modal prefixes*

- a. *ka-* ‘likelihood’
 b. *ant-* ‘potential’
 c. *ta-* ‘negation’
 d. *m-* ‘relativizer’
 e. $\emptyset \sim naŋ \dots -n$ ‘imperative’
 f. *apu-* ‘negative imperative’

There are (as far as I can tell) five different allomorphic effects that surface, illustrated below. The choice of which effect takes place is somewhat idiosyncratic, depending on a combination of the choice of modal, the featural specifications of the affected clitic, and, in certain cases, whether the subject clitic outranks the object clitic along a hierarchy; see Foley (1991, pp. 251-276) for details. For instance, comparing (78a) and (79a)

⁴³Following the convention in Arregi & Nevins (2012), the auxiliaries in the Ondarru Basque data are presented with their underlying forms to make clear the participant dissimilation effect; the surface forms are given in parentheses.

below, these constructions contain the same types of arguments being cross-referenced (3PL subject acting on 1SG object), but display different effects due to the choice of modal. Similarly, the examples in (78b), (79b), and (81) show that a single modal prefix (e.g. *ta-* ‘negation’) may trigger multiple effects.

In (77), the baseline construction, there is no modal present, and the subject and object clitics given are ABS. In the examples in (78), however, the relevant clitics are realized as ERG instead of ABS, in the presence of the prefixes *ka-* ‘likelihood’ and *ta-* ‘negation.’ This effect is only triggered on clitics cross-referencing subjects. The realization of an ABS to ERG clitic was already argued in §6.1 to be dissimilatory in nature, in the context of the dependent case rules previously established.

(77) *Baseline*

- a. **pu-** **ŋa-** tay
3PL.ABS- 1SG.DAT- see
‘They saw me.’ (F196)
- b. **ama-** wa -t
1SG.ABS- go -PERF
‘I went.’ (F196)
- c. **pu-** **n-** tay
3PL.ABS- 3SG.ERG- see
‘He saw them.’ (F195)

(78) *Modal-clitic effect 1: ABS → ERG*

- a. *ka-* **mpu-** **ŋa-** tput -n
LIKE- 3PL.ERG- 1SG.DAT- hit -PRES
‘They are going to hit me.’ (F266)
- b. *ta-* **ka-** wa -t
NEG- 1SG.ERG- go -PERF
‘I didn’t go.’ (F251)

In contrast, in (79), the expected prefixal ABS clitic is instead realized solely as a number suffix. Note that this effect occurs for clitics cross-referencing both subjects and objects. This suffixation process—which morphologically displaces the ABS clitic from its expected position—is reminiscent of the syntactic displacement (clefting) pattern found in (74).

(79) *Modal-clitic effect 2: ABS- → -#*

- a. **ant-** **ŋa-** tpul -c **-um**
POT- (~~3PL.ABS-~~) 1SG.DAT- hit -PERF -PL(ABS)
‘They almost hit me.’ (F264)
- b. *ta-* **ka-** am -war **-uj**
NEG- (~~X.SG.ABS-~~) 1SG.ERG- eat -HAB -X.SG(ABS)
‘I don’t usually eat (sago).’ (F255)

A third effect is given below. First, the examples in (80) establish that the plural number suffix associated with a class V ABS clitic is *-ra*. As (81) shows, however, in the presence of the modal *ka-* ‘likelihood’, the ABS clitic surfaces now takes the *ra* form normally used for suffixes. This, I propose, can be analyzed as an instance of *impoverishment*, since *ra* does not encode person, only number (and noun class) (cf. Harbour, 2008).

(80) *Class V plural ABS clitic vs. suffix*

- a. amtra **ya-** **n-** am -t
food.V.PL V.PL.ABS- 3SG.ERG- eat -PERF
‘He ate the food.’ (F451)

- b. takiŋkat ta- **kay-** wampak -ŋa **-ra**
 rock.V.PL NEG- (~~V.PL.ABS-~~) 1PL.ERG- throw -NR.PST -V.PL(ABS)
 ‘We didn’t throw the rocks yesterday.’ (F255)

(81) *Modal-clitic effect 3: ABS → impoverishment*

- a. wŋcmpt mpu-na-ra ka- **ra-** ŋa- taŋ- taw -n
 name.V.PL 3PL-POSS-V.PL LIKE- V.PL- 1SG.DAT- COM- sit -PRES
 ‘Their names will be mine.’ (F266)
- b. mara ama naŋkun ka- **ra-** taw -n
 other.V.PL 1SG toward LIKE- V.PL- sit -PRES
 ‘The others will stay with me.’ (F266)

A fourth effect is shown in (82). In these examples, a would-be ABS 3rd person clitic (whether human or non-human) is realized as the invariant form *pu-*, which is homophonous to the 3PL ABS form; again, its number and class specifications are encoded as a suffix. This effect is exclusively triggered by the negation morpheme.

(82) *Modal-clitic effect 4: ABS → 3PL ABS*

- a. ta- **pu-** wa -na **-rm**
 NEG- 3ABS- go -NR.PST -DL(ABS)
 ‘Those two didn’t go yesterday.’ (F252)
- b. irpuŋi ta- **pu-** tmuk -na **-ra**
 coconut.palm.IV.PL NEG- 3ABS- call -NR.PST -IV.PL(ABS)
 ‘The coconut palms didn’t fall over yesterday.’ (F254)
- c. ta- **pu-** n- tay -c **-um**
 NEG- 3- 3SG.ERG- see -PERF -PL
 ‘He didn’t see them.’ (F257)

Finally, in (83), the ABS clitic remains unchanged (though a suffix again surfaces)—but the *modal prefix*, normally *ant-*, as seen in some examples above, is realized with an allomorphic form, *a-*.

(83) *Modal-clitic effect 5: ant- → a-*

- a. **pu-** tmuk -t
 3PL.ABS- fall -PERF
 ‘They fell down.’ (F197)
- b. **a-** **pu-** tmuk -r **-um**
 POT- 3PL.ABS- fall -PERF -PL
 ‘They almost fell down.’ (F197)

The idiosyncratic appearance of the effects surveyed above strongly suggests that they are somehow triggered by the modals.⁴⁴ Why these particular effects? While a concrete answer is not immediately obvious, I believe it to be non-trivial that the exact patterns that we see in modal-clitic clusters in Yimas mirror cross-linguistically attested dissimilation strategies. If this is correct, then we must conclude that the modal prefixes and ABS clitics are morphosyntactically similar in some fundamental way, such that they too need to be dissimilated.

⁴⁴Relatedly, they provide further evidence against an alternative approach by Phillips (1993, 1995), first brought up in §2.3 (see also the Appendix). Whereas the present analysis takes all doubled clitics to be ABS (caseless) by default, recall that Phillips takes subject clitics to be *underlyingly* ERG, with ABS morphology being enforced by the ABS Requirement. Under this view, subject clitics may be realized with their true ERG form if the ABS Requirement is independently satisfied (e.g. by a modal prefix). However, the scope of such an approach is too narrow, as it only captures the ABS-to-ERG effect shown in (78); additional morphological mechanisms must be invoked to account for the other four effects that surface, especially the effects that allow the ABS clitic to *remain* ABS in the presence of a modal.

6.3 Summary

I argued that the dependent case assignment rules on the doubled clitics are fundamentally dissimilatory in nature—and, relatedly, that the assignment of dependent case also serves a dissimilatory function, building on an idea from Baker (2015). Following Wunderlich (2001), I proposed that a morphosyntactic condition, UNIQUENESS, manifests in different ways across languages. In Yimas, it militates against multiple featurally non-distinct clitics; in other languages, it triggers morphosyntactic effects on non-distinguishable nominals. I also speculated that dependent case assignment is one of many strategies that languages may use to differentiate between nominals, while multiple kinds of effects may also apply within the clitic context. Tentative evidence for the latter part comes from the behaviour of the Yimas doubled clitics in the presence of a modal prefix. I showed that various different effects take place, and that these effects are notably attested as dissimilatory across languages; moreover, that realizing a doubled clitic as ERG is one of such effects thus helps further the claim that dependent case surface to dissimilate.

7 Conclusion

In this paper, I demonstrated that the cross-linguistic distributions of dependent morphological case exactly parallel the distributions of morphological paradigms within the clitic system of Yimas. That both systems display the same morphological patterns strongly suggests the existence of some broader principle that is reflected in both systems. I identified this principle as a well-formedness condition requiring that all elements within some local domain be sufficiently morphosyntactically distinct. Both dependent case assignment and the morphological rules for the ERG and DAT clitic paradigms in Yimas are dissimilatory responses that take place so that the UNIQUENESS condition is satisfied. More generally, this paper provided novel evidence for the dependent theory of case assignment by investigating the phenomenon in an under-explored domain—the clitic cluster.

From a language-internal standpoint, this paper has offered a comprehensive reanalysis of the case and agreement system of Yimas, drastically departing from previous characterizations of the language. Along the way, I demonstrated that some of the properties previously attributed to the language—for instance, a person-based split and an ABS requirement—do not actually exist upon closer examination. The analysis pursued in this paper instead takes ABS to be the default clitic paradigm; ERG and DAT surface in order to avoid sequences of multiple ABS clitics.

More generally, the analysis presented within the paper provides novel evidence for the dependent theory of case assignment (and against other means of case assignment), as well as addresses the question of why such a system exists at all. Dependent case is, under the present approach, reconceptualized as a subtype of a much broader phenomenon that *may* be instantiated on a set of nominals in the syntax, though not limited to it.

A Previous analyses of the Yimas case and agreement system

This section supplements §2.3 of the paper. While the analyses in Phillips (1993, 1995) and Wunderlich (2001) differ from each other in the details, they face similar empirical shortcomings, as noted in the paper. As I will detail below, both analyses erroneously take ABS morphemes to be privileged in some sense, such that they must occur in all constructions. Both analyses also miss the observation that the DAT morphemes cross-referencing raised possessors trigger the same case patterns as participant internal arguments, suggesting that Yimas does not display a person-based ergative split.

A.1 Phillips (1993, 1995)

The analysis of Yimas pursued by Phillips (1993, 1995) has two main components. The first is that Yimas is a ‘hybrid’ polysynthetic agreement language that makes use of both argumental pronominal affixes (in the sense of Jelinek 1984) and agreement heads (cf. Baker, 1988); the second is that Yimas is subject to a special version of the Extended Projection Principle (Chomsky, 1981), whose satisfaction is reflected by the presence of ABS morphology. Phillips assumes the following paradigmatic organization of the agreement forms:

(84) *Organization of paradigms from Phillips (1993)*

	ABS	ERG	NOM	ACC	DAT
1sg	ama-		ka-	ŋa-	
1dl	kapa-		ŋkra-	ŋkra-	
1pl	ipa-		kay-	kra-	
2sg	ma-		n-	nan-	
2dl	kapwa-		ŋkran-	ŋkul-	
2pl	ipwa-		nan-	kul-	
3sg	na-	n-			-(n)akn
3dl	impa-	mpi-			-mpn
3pl	pu-	mpu-			-mpun

Comparing the table in (84) to the one in (6) in §2.1 of the paper, notice that the ERG and DAT paradigms from (6) are split into two paradigms each: ERG/NOM and ACC/DAT. Thus, for Phillips, there are no participant ERG or DAT morphemes, and no 3rd person NOM and ACC morphemes. Under his analysis, some of our earlier examples may be relabeled as (85).

(85) *A split ergative approach to Yimas (Phillips 1993, 1995)*

- a. **pu-** **n-** tay
 3PL.ABS- 3SG.ERG- see
 ‘He saw them.’ (F195)
- b. **pu-** **ka-** tay
 3PL.ABS- 1SG.NOM- see
 ‘I saw them.’ (F196)
- c. **pu-** **nan-** tay
 3PL.ABS- 2SG.ACC- see
 ‘They saw you.’ (F198)

Phillips also posits that the NOM/ACC participant-referencing morphemes are incorporated pronouns, while the 3rd person ERG/DAT morphemes and all ABS morphemes are true agreement heads that arise from feature checking. In this way, the characterization of Yimas as having a person-based ergative split extends beyond the observed morphological case patterns, as it holds implications for the linguistic typology of polysynthesis.

The ABS Requirement is covered by a Yimas-specific EPP (YEPP), which must be satisfied either by a feature-checking relationship between a functional head (e.g. T^0) and an argument—reflected by the presence of ABS agreement—or by a modal prefix. In (85a-b), the object checks T^0 's features and is thus spelled out as ABS, while in (85c-d) the subject checks these features. However, when the YEPP is satisfied by a modal prefix, the true forms of the agreement morphemes are able to surface, since they are no longer overridden by the ABS Requirement. Consequently, intransitive subjects are not inherently ABS, but are rather underlyingly ERG or NOM, as shown below in (86a-b).

(86) *DEFAULT ERG/NOM emerges with modal prefix (Phillips 1993, 1995)*

- a. **ka-** **mpu-** **ŋa-** tput -n
 POT- 3PL.ERG- 1SG.ACC- hit -PRES
 ‘They are going to hit me.’ (F266)
- b. **ta-** **ka-** wa -t
 NEG- 1SG.NOM- go -PERF
 ‘I didn’t go.’ (F251)

However, the notion of a YEPP is challenged by the fact that the ABS agreement morphemes are *optional*, which Phillips does not take into account. Consider the examples in (87)-(88) (using Phillips’ glossing conventions). In (87a), there is no ABS morpheme present, and yet the sentence is grammatical; moreover, (87b-c) demonstrate that replacing the ACC form with ABS or getting rid of the ACC form altogether are both impossible. Under Phillips’ analysis, the YEPP remains unchecked in (87a), even though the construction contains a

3rd person argument (the subject ‘Mitchell’) that should be able to check the YEPP.

(87) ABS *is not obligatory*; ACC *can surface alone*

- a. Mitchell **kra-** tay
 Mitchell 1PL.ACC- see
 ‘Mitchell saw us.’ (F,p.c.)
- b. #Mitchell **ipa-** tay
 Mitchell 1PL.ABS- see
 Intended: ‘Mitchell saw us.’ (F,p.c.)
 (grammatical as ‘We saw Mitchell.’)
- c. *ipa **na-** tay
 1PL.PRON 3SG.ABS- see
 Intended: ‘He saw us.’ (F,p.c.)

Similarly, the examples in (88) show that 3SG raised possessors, exponed with DAT morphology, trigger the same pattern. In the partial nominal-referencing example in (88b), we see an ABS-DAT pattern. In (88c), again we see that the YEPP apparently need not be checked.

(88) ABS *is not obligatory*; 3rd person DAT *can surface alone*

- a. narm **p-** **mpu-** tpul- kamprak -r **-akn**
 skin.VII.SG VII.SG.ABS- 3PL.ERG- hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F283)
- b. narm **pu-** tpul- kamprak -r **-akn**
 skin.VII.SG 3PL.ABS- hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F324)
- c. narm tpul- kamprak -r **-akn**
 skin.VII.SG hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F,p.c.)

These data are additionally problematic given that ACC and DAT do not form a natural class under Phillips’ system, which takes participant ACC morphemes to be pronominal and 3rd person DAT morphemes to be agreement heads. They also contradict Phillips’ characterization of Yimas as a person-based split ergative language.

Finally, data like (89) (mentioned but not explained in Phillips 1995) show the inadequacy of the YEPP from the opposite direction, as well as cast doubt on the idea that 3rd person subject agreement morphemes are underlyingly ERG, as revealed once the YEPP is controlled for by a modal prefix. First, in certain contexts, Yimas does allow 3rd person subjects to surface as ABS in the presence of a modal. In (89a), the ABS morpheme appears as homophonous with the ABS 3PL form. In (89b), we find a 3PL ABS morpheme co-occurring with a modal. These examples cannot be generated in Phillips’ system, since the YEPP should be checked by the modal prefix.

(89) *Modal prefixes and ABS morphemes may co-occur*

- a. **ta-** **pu-** wa -na **-rm**
 NEG- 3(ABS)- go -NR.PST -DL
 ‘Those two didn’t go yesterday.’ (F252)
- b. **a-** **pu-** tmuk -r **-um**
 POT- 3PL.ABS- fall -PERF -PL
 ‘They almost fell down.’ (F197)

A second challenge for Phillip’s ERG subject approach comes from the behaviour of non-human nominals. As mentioned in footnote 6 in §2.1, non-human nominals are divided into several noun classes. Crucially, as (90) shows, noun class distinctions are only encoded in the ABS paradigm, but are neutralized when the agreement morpheme is ERG (or DAT/ACC). This holds whether the ERG subject is transitive, or intransitive

but co-occurring with a modal prefix. If subjects are ERG by default, as argued by Phillips, it is unclear why YEPP-checking should yield *more* morphological noun class distinctions than seen in their underlying ERG forms. Rather, the directionality of this contrast suggests the opposite—that these subjects are underlyingly ABS, and that noun class distinctions are lost when the would-be ABS morphemes are realized as ERG.

(90) *Noun class distinctions neutralized when ERG*

- a. **ikn** antki **ya-** **n-** tar- urkpwica -t
 smoke.V.SG thatch.VII.PL VII.PL.ABS- 3SG.ERG- CAUS- blacken -PERF
 ‘The smoke blackened the roof (thatch).’ (F204)
- b. **nmpi** **ka-** **mpu-** tra- y -n
 leaf.VII.PL LIKE- 3PL.ERG- about- come -IMP
 ‘Let the letters get distributed.’ (F268)

To summarize, additional Yimas data argue against Phillips’ YEPP, which is claimed to underlie the language’s case alternations: (i) ABS morphology is *not* obligatory (even in the absence of a modal prefix), (ii) certain paradigms (e.g. ACC and DAT above) cannot be overridden by ABS, (iii) modal prefixes and ABS morphemes may co-occur, and (iv) the morphological profile of non-human nominals suggests that ABS is default.

A.2 Wunderlich (2001)

Wunderlich (2001) accounts for the distributions of the Yimas agreement paradigms in an Optimality Theoretic framework, characterizing the divergences from the expected forms as paradigmatic gaps and substitutions. For example, the ABS-DAT pattern—NOM-ACC for the remainder of this section, using Wunderlich’s labels— involves replacing an ERG morpheme with its NOM equivalent, which is default. This substitution takes place to satisfy a high-ranked constraint that would otherwise be violated. Wunderlich’s organization of the paradigms is given in (91). Like Phillips (1993, 1995), Wunderlich separates ACC and DAT into two non-overlapping paradigms; however, unlike Phillips, the ERG paradigm contains both participant and 3rd person forms.

(91) *Organization of paradigms from Wunderlich (2001)*

	NOM	ERG	ACC	DAT
1sg	ama-	ka-	ɲa-	
1dl	kapa-	ɲkra-	ɲkra-	
1pl	ipa-	kay-	kra-	
2sg	ma-	n-	nan-	
2dl	kapwa-	ɲkran-	ɲkul-	
2pl	ipwa-	nan-	kul-	
3sg	na-	n-		-(n)akn
3dl	impa-	mpi-		-mpn
3pl	pu-	mpu-		-mpun

Wunderlich’s analysis features two major constraints, DEFAULT and UNIQUENESS. DEFAULT states that every clitic cluster must contain a NOM morpheme, thus directly enforcing the ABS Requirement mentioned above. UNIQUENESS states that each paradigm may surface only once per clitic cluster. Other lower-ranked faithfulness constraints are violated in order to satisfy DEFAULT and UNIQUENESS; the internal ranking of these more violable constraints determines the exact morphological patterns that surface.

For example, Wunderlich accounts for the ERG-NOM (our ERG-ABS) and NOM-ACC (our ABS-DAT) alternation, repeated below as (92) with Wunderlich’s labels, as follows. Wunderlich proposes that there are simply no 3rd person ACC forms in Yimas’ inventory of nominal-referencing forms; this is a paradigmatic gap of the language. In the ergative patterning in (92a), DEFAULT is satisfied because the 3PL object marker is NOM, given that an ACC equivalent does not exist. UNIQUENESS prevents other unattested possibilities, e.g. *NOM-NOM, from surfacing. In (92b), an ERG-ACC patterning is ruled out by DEFAULT. Though there are actually two viable candidates—NOM-ACC and ERG-NOM—only the former is attested; to rule out the latter, Wunderlich posits an internal ranking of two MAX constraints, so that it is more fatal to alter the object-referencing form than the subject-referencing form.

(92) *Person-based alternation from paradigmatic gap and substitution*

- a. **pu-** **n-** tay
 3PL.NOM- 3SG.ERG- see
 ‘He saw them.’ (F195)
- b. **pu-** **ŋa-** tay
 3PL.NOM- 1SG.ACC- see
 ‘They saw me.’ (F196)

Although I adopt many of Wunderlich’s insights in this paper—in particular, the UNIQUENESS condition—the exact formulation of his system faces similar challenges as the ones outlined above. See also Harbour (2003) for a more in-depth critique.

First, like Phillips, Wunderlich assumes that the DAT paradigm only contains 3rd person forms, while the ACC paradigm only contains participant forms. However, recall the fact that the DAT forms that cross-reference 3rd person raised possessors pattern identically to the ACC forms cross-referencing participant internal arguments, repeated below; the same NOM-DAT pattern surfaces.

(93) *DAT encoding raised possessors may trigger NOM-DAT*
 narm **pu-** tpul- kamprak -r **-akn**
 skin.VII.SG 3PL.NOM- hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F324)

Given that the DAT and ACC paradigms are non-overlapping to begin with, the parallel behaviour shown above strongly suggests that they should be conflated into a single paradigm (as in (6) in §2.1), rather than kept separate. However, doing so then contradicts the idea that the “person-sensitive” alternation arises partly due to the inherent 3rd person gap in the ACC paradigm.

Another issue comes from the DEFAULT constraint, which, just as discussed above, is violated in examples not known to Wunderlich. Like Phillips, Wunderlich misses the fact that non-ACC/DAT morphemes are optional. These examples, repeated below as (94) (now using Wunderlich’s glosses), are not predicted to be possible at all under his system, as the ACC and DAT forms should both surface as NOM.

(94) *Non-ACC/DAT forms may be omitted, violating DEFAULT*

a. Mitchell **kra-** tay
 Mitchell 1PL.ACC- see
 ‘Mitchell saw us.’ (F,p.c.)

b. narm tpul- kamprak- r **-akn**
 skin.VII.SG hit- break -PERF -3SG.DAT
 ‘They hit and broke his skin.’ (F,p.c.)

Finally, Wunderlich’s proposal is also challenged by the behaviour of the modal prefixes. For Wunderlich, two high-ranked constraints, INIT(mod) and INIT(nom), function to anchor these elements to the left edge of the word, with INIT(mod) being the higher-ranked of the two. Substituting a NOM morpheme with an ERG form may therefore satisfy INIT(mod) while circumventing a violation of INIT(nom) (both INIT constraints dominate DEFAULT, thus allowing constructions with no NOM morphemes). However, as with Phillips’ analysis, this misses the fact that the modal prefix and the NOM morpheme may in fact co-occur in limited circumstances, repeated below as (95); such examples should fatally violate INIT(nom) and should therefore not be attested.

(95) *Modal prefixes and NOM morphemes may co-occur*

a. **ta-** **pu-** wa -na **-rm**
 NEG- 3ABS- go -NR.PST -DL
 ‘Those two didn’t go yesterday.’ (F252)

b. **a-** **pu-** tmuk -r **-um**
 POT- 3PL.NOM- fall -PERF -PL
 ‘They almost fell down.’ (F197)

More broadly, a divergence between Wunderlich's system and the one advocated for in this paper concerns the exact relationship between the agreement paradigms. For Wunderlich, the relationship between the ERG/DAT/ACC and NOM paradigms is *subtractive*, in the sense that a featurally more specified morpheme (ERG/etc.) is realized with a featurally underspecified or default morpheme (NOM). This is *prima facie* reminiscent of impoverishment. At the same time, however, an impoverishment-based approach is difficult to maintain conceptually; the environments that yield the impoverished or default forms cannot be straightforwardly delineated, given the ubiquity of the NOM paradigm.

Conversely, in the present paper, the relationship is *additive*; as discussed throughout §2.4 and §3, the agreement morphemes are all underlyingly NOM (ABS in this paper), but may be realized with another paradigm in particular environments. This derives the wide and varied distribution of the NOM morphemes. This is additionally important for the paper's core proposal that the Yimas agreement morphemes exhibit dependent case patterns; dependent case theory follows a similar additive logic.

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