

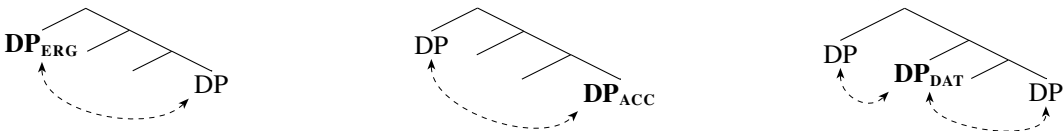
Dependent case and clitic dissimilation in Yimas*

Michelle Yuan, MIT // yuanm@mit.edu

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 lexical, dependent, and unmarked 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. The link to dependent case comes from the parallel between the distribution of clitic forms and that of dependent case on nominals, in that both can be viewed as 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*
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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 previous analyses of the language (Foley, 1991; Phillips, 1993, 1995; Wunderlich, 2001; Harbour, 2003; Woolford, 2003, et seq.). However, I will argue that not only does the

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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.

current approach provide greater empirical coverage, it also provides novel insights into the nature of dependent case *precisely because* the logic of dependent case has never before been investigated as part of the logic 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*

- a. tpuk **ka-ka-na-tmi-am-nt-akn**
 sago pancake.X 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 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 complex. Thus, both the clitic forms in Yimas and dependent case patterns on nominals across languages display a sensitivity to morphosyntactic context in similar ways. 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.

Although the dependent theory of case has been supported empirically by much recent research,² what remains generally unexplored concerns *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). Once again, I will demonstrate 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 complex.

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-linguistically, and argue that, in Yimas, dependent case is calculated over the clitic complex, 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. §5 argues that Yimas clitics may also receive lexical case, which bleeds dependent case assignment. This section moreover argues against previous characterizations of the language as having a person-based ergative split. Finally, §6 argues for a unified dissimilation-based account of both systems.

²See McFadden (2004), Bobaljik (2008), Baker and Vinokurova (2010), Podobryaev (2013), Preminger (2011, 2014), Baker (2014), Levin and Preminger (2015), a.o. for recent applications of dependent case theory to a wide range of cross-linguistic case patterns.

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.³ 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; 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. Morpheme order within the verb is rigid and propositional content may be expressed with verbs alone, while word order at the sentence level is much freer. Grammatical relations are generally encoded directly on the verb as agreement morphology rather than on nominals at the sentence-level (which are generally morphologically invariant and, as stated above, occur in relative free word order). A simplified sketch of morpheme order in the Yimas verb complex is given in (3):

(3) *Order of morphemes in Yimas:*

- a. (MOD)-(ABS_i)-(ERG)-(DAT_{part})-verb stem-(DAT.3)-(#_i)

ta-ka-tkam-r-ak-ŋ

NEG-1SG.ERG-show-PERF-3SG.DAT-VI.SG

'I didn't show him it (the coconut).' (F259)

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 (4).⁴ Each cell encodes both the person (1/2/3) and number (SG/DL/PL) of the nominal being cross-referenced.⁵ 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).⁶

³The citation convention I will use throughout this paper is as follows: (F[pg.#]) or (F,p.c.).

⁴The 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.

⁵Yimas 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.

⁶Noun 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)

(4) *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 (5), 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 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). Finally, these examples also show that the nominals being cross-referenced need not be overtly expressed; Yimas is ubiquitously *pro* drop. As will be discussed later, when the nominals are present, there is often a sense of topicalization or emphasis.

(5) *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 (6a-b), when the internal argument is 1st/2nd person (henceforth *participant*), an ABS-DAT pattern arises instead.

(6) 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-tay**⁷
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.

(7) *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 (8):

(8) *The Person-split Generalization:* Yimas exhibits a person-based ergative split, 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 morphemes, (9):

(9) *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 overall agreement patterns that surface. For example, because agreement morphemes cross-referencing participant internal arguments are obligatorily DAT (to be explicated below), the only way to satisfy this requirement is to realize the subject agreement form as ABS rather than ERG, (10). This explains the ABS-DAT person-split pattern.

(10) *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

⁷While 2>1 combinations trigger an 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).

negation and various modal concepts such as likelihood and possibility. 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 (11a), or realized as a number suffix, as in (11b-c).

(11) *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-3PL.ERG-hit-PERF-DL
‘They didn’t hit those two.’ (F255)
- c. ta-mpu-ŋa-tkam-r-**ŋ**
NEG-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, and argue that neither generalization can or should be maintained.

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 (4) in §2.1 in the glossing of the examples below.

An important departure from (4) 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, (12a). 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, (12b). Finally, if the YEPP is instead satisfied by a modal prefix, then the subject prefix is able to surface with its regular ERG form, (12c).

(12) *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. Wunderlich also proposes 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 I will discuss further in §2.4). As shown in (13a), Yimas allows constructions without ABS. Moreover, replacing the DAT form with ABS or getting rid of the DAT form altogether are both impossible, (13b-c). The grammatical example in (13a) 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.

(13) *ABS is not obligatory; DAT can surface alone*

- a. Mitchell \emptyset -kra-tay
Mitchell (3SG.ABS-)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 (14), 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:

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

This parallel between the participant DAT forms in (13) and the 3rd person possessor DAT forms in (14) presents an additional challenge for both Phillips and Wunderlich. In particular, note that the example in (14b) displays the same ABS-DAT pattern previously noted to occur in person-split contexts. That some 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, however, 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 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 (15):

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

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

I suggest that 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. Thus, the presence of ABS actually reflects the failure of an agreement morpheme to be realized as ERG or DAT, not the other way around.

2.4 Clitic doubling vs. agreement

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 in the spirit of Foley’s (1991) original discussion of Yimas, in which these morphemes are characterized as ‘pronominal affixes’ (cf. Jelinek, 1984).⁸ 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.⁹ 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.

Though the morphemes pattern like agreement affixes morphologically, they behave like clitics in other respects. For example, the ABS paradigm is nearly identical¹⁰ to the independent pronouns of the language, as

⁸The idea that some of the agreement forms in Yimas are clitic or pronominal 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.

⁹See Postal (1966), Elbourne (2005), and Stanton (2016), among others, for arguments that pronouns are in fact D⁰s.

¹⁰The 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 slightly divergence in the 2SG form might be idiosyncratic, with no bearing on the larger generalization.

shown in (16). If doubled clitics are pronominal in nature, then this morphological similarity is to be expected.

(16) *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 ¹¹	impa	pu

However, more striking evidence that these morphemes are doubled clitics comes from the fact that they are mostly *optional*.¹² 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 (17), which illustrate verbs with *full nominal referencing*, (17a), *partial nominal referencing*, (17b), and, importantly, *no nominal referencing at all*, (17c). Each example in (17) contains two syntactic arguments but differs in the total number of nominal-referencing morphemes present.

(17) *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-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 (17c), Foley (1991) says the following:

“Thus far, I have been discussing referents which are old or established information and can therefore 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 [...] [(17c)] has an intransitive verb, *wupal-* ‘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 (18). In (18a), both the 3SG subject and the embedded clause are cross-referenced on the verb;¹³ this is the ‘full’ pattern. In (18b), 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 (18a) “the intention expressed by the complement has been [previously] stated explicitly” (p. 390), whereas this is not necessarily the case for (18b).

¹¹Unlike the 1st and 2nd person pronouns, which are independent morphemes, the 3rd person pronouns are bound—they always occur with a deictic suffix indicating proximity or distality. There is also another bound 3rd person pronoun form *m*, which I omitted from the table; 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.

¹²This 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.

¹³Yimas 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.

(18) *Presence of nominal-referencing morphology is discourse sensitive*

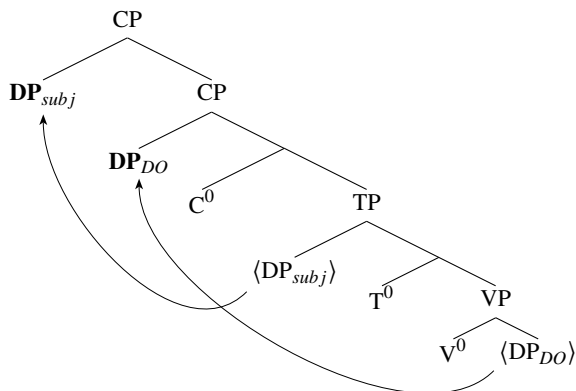
- a. [impram pay-cu-mpwi] **pia-n**-kacapal
 [basket.VII.SG carry-NFN-COMP] COMP.ABS-3SG.ERG-forget
 ‘He forgot to carry the basket’ (F389)
- b. [impram pay-cu-mpwi] **na**-kacapal
 [basket.VII.SG carry-NFN-COMP] 3SG.ABS-forget
 ‘He forgot to carry the basket’ (F389)

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.).¹⁴ As such, I will refer to the nominal-referencing morphemes in Yimas as *doubled clitics* in the rest of this paper without further justification.

I propose that the doubled clitics are hosted in the CP domain in Yimas. There are a few arguments for this proposal. First, it will prove useful in §6 when we revisit the interactions between the doubled clitics and the modal prefixes, which more obviously occupy the CP domain. Second, as shown by Foley (1991), non-finite clauses in Yimas (which we can assume to be structurally reduced, lacking a CP layer altogether) never host doubled clitics.

Clitic doubling is often argued to involve a syntactic chain between the clitic and its doubled associate. For concreteness, I assume the movement analysis pursued by Anagnostopoulou (2003), Harizanov (2014), Kramer (2014), and others, in which the doubled clitic is analyzed as the head of a movement chain; however, nothing crucial hinges on this particular view.¹⁵ Under this view, clitic doubling is phrasal movement followed by m-merger, in the sense of Matushansky (2006) and Harizanov (2014); the DP associate is the spell out of the lower copy in its base position. This is schematized with the hypothetical example in (19). In this example, both the subject and the object undergo information-structure motivated movement to the CP domain, creating multiple specifiers of CP and ‘tucking in,’ as proposed by Richards (2001). As a result, the hierarchical order of the doubled clitics preserves the hierarchical order of the nominal arguments prior to doubling (Nevins, 2011; Harizanov, 2014).

(19) *DP movement to CP-domain*

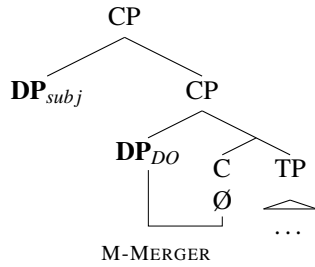


As illustrated in (20)-(21), m-merger applies between each higher DP in Spec-CP and C^0 , rebracketing the structure and creating a complex head consisting of C^0 and D^0 (spelled out as a pronominal clitic). Since our hypothetical example has two doubled clitics, m-merger applies cyclically, first to the argument in the lower specifier, yielding (20b), then to the argument in the higher specifier, yielding (21b).

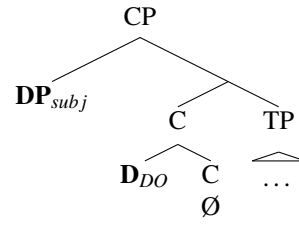
¹⁴The optionality seen in Yimas is also expected given the diagnostic for agreement vs. clitic doubling developed by Preminger (2009). Preminger argues that the failure to expone ϕ -agreement on a head should result in that head being spelled out as a default agreement form, e.g. 3SG; conversely, failure to clitic double an argument should result in the wholesale absence of the clitic. This is precisely what we see in Yimas.

¹⁵The 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).

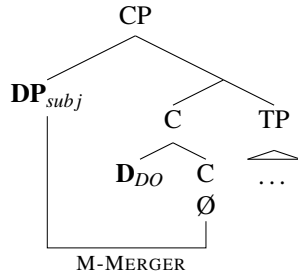
(20) a. *Input:*



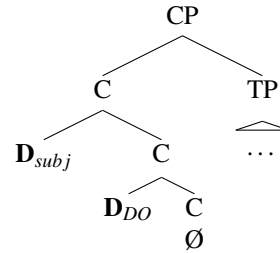
b. *Output after m-merger*



(21) a. *Input:*



b. *Output after m-merger:*



Note that the output of m-merger above does not yield the correct linear order of clitics: the D_{subj} - D_{DO} -C clitic complex should correspond to an ERG-ABS linear order, rather than the attested ABS-ERG order; moreover, the system developed so far does not account for the positioning of the DAT morphemes (e.g. in ditransitives), which are prefixal and closest to the root if participant, but suffixal and furthest away from the root if 3rd person. I propose that the order of clitics in a given word must be (at least partly) determined templatically and is not predictable from the syntactic structure, as already suggested by the consistently peripheral position of the 3rd person DAT forms. Moreover, these 3rd person DAT forms remain suffixal regardless of whether they are context-invariant and obligatory (when encoding raised possessors, as shown above), or optional (when encoding indirect objects, as will be shown below), suggesting that the surface position of the clitics is not necessarily determined by any morphosyntactic properties of the clitics or their DP associates.

The templatic nature of Yimas morpheme order is further evidenced below with other inflectional morphemes. While most tense and aspect morphemes are suffixal, mood morphemes are prefixal; however, there are some aspects that involve the usage of prefixes, e.g. the definitive marker *ɲa-* in (22a). Similarly, while most applicative markers are prefixal (e.g. the comitative *taŋ-*), the benefactive (*-ŋa*) is suffixal, (22b-c).

(22) *Morpheme order is at least partly idiosyncratic*

- a. ɲaŋɲ na-kay-**ɲa**-awl-kia-k
one.day.removed V.SG.ABS-1PL.ERG-DEF-get-NR.FUT-IRR
'We will get them tomorrow.' (F240)
- b. impram p-ŋa-na-**taŋ**-tat-n
basket.VII.SG VII.SG.ABS-1SG.DAT-DEF-COM-hold-PRES
'They seized my basket.' (F306)
- c. yara ya-ka-kra-**ŋa**-r-akn
tree.V.PL V.PL.ABS-1SG.ERG-cut-BEN-PERF-3SG.DAT
'I cut trees for him.' (F309)

Based on this, I assume that the fixed ABS-ERG-(DAT)-verb-(DAT) linear ordering of clitics is determined templatically in the postsyntactic component. I will revisit this point in §6.2. In the syntax, the hierarchical order of clitics in C^0 parallels the hierarchical order of DPs in the clause, as outlined above.

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 in the CP domain. 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 1991¹⁶), 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:

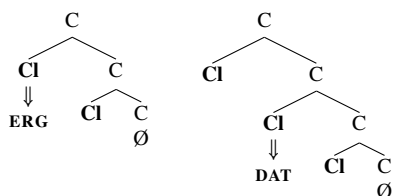
- The clitics cross-referencing intransitive and transitive subjects alike may surface as ABS or ERG.
- The clitics cross-referencing 3rd person indirect objects¹⁷ alternate between ABS and DAT.
- 3rd person direct object clitics do not alternate at all, but always surface as ABS.
- Finally, DAT clitics cross-referencing participant internal arguments and raised possessors follow a different pattern (§5).

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 complex, 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 C^0 —just as dependent case is canonically determined configurationally according to the relative positions of nominals at the clause level.

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 higher of two clitics in C^0 , while DAT is assigned to the intermediate of three clitics in C^0 —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:

(23) *Realizational environments for clitic forms*

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



¹⁶As 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.

¹⁷I 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.

Importantly, the behaviour 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 complex, 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 (24), subjects of transitive verbs may be cross-referenced with ERG morphology, and subjects of intransitive verbs with ABS.

(24) *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 argument. 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. In (25), we see that the subject of an unergative verb normally surfaces with ABS morphology; however, this morphology is ERG when a lower applicative argument is also clitic doubled. In (26), the same pattern surfaces with an unaccusative subject.

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

- a. **na**-na-iray-n
3SG.ABS-DEF-cry-PRES
'He is crying.' (F426)
- b. **na-n**-taŋkway-iray-ŋcut
3SG.ABS-3SG.ERG-APPL-cry-RM.PST
'He cried over her.' (F315)

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

- a. **impa-n** kantk **na**-kwalca-t
3DL-FR.DIST with 3SG.ABS-rise-PERF
'He got up with them both.' (F303)
- b. **impa-n**-taŋ-kwalca-t
3DL.ABS-3SG.ERG-APPL-rise-PERF
'He got up with them both.' (F303)

The unaccusative examples especially highlight the fact that the distribution of ERG in Yimas is independent of external argument status (cf. Baker, 2014; Deal, to appear).¹⁸ While these data constitute evidence against inherent analyses of ERG case, they do not directly show that ERG case on Yimas clitics is *dependent on the presence of a lower clitic*.

¹⁸It may also constitute a counterexample to Marantz' (1991) *Ergative Case Generalization*, which claims that ERG case cannot appear on derived subjects. I am not aware of any tests for unaccusativity in Yimas; however, if we assume that Yimas unaccusative subjects are base-generated in object position, then their ability to be cross-referenced by ERG morphology in applicative contexts suggests that they have in fact raised to subject position prior to being clitic doubled.

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.

In the minimal pair in (27), 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 (27a), 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 clitic in C^0 , *not* the presence of a second nominal argument (which is present in both examples below).

(27) *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)

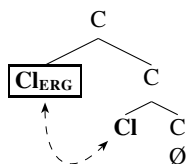
Finally, note that these data by themselves are compatible with an alternative hypothesis, that ERG forms become unavailable as soon as another clitic is removed. However, this is not tenable: in the partial doubling construction in (28), for example, ERG is retained on the subject clitic even though the direct object is not cross-referenced. This is because there is still a second clitic present (cross-referencing the indirect object).

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

- a. tpu**k** **ka-ka**-na-tmi-am-nt-akn
sago pancake.X 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 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 an ABS clitic cross-referencing a lower argument. Thus, I propose that the realization of ERG on a clitic is configurational, contingent on the presence of a lower ABS clitic in C^0 , (29); otherwise, this clitic surfaces as ABS.

(29) *ERG case assignment to c-commanding clitic*



Strikingly, this is the exact logic of the dependent case theory of ergative case (see §4). Crucially, however, in Yimas dependent case is calculated over the clitic complex, 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 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:

- (30) *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 X.SG.ABS-1SG.ERG-DEF-CAUS-eat-PRES-3SG.DAT
'I made him eat a sago pancake.' (causee) (F292)
 - c. **k-n-taŋ-pampat-ntuk-nakn**
VI.SG.ABS-3SG.ERG-APPL-cook-RM.PST-3SG.DAT
'She cooked 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, (31a-b). However, when the verb is transitive, the applied argument clitic is DAT, not ABS, (31c).

- (31) *Applied argument clitics are ABS or DAT depending on transitivity*
- a. **impa-n-taŋ-kwalca-t**
3DL.ABS-3SG.ERG-APPL-rise-PERF
'He got up with them both.' (applicative of unaccusative) (F303)
 - b. **na-n-taŋkway-iray-ŋcut**
3SG.ABS-3SG.ERG-APPL-cry-RM.PST
'He cried over her (looking at her body).' (unaccusative of unergative) (F315)
 - c. **k-n-taŋ-pampat-ntuk-nakn**
VI.SG.ABS-3SG.ERG-APPL-cook-RM.PST-3SG.DAT
'She cooked 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 (31c), this requirement is satisfied; in (31a-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, DAT is truly controlled by *clitic context*, rather than clause-level factors such as transitivity or argument structure. As shown in (32), 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 (32b) 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.

- (32) *DAT unavailable with partial doubling*
- a. tpuk **ka-ka-na-tmi-am-nt-akn**
sago pancake.X 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 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 complex in C^0 , both c-commanding a lower clitic and c-commanded by a higher clitic. This is illustrated in (33a). 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, as shown in (33).

(33) DAT and ERG case assignment on clitics



3.3 ABS as the absence of case

Recall the generalization from §2.2 that every verb complex in Yimas contains an ABS morpheme (or a modal prefix) at its left edge, though this generalization was later shown in §2.3 to be empirically incorrect. I propose instead that the ABS paradigm has an *elsewhere distribution*; there is no ‘ABS Requirement’ at all. Rather, ABS is simply how a clitic is realized if the conditions for ERG and DAT case assignment are not met. Crucially, this new characterization accounts for the relatively wide distribution of ABS, and, as I will discuss in §5, is also compatible with the absence of ABS clitics in certain constructions.

Some examples illustrating the elsewhere nature of the ABS paradigm are given in (34). In (34a-b), there is only one clitic on C^0 , so it is realized as ABS. In (34c-d), we find ABS co-occurring with ERG and DAT clitics.

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

Focusing on (34c-d), notice that the ABS clitic cross-references the direct object in both examples. In general, whereas subject clitics and indirect object clitics display alternations between ABS~ERG and ABS~DAT respectively, direct objects are *always cross-referenced* by ABS. I argue that this pattern finds a straightforward explanation in the directionality of dependent ERG and DAT case assignment; both require the presence of a lower clitic. This captures why direct object clitics in Yimas are always ABS—there are no dependent case rules operating on the lowest clitic in C^0 .

This correctly predicts that subject and indirect object clitics only surface as ABS when they themselves are structurally lowest. For example, in the partial doubling construction in (32) above, it is the indirect object clitic that is ABS. Similarly, subject clitics surface as ABS only when all other nominals fail to be clitic doubled, since they are only vacuously structurally lowest when they are the sole clitic present, as shown in (34a-b) as well as with the partial doubling construction in (27b). Given the flexible nature of the Yimas clitics, various kinds of nominals may come to be cross-referenced with ABS morphology; I have shown that clitics cross-referencing direct objects, indirect objects, and subjects alike may all surface as ABS, when the rules triggering ERG and DAT fail to apply. It is this property that yields the apparent *elsewhere distribution* of the ABS paradigm.

This new characterization of the ABS paradigm yields another parallel between the Yimas clitic system and dependent case theory: ABS in Yimas behaves like *unmarked* NOM/ABS case on nominals—in dependent case theory, nominals that fail to be assigned dependent case surface instead with unmarked case (Yip et al., 1987; Marantz, 1991). Additionally, I propose that Yimas motivates a particular treatment of unmarked case: following Kornfilt and Preminger (2015), ‘unmarked case’ is simply how a nominal (or clitic) is realized in the *absence* of case assignment altogether.¹⁹ In Yimas, this means that doubled clitics are ABS by default.

This conclusion follows straightforwardly from the nature of clitic doubling. Recall from §2.4 that both doubled clitics and independent pronouns are ϕ -bearing D^0 s, and that this captures the (near-)identity between the ABS clitic paradigm and the independent pronouns of the language, shown earlier in (16). I propose that this identity motivates the idea that all clitics in Yimas are ‘born ABS’ upon clitic doubling and only come to be realized as ERG and DAT after dependent case rules apply, as mentioned above. Indeed, as shown in (35) with pronouns, the sentence-level nominals of Yimas are *always morphologically unmarked* (unless oblique), regardless of their grammatical function or thematic role—and regardless of the morphological appearance of the clitics doubling them.

- (35) *Sentence-level nominals are invariant*
- a. **kapwa** taŋka-mpi **kapwa**-wa-t
 2DL where-ADV 2DL.ABS-go-PERF
 ‘Where have you gone?’ (*intransitive subject*) (F458)
 - b. **kapwa na-ŋkran**-a-aykapiŋa-n
 2DL 3SG.ABS-2DL.ERG-DEF-know-PRES
 ‘Do you two know him?’ (*transitive subject*) (F462)
 - c. **kapwa ŋkut**-ŋa-ira-kwalca-kia-k
 2DL 2DL.DAT-DEF-ALL-rise-FUT-IRR
 ‘I will come up on you.’ (*applied object*) (F460)²⁰

Thus, there is no reason to posit an additional round of unmarked case assignment once dependent case assignment rules apply, since the clitics are already ‘ABS’ as soon as they are doubled. More broadly, the idea that there is an ABS ‘clitic paradigm’ in Yimas requires clarification—while the ‘ABS paradigm’ is simply 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 parallel to 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 complex. 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 in C^0 ; DAT is assigned to the intermediate of three clitics, while ERG is assigned to the higher of two clitics. Conversely, ABS was taken to be an elsewhere form, surfacing when dependent case rules do not apply. 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

¹⁹Kornfilt and Preminger’s (2015) proposal will be discussed in greater detail in §4.

²⁰In this example, which features a 2nd person applied object, DAT case is clearly not dependent, given that there is only one clitic present. Some examples of this sort were already given in §2.3; a full discussion will be presented in §5 below.

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. For Yip et al. (1987) and Marantz (1991), the distributions of case are determined in the postsyntactic component, but, as mentioned in §1, recent reformulations of this system assert that case is assigned in the syntax proper.

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. The sole difference is thus the *domain* of case assignment.

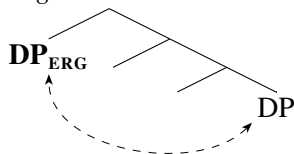
4.1 Ergative

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 that I assume in this paper are stated and schematized below:

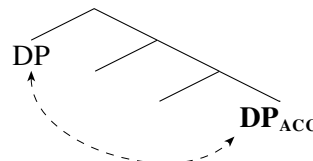
(36) **Dependent case assignment:** Given multiple case-requiring nominals within a domain of case assignment,

- 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)

(37) a. *Ergative:*



b. *Accusative:*



That ERG and ACC 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 (38a) is marked with the ERG morpheme *-nin*, while the object in (38a) and the intransitive subject in (38b) are both morphologically unmarked (ABS).

(38) *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)

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.).²¹

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.²² 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.

²¹ 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.

²² Deal (to appear) presents analogous data from Nez Perce, arguing for an analysis that is similar in spirit to Baker’s.

- (39) *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, (39c) 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 identical.

Evidence for dependent case from unaccusatives can also be found in NOM-ACC systems. Some Turkic languages such as Sakha allow embedded subjects to undergo A-movement into the matrix clause (Baker and Vinokurova, 2010; Levin and Preminger, 2015), as shown in (40). Crucially, this feeds ACC case assignment on the embedded subject even with unaccusative matrix predicates, demonstrating that the source of ACC case cannot be v^0 (assumed to be absent in unaccusative structures).

- (40) *Sakha: Raising feeds ACC case regardless of matrix predicate transitivity*
- 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.'
 - b. Masha Misha-**ny** [yaldj-ya dien] tönün-ne
Masha Misha-**ACC** fall.sick-FUT.3SG that return-PST.3SG
'Masha returned (for fear) that Misha would fall sick.' (Baker and Vinokurova, 2010)

Under dependent case theory, however, the embedded subject receives ACC case simply because it has raised into a position that is sufficiently local to the matrix subject. Thus, Sakha shows that the assignment of ACC case is independent of case-assigning abilities of functional heads in the structure, but rather due to the ACC-receiving argument's proximity to another argument.

Similar data is provided by Podobryaev (2013) from Mishar Tatar (Turkic), which also exhibits raising out of an embedded clause and subsequent ACC case assignment. Facts parallel to Sakha are given in (41a), in which we see that ACC case on the raised argument is available in spite of the intransitive argument structure of the matrix predicate. However, the example in (41b) additionally demonstrates that the assignment of ACC requires the presence of a case competitor, another case-receiving DP; ACC case on the raised argument is blocked if the matrix subject is DAT, resulting in an obligatory DAT-NOM pattern.

- (41) *Mishar Tatar: ACC on raised subject blocked by DAT matrix subject*
- a. Alsu Marat(-**ny**) [ej teze-de dip] šatlan-a
Alsu Marat(-**ACC**) house build-PST.3S that be.happy-ST.IPFV.3S
'Alsu is happy that Marat built a house.'
 - b. Alsu-**ga** Marat(*-**ny**) [ej teze-de dip] tɣjɣl-a
Alsu-**DAT** Marat(*-**ACC**) house build-PST.3S that seem-ST.IPFV.3S
'It seems to Alsu that Marat built a house.' (Podobryaev, 2013)

In summary, context-sensitive morphological alternations are attested across languages and in different structural domains. The morphological case of a nominal is affected by the presence of some other nominal in a

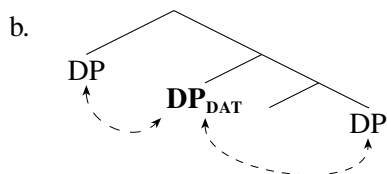
domain of case computation (e.g., a syntactic phase), just as the paradigmatic realization of a Yimas clitic is determined on the basis of its co-occurrence with other clitics on the C^0 -domain. Below, I extend this idea to DAT case.

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 (42), from Podobryaev (2013):

(42) *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.

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, again from Podobryaev (2013). These constructions show that DAT case on an indirect object (a causee) may in certain circumstances disappear:

(43) *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)

In (43), DAT case that surfaces on the causee in (43a) is unavailable when the direct object undergoes noun incorporation into the verb, (43b). This is surprising under functional-head and lexical/inherent analyses of DAT case assignment, assuming that 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 be dependent, assuming that 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 (43) 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 French, as discussed in Kayne (1975), Guasti (1993), Bobaljik and Branigan (2006), and others:²³

²³See also Folli and Harley (2007) for similar data from Italian.

- (44) *French: case on causee sensitive to transitivity of lower verb*
- a. Luc a fait acheter un livre **aux étudiants**
 Luc has made buy.INF a book(ACC) **to.the students(DAT)**
 ‘Luke made the students buy a book.’
- b. Luc a fait travailler **les étudiants**
 Luc has made work.INF **the students(ACC)**
 ‘Luc made the students work.’ (Bobaljik and Branigan, 2006)

In (44), the causee takes the dative *à* when the verb is transitive, but is accusative when the verb is intransitive.²⁴ The same facts are also found in Japanese (Kuroda, 1965; Terada, 1990; Harley, 1995, a.o.), illustrated below:

- (45) *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 French and Japanese exhibit DAT~ACC case alternations on their 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, (46), as well as in the Shipibo examples in (39) above.

- (46) *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 conclusion: 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 the absence of case

Within dependent case theory, NOM/ABS case is *unmarked case*, surfacing on nominals that fail to receive lexical or dependent case (Marantz, 1991). Just as ABS clitic paradigm in Yimas was argued in §3 to be a

²⁴Note that, though the dative argument follows the accusative argument in the linear string, Bobaljik and Branigan (2006), citing Rouveret and Vergnaud (1980), argue that the dative argument is actually structurally higher than the accusative argument. Evidence for this comes from intervention effects in clitic-climbing constructions.

morphological default, I follow Kornfilt and Preminger (2015) in taking NOM/ABS case on nominals to be the *absence of case altogether*; see also Bittner and Hale (1996a). Thus, what we call ‘NOM’ or ‘ABS’ is simply a label given to nominals that do not receive case at all. This derives the “elsewhere” distribution of NOM/ABS case, as well as the cross-linguistic tendency for such nominals to be morphologically unmarked.²⁵ This also further extends the parallel between the Yimas clitic system and the dependent case system.

This current proposal contrasts with a subtly different analysis, which takes NOM/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. Earlier, I showed that embedded subjects in Sakha may receive dependent ACC case upon A-movement into the matrix clause, even if the matrix predicate is intransitive. The relevant example is repeated in (47):

- (47) *Sakha: Raised ACC subjects control verbal agreement in embedded clause*
 min **ehigi-ni** [бүгүн кыј-уах-хуут дин] ерем-мит-им
 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 (in (47), this is the 2PL morpheme *-xyt*), 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.²⁶ 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 NOM/ABS 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 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 in C^0 , 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, ABS/NOM case on nominals can also be analyzed as caselessness.

In the next section, I expand the discussion to account for non-dependent (e.g. lexical) usages of DAT case in Yimas and cross-linguistically.

²⁵Of 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.

²⁶For 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.

5 Lexical DAT case

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 (48) is from Marantz (1991):

- (48) *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 (48) 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, I assume, assigned under sisterhood (First Merge) by a lexical head P^0 (McFadden, 2004; Preminger, 2011, 2014).²⁷ Nominals that receive lexical case are thus unable to participate in the rest of the case calculation. As a result, lexical case assignment to a nominal may *bleed* subsequent dependent case assignment, due to the loss of a case competitor.

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. The same pattern was also shown in Mishar Tatar in §4.2.

- (49) *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)

I argue that this bleeding interaction between lexical and dependent case is also attested in Yimas. This, in turn, provides strong support for the overall analysis of this paper, as Yimas exhibits *all three* of the case assignment tiers in (48). Specifically, I propose that lexical case is found on certain clitics that trigger an ABS-DAT pattern instead of the canonical ERG-ABS pattern; lexical DAT bleeds dependent ERG. While this was characterized as a person-based ergative split in the previous literature, I already showed back in §2.3 that this is not quite accurate; raised possessors of all persons trigger the same pattern. Moreover, unlike the clitics discussed throughout §3, the lexical DAT clitics are *obligatorily present* rather than optional.

In addition to a new analysis of the ABS-DAT pattern, this section shows that the 3rd person DAT forms in Yimas have a dual function in the grammar; the DAT paradigm can function as either dependent or lexical. Whether a given DAT form has one function or the other is diagnosable by how it behaves in a variety of clitic contexts. I will also show that this dual nature of DAT is well-attested cross-linguistically.

5.1 Context-invariant DAT

5.1.1 DAT on participant IAs

Unlike the dependent DAT clitics cross-referencing intermediate arguments, the clitics that realize participant internal arguments appear to bear lexically-assigned DAT case. I will refer to the former as DAT_{dep} and the latter as DAT_{part} for clarity. Whereas DAT_{dep} surfaces when there are three clitics present, this is not a requirement for DAT_{part} , which is insensitive to the surrounding clitic context. The examples below, repeated from earlier, shows that DAT_{part} may surface when only two clitics are present, (50a); this usage of DAT persists even when there is only one clitic, for instance in the partial doubling construction in (50b). Moreover, using ABS

²⁷For the purposes of the current discussion, the term *lexical case* includes both quirky case (idiosyncratically assigned, based on the properties of individual verbs) and inherent case (a particular case assigned to nominals associated with certain θ -positions).

morphology to cross-reference a participant internal argument and omitting the DAT morpheme altogether are both impossible, (50c-d), revealing that DAT_{part} is *obligatory*. This is in contrast to most of the other clitics, which are generally optional.

(50) 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 3SG.ABS-see
Intended: 'He saw us.' (F,p.c.)

These properties are similar to those of lexical (and inherent) case found across languages. It has been long observed that this type of case is preserved in valency-decreasing operations such as passivization (e.g. Zaenen et al., 1985; Woolford, 2006). For example, Icelandic objects may sometimes receive quirky case. Unlike (dependent) ACC case on objects, quirky/lexical case is retained when the object is passivized, (51). Relatedly, the passivized example in (51b) additionally shows that, like in Yimas, lexical DAT case in Icelandic does not require a case competitor, and can appear on the sole argument in a clause.

(51) Icelandic: lexical DAT case is preserved under passivization

- a. barnið t'yndi **bókinni** viljandi
child.NOM lost book.DAT on.purpose
'The child lost the book on purpose.'
- b. **bókinni** var týnt viljandi
book.DAT was lost on.purpose
'The book was lost on purpose.' (Yip et al., 1987)

Another hallmark of lexical case is its ability to bleed dependent case assignment, as noted earlier. This was shown in (49), again in Icelandic, in which quirky case on subjects was seen to block ACC case on objects. Crucially, this pattern is also seen in Yimas, as already discussed. Recall that 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 internal object clitic may bleed dependent ERG case on the subject clitic.

(52) 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)

Recall that raised possessor clitics that pattern the same way, casting doubt on previous person-based approaches (the raised possessor clitics will be discussed in greater detail shortly). I now propose that these data together motivate a different analysis, namely that the ABS-DAT pattern arises because the presence of DAT_{part}

prevents dependent ERG case assignment to the subject clitic.²⁸

As support for this approach, the canonical ergative pattern reappears in ditransitive constructions, despite the DAT participant clitic, shown in (53a). This is due to the additional case competitor, the direct object clitic, whose presence allows ERG case to be assigned to the subject clitic after all. Crucially, as established earlier, this truly depends on the clitic context. In the partial doubling construction in (53b), the subject clitic is ABS rather than ERG, even though it is argument structurally-identical to the example in (53a).

(53) *Full and partial doubling in ditransitive constructions with DAT_{part}*

- a. makaw wa-**mpi**-ŋkul-ŋa-t
 makau.IX.SG IX.SG.ABS-3DL.ERG-2DL.DAT-give-PERF
 ‘They two gave you two makau.’ (F213)
- b. patn **pu**-nan-ŋa-t
 betelnut.V.SG 3PL.ABS-2SG.DAT-give-PERF
 ‘They gave you betelnut.’ (F233)

It is moreover worth emphasizing that the full vs. partial doubling alternation in (53) is distinct from the full vs. partial alternation that arises when the indirect object clitic cross-references a 3rd person referent. Whereas in (53b) the resulting pattern is ABS-DAT, in (54b) below it is ERG-ABS. This is because 3rd person indirect objects, as in (54a), do not get cross-referenced by *lexical* DAT clitics; such instances of DAT are *dependent*.

(54) *DAT_{dep} with full and partial doubling in ditransitive constructions*

- a. tpuk ka-ka-na-tmi-am-nt-**akn**
 sago pancake.X 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 3SG.ABS-3PL.ERG-CAUS-weave-PERF
 ‘The women got her to weave a mat.’ (F292)

Though this provides evidence for two distinct usages of the DAT paradigm in Yimas, an alternative approach might avoid this logic and maintain a person-split approach by recasting the 1st/2nd forms as belonging to a separate paradigm—as proposed by Phillips (1993, 1995) and Wunderlich (2001). However, this approach is untenable, given the behaviour of DAT clitics cross-referencing raised possessors, which I turn to next.

5.1.2 DAT on raised possessors

As first introduced in §2.3, clitics that cross-reference raised possessors *of all persons* are also DAT (henceforth ‘DAT_{poss}’).²⁹ Note also that the possessive phrase does not have to occupy object position; in (56), raised possessors of intransitive subjects are also cross-referenced by DAT.

(55) *DAT raised possessors of transitive objects*

- a. yampaj k-mpu-**ŋa**-kra-t
 head.VI.SG VI.SG.ABS-3PL.ERG-1SG.DAT-cut-PERF
 ‘They cut my hair.’ (F301)

²⁸Coon and Preminger (2017) argue that split ergative patterns of the sort shown here with Yimas should be universally analyzed as due to the bleeding of dependent ERG case. They suggest that the non-ERG pattern arises when a vP-level phase bifurcates the clause into two separate case domains. The object in the lower phase is not accessible to the subject within the higher phase, so dependent ERG case assignment is not possible. Under this approach, it is not the *case* on the object that blocks dependent case assignment to the subject, but rather the phase boundary along the functional spine. While this is seemingly compatible with the Yimas data, I argue that the ABS-DAT pattern in Yimas is directly due to lexical DAT case on the clitic. Crucially, as already shown, the case patterns in Yimas are calculated internal to the clitic complex—thus, do not make reference to clausal structure; indeed, as shown in examples like (35), the overt nominals cross-referenced by DAT_{part} clitics are ABS (unmarked), not DAT.

²⁹According 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.

- b. nanꞑkun **na-ka-tu-r-akn**
 mosquito.V.SG V.SG.ABS-1SG.ERG-kill-PERF-3SG.DAT
 ‘I killed the mosquito on her.’ (F301)

(56) DAT *raised possessors of intransitive subjects*

- a. narm **p-kra**-nanaꞑ-kacakapi-ꞑcut
 skin.VII.SG VII.SG.ABS-1PL.DAT-DUR-hide-RM.PST
 ‘Our skin is deteriorating.’ (F301)
- b. wampuꞑ 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)

Though the examples in (55) are not particularly informative for our purposes, the examples in (56)—especially the 3rd person example in (56b)—are crucial. They demonstrate that DAT_{poss} is different from the dependent type of DAT (DAT_{dep}) seen back in §3.2, which surface only if three clitics are present. In (56), we find an ABS-DAT pattern, just like the DAT_{part} examples shown in the previous section.

Crucially, the DAT_{poss} clitics cross-referencing raised possessors behave *exactly* like the DAT_{part} clitics—they too are context-insensitive and surface regardless of the number of clitics present. Moreover, like DAT_{part}, DAT_{poss} can bleed dependent ERG case on a transitive subject clitic, as shown in (57a-b).

(57) 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.)

Like the DAT_{part} clitics, the DAT_{poss} clitics are obligatorily doubled. This is not mentioned in Foley’s (1991) grammar, but William Foley (p.c.) informs me that the example in (58b), in which the 1SG raised possessor is not doubled on the verb, is ungrammatical:

(58) DAT_{poss} *is obligatory*

- a. yampaj **k-mpu-ꞑa**-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 VI.SG.ABS-3PL.ERG-cut-PERF
Intended: ‘They cut my hair.’ (F,p.c.)

Therefore, while clitics that are optionally doubled may surface with any of the ABS, ERG, or DAT forms (modulo the morphological rules proposed earlier), clitics that cross-reference certain kinds of nominals are obligatorily DAT *and* obligatorily clitic doubled. Thus, *both* DAT_{part} and DAT_{poss} can be viewed as the Yimas equivalent of lexical case on nominals cross-linguistically. As discussed earlier, the uniform behaviour of these clitics demonstrates that, contrary to Phillips (1993, 1995) and Wunderlich (2001), there is no need to separate DAT_{part} and DAT_{poss} into two separate paradigms; in fact, such an assumption would lead to incorrect or odd predictions in both previous analyses surveyed.

Finally, the behaviour of lexical DAT case in Yimas also helps emphasize the point made in §3.3 that ABS displays an elsewhere-like distribution, and that the previously-assumed generalization that all verb complexes contain an ABS form is too strong. As repeated below, Yimas permits partial doubling constructions with only lexical DAT clitics, (59a-b), as well as constructions with no clitic doubling at all, (59c). The sole clitic in

(59a-b) is DAT, not ABS, because of a lexical case assignment rule that requires certain clitics to be DAT.

- (59) ABS *clitics are not obligatory*
- a. Mitchell **[kra]**-tay
Mitchell 1PL.DAT-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.)
 - c. num-n-mat Kampramanan wupal-k
villager-OBL-PL place name climb-IRR
'The villagers climbed Kampramanan.' (F233)

While it is not obvious why it is these nominals in particular that receive lexical DAT case in Yimas, it is often observed that certain kinds of nominals exhibit 'special' behaviour cross-linguistically with respect to clitic doubling. I suggest that the same kinds of requirements are active here. For example, in many Balkan languages, clitic doubling is (like Yimas) generally optional and correlated with information structural considerations; however, experiencers of psych and perception predicates are obligatorily doubled (Dobrovie-Sorin, 1994; Kallulli, 2000; Anagnostopoulou, 2003; Krapova and Cinque, 2008; Harizanov, 2014). An example of this effect is illustrated with Bulgarian:

- (60) *Bulgarian: obligatory clitic doubling of experiencers*
- Filmitē *(i) haresaha na Marija
the.movies 3.S.F.IO they.pleased to Maria
'Maria liked the movies.' (Harizanov, 2014)

Similarly, in Amharic, clitic doubling (also generally optional) becomes obligatory when cross-referencing inalienable possessors (Kramer, 2014), just like in Yimas.³⁰

- (61) *Amharic: obligatory clitic doubling of inalienable possessors*
- a. Amlaz tāmari-w-in ayy-tʃtʃ(-iw)
Almaz.F student-DEF.M-ACC see-3FS.S(-3MS.O)
'Almaz saw the male student.'
 - b. bārr-u t'at-e-n k'ärä't'äf-ä-*(ññ)
door-DEF.M finger-my-ACC pinch-3MS.S-1S.O
'The door pinched my finger.' (Kramer, 2014)

Finally, the special behaviour of participant internal arguments is not specific to Yimas either. In languages that exhibit the Person-Case Constraint, for example, participant internal arguments are subject to special licensing requirements (Anagnostopoulou 2003, Béjar and Rezac 2003, Nevins 2007; cf. Perlmutter 1978). The division that we see among doubled clitics in Yimas is therefore part of a more general phenomenon. While the exact motivations for such a division are not clear, I show below that such a division is also found on *nominals* cross-linguistically. The co-existence of both dependent (alternating) and lexical (invariant) types of DAT in a single language is a robustly-attested phenomenon.

5.2 Two types of DAT cross-linguistically

As discussed above, dependent case for intermediate arguments and lexical case for participant internal arguments and raised possessors in Yimas make use of the *same morphological paradigm*—DAT. This dual function of DAT is well-attested cross-linguistically on nominals (Harley, 1995; Anagnostopoulou and Sevdali, 2015; Baker, 2015). As with Yimas, whether a particular DAT morpheme is dependent or lexical is diagnosable by

³⁰Object clitic doubling is also obligatory in various other contexts, e.g. when cross-referencing certain experiencers. See Baker (2012) and Kramer (2014) for discussion.

comparing its distribution in various constructions. If DAT case on a particular nominal requires a particular syntactic configuration, then it is dependent; if it is insensitive to context, then it is lexical.

Earlier, I showed that both Alutor and Japanese exhibit morphological alternations on causees, depending on the transitivity of the verb—which, in turn, determines the total number of arguments present. Focusing first on Alutor, recall that the relevant finding from Podobryaev (2013) concerned causative constructions: incorporating an object into the verb bleeds dependent DAT case on the causee. However, noun incorporation does not always yield this effect. In other kinds of ditransitive constructions with object incorporation, DAT is retained on the intermediate argument. For example, contrast the variable DAT~ABS morphology on Alutor causees, shown in (43), with the invariant DAT morphology on Alutor goals, (62):

(62) *Alutor: DAT on goals is invariant*

- a. akka-ta Ø-jəl-Ø-nin əllaʔ-əŋ kənyiga
 son-ERG 3SG.A-give-AOR-3SG.P mother-DAT book.ABS
 ‘The son gave a/the book to his mother.’
- b. akək Ø-kənyiga-jəl-at-Ø-i əllaʔ-ən
 son.ABS 3SG.S-book-give-SUFF-AOR-3SG.S mother-DAT
 ‘The son gave a book to his mother.’ (lit. ‘The son book-gave his mother.’) (Koptjevskaja-Tamm and Muravyova, 1993)

The same split behaviour of DAT is found in Japanese. Recall that causees in Japanese surface either as DAT or ACC, again depending on the transitivity of the causativized verb. Interestingly, Terada (1990) and Harley (1995) demonstrate that the causative morpheme *-sase* allows two interpretations—which map to two different case arrays. Under the regular causative reading, shown earlier in (45), the case on the causee is determined by context and alternates between DAT and ACC. However, under the second hortative reading, shown in (63), the causee is invariably DAT, regardless of the choice of verb. This usage of DAT is prepositional in nature (Harley, 1995; Miyagawa, 1997).

(63) *Japanese: DAT in ‘let’-causative is invariant*

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

Finally, a similar split is also seen in French, with an interesting consequence for tritransitive causative constructions. In (64), the indirect object *le directeur* ‘the headmaster’ takes the DAT form *à*. Crucially, the additional presence of this argument causes the causee to be marked by the preposition *par* instead. This appears to be a ban on two DAT internal arguments.³¹ That the indirect object retains its DAT form suggests that it is prepositional or lexical in nature; in contrast, that the morphology on the causee varies (between ACC, DAT, and prepositional in monotransitive, ditransitive, and tritransitive contexts respectively) suggests that it is dependent.

(64) *French: ban on two DAT-marked IOs*

- je ferai écrire une lettre au directeur **par** Jean
 1SG make.1SG.FUT write.INF a letter to headmaster PREP Jean
 ‘I shall make Jean write a letter to the headmaster.’ (Dixon, 2000)

We therefore find yet another parallel between morphological case on nominals and the clitic paradigms in Yimas. In both systems, a single morphological form may exhibit different behavioural properties, depending on the kind of nominal or clitic it marks. Additionally, we arrive at a unified reason for why both lexical DAT-

³¹This is amenable to the dissimilation-based story to be detailed below, if we take the ban on multiple DAT-marked arguments to arise from anti-identity considerations. However, according to Dixon (2000), it is also possible for French speakers to mark both the goal and the causee with dative *à*, though the preferred construction is the one provided here.

marked nominals and DAT clitics in Yimas are invisible to the morphosyntactic processes triggering dependent case: in both cases, the nominal or clitic is excluded from the case competition.

5.3 Section summary

This section demonstrated that, in addition to having clitic analogues of dependent and unmarked case, Yimas also exhibits 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, just like lexical case on nominals cross-linguistically. I also showed that, just as the DAT clitic paradigm has a dual function in Yimas, DAT case in other languages may also be both dependent and lexical, depending on the context.

More generally, I showed that the computation of the morphological form of a given clitic in Yimas is based on (i) its inherent properties (e.g. its person specification and thematic role) and (ii) its structural position relative to the other clitics present in the clitic complex on C^0 . The lexical DAT forms obligatorily surface in the presence of particular kinds of nominals. The dependent ERG and DAT clitic paradigms surface due to the application of certain morphological rules. Finally, the ABS paradigm has an elsewhere distribution, emerging only if the other case types cannot appear.

(65) *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

Crucially, 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

6.1 Overview

In the remainder of this paper, I argue 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, which I will refer to as **Anti-Identity**, 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).³² 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 *multiple* objects that are otherwise similar; hence, dependent case assignment to a given element requires referencing other elements in its 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.

³²Dissimilation 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 Anti-Identity constraint discussed here have since been proposed to account for dissimilatory phonological phenomena more generally. See Bennett (2013, 2015) for a recent survey.

Once again, Yimas provides novel empirical evidence for this idea. In §6.2, I show that the ‘ABS as default’ approach (originally introduced in §3.3) motivates a dissimilatory treatment of ERG and DAT case. In §6.3, extending previous analyses by Phillips (1993, 1995) and Wunderlich (2001), I propose 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.

6.2 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 complex. 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 complex; 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.

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.³³ Thus, I argue that these rules may be viewed as a *response* to the UNIQUENESS (Anti-Identity) constraint. In contrast, the absence of ERG and DAT case signifies that the Anti-Identity condition 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:

(66) *Dependent case as dissimilation in Yimas*

- a. ***pu-na**-tay
3PL.ABS-3SG.ABS-see
Intended: ‘He saw them.’ (*output of CD*)
- b. **pu-n̩**-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; Anti-Identity is vacuously satisfied if there is only one clitic present on C⁰. 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 (e.g. DAT_{part}/DAT_{poss} in Yimas) is not to dissimilate, as its appearance is tied to particular featural specifications and thematic roles. Nonetheless, because its presence in monotransitive constructions may satisfy Anti-Identity, dependent case assignment in such constructions is unnecessary, (67a-b). However, dependent case assignment must still take place in ditransitive constructions with lexical DAT case to disambiguate the two non-lexical clitics, (67c).

(67) *Lexical 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)

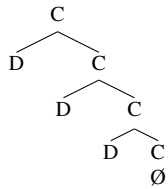
³³As I will show in §6.3, the behaviour of modal prefixes in Yimas, idiosyncratic yet restricted to a few different effects, is also best understood under a derivational approach such as the one pursued here.

- c. **k-mpu-ŋa**-tkam-t
 VI.SG.ABS-3PL.ERG-1SG.DAT-show-PERF
 ‘They showed me it (the coconut).’ (F208)

I suggest, following Richards (2010), that the ANTI-IDENTITY condition may be motivated by linearization or morpheme ordering considerations. Specifically, returning to a point made in §2.4, morphological case assignment to the clitics is a prerequisite for determining Yimas’ ABS-ERG-DAT ordering of clitics. For Richards (2010), 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.

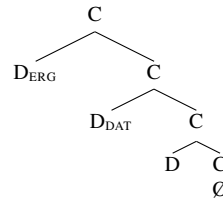
The Yimas clitic system may also be viewed as unlinearizable without morphological case. As schematized throughout (68), the relative order of clitics on C^0 after m-merger is established with a linearization algorithm (rather than simply derived from the hierarchical order of the clitics themselves). Since the clitic complex on C^0 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.³⁴ However, this is resolved by realizing the clitics with ERG and DAT case morphology.

- (68) a. *Unlinearizable structure:*



Linearization statements:
 $\langle D, D \rangle$, $\langle D, D \rangle$, $\langle D, D \rangle$

- b. *Linearizable structure:*



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

Finally, dependent case is not the only strategy that languages use to differentiate between otherwise non-distinct nominals in the syntax. Here, again, I refer to Walter (2007) and Richards (2010), who discuss these different strategies extensively. The idea that languages display various ways to dissimilate nominals is a precursor to §6.3 below, in which we find a variety of different dissimilatory effects may appear on clitics as well. This supports the paper’s dissimilation-based treatment of the paradigmatic alternations on the clitics, since these other effect appear in the same contexts.

6.3 Interactions with modal prefixes

Back in §2.2-2.3, I discussed certain morphological effects on the shape of the Yimas clitic sequences that arise in the presence of a modal prefix. A (non-exhaustive) list of these prefixes is given below:

- (69) *Yimas modal prefixes*
- ka-* ‘likelihood’
 - ant-* ‘potential’
 - ta-* ‘negation’
 - m-* ‘relativizer’
 - $\emptyset \sim naŋ \dots -n$ ‘imperative’
 - apu-* ‘negative imperative’

Following Phillips (1993, 1995), I assume that these modals occupy the CP domain.³⁵ 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. Thus, they are structurally local to the clitics.

³⁴I assume, again following Richards (2010), that what constitutes two distinct nodes might differ across languages. Whereas in English the statement $\langle DP, DP \rangle$ leads to a derivation crash under his system, Distinctness in other languages may reference more articulated features such as case and ϕ -features. I suggest, however, that Yimas is somewhat like English, in that the linearization algorithm cannot distinguish between nodes of a given category, even if they differ in their ϕ -specifications.

³⁵Specifically, Phillips analyzes these modal prefixes as complementizers in C^0 . I am agnostic about this particular point; it is only crucial that they occupy the CP-domain.

As shown earlier, these modals trigger a number of allomorphic effects on the doubled clitics—in particular, on the clitics that would otherwise be ABS in the absence of a modal prefix. There are (as far as I can tell) five different 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 (71a) and (72a) 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 (71b), (72b), and (75) show that a single modal prefix (e.g. *ta-* ‘negation’) may trigger multiple effects. Thus, a full account of the distributions of each effect is well beyond the purview of this paper. Rather, I focus on how the *existence* of these effects contribute to the broader proposal at hand.

In (70), the baseline construction, there is no modal present, and the subject and object clitics given are ABS. In the examples in (71), 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.

(70) *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)

(71) *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 (72), the expected ABS clitic *disappears*, and is instead realized solely as a number suffix. Note that this effect occurs for clitics cross-referencing both subjects and objects.

(72) *Modal-clitic effect 2: ABS → #*

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

A third effect is given below. The presence of a modal prefix may also trigger a *substitution effect*, such that the expected ABS clitic is realized instead with the morphological form of its *associated suffix*, though it remains prefixal. This is illustrated below with class V plural nominals.³⁶ As first shown in (73a-c), the regular class V plural ABS clitic is *ya-*, while the suffix *-ra* is used for nominal concord and when a modal prefix triggers the deletion effect seen in the examples directly above. As (74) shows, in the presence of a different modal (now

³⁶Another example of this pattern is provided in Foley (1991, p. 406) for a class I (human) clitic.

ka- ‘likelihood’), the ABS clitic surfaces in its canonical position, adjacent to the modal prefix—but now takes the *ra* form normally used for suffixes.

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

- a. amtra **ya**-n-aw1-mpi-waraca-t mnta **ya**-n-kaprak-t mnta
 food.V.PL V.PL.ABS-3SG.ERG-get-SEQ-return-PERF then V.PL.ABS-3SG.ERG-cut-PERF then
ya-n-am-t
 V.PL.ABS-3SG.ERG-eat-PERF
 ‘He got and returned with the food, cut it up and ate it.’ (F451)
- b. nawray ama-na-**ra** urkpwica-k-**ra**
 armband.V.PL 1SG-POSS-V.PL black-IRR-V.PL
 ‘my black armbands’ (F140)
- c. takiŋkat ta-**∅**-**kay**-wampak-ŋa-**ra**
 rock.V.PL NEG-(V.PL.ABS-)1PL.ERG-throw-NR.PST-V.PL
 ‘We didn’t throw the rocks yesterday.’ (F255)

(74) *Modal-clitic effect 3: ABS → morphological substitution*

- 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 (75). 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. Foley characterizes the *pu-* morpheme as a morphologically default form expressing only 3rd person, which I assume here as well. This effect is exclusively triggered by the negation morpheme.

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

- a. ta-**pu**-wa-na-**rm**
 NEG-3-go-NR.PST-DL
 ‘Those two didn’t go yesterday.’ (F252)
- b. irpuŋi ta-**pu**-tmuk-na-**ra**
 coconut.palm.IV.PL NEG-3-call-NR.PST-IV.PL
 ‘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 (76), 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-*.

(76) *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 nature of the effects surveyed above, as well as their diversity, suggests that they are somehow allomor-

phically triggered by the modals. Relatedly, they provide further evidence against an alternative approach, 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 a different analysis might take subject clitics to be *underlyingly* ERG, with ABS morphology being enforced by the ABS Requirement (cf. Phillips, 1993, 1995). Under such a 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 (71); 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.

I propose that *all* of the modal-clitic effects may be understood as strategies of dissimilation, conspiring to satisfy Anti-Identity.³⁷ Thus, just as multiple ABS clitics are indistinguishable, so are sequences consisting of an ABS clitic and a modal prefix. While it is not immediately obvious *why* the grammar might regard these elements as non-distinct in the first place, this is also the conclusion drawn by both Phillips (1993, 1995) and Woolford (2003). The key evidence for a dissimilation-based approach to these effects comes from the constructions in which modal prefixes and ABS clitics co-occur. Crucially, these co-occurrences are only possible if *one of the two morphemes is morphologically reduced*. In (75), the ABS clitic surfaces as a morphologically default form; I suggest that this is derived by a postsyntactic operation of Impoverishment.³⁸ In (76), the modal prefix surfaces as morphologically reduced, while the adjacent ABS clitic is unchanged.

That Impoverishment may take place as a dissimilatory strategy is well-attested across languages. For instance, consider the Spanish *spurious* ‘*se*’ effect (Perlmutter, 1971; Bonet, 1991). In Spanish, DAT and ACC clitics cannot co-occur, (77a); in such contexts, a would-be DAT clitic is instead realized as the reflexive clitic *se*, (77b). 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.

(77) *Spanish: Spurious ‘se’ effect derived by impoverishment*

- 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. Both of these strategies resemble the Yimas effect shown in (72), in which the would-be ABS clitic disappears from its canonical position and is only realized as a suffix. Arregi and Nevins (2012) show that certain varieties of Basque exhibit *participant dissimilation* (an effect also exhibited in many other languages), 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, (78). 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, (79).

(78) *Ondarru Basque: Participant dissimilation resolved by deletion*³⁹

- 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.’

³⁷Again, while this too builds on Wunderlich (2001), whose UNIQUENESS constraint militates against multiple ABS clitics, the present account generalizes this idea to cover modal-clitic sequences.

³⁸Under this view, the 3PL morpheme *pu-* would have to be a morphologically unmarked form, in contrast with all of the other 3rd person forms, including the 3SG exponent. Though this is at odds with the assumption that singular is unmarked, while plurality is expressed with additional features (Harley and Ritter, 2002; Nevins, 2011), I assume that the plural *could* in principle least marked, if this is built into the featural makeup of a given language’s number system. This would allow a plural form to surface as the output of Impoverishment.

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

(79) *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, let us now return to the ABS-to-ERG effect shown in (71), and the morphological substitution effect shown in (74). Though details surrounding the latter effect remain mysterious (partly due to paucity of relevant data), I suggest that they be unified as dissimilatory as well. There is again a cross-linguistically similar pattern, providing support for this idea: in addition to the clefting strategy shown in (79c), the Japanese double-o constraint may be obviated by marking one of the ACC nominals with GEN case instead, (80):

(80) *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)

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. In Yimas, the conspiratorial nature of these effects is even more evident. Crucially, that the realization of an ABS clitic as *ergative* is one of the effects in question provides evidence for the idea that morphological dependent case is dissimilatory.

To conclude, I provided a novel argument for a dissimilation-based account of dependent case from a constellation of modal prefix-triggered effects in Yimas, as well as their cross-linguistic parallels in both the clitic and the nominal domain. All of these effects can be plausibly analyzed as taking place to avoid multiple instances of elements that are morphosyntactically non-distinct. Crucially, the fact that ERG case on a subject clitic may also be triggered in such contexts demonstrates that it too is dissimilatory.

6.4 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). I proposed a general constraint (ANTI-IDENTITY) which manifests in different ways across languages—in Yimas, it militates against multiple featurally non-distinct clitics in the CP domain; in other languages, it triggers morphosyntactic effects on non-distinguishable nominals. I proposed 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. 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; that realizing a doubled clitic as ERG is one of such effects thus furthers the claim that dependent case surface to dissimilate.

³⁹Following 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.

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 an *Anti-Identity 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 Anti-Identity 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 complex.

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:

(81) *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 (81) to the one in (4) in §2.1 of the paper, notice that the ERG and DAT paradigms from (4) 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 (82).

(82) *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. T⁰) and an argument—reflected by the presence of ABS agreement—or by a modal prefix. In (82a-b), the object checks T⁰'s features and is thus spelled out as ABS, while in (82c-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 (83a-b).

(83) *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 (84)-(85) (using Phillips' glossing conventions). In (84a), there is no ABS morpheme present, and yet the sentence is grammatical; moreover, (84b-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 (84a), even though the construction contains a 3rd person argument (the subject 'Mitchell') that should be able to check the YEPP.

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

- a. Mitchell ∅-**kra**-tay
Mitchell (3SG.ABS-)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 3SG.ABS-see
Intended: 'He saw us.' (F,p.c.)

Similarly, the examples in (85) show that 3SG raised possessors, exponed with DAT morphology, trigger the same pattern. In the partial nominal-referencing example in (85b), we see an ABS-DAT pattern. In (85c), again we see that the YEPP apparently need not be checked, even though the sentence contains two viable nominals that could in principle be targeted.

- (85) *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 \emptyset -**pu-tpul-kamprak-r-akn**
 skin.VII.SG (VII.SG.ABS-)3PL.ABS-hit-break-PERF-3SG.DAT
 ‘They hit and broke his skin.’ (F324)
 - c. narm \emptyset - \emptyset -**tpul-kamprak-r-akn**
 skin.VII.SG (VII.SG.ABS-3SG.ERG-)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. This patterning additionally contradicts Phillips’ characterization of Yimas as a person-based split ergative language.

Finally, data like (86) (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, a modal prefix may co-occur with an ABS morpheme. In (86a), the ABS agreement morpheme appears as a morphologically default, homophonous with the ABS 3PL form (see §6.3 for discussion). In (86b), the same ABS morpheme is not morphologically default, but encodes a 3PL argument.

- (86) *Modal prefixes and ABS morphemes may co-occur*
- a. **ta-pu-wa-na-rm**
 NEG-3-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 (87) shows, noun class distinctions are 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. Under the assumption that subjects are underlyingly ERG, it is unclear why YEPP-checking should yield *more* morphological noun class distinctions than in the default cases. 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.

- (87) *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 (88). 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.

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

	NOM	ERG	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

Wunderlich’s analysis features two major constraints, DEFAULT and UNIQUENESS. DEFAULT states that every clitic complex must contain a NOM morpheme, thus directly enforcing the ABS Requirement mentioned above. UNIQUENESS states that each paradigm may surface only once per clitic complex. 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 (89) 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 (89a), 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 (89b), 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.

(89) *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.

- (90) 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 (4) 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 (91) (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.

- (91) *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 (92); such examples should fatally violate INIT(nom) and should therefore not be attested.

- (92) *Modal prefixes and NOM morphemes may co-occur*
- a. **ta-[pu]**-wa-na-rm
 NEG-3-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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